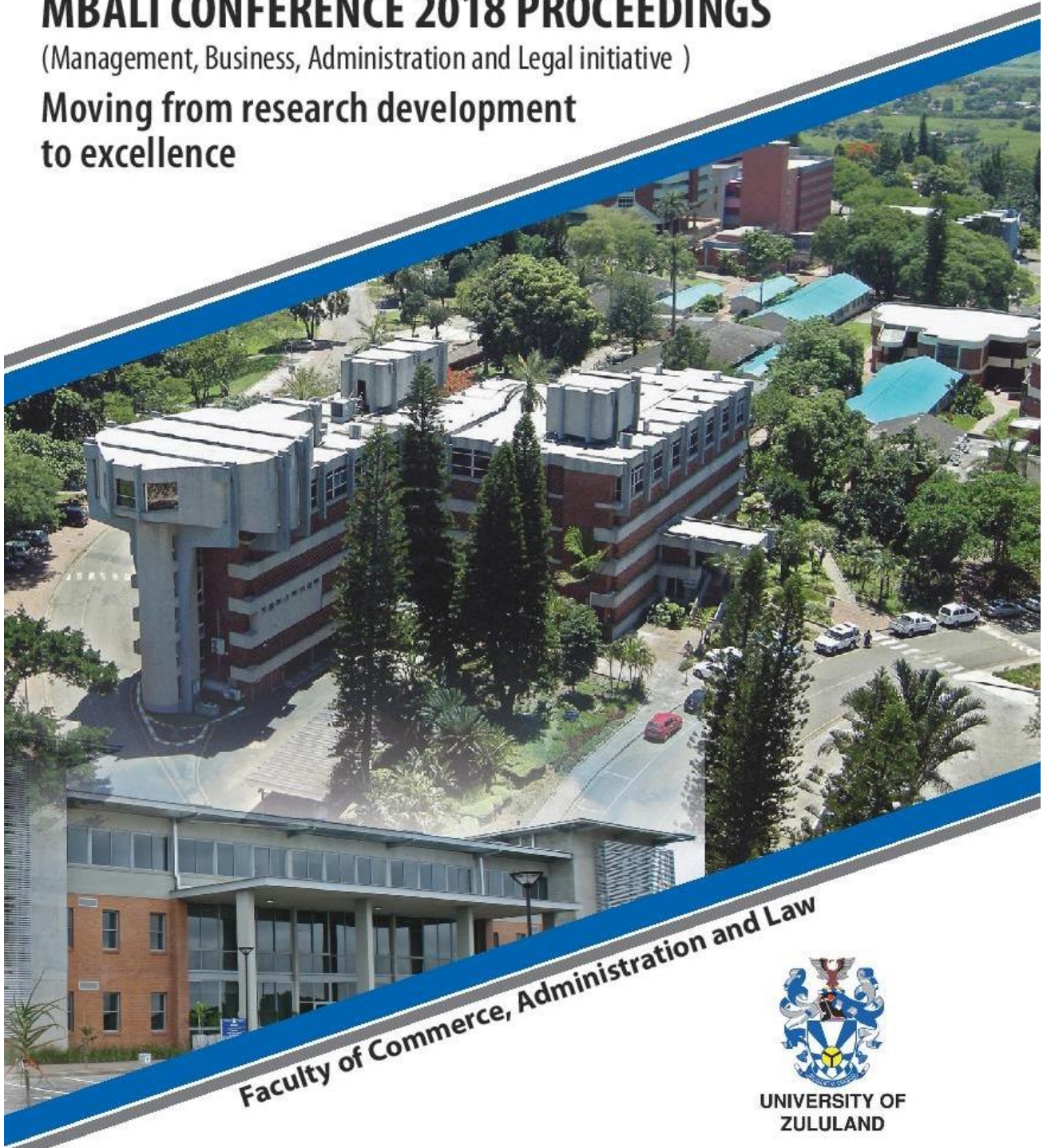


# MBALI

## MBALI CONFERENCE 2018 PROCEEDINGS

(Management, Business, Administration and Legal initiative )

Moving from research development  
to excellence



Faculty of Commerce, Administration and Law



UNIVERSITY OF  
ZULULAND

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RESTRUCTURED FOR RELEVANCE

**MBALI  
CONFERENCE PROCEEDINGS**

**1-3 August 2018**

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**Prof. Irrshad Kaseeram & Ms Helen Bond  
Editors**

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## FOREWORD

Perhaps the catch phrase of MBALI, 'Moving from development to excellence', encapsulates the description of the origins of this bi-ennial event succinctly. The Faculty of Commerce, Administration and Law began the philosophy of promoting research in a rigorous manner when the Executive Dean at the time, Professor Van Den Berg, together with the Research Coordinator at the time, Professor I. Kaseeram, inculcated the values of research development through the hosting of faculty conferences. At these events, novice researchers amongst the staff compliment, together with post-graduate students, presented completed papers, as well as work-in-progress, in front of seasoned researchers and guests who were experts in their particular field. These events were a huge success, with many staff members using the opportunity to test their ideas, and eventually getting the confidence to publish some of their papers. Enter Professor Tewari as Executive Dean of the Faculty of Commerce, Administration and Law. Being a widely published researcher himself, Professor Tewari insisted that the faculty host an international conference. As daunting as the organising team considers this, since this had never been achieved before in the modern history of the faculty, the quality of the staff members involved in the organisation of MBALI 2016 was impeccable. To say the least, MBALI 2016 set the standard for academic events hosted by the University of Zululand.

MBALI 2016 attracted speakers from national and international universities, with a mixture of established researchers and those that were still novice in their research endeavours. Post-graduate students were also given the platform to present. Furthermore, partnerships with UKZN's post-graduate programme in economics yielded the fostering of long-term academic relationships. MBALI 2016's credo of, 'from development to excellence' was translated into the presentation of 98 papers. The cost-benefit analysis of this event showed a huge profit from the publication of 8 papers which yielded R856 000 for the faculty and university. MBALI 2016 began a new era for research at the University of Zululand. The sponsors of the event, ABSA, were hugely impressed with the organisation, management and fruits of the conference. It was envisioned that MBALI 2018 was going to be bigger and even better.

ABSA, being loyal sponsors again, partnered with the organising team from within the faculty to stage MBALI 2018. The team knew that the standard had been set by MBALI 2016 and expectations were high. Many of the presenters that were there in 2016, could not help but return for the 2018 edition. At this event, the number of papers presented exceeded that of 2016. This meant that 120 papers were presented, with 80 by external presenters and 28 by staff within the faculty. The research development objective was also matched with 12 post-graduate students presenting their work in front of established researchers. The plenary sessions were extremely interesting, with vexing and controversial questions, such as the topical and controversial land expropriation without compensation, being discussed.

ABSA were once again impressed with the organisation of this event and are looking to cement the relationship once again for MBALI 2020. The MBALI conferences have thus far achieved its objective of moving from development to research growth and excellence.

As a faculty we are proud to be involved with this event and will ensure that it evolves to become a highlight in the national academic calendar.

The reviewers recommended the 23 best papers to be part of the official conference proceedings. This does not mean that the remainder of the papers were unworthy: the majority of them were earmarked for submission to other high impact journals, while a small minority were works in progress or further refurbishments were required before they would be ready for publication.

The Faculty of Commerce, Administration and Law thus presents the proceedings from the MBALI Conference 2018.

Yours faithfully

Managing Editor



Prof. Irrshad Kaseeram

## LIST OF REVIEWERS

<b>Name</b>	<b>Affiliation</b>	<b>Discipline</b>
Prof. R Klopper	Alternation Journal	Communication & Management Science
Prof. Mythili	Journal of Quantitative Economics	Economics
Prof. Ruth Taplin	Journal of Economics & Business Law	Economics, Business Law
Prof. D Tewari	University of Zululand	Economics
Prof. S Lubbe	University of Zululand	Information Management Sciences
Prof. D Mahadea	University of KwaZulu-Natal	Entrepreneurial & Labour Economics
Prof. B Paramesur	University of KwaZulu-Natal	Business Management
Prof. Mpedi Madue	North West University	Public Administration
Prof. J Meyer	North West University	Business Management
Prof. P Pillay	Stellenbosch University	Public Administration
Prof. C Isike	University of Pretoria	Political Science-Public Administration
Prof. R Rena	University of North West	Education Economics
Prof. S Balkaran	Nelson Mandela Metropolitan University	Public Administration
Prof. L Ndlovu	University of Venda	Law
Prof. D Iyer	University of Zululand	Law
Prof. I Kaseeram	University of Zululand	Economics



Prof. K Muller	University of Zululand	Law
Prof. S Van den Bergh	Nelson Mandela Metropolitan University	Law
Prof. E Contogiannis	University of Zululand	Economics
Prof. Kidibone Phago	North West University	Public Administration
Prof. TG Johnson	University of Missouri	Social Sciences
Prof. John Liu	Indiana State University	Social Sciences
Prof. K Govender	Regenesis College	Business Management-Marketing
Prof. L Greyling	University of Zululand	Local Economic Development
Prof. I Botha	University of Johannesburg	Finance

**A. Abdulai**

**EFFICIENCY OF SMALL-SCALE IRRIGATION FARMERS IN  
NORTHERN GHANA: A DATA ENVELOPMENT ANALYSIS  
APPROACH**

**ABSTRACT**

The efficient use of inputs by farmers in Northern Ghana is hampered by various factors, including severe water shortage during the dry season, high evapotranspiration, high input cost, and limited technical know-how, leading to low yields and incomes. This study measures and explains technical efficiency, economic efficiency, and allocative efficiency of 110 irrigated small-scale farmers engaged in vegetable production, practicing various irrigation technologies introduced to them for increased productivity. A two-stage analysis was conducted to measure and explain efficiency scores under both constant returns to scale (CRS) and variable returns to scale (VRS) specifications. Firstly, using a linear programming method, efficiency scores of the Decision-Making Units (DMUs) were measured using the data envelopment analysis approach. About 18% of the farms were fully productive, each with an efficiency score of unity, which means this group is currently operating on the production possibility frontier. About 32% of the farms had efficiency scores below 0.25, which means that about a third of the vegetable farms would need to expand their production by at least 75% from the current level without any increase in the level of inputs. Under the CRS assumption, the average technical efficiency of the sample was 67.3%, compared with 42% under the VRS. Secondly, a Tobit regression model was used to explain the technical efficiency scores by relating them to a set of explanatory variables. The findings indicate that extension contact and education have positive and highly significant effects. These results are valuable for policymakers since it could help to guide policies toward high irrigated production efficiency.

**Keywords:** Data envelopment analysis, Efficiency, Irrigation, Northern Ghana, Small-scale farmers.

## INTRODUCTION

Vegetables play an important role in the household economy of most developing countries. Besides being an integral part of most balanced diets and contributing to food security, economically they create employment for actors within the crop value chain with strong agribusiness potential (Howell, 2001; Dittoh, 2013). Irrigated vegetable production systems have been reported to be more profitable than rain-fed vegetable systems (Dittoh, 1992; Ursu, 2014), and of cereal production (Adewumi *et al.*, 2005; Weinberger & Lumpkin, 2007). Yet, research to assess the efficiency performance of the sector, especially in the face of increasing urban demand, has remained limited.

Climate variability has a substantial impact on the poverty and food security situation of farm households (Wossen *et al.*, 2014). In Ghana, farmers face multiple constraints, not just in the area of production, but across the entire crop value chain. Water is the most limiting factor in agricultural production, especially in arid and semi-arid environments (Cattivelli *et al.*, 2008). Increased competition for water between agriculture and other uses has been reported (De Fraiture & Wichelns, 2010). Water scarcity, due largely to pollution and environmental degradation, ineffective water management, and water quality, is a major problem with which policymakers are grappling. As noted by Boutraa (2010), effective management of water use is the only way to save water for increasing irrigated agriculture. Improper management of irrigated agriculture could impact negatively on the livelihood of people. In addition, issues of water withdrawals remain and there is need to complement water quality investigations with water use and technical efficiency performance analysis. Water use efficiency is one approach to reducing the effects of drought and climate change, but also understanding the technical efficiency level of farmers and devising ways to improve efficiency is crucial.

Despite improvements in technological innovations, irrigated agriculture is still inefficient (Schaible & Aillery, 2012). Population and economic growth, environmental flows, claims for water rights, and shifts in demand and supply in the face of climate change continue to present new challenges for irrigated agriculture water use and conservation. The ability of farmers to adopt efficient irrigation systems that integrate improved water management practices, with efficient application systems, is key to ensuring the sustainability of irrigated agriculture. However, public policies to subsidise

investments for improved irrigation efficiency are currently cost ineffective (Qureshi *et al.*, 2010). Understanding the current level of productive efficiency of irrigated vegetable farmers will help in proposing effective ways to improve the performance of smallholder farmers and the resource allocation decisions of producers, policymakers, and donors. Improving technical performance benchmarks of farmers is useful in deciding the optimal input combinations and farm diversification strategies to adopt for productive, profitable and sustainable operations. Yet, appropriate knowledge of efficient production practices among vegetable farmers remains limited, and research to inform policy on smallholder productivity improvement and transformation strategies are low. Key areas where there is limited knowledge include the effectiveness of public institutions, knowledge of water resources, risk perception of rainfall and quality water, and the transaction costs associated with irrigation investments (Takeshima *et al.*, 2010). This suggests the need for more in-depth analysis of the efficiency level of production.

Smallholder irrigated vegetable farmers exhibit differences in their production levels, and evidence shows that inefficiency exists in input use, marketing, and production (Singbo, 2012; Dlamini & Kongolo, 2014). However, evidence of the degree of variation in production efficiency and identifying the sources of variations is limited. The research issue explores 'how efficient smallholder irrigated vegetable farmers operating in Northern Ghana are and the key factors that influence their efficient operations'. In this regard, this study analyses the technical, economic and allocative efficiency levels of farmers and their determinants, which have so far received limited research (Bravo-Ureta & Pinheiro, 1997).

The next section presents the literature review, and thereafter the data and variable description, econometric models, and estimation procedure are presented in Section 3. Section 4 presents the empirical results, and Section 5 concludes the study.

## **SMALLHOLDER IRRIGATED FARM EFFICIENCY AND DETERMINANTS**

A vast and growing literature has posited that for firms to achieve their full potential, they must be financially sustainable and efficient (Brau & Woller, 2004). Irrigation in arid and semi-arid areas has been widely acknowledged as an effective way to boost crop production and improve the livelihood of farmers. At the same time, financial

constraints cast doubts over the ability of most smallholder farmers to adopt appropriate irrigation technologies for efficient production. The initial investment costs for irrigation, and the high cost of borrowing, impedes investments in irrigation technology by smallholder farmers, with potential impacts on efficiency. Namara *et al.* (2014) reported that irrigation technologies developed are largely accessible only to more affluent farmers, with limited access to resource-poor farmers. The primary factors inhibiting wider application are poorly developed supply chains, lack of access to finance, high output price risks, and lack of institutional support. Similarly, Aseyehgni *et al.* (2012) showed that income, gender, access to market information, and health condition of households are important determinants of household participation in Small Scale Irrigation (SSI) schemes in Ethiopia. Improving access to market information and health services would likely improve the participation of rural farmers in irrigation schemes

Baffoe and Matsuda (2015) argued that improving farm productivity and the livelihoods diversification of rural households has the potential of addressing credit constraints. Elisha *et al.* (2016) revealed that majority of rice farmers in the Tolon district in Ghana had access to credit from relatives and friends, which they then invested in non-agricultural activities. This suggests that access to credit may not impact significantly on productivity and efficiency in operations. Furthermore, the high cost of inputs and incidence of pests are the main institutional and technical constraints hindering rice production. Bjornlund, van Rooyen and Stirzaker (2016) advocated the need to increase investment and develop business models for smallholder irrigation schemes to help address the technical and soft barriers to increasing productivity and profitability of SSI systems. In addition, Duy (2015) found the positive influence of access to credit on production efficiency among rice farmers in Mekong Delta, Vietnam. Payment for irrigation water is a problem for poor farmers struggling to adopt irrigation technologies for efficient production with implications for sustainable water management systems due to cost recovery policies. Speelman *et al.* (2009) reported that the introduction of a water price in South Africa significantly decreased farm profits. This suggests the need to have a clear understanding of the relevant factors that impact on farmers production efficiency in specific contexts for possible improvement.

Ursu (2014) analysed the economic efficiency of crop production systems, and reported low levels of economic efficiency, due to price volatility. Previously, Bravo-Ureta and Pinheiro (1997) showed that contract farming, medium-sized farms, and beneficiaries of agrarian reforms had a statistically positive association with economic and allocative efficiency. The study concludes that AE is more significant than TE as a source of gains in EE. Shettima, Amaze and Iheanacho (2015) analysed the technical efficiency of irrigated vegetable farming in Borno state, Nigeria, and found that technical inefficiency exists among the various crop enterprises studied with values of 0.99, 0.94, 0.96, 0.95, and 0.98 for sole onion, sole tomato, sole pepper, onion/tomato, and onion/pepper respectively. Farm size, family labour, agrochemicals, and cost of seeds/seedlings were the most significant factors influencing efficiency. Previously, Bravo-Ureta and Pinheiro (1997) reported that the average level of technical, allocative and economic efficiency of peasant farmers operating in the Dominican Republic is 0.70, 0.44 and 0.31 respectively. The study further revealed that younger, and more educated, farmers exhibit higher levels of efficiency. Haji and Andersson (2008) estimated technical, allocative, and economic efficiencies of vegetable farmers in Ethiopia and found that substantial inefficiencies exist in production among farmers. Asset ownership, non-farm income, small farm size, high consumer spending, illiteracy, and large family size were the main socio-economic factors influencing inefficiency in vegetable production. The low economic efficiency scores revealed were attributed to limited access to capital markets, high consumer spending, and large family sizes.

Both the one-step and two-step approaches to efficiency analysis have received a wider application in the empirical literature. Using the SFA approach with cross-sectional data from 65 farmers, Obwona (2006) found that education, access to credit, and extension services contribute positively towards the improvement of efficiency of tobacco farmers in Uganda. Speelman *et al.* (2008) analysed the efficiency of water use among smallholder irrigation farmers in South Africa and its determinants. Using DEA techniques, under both Constant Returns to Scale (CRS) and Variable Returns to Scale (VRS) specifications, the authors found that substantial inefficiencies of 49% and 16%, respectively, exist among farmers. A second stage analysis using Tobit regression showed that farm size, land ownership, fragmentation, the type of irrigation scheme, crop choice, and the irrigation method applied are significant determinants of

water use efficiency. Similarly, Ali Chebil *et al.* (2009) used alternative forms of the DEA model with Tobit regression to study a horticultural greenhouse in Tunisia. By comparing the efficiency scores obtained from CRS and VRS, the authors found that most farmers were efficient. The main determinants of efficiency reported were crop choice, the age of farmer, educational attainment, and active labour force size. Farmer participation in technical training, investments in water conservation and the use of water fertilisation were found to significantly increase the level of irrigation water use efficiency. Wang (2010) reported that channel conditions and irrigation methods adopted by farmers had a significant impact on irrigation water use efficiency in China. The main determinants of irrigation water use efficiency revealed were the age of farmer, income, educational level, and farm size. Gelan and Muriithi (2012) found that technology adoption factors (extension of improved breeds, feed and fodder innovations) have a positive significant effect on the level of efficiency.

These studies are, however, limited to water use efficiency, which is quite different from technical efficiency. They did not also explore allocative and economic efficiencies relevant in supporting resource allocation decisions of farmers. Efficiency has several aspects: technical, economic and allocative and assessment of all aspects gives a clear outlook of the firm. Most recent studies on efficiency tend to favour the used of DEA, since assumptions regarding the functional form and distributional of errors are not required, unlike the SFA. Efficiency analysis of smallholder irrigated vegetable farmers, focusing on both economic and allocative aspects, remains limited in the literature, due to the additional data requirements regarding pricing and cost of inputs. In the context of Ghana, only a few studies on vegetables have examined efficiency in smallholder production and the majority of studies have been based on profitability, water use efficiency and perception on the quality of irrigated water used in production (Speelman *et al.*, 2009; Bjornlund *et al.*, 2012).

## **METHODOLOGY/MATERIALS AND METHODS**

### **Data and variable description**

The study was conducted in two communities (Bihinaayiri and Zanlerigu) principally noted for vegetable production in Northern and Upper East Regions of Ghana. Cross-sectional data were collected through a survey from smallholder farmers who are

practicing various technologies aimed at increasing their productivity in a more efficient way. A sample of 110 farmers, comprising of 36 project-supported farmers, and 64 non-project supported farmers, were purposefully and randomly selected, respectively, for the study. The Innovation Lab for Small Scale Irrigation (ILSSI) project is funded by USAID and is aimed at improving the productivity of smallholder farmers. The data collected enabled a better understanding of the effects of technology adoption on production efficiency. Secondary data from the Ministry of Food and Agriculture (MOFA), as well as local markets, were collected to help validate the survey data collected on prices of inputs and outputs. The main variables, their description, and measurement are summarised in Table 1.

**Table 1: Variables and descriptions for efficiency analysis**

<b>VARIABLE</b>	<b>DESCRIPTION AND MEASUREMENT</b>
<b>Production function variables</b>	
Total revenue (TOR)	Total value of the output produced and sold (Ghc)
Labour used (LAB)	Sum of family and hired labour used (Man-days)
Total labour cost (TLC)	Cost of both family and hired labour used (Ghc)
Fertilizer cost (FTC)	Cost of fertilizer used in a current year (Ghc)
Fertilizer quantity (FTQ)	Quantity of chemical fertilizer applied (kg)
Land area (LDA)	Total area under vegetable production (acres)
Seed quantity (SEQ)	Total quantity of vegetable seed used by a farmer (kg)
Seed cost (SEC)	Total cost incurred by a farmer for seeds (Ghc)
Pesticide quantity (PEQ)	The quantity of pesticides applied (litres)
Pesticide cost (PEC)	The total cost incurred by farmer on pesticides (Ghc)
Quantity of water used (QWU)	The volume of water applied (m3)
Cost of water (TWC)	The total cost incurred in lifting water/fees paid (Ghc)
<b>Determinants of efficiency – Institutional, demographic, and resource factors</b>	
Credit utilisation (CRU)	Dummy variable (DV): 1 = if a farmer used credit to support production; and 0 if otherwise
Extension contact (EXT)	The number of extension visits received by a farmer during the past year.
Farm size (FMS)	Land area put under vegetable production (acres)
Household size (HHS)	Number of household members
Gender of farmer (SEX)	DV: 1 = if a farmer is male, and 0 if a female.
Health status (HST)	Health situation of a farmer for the past season
Knowledge of credit sources (KCS)	DV: 1 = if a farmer has knowledge of credit sources, and 0 otherwise.
Access to markets (MKT)	DV: 1 = if a farmer has access to the market, and 0 = otherwise
Farmer experience (EXP)	Years involved in vegetable production by the farmer (Years)



These variables were selected based on a literature review, supported by some justifications. *Credit utilization* (CRU) by farmers has positive effects on production efficiency, as farmers are able to purchase the needed tools and equipment for production activities (Obwona, 2006; Duy, 2015). *Extension contact* (EXT) contact by farmers is found to have positive effects on technology adoption factors, such as access to credit, markets, and information, needed to boost production (Galen and Nuriithi, 2012). *Farm size* (FMS) has been linked to production efficiency due to labour constraints which impact on farm operations. It has been reported to have a significant impact on water use efficiency at the farm level (Speelman *et al.*, 2008, Wang, 2010). The *household size* (HHS) which measures the amount of labour force available for farm operations on a timely manner is said to have positive effects on farm efficiency (Ali Chebil *et al.*, 2009). Households with larger sizes are more likely to be efficient in production if well deployed. *Gender of the farmer* (SEX) is important since women farmers are often perceived to be less efficient due to land constraints and have unequal access to other productive resources. The *Health status* (HST) of a farmer has greater implications for their production efficiency. *Knowledge of credit sources* (KCS) by farmers can facilitate their access to credit for increased production and technology adoption (Anang *et al.*, 2015). *Access to markets* relates to farmers who have access to nearby markets with good pricing for their products and are therefore likely to be more efficient in production. Years of involvement in vegetable production is anticipated to have a positive impact on increased productivity.

### **Measurement of efficiency**

Theoretically, the performance of a firm can be evaluated based on three different measures: technical, allocative and economic efficiency estimates. *Technical efficiency* (TE) is the ability of a farm to use minimum feasible amounts of inputs to produce a given level of output, or for a farm to produce feasible maximum output from a given bundle of inputs (Coelli *et al.*, 2002). This definition reflects the 'input-oriented' and 'output-oriented' approach to efficiency analysis respectively. *Allocative efficiency* (AE) is the degree to which inputs are used in optimal proportions, given the relative prices of the inputs used to the output produced. *Economic efficiency* (EE) is the product of allocative and technical efficiencies and captures performance in both measures.

Two main approaches exist in the literature on the measurement of efficiency: the *stochastic frontier analysis* (SFA) approach and the *data envelopment analysis* (DEA). Both approaches have their strengths and weaknesses, and the results produced are essentially similar. Several studies in comparing the two methodologies revealed that results from both methods are highly correlated (Thiam *et al.*, 2001; Wadud & White, 2000; Alene & Zeller, 2005; Haji & Andersson, 2008). The SFA is parametric and uses the econometric approach in its estimation. It requires that certain assumptions are made regarding functional form and distribution of the error term (normal, half normal, truncated, or gamma distributions) before estimation can be done. Based on empirical research, proponents noted several advantages associated with its application: it can be applied to unbalanced panels, handle noisy data effectively, and enable a statistical test of hypothesis to be performed (Worthington, 2000). However, one disadvantage in using SFA is that it can be problematic when calculating sub-vector efficiencies and the procedure is cumbersome with a tendency to produce different results (Oude Lansink *et al.*, 2002). To overcome these shortfalls, the use of simulation techniques has been recommended (see Simar & Wilson, 2000).

In contrast, DEA is non-parametric and does not require any assumptions to be made regarding the functional form of the frontier technology and distribution of the inefficiency term (Choi & Murthi, 2001). It allows comparison to be made of one production method with the others, in terms of the performance index. Thus, it is easy to calculate the efficiency gap that separates each producer's behaviour from best production practices, which is assessed through actual observations of the inputs and outputs of efficient firms (Wadud & White, 2000; Haji, 2006). Furthermore, it has been shown that the use of small sample size does not adversely affect efficiency measure when using DEA, so long as the number of inputs does not exceed the sample size (Chambers *et al.*, 1998; Thiam *et al.*, 2001). The potential to overcome problems of endogeneity inherent in transaction costs, and capture the marginal contribution of each input used, has also been reported (Murthi *et al.*, 1997). However, the drawbacks of DEA are that it is deterministic and sensitive to noisy data and measurement errors. This study uses the DEA model because of its flexibility and ability to calculate sub-vector efficiencies, even with small sample size.

The literature on DEA presents two basic models: the Charnes, Cooper, and Rhodes (1978) model (CCR) and the Banker, Charnes, and Cooper (1984) model (BCC). The

CCR model captures the essential features of the DEA model and it assumes Constant Returns to Scale (CRS). The model is appropriate when all DMU are operating at an optimal scale (Coelli, 1996), and all observed production combinations can be scaled up or down proportionately. In contrast, the BCC model is an extension of the CRS formulation to account for Variable Returns to Scale (VRS), which represents a piecewise linear convex frontier. The convexity condition is satisfied by imposing the additional constraint that input weights add up to unity. The VRS formulation is very relevant here since various constraints could cause vegetable farmers to operate at a sub-optimal scale, such that increased inputs may not result in a proportional increase in output levels. Both CRS and VRS specifications are estimated in this study using the DEA approach. Efficiency scores for input-oriented models ranged from 0 to 1, while that of output-oriented models vary from 1 to infinity (obtained from the linear programming solution). A score of 1, in either case, signifies efficient DMU (Coopers *et al.*, 2006).

### **Analytical framework/ methods**

We assumed that each Decision-Making Unit (DMU) uses multiple inputs, and produces multiple outputs, and that each DMU sets its own weights through an optimisation problem in order to maximise its efficiency subject to constraints. This study uses the non-parametric DEA approach in estimating farmer specific technical efficiencies under both CRS and VRS specifications. DEA is based on the idea that a firm that is able to use fewer inputs than others, to produce the same level of output, is said to be technically efficient. It uses a linear programming technique, where the frontier surface is assembled piecewise, and solved sequentially, one for each farm, and relating each farm to this frontier. The frontier creates an envelope around the observed input and output data of each farm. TE is calculated from the model below:

$$\text{Min}_{\theta\lambda}\theta, \tag{1}$$

$$\text{Subject to } -y_i + Y\lambda \geq 0,$$

$$\theta x_i - X\lambda \geq 0,$$

$$NI'\lambda = 1,$$

$$\lambda \geq 0$$

Where  $\theta$  is a scaler, NI is a vector of ones, and  $\lambda$  is a vector of constants.  $x_i$  is the input vector and  $y_i$  is the output vector. The model used the variables  $\theta$  and  $\lambda$  to solve simultaneously for each farm, taking into account the largest radial contraction for the input vector within the technology set. The value of  $\theta$ , which corresponds with the contraction, represents the TE score for the  $i$ th farm. The value usually lies between zero and one, with 1 indicating that the farm lies on the frontier and is efficient. A number of constraints are imposed. The first ensures that output produced by the  $i$ th farm is smaller than that of the frontier. The second constraint limits the proportional decrease in output use, when  $\theta$  is minimised, to the input use achieved with the best observed technology. The third is a convexity constraint which creates a VRS specification for the model. This specification assumes that the farms are operating at their optimal scale (Fraser & Cordina, 1999). Thus, increasing the amounts of inputs do not necessarily lead to a proportional increase in output. A situation reflects the production situation of farmers and makes it relevant in this analysis. To enable a comparison to be made, *scale efficiency* (SE) will be calculated following Coelli *et al.* (2002), as contained in equation 2.

$$SE = TE_{crs} / TE_{vrs} \quad (2)$$

Following Fare *et al.* (1994), technical sub-vector efficiencies for the variable input,  $k$  will be determined for each farm,  $i$  using equation 3 below.

$$\text{Min}_{\theta\lambda} \theta^k, \quad (3)$$

$$\text{Subject to } -y_i + Y\lambda \geq 0,$$

$$\theta^k x_i^k - X^k \lambda \geq 0,$$

$$x_i^{n-k} - X^{n-k} \lambda \geq 0,$$

$$NI' \lambda = 1,$$

$$\lambda \geq 0$$

Where  $\theta^k$ , the input  $k$  sub-vector technical efficiency is score for the  $i$ th farm,  $x_i^k$ , and  $X^k$  include only the  $k$ th input;  $x_i^{n-k}$  and  $X^{n-k}$  refer to the  $x_i$  and  $X$  with the  $k$ th input column excluded. The definition of all other variables remains the same as in equation (1). Constraint 2 and 3 now ascertain that a value of  $\theta^k$  is found, which represents a

maximum reduction of the variable input  $k$  remaining within the technology set and holding outputs and all other inputs constant.

A two-step approach was followed in the empirical estimation. Firstly, a DEA model was computed to determine the size of the efficiency score for each DMU (vegetable farm) using LIMDEP version 10 econometric software. At the second stage analysis, a Tobit regression was run to explain the differences in the efficiency scores of each farm, using a range of explanatory variables (socioeconomic, resource-based, institutional, demographic), assumed to influence efficiency operations. Since efficiency values often range between 0 and 1, they are censored variables, best estimated by Tobit models as specified in equation (4) below.

$$\theta^k * = \beta_0 + \beta_1 z_1 + \beta_2 z_2 + \dots + \beta_j z_j + \varepsilon = Z\beta + \varepsilon \quad (4)$$

Where  $\theta^k$  is sub-vector efficiency index to be used as the dependent variable,  $Z$  is a vector of independent variables related to attributes of the farmer, or farms, within the sample. Estimation is based on maximum likelihood procedures, and two separate regressions were run based on the CRS and VRS specifications. To ensure model consistency, the residuals were checked for normal distribution (normality test conducted).

## **RESULTS AND DISCUSSIONS**

Table 2 presents descriptive statistics for the variables that were included in the efficiency analysis model. The eleven (11) variables of output, input quantities, and costs were included in estimating the technical, economic and allocative efficiency level of the Decision-Making Units (DMUs) covered.

**Table 2: Descriptive statistics for inputs and outputs used in efficiency analysis**

Variable	Obs.	Mean	Std. Dev	Minimum	Maximum
Total revenue (Ghc)	110	1517.22	1642.49	60.0	9510.0
Land area (acres)	110	0.77	1.81	0.25	1.00
Labour (Man-days)	108	46.14	29.46	5.5	160.0
Total labour cost (Ghc)	110	755.96	1701.98	93.0	13340.0
Seed quantity (kg)	89	22.02	25.82	0.0	150.0
Fertilizer quantity (kg)	109	117.29	102.01	0.0	809.0
Fertilizer cost (Ghc)	109	303.50	222.46	33.0	1080.0
Pesticide cost (Ghc)	109	58.77	58.54	0.0	360.0
Pesticide quantity (litres)	109	5.25	16.01	0.0	147.5
Seed cost (Ghc)	86	127.63	106.98	0.0	370.0
Volume of water (m <sup>3</sup> )	82	246.55	455.93	5.0	3240.0
Cost of water (Ghc)	55	193.33	194.97	8.0	1200.0

Source: Field Survey, 2017

Table 2 shows that, on the average, each farmer obtained a total revenue of Ghc1,517 for the 2016 production season. The minimum land area tilled by the farmer was a quarter acre. On the average, each DMU spends 46 man-days (both family and hired labour) for that production season, and the total labour cost (TLC) incurred per each farmer averages Ghc756.00, but with wide variations across the sampled farmers. The total seed quantity (SEQ) used per farmer on the average is 22 kg for the various crops cultivated (onion, pepper, tomatoes). Beside improved seeds purchased, some farmers obtained seeds from other sources (from the ILSSI project, friends, and from previous harvests from their own farms) at no cost. Due to the complexities in quantifying the cost of seeds from these varied sources, the study considered only purchased seeds in the cost calculations. The average amount spent on seeds was Ghc127, and 86 farmers actually incurred some cost in buying improved seeds for planting. On the average, each farmer used 117kg of chemical fertilizer on their

vegetable farms, with a mean cost of Ghc303. The use of manure and compost was very limited. To enhance the quality of the vegetables produced, each farmer spent on average Ghc58 on pesticides, and applied an average of 5 litres of chemicals on their farms for the year. The mean volume of water applied was 246.55 m<sup>3</sup> and the average amount spent as water fees, or in lifting water for irrigation, was Ghc193.33.

To understand the nature of variation due to geographical differences, the sampled data were grouped according to the study regions (Northern and Upper East). Table 3 compares some selected socio-economic and demographic factors that could influence the efficient operation of farmers in the two locations.

**Table 3: Comparative descriptive statistics of selected variables for the two communities**

Variable	Bihinaayili		Zanlerigu	
	Mean	Std. Dev.	Mean	Std. Dev.
Household size (HHS)	20.755	13.133	9.1311	3.0685
Farmers' age (AGE)	33.959	11.665	44.0327	12.5139
Educational level (EDC)	0.1734	0.9216	0.0163	0.1280
Access to extension services (EXT)	0.9183	0.2766	0.8524	0.3575
Access to off-farm income (AOI)	0.3673	0.4870	0.7704	0.4240
Farmer experience (EXP)	10.489	9.2468	8.1803	7.3382
Extension Contact (EXC)	6.1836	4.8160	7.1803	5.9735
Knowledge of credit sources (KCS)	0.8163	0.3912	0.7704	0.4240
Access to market (MKT)	0.9795	0.1428	0.4918	0.5040
Credit utilisation (CRU)	0.1326	0.3647	0.2459	0.4341
Labour (LAB)	45.4707	32.534	46.8032	26.3843

Source: Field Survey, 2017

The mean household size is larger in Northern Region (NR) (20) in relation to the Upper East Region (UER) (9). This shows that more household labour will likely be available to drive small-scale irrigation vegetable production in the NR. The mean age of the sampled farmers in the NR is 34 years compared to 44 years in the UER. This

suggests that more youth are currently involved in irrigated vegetable production in the NR, reflecting a potential for future supply of produce. One policy implication is to explore innovative ways of getting the youth in UER to take up vegetable production as a business for an improved livelihood. Extension contact with farmers is shown to be high (91% for NR, 85% for UER) and this could likely impact on productivity and profitability levels. Access to off-farm income (AOI) is shown to be higher in the UER (77%), compared to NR (36%). A greater proportion of those with access to off-farm income was from remittances from friends and relatives, and working at small mining sites (*galamsay*), in and out of the regions. Farmers' knowledge of credit sources (KCS) was high (81% for NR, 77% for UER). However, credit utilisation remained low among farmers (13% for NR, 24% for UER). This reflects the access to credit bottlenecks faced by smallholder farmers in the country. Irrigated vegetable farmers in the NR have higher access to markets (97%) than their peers in the UER (49%).

### Results of efficiency estimates

Efficiency scores for technical, allocative and economic were estimated under both VRS and CRS specifications using total revenue as the main output variable. Five variables (labour, land area, fertilizer quantity, volume of water applied, and pesticide quantity) were included as inputs, and to allow for the estimation of economic and allocative efficiencies, five price variables (seed cost, pesticide cost, fertilizer cost, cost of lifting water/fees, and total labour cost) were included in the models.

**Table 4: Efficiency estimates under VRS and CRS**

Estimated efficiencies	VRS specification		CRS specification		Scale efficiency
	Mean	Std. Dev	Mean	Std. Dev	Mean
Technical efficiency					
<i>Input-oriented</i>	0.7817	0.2266	0.5068	0.3125	0.6483
<i>Output-oriented</i>	0.5614	0.3343	0.5068	0.3125	0.9027
Economic efficiency	0.5287	0.2203	0.2990	0.1966	n/a
Allocative efficiency	0.6833	0.1924	0.6127	0.1546	n/a

Table 4 shows that the efficiency values obtained under VRS were generally higher than those obtained under CRS specification. For instance, the average technical



efficiency under input orientation is 0.78 under VRS, compared to 0.60 under CRS. Similar findings are found for both economic efficiency and allocative efficiency estimates obtained. Technical efficiency estimates for CRS remain the same, irrespective of the input or output orientation conceived. The average technical efficiency obtained under VRS is 0.871, and 0.676 for input-oriented and output-oriented approaches, respectively. This means that 13% and 33% more output could have been produced using the current resources available, if farmers were technically efficient in their operations. The average economic efficiency of the farmers is 0.517 and 0.358 for VRS and CRS, respectively. This low figure is partly attributed to the low number of observations (73 complete observations), since farmers who provided incomplete pricing information could not be evaluated under these criteria. The average allocative efficiency score of 0.585 suggests that 42% more output could be produced with the same level of inputs, if farmers were efficient in their resource allocation decisions. The scale efficiency estimates revealed increasing returns to scale by the farmers.

To understand the efficiency level of production by farmers operating in the two geographical locations, a community level efficiency analysis was performed using split samples and the results are presented in Table 5. Due to the sensitive nature of the econometric software used, economic and allocative efficiency estimates could not be done for Zanlerigu due to incomplete pricing information supplied by some farmers.

**Table 5: Results of community-level efficiency analysis**

Estimated efficiencies	VRS specification		CRS specification		SE
	Mean	Std. Dev	Mean	Std. Dev	Mean
<b>Technical efficiency (<i>Bihinaayile</i>)</b>					
<i>Input-oriented</i>	0.7942	0.2402	0.5713	0.3094	0.7193
<i>Output-oriented</i>	0.6393	0.3371	0.5713	0.3094	0.8936
Economic efficiency	0.5910	0.2521	0.3279	0.2037	n/a
Allocative efficiency	0.7407	0.1913	0.5869	0.1669	n/a
<b>Technical efficiency (<i>Zanlerigu</i>)</b>					
<i>Input-oriented</i>	0.4172	0.3729	0.2263	0.2411	0.5424
<i>Output-oriented</i>	0.6826	0.2439	0.2263	0.2411	0.3315

Various patterns are revealed by the split analysis. In the NR, efficiency estimates for technical, economic and allocative efficiencies were higher under the VRS assumption

compared to the CRS. For the UER, a similar pattern of high-efficiency estimates under VRS was observed in relation to the CRS. On the average, farmers in NR were more technically efficient in production than their counterparts in the UER. This could be attributed to differences in levels of access to quality land (fertility differences), weather, and access to water resources. In all dimensions of these factors, farmers in NR are well placed with locational advantages, which impact positively on their production efficiency. In the policy space, more targeted attention is needed for farmers operating in constrained environments to help promote equality and efficiency in production. The scale efficiency estimates for the two locations shows increasing returns to scale for farmers.

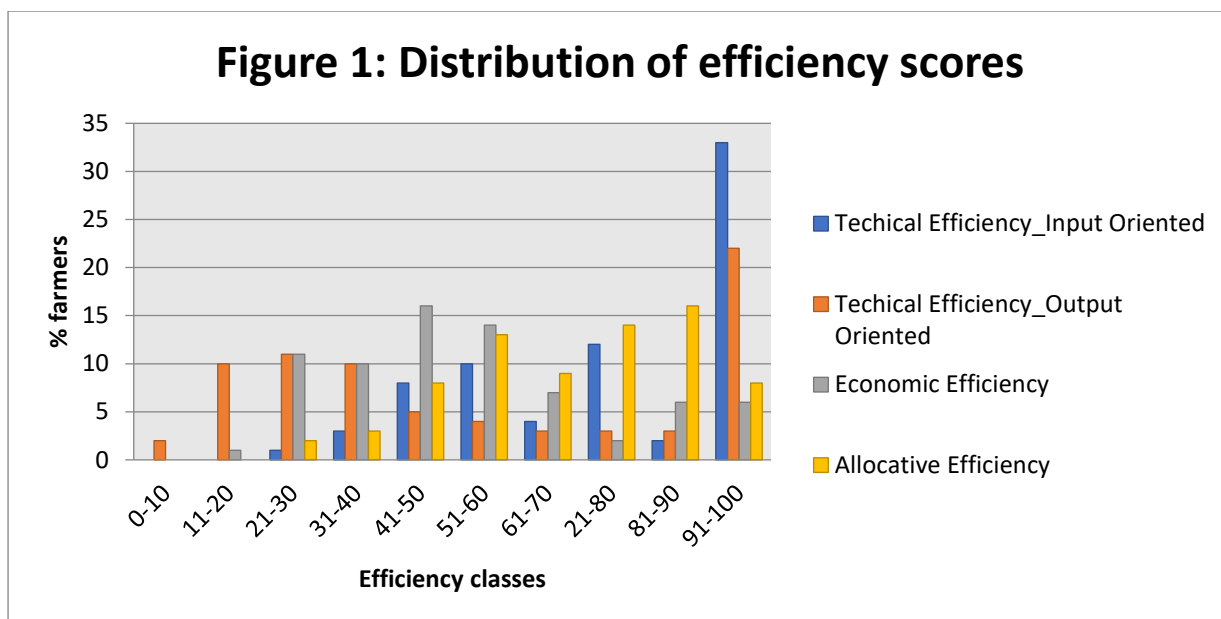
A comparative analysis of project participants and non-project participants, in terms of efficiency in production, to have a clear understanding of the impact created by the project, revealed some positive gains. Table 6 shows that the average technical efficiency of project beneficiaries is higher (0.904 and 0.807 for both input-oriented and output-oriented approaches) to that of non-project beneficiaries (0.885 and 0.812) respectively. This means that the ILSSI project has indeed helped to increase the technical efficiency performance of farmers, considering the fact that the intervention was targeted at resource-poor smallholder irrigated farmers. This provides a sound base for the intervention to be increased to cover more resource-poor farmers, even in new locations, for inclusive growth and development. The economic and allocative efficiency estimates, however, revealed that non-project beneficiaries are more efficient (0.577 and 0.651) in their resource allocation decisions, compared to those targeted by the project (0.345 and 0.491). This could be attributed to the level of exposure by farmers to marketing and pricing information. Non-beneficiary farmers were typically more resourced, using motorised sprays in water lifting with quality inputs, and this is reflected in their resource allocation decisions.

**Table 6: Comparative efficiency estimates for ILSSI and Non-ILSSI farmers**

Estimated efficiencies	ILSSI farmers		Non-ILSSI farmers	
	Mean	Std. Dev	Mean	Std. Dev
<b>VRS assumption</b>				
<i>Input-oriented (TE)</i>	0.9042	0.1421	0.8850	0.1766
<i>Output-oriented (TE)</i>	0.8071	0.1886	0.8124	0.2740
Economic efficiency	0.5416	0.2562	0.5778	0.2742
Allocative efficiency	0.5999	0.2503	0.6515	0.2534
<b>CRS assumption</b>				
<i>Input-oriented (TE)</i>	0.6859	0.2628	0.7254	0.2792
<i>Output-oriented (TE)</i>	0.6859	0.2628	0.7254	0.2792
Economic efficiency	0.3457	0.1988	0.3969	0.2618
Allocative efficiency	0.4912	0.1627	0.5364	0.2268
SE ( <i>Input-oriented TE</i> )	0.7585	n/a	0.8196	n/a
SE ( <i>Output-oriented TE</i> )	0.8498	n/a	0.8929	n/a

**Distribution of efficiency scores**

Figure 1 shows the distribution of the various efficiency scores estimated for technical, economic and allocative efficiencies under VRS assumption, with different concentrations in range. A greater proportion of the technical efficiency scores (45.2% for input-oriented and 30.1% for output-oriented) falls within 0.9-1.0 range. About 21.9% of the economic efficiency scores falls within 0.4-0.5 range, while the highest concentration of allocative efficiency scores lies within 0.8-0.9 efficiency range. These statistics give a true reflection of the level of improvements needed by farmers, so as to reach the various efficiency levels by various DMUs.



**Figure 1: Distribution of efficiency scores**

Out of the 110 irrigated farms studied, 30 DMUs had a rank of 1. This means that, from the viewpoint of input use, 41.09% of the sampled farmers are currently operating on the frontier and are technically efficient. From the output orientation, 18 DMUs (24.65%) were found to be technically efficient, as farmers tend to have limited control over output markets. Only 4 DMUs (5.47%) were found to be both economically and allocatively efficient. This means that, in terms of pricing, farmers are incurring the right cost in production, leading to efficiency in the resource allocation process. Efforts are needed to educate farmers on the right input-price mix feasible combinations, and effective ways to create market demand for their products to help make them more efficient. These results support the findings of Ali Chebil *et al.* (2009), that most farmers involved in horticulture greenhouse in Tunisia are efficient in production.

### Results of the determinants of efficiency

Table 7 presents the results of the second stage analysis, using the Tobit regression, to identify the main factors that influence technical efficiency operations. Most of the variables included in the model were statistically insignificant, meaning that they do not influence farmers technical efficiency in production. For instance, farm size (FMS) is shown to have negative coefficient, and is statistically insignificant.

Gender has a negative, and statistically significant, influence on farmers technical efficiency in production at 10%. This means that production efficiency decreases with male farmers, and the involvement of females enhances irrigated efficiency in the

vegetable production sector. Efforts must be made to give women an equal opportunity to productive assets, particularly access to land, credit, and other inputs.

Furthermore, credit utilisation (CRU) has a positive significant influence on farmers' technical efficiency in production, suggesting that putting credit at the disposal of irrigated farmers could trigger increases in vegetable production efficiency through improvements in technical operations. The setting up of innovative credit schemes, development and supply of farmer-friendly credit products, and increased participation of private sector in financial markets, and effective monitoring of loans granted to farmers, are feasible options to pursue in overcoming credit constraints in the agricultural sector.

**Table 7: Tobit estimates on determinants of production efficiency**

Variable	Coefficient	Std. Dev	z	Prob.> z >Z*
Farmer experience (EXP)	18.3625	63.29069	0.29	0.7717
Knowledge of credit sources (KCS)	732.544	1184.663	0.62	0.5363
Farm size (FMS)	-4.86306	19.23668	-0.25	0.8004
Gender (SEX)	-1883.72*	1041.451	-1.81	0.0705
Health status of farmer (HST)	-14.6683	247.8950	-0.17	0.8665
Household size (HHS)	-5.74188	48.50681	1.15	0.2504
Access to market (MKT)	-1502.34	1247.499	-1.20	0.2285
Extension contact (EXT)	0.0020	0.0362	0.06	0.9556
Credit utilisation (CRU)	2563.34*	1375.462	1.86	0.0624
Constant	1750.82	2249.103	0.78	0.4363
R <sup>2</sup> ANOVA	0.0035			
DECOMP based fit measure	0.25557			
Lagrange Multiplier (LM) test	478.775			
Sigma	4945.54***	333.4285	14.83	0.0000

\*\*\*, \*\*, \* implies significance at 1%, 5%, 10% level. F = 40.3105

The underlying assumption pinning the Tobit model is that the residuals are normally distributed (Holden, 2004). The disturbance standard deviation (sigma) is significant

at 1% level, suggesting that the normality hypothesis could not be rejected in this study. Two other best fit measures ( $R^2$  ANOVA and  $R^2$  DECOMP) shows that the Tobit regression was satisfactory. This has been further reinforced by the Lagrange Multiplier (LM) test statistic.

## **CONCLUSIONS AND RECOMMENDATIONS**

This study has analysed the efficiency level of production by smallholder irrigation vegetable farmers operating in Northern Ghana, and their determinants using primary data collected from 110 farmers. An econometric analysis was carried out following the Data Envelopment Analysis (DEA) methodology to estimate various efficiencies: technical, allocative, and economic. In a second stage analysis, Tobit regression was used to identify the factors that influence the efficiency level of production by farmers.

The findings revealed that some DMUs (41%) were fully efficient in all the three efficiency dimensions studied. This means that they were operating on the frontier, and their resource allocation decisions could be described as good. The results show that, on the average, farmers were more technically efficient under VRS than CRS specifications, suggesting that an increase in input use does not result in a proportional increase in output, and some DMUs are operating sub-optimally. The average economic efficiency estimates obtained were 0.51 and 0.35, while that for allocative efficiency was 0.58 and 0.56 for VRS and CRS, respectively. These estimates show that more scope exists for improvement in technical, economic and allocative efficiency performance. The community level analysis revealed that farmers in the Northern Region were more technically efficient (0.79 and 0.63) than their peers in the Upper East Region (0.41 and 0.68), for input and output orientations, respectively. This means that locational disadvantages in production need to be factored in policy decisions that target improving the technical performance of farmers in these areas.

In general, 41% of the DMUs were found to be fully efficient. However, there is more room for improvement in efficiency performance (technical, economic and allocative). ILSSI farmers were found to be more technically efficient in production than non-ILSSI farmers. This shows that the project intervention has positive outcomes on target beneficiaries and there is a need for replication to cover many more resource-poor farmers. In addition, the distribution of efficiency scores revealed skewed

concentration patterns for the efficiency categories estimated. For instance, while 45.2% of the input-oriented technical efficiency scores lies within the efficiency range of 0.9 to 1.0, 21.9% of the economic efficiency scores were within 0.4 to 0.5 range. These varied concentrations revealed the various specific levels of improvements needed to bring the DMUs to operate on the frontier. Policy initiatives that target resource allocation decisions of farmers is a useful way to follow. The main factors that influence farmers' production efficiency, as revealed by the Tobit regression, are gender and credit utilisation. The negative significant effect of gender means that females are more technically efficient in production than their male peers. Credit utilisation by farmers has positive effects on production efficiency. Nonetheless, other factors matter, though not explicitly revealed in this current study.

Based on the findings, a number of policy recommendations are made. Firstly, there is a need for various stakeholders involved in rolling out the national financial inclusion strategy to strengthen and scale up more effectively to cover more marginalised groups and individuals who do not still operate any bank account. This will significantly impact on credit utilisation by farmers and efficiency in production. Secondly, there is a need for a tailored policy to target differently the smallholder farmers operating in the two regions studied, in regards to the area of water resource development, and management and land access. Promoting more gender awareness through client training, and monitoring the effective utilisation of credit by farmers using integrated approaches, could have positive effects on farmers' technical efficiency in production.

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**A. Abdulai**

**MICRO AND RURAL FINANCE FOR SMALL-SCALE IRRIGATION  
TECHNOLOGIES AND TOOLS: EVIDENCE FROM NORTHERN  
GHANA**

**ABSTRACT**

Access to credit by smallholder irrigation farmers remains a challenge in Ghana for improvements in farm productivity, agricultural modernisation, and local economic development. Smallholder farmers have largely been neglected by traditional banks, due to a multiplicity of reasons, but microfinance institutions are said to be bridging this access to credit gap in most farming communities. This study investigates the link between access to credit and irrigation technology adoption among smallholder farmers in northern Ghana using a sample of 110 respondents from a recent field survey. A quantitative analysis performed using the probit model revealed that a weak link exists between access to credit and utilization, and farmers' decision to adopt improved irrigation technologies. Whilst high costs of inputs are ranked the top production constraints facing irrigated vegetable farmers, the majority (81.8%) still do not have access to any form of credit, and the situation is acuter with formal credit sources. The results further showed that the age of the farmer, trust in the financial institution, access to remittances, and access to effective extension services are significant factors that influence farmers' access to credit. Credit utilisation is significantly influenced by farmers' perception of land as a production constraint, access to markets, and possession of a savings account. Private sector involvement in agricultural financing, and the setting up of innovative financing schemes by the government for the sector, is advocated for. Policies aimed at deepening extension services' delivery, such as the community extension agents' approach under the government flagship programme of Planting for Food and Jobs, is a step in the right direction and should be supported by all stakeholders.

**Keywords:** Access to credit, Probit model, Smallholder farmers, Vegetable production.

## INTRODUCTION

Small-scale irrigation (SSI) has been widely acknowledged as an effective way to boost crop production and improve the livelihood of smallholders, especially in arid and semi-arid areas (Magistro *et al.*, 2007; Burney & Naylor, 2012). The adoption of appropriate irrigation technologies will not only increase food production but could improve the income level of actors in the value chain. While the development of SSI technologies is growing in Ghana, uptake by smallholder farmers remains low due to multiple constraints. Studies show that irrigation technologies are largely accessible to more affluent farmers (Namara *et al.*, 2014). Creating opportunities for smallholders to access viable SSI technologies could be a promising strategy to lift smallholders out of poverty (Burney & Naylor, 2012).

Evidence shows that farmers' access to credit has a significant positive influence on technology adoption, consumption, asset growth (Obuobisa-Darko, 2015; Daniel, 2015; Liverpool & Winter-Nelson, 2010) and production efficiency (Duy, 2015). However, a lack of access to credit remains one of the major challenges for smallholder irrigation farmers, limiting their access to irrigation technologies and other modern inputs (Atieno, 1997; Rayes *et al.*, 2012). In northern Ghana, access to credit remains one of the top priorities for most smallholder farmers (Dittoh, 2006; Nouman *et al.*, 2013). Smallholder farmers who are credit constrained are more likely to use lower levels of inputs in production with negative effects on productivity. The limited access to credit by smallholder farmers is influenced by both demand and supply side factors (ODI & CEPA, 2005; Goss, 2010).

Investment in the agricultural sector is generally low in most developing countries, with the consequent negative effects on farm productivity and diversification of farm enterprises. Microcredit has demonstrated to be a powerful tool in increasing investments in agriculture and agribusinesses, with beneficial outcomes on smallholder farm productivity and incomes (Llanto, 1993; Armendariz *et al.*, 2011; Postelnicus & Hermes, 2016). The proliferation of Microfinance Institutions (MFIs) is anticipated to bridge the access to credit gap, especially in rural farming communities. Yet, lending to resource-poor farmers remains a challenge due to a multiplicity of reasons: higher perceived risk associated with agriculture; high non-performing loans; higher loan administration costs; unfavourable interest rates; lack of collateral; poor

infrastructure; and inaccessibility of rural communities (ODI and CEPA, 2005; Goss, 2010).

To overcome the difficulties of resource-poor farmers' access to credit, some microfinance advocates (Montgomery, 1996; Yunus, 2001) have called for the promotion of joint liability models, such as the Village Savings and Loan Associations (VSLAs), to deepen a savings culture, and make credit timely available. In recent times, the VSLA model has been used in leveraging small loans to poor people, especially women, with the ultimate aim of reducing poverty and fostering entrepreneurship development. However, the extent to which these microfinance initiatives have addressed the challenge of access to credit situation of smallholder farmers in Ghana, especially those engaged in irrigation farming, remains unknown. Furthermore, targeted credit schemes are an effective strategy to mitigate credit constraints and encourage smallholder participation in market-oriented production, using tied output-labour arrangements (Adjognon *et al.*, 2017). Effective implementation of such schemes, however, is an area of public concern. How the numerous financial service providers contribute to bridging smallholder farmers access to credit remains hypothetical with limited empirical evidence. This study contributes to the 'access to credit' literature by investigating the role of credit in small-scale irrigated vegetable production, and the factors that influence farmers' access to credit, using empirical data drawn from northern Ghana.

The rest of the study is organized as follows: Section two reviews the related literature on smallholder farmers' access to credit and their determinants. Section three discusses the methodology used. Section four presents the key findings and discussions. The last section concludes the study with some policy implications.

## **LITERATURE REVIEW**

Agricultural modernization, and the adoption of appropriate irrigation technologies, depend much on availability and access to affordable agricultural financing options to farmers. Access to credit enables farmers to purchase modern inputs including high yielding seeds, fertilizers, and installation of irrigation equipment for increased production (Chowdhury & Garcia, 1993). Through the production and income

pathways, access to agricultural credit can reduce rural poverty, minimize rural-urban migration, and enhance food and nutrition security (Nouman *et al.*, 2013).

Empirical evidence on the role of credit in increasing farm production and incomes has largely been mixed, though significant positive outcomes have been reported. Liverpool and Winter-Nelson (2010) found no relationship between farmers' participation in microfinance programmes and the use of improved technologies, or consumption growth in Ethiopia. This suggests a weak link between access to credit and farmer production practices and wellbeing.

On the contrary, the Ministry of Food and Agriculture of Ghana (MOFA, 2010) reported that limited access to credit hampers the ability of small-scale farmers to adopt basic production technologies, leading to low crop yields. Similarly, Gelan and Muriithi (2012) found that technology adoption factors such as growing legumes and improved breeds coupled with the sale of milk to individuals and organizations significantly impact positively on productive efficiency.

Akudugu *et al.* (2012) examined the factors that influence the adoption of new agricultural technology in the Bawku West District of Ghana and reported that access to credit is one of the main determinants of agricultural technology adoption. Furthermore, Obuobisa-Darko (2015) assessed the effects of access to credit on the adoption of recommended cocoa technologies in Ghana, using a sample of 600 farmers, and found that credit access significantly affects technology adoption. Similarly, Sulemana and Adjei (2015) have analysed the impact of microfinance on agricultural modernisation in the Pru District of the Brong Ahafo Region in Ghana, and found that microcredit has a positive impact on agricultural output levels.

Namara *et al.* (2014) found that the high cost of borrowing and high initial investment cost inhibits smallholder farmers from adopting improved technologies. Nonetheless, several other factors, such as poorly developed supply chains, high output price risks, and lack of institutional support, also influence uptake of agricultural technologies (Namara *et al.*, 2014). For instance, Aseyehegni *et al.* (2012) found that income, gender, access to market information, and health condition of households are important determinants of household's participation in SSI schemes. Takeshima *et al.* (2010) identified the effectiveness of public institutions, knowledge of water resources, risk perception of rainfall and quality water, crop insurance, and transaction costs



associated with irrigation investments as areas of knowledge gap that need to be addressed to enhance understanding of farmers' demand for SSI technologies.

Farmers' access to credit is impacted by both demand and supply side factors. From the supply side, most financial service providers do not see smallholder farmers as creditworthy due to the high risk associated with agricultural value chains (Egyir *et al.*, 2014). The main constraints of credit delivery to smallholder farmers, especially irrigators, include high transaction costs, the risk-averse behaviour of lenders (perception of risk of default), and credit diversions and information asymmetry between lenders and borrowers (Akudugu, 2014; 2017). Furthermore, the type and organizational structure of a given financial institution, and its credit policy, also determine farmers' access to credit (Kashulize and Kydd, 1996). While Microfinance Institutions (MFIs) have been largely recognised by farmers and policymakers as a viable source of credit in rural Ghana, the size of credit remains limited to trigger efficient production. Higher administrative costs, which are reflected in high-interest rates charged by MFIs, are key limiting factors that impact on credit supply to farmers. Macroeconomic factors such as high inflation rates, high-interest rates, public deficits, macroeconomic instability and regulatory compliance issues, such as capital adequacy requirements, affect credit supply to smallholder irrigated farmers.

On the demand side, where credit duration, terms of repayment, required security, and the provision of supplementary services do not fit the needs of the target group, potential borrowers will not apply for credit, even where it exists. As documented by Egyir *et al.* (2014), most financial institutions grant less than 70% of the loans demanded by farmers as a protective and risk minimizing strategy.

Farmer's credit choices and preferences have also been linked to borrowing from informal sources (Elisha *et al.*, 2016; Awunyo-Vitor & Abankwah, 2012; Poliquit, 2006). Awunyo-Vitor and Abankwah (2012) analyzed credit demand among 590 maize farmers in Ghana and revealed that informal credit sources (relatives and friends, traders, and private money lenders) were more important, as maize traders and agricultural input dealers interlink credit with maize purchase and sale of inputs, making them dominant in rural credit markets. Furthermore, Yadav and Sharma (2015), in a comprehensive review of 110 articles that focus on agricultural credit in developing countries, showed that non-institutional sources of credit still dominate in rural credit markets, and that the role of microfinance appears dubious. Credit

restrictions, such as commodity-specific credit programmes, collateral credit, and lengthy and complicated procedures, restrict farmers from accessing credit from formal sources.

Moreover, the nature of farmer-specific characteristics calls for the development of tailored credit products for them (Udoh, 2005). Most financial service providers (FSPs) prefer granting loans to microbusinesses and waged labour employees to farmers due to ease of recovery. Nonetheless, in areas where farm enterprises have demonstrable high levels of discipline and creditworthiness, higher access rates to credit have been reported. Akudugu *et al.* (2009) observed that about 81% of women farmers who applied for credit from rural banks in the Upper East Region were successful and that 44% of the credit portfolio of these banks goes to women. This is in sharp contrast to the usual claim that women are even more disadvantaged than men in terms of access to credit. The main factors influencing women farmers' access to credit are age, education, loan application procedure, access to land, membership of local associations, savings, crop choice, interest rate, and distance to the rural bank. Adjognon *et al.* (2017) reported that in some sub-Saharan African countries, farmers primarily finance modern input purchases using cash from non-farm activities and crop sales, and that tied output-labour arrangements are the commonest form of credit relatively used in farming. However, the study did not test whether farmers face credit constraints or not. Also, the fact that farmers use very little credit does not mean that they have too little access to credit.

Anang *et al.* (2015) explored the factors influencing access to loans, and the determinants of loan size in northern Ghana, using a sample of 300 irrigated rice farmers. The study revealed that gender, household income, farm capital, improved technology adoption, contact with extension agent, farm location, and awareness of lending institutions in the area are significant factors that influence access to agricultural microcredit. Previously, Chitungo and Munongo (2014) found that crop type, household size, and gender of household head are positive significant factors that influence farmers' decision to access credit in Zimbabwe. Baffoe and Matsuda (2015) reported that livelihood diversification, household productivity, savings accounts and household size are significant determinants of households' access to credit and that the probability of accessing credit increases as productivity increases. More recently, Elisha *et al.* (2016) analysed access to credit and constraints facing

rice farmers in the Tolon District in northern Ghana, and found that high cost of inputs, and incidence of pests, were the main constraints hindering rice production.

Togba (2012) analysed the Ivorian credit market to understand the determinants of the choice for credit from formal and informal sources. The findings show that size of the loan, agricultural purpose, location of the household, and ethnicity are factors that influence the choice of formal sources. Bjornlund *et al.* (2016) advocated the need to increase investment and develop business models for small-scale irrigation schemes to help address the technical and soft barriers to increasing productivity and profitability of SSI systems. Saqib *et al.* (2017) analysed farmers' access to agricultural credit in flood and disaster-prone areas in Pakistan to show that education, farming experience, total landholding, monthly income, family size, and proportion of owned land were significant factors influencing farmer's access to credit. Similarly, Assogba *et al.* (2017) found that years of schooling, literacy, membership to farmers' cooperative, guarantor, collateral, and interest rate are the main determinants of farmers' access to credit in Benin. Previously, Dzadze *et al.* (2012) identified the level of education, extension contact, and saving habit as factors that positively influence farmers access to formal credit in the Central Region of Ghana. Only 35% of the sampled farmers had access to formal credit. Duy (2015) found the positive influence of access to credit on rice production efficiency in Mekong Delta, Vietnam.

In effect, various factors influence farmers' access to credit at various locations and the specific context, therefore, matters in enabling greater credit access. Positive effects of credit on production are achieved when credit is well applied and production risks are minimal.

## **MATERIALS AND METHODS**

### **Data, variable selection, and definitions**

The study relied on cross-sectional data collected from a sample of 110 farmers from two irrigation sites (Bihinaayili and Zanlerigu) in northern Ghana. Data were collected from farmers who were practicing various irrigation technologies piloted under the

Innovation Lab for Small-Scale Irrigation (ILSSI)<sup>1</sup> project. All farmers involved in the pilot project, and 64 randomly selected non-ILSSI farmers involved in vegetable production in the surrounding areas of the ILSSI-pilot sites, were surveyed so that comparative analysis on the ‘access to credit’ could be made. Secondary data on input and output prices were obtained from the regional offices of the MoFA, as well as local markets, to help validate the survey data collected. The variables considered in the study are presented in Table 1.

**Table 1: Variable definitions and measurement**

<b>Variable</b>	<b>Description/Measurement</b>	<b>Expected Effect</b>
<b><i>Dependent variable</i></b>		
Credit accessibility (CRA)	DV: 1= if farmer has access to credit, 0 = otherwise	+/-
Credit utilisation (CRU)	DV: 1= if farmer utilises credit for agricultural activities, 0 = otherwise	+/-
Decision of farmer to adopt irrigation technology (DAT)	DV: 1 = if farmer adopts irrigation technologies demonstrated, and 0 = otherwise	+/-
<b><i>Independent variables</i></b>		
Knowledge of credit sources (KCS)	DV: 1= if a farmer has knowledge of credit sources, and 0 = otherwise	+
Savings (SVS)	DV: 1= if a farmer has saved with the Bank, and 0 = otherwise	+
Age of farmer (AGE)	Age of farmer in years	+/-
Level of education (EDC)	DV: 1= if farmer has basic education up to SHS level, and 0 = tertiary education	+
Farmer experience (EXP)	Number of years farmer has been in vegetable production	+
Farmer category (FAC)	DV: 1= if ILSSI farmer, and 0 = non-ILSSI farmer	+
Perception of land constraint (PLC)	DV: 1 = if farmer perceives land as a constraint to production, and 0 = otherwise	+
Farm size (FMS)	Area of land under irrigated vegetable production in hectares.	+
Access to market (MKT)	DV: 1= if a farmer has access to the market, and 0 = otherwise	+/-
Trust for a financial institution (TFI)	DV: 1= if a farmer has trust in financial service providers in the area, and 0= otherwise	+/-
Access to remittances (REM)	DV: 1= if a farmer has access to remittance income for production, and 0= otherwise	+/-

<sup>1</sup> ILSSI is an action-oriented, farmer-centred research project supported by the Feed the Future (FtF) programme through USAID and implemented in Ghana, Ethiopia, and Tanzania. It aims to investigate and understand the technical and socio-economic factors, constraints and opportunities of Small-Scale Irrigation (SSI) technologies towards achieving sustainability and efficiency in resource utilisation (water, land and other resources) and enhance the livelihoods of smallholder farmers.

The main reasons and justification for the choice of variables selected are discussed here. *Age* serves as a proxy for maturity and the ability of a farmer to utilise and repay credit (Akudugu, 2012; Rahji & Fakayode, 2009). *Farm size* is used to estimate the potential income of borrowers and access to production resources. Farmers with small farm sizes have been posited to have limited access to credit. *Years of formal schooling* will likely have positive effects on farmers' access to credit since education is a major factor that influences households' decisions to participate in credit markets (Ayamga *et al.*, 2006; Akudugu, 2012). *Savings* serves as a net worth measure farmers, and those with more savings are likely to have a regular flow of incomes streams, with higher repayment capabilities necessary to qualify them for more credit. *Access to markets* induces farmers to increase production and with good prices, they are more likely to have access to credit. *Trust* is very important in business settings and it is posited that farmers are very reluctant to visit financial institutions for credit due to perceived low trust. *Access to remittance* by farm households constitutes a major source of finance for agriculture production, especially in rural areas. Farmers with access to remittance income are less likely to demand credit but are well placed to invest more in their farm enterprise development.

### **Analytical model**

Theoretically, the decision of farmers to access credit from any source or adopt irrigation technology is influenced by certain factors (individual, demographic and institutional). Let the latent variable,  $Y_i$  represent the farmers' decision to access credit or adopt irrigation technology and  $X_i$  is a vector of independent variables, the quantitative response model can be written as:

$$Y_i = \alpha + \beta X_i + \mu_i \quad (1)$$

The use of standard OLS has been found inadequate in analysing discrete choice models, since the probability that an event will occur is non-linear in nature (Collett, 1991). Use of OLS may produce estimated probability values that lie outside the usual range of 0 and 1 and characterised by heteroscedasticity of the error terms. Binary choice models, such as logit or probit models, offer the right solution to such problems. However, the logit model specification has been shown not to perform well in small samples relative to the probit model. Due to these shortcomings and the fact that the number of farmers experimenting with the irrigation technologies developed is few, the

current study utilised the probit model which performs better in small samples following recent studies (Anang *et al.*, 2015; Sebopetji & Belete, 2009).

Consider a vector of regressors,  $X_i$ , which are assumed to influence the response variable,  $Z_i$ , the model takes the form:

$$\text{Probability}(Z_i = 1) = \Phi(X_i \gamma) \quad (2)$$

where  $Z_i$  is the binary choice variable (0 or 1),  $\Phi$  is the cumulative distribution function of the standard normal distribution,  $\gamma$  is a vector of unknown parameters to be estimated, and  $X_i$  is a vector of explanatory variables included in the model.  $Z^*$  can be specified as:

$$Z^*_i = \gamma_0 + \sum_{n=1}^N \gamma_n X_m + u_i \quad (3)$$

where  $N$  is the total sample size and  $Z_i = 1$  if  $Z^*_i > 0$ ; and  $Z_i = 0$  otherwise. Equation [3] can be estimated using the maximum likelihood method.

The probit model usually constrains the estimated probabilities to lie between 0 and 1 and relaxes the condition that the effect of the explanatory variables is constant over different predicted values of the dependent variable. It makes the assumption that while only the values of 0 and 1 are observed for the dependent variable, a latent unobserved continuous variable  $Z^*_i$  exists which determines the value of the dependent variable,  $Z_i$  (Sebopetji & Belete, 2009). The empirical model estimated is of the form:

$$Y_i = \beta_0 + \sum_{j=1}^n \beta_j X_{ji} + v_i \quad (4)$$

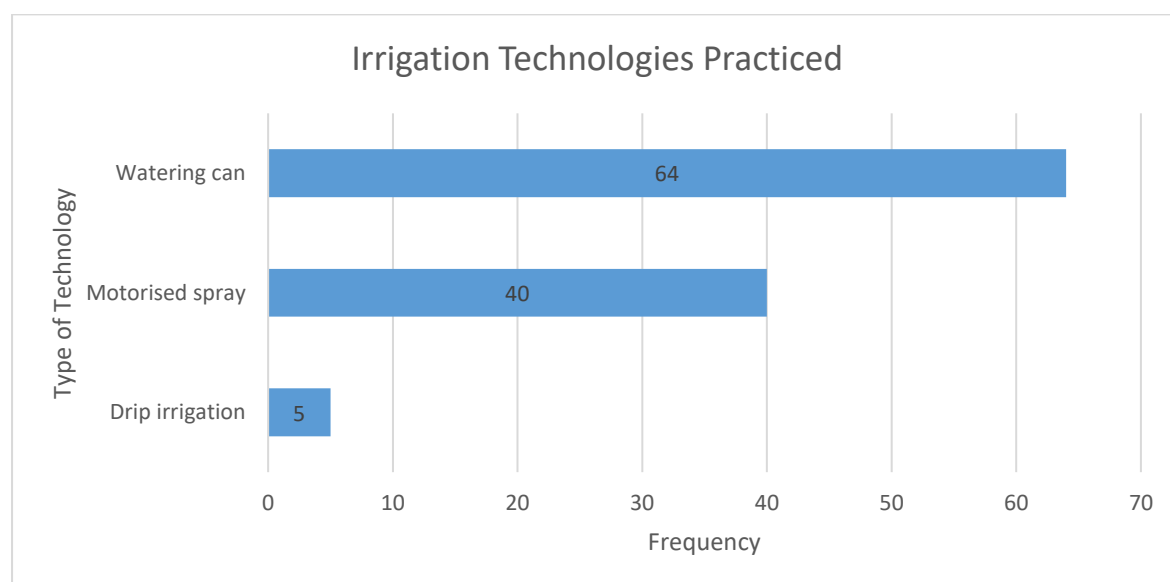
where  $Y_i$  is binary variable (access to credit or decision to adopt irrigation technology),  $\beta_s$  are coefficients to be estimated,  $X_{ji}$  vector of independent variables included in the model, and  $v_i$  is the random error term.

## RESULTS AND DISCUSSIONS

### Descriptive statistics

Descriptive statics of the main variables used in the study are presented in Table 2. The majority of the farmers (99%) have good knowledge of credit sources to support their production. More than half of the respondents (51%) acknowledged that credit

was available in their locations to support production. However, only a few farmers (19%) actually utilised credit in production during the 2016 production season, due to various reasons such as high-interest rates, delay in approval for group loans, and farmers not holding bank accounts. Most farmers (about 79%) had adopted the various irrigation technologies demonstrated to them, but the use of a watering can for irrigation still dominates, as can be seen below in Figure A.



**Figure A: Status of irrigation technology practiced by farmers**

**Table 2: Descriptive statistics of the variables**

Variable	Mean	Std. Dev.	Minimum	Maximum
Credit accessibility (CRA)	0.5181	0.5019	0.0	1.0
Credit utilisation (CRU)	0.1909	0.3948	0.0	1.0
Decision of farmer to adopt irrigation technology (DAT)	0.7909	0.4085	0.0	1.0
Knowledge of credit sources (KCS)	0.9909	0.4592	0.0	1.0
Age of farmer (AGE)	39.972	12.616	21.0	75.0
Farmer experience (EXP)	9.5090	8.3421	1.0	45.0
Extension contact (EXT)	6.5090	5.193	0.0	25
Farm size (FMS)	0.9215	0.7296	0.125	3.0
Savings (SVS)	0.2545	0.4375	0.0	1.0
Perception of land constraint (PLC)	0.3000	0.4603	0.0	1.0
Farmer category (FAC)	0.6000	0.4805	0.0	1.0
Trust in financial institution (TFI)	0.5636	0.4982	0.0	1.0
Access to remittances (REM)	0.3545	0.4921	0.0	1.0
Access to market (MKT)	0.7090	0.4562	0.0	1.0

The average age of the irrigation farmers in the sample was 39 years, suggesting that most youth (the National Youth Policy of Ghana defines youth as persons between the

ages of 25 and 35 years old) still do not see irrigated vegetable production as a profitable venture. The average experience of farmers for irrigation is 9 years, sufficient to drive increased productivity because of learning curve effects in input use. Farmers received, on average, 6 extension visits per season for information sharing on best practices. The mean land holding size was 0.9 acres, with a minimum of 0.12 acres, and only a few (30%) farmers perceived land as a constraint to production. Only a few farmers (25%) had some form of savings account, and 56% affirmed their trust in the financial institutions available. About 35% of respondents had access to remittance income but a bulk of that was for direct consumption smoothening and off-farm business start-ups. A good number of farmers (70%), on average, have access to the local and regional market for the sale of their produce.

Table 3 presents the main constraints facing irrigated vegetable farmers and their order of importance (rank). The most expressed constraint (1<sup>st</sup> rank) by farmers is the high cost of inputs which is reflected in the cost of improved seeds, chemical fertilizers, and pesticides. This does not only reduce farm enterprise profitability, but also limits the production of high valued crops such as cabbage and lettuces. The second-ranked constraint is reflected in access to water lifting and application technologies, since most farmers do not have water pumping machines. A great majority were using watering can technology which is profitable but limits the cultivated area that farmers could effectively manage (Dittoh *et al.*, 2013). Exploring viable options of enhancing access to water lifting technologies to smallholder irrigated farmers, including the promotion of market-based approaches, could have desired impacts on productivity.



**Table 3: Constraints facing irrigated vegetable farmers**

Main Constraint	Frequency	Percentage (%)	Rank
Limited equipment and tools	10	8.71	5 <sup>th</sup>
Pest and disease infestation	5	10.25	7 <sup>th</sup>
Unreliable water supply	14	10.25	4 <sup>th</sup>
Low prices / marketing	6	12.30	6 <sup>th</sup>
Limited access to credit	18	15.38	3 <sup>rd</sup>
High cost of inputs	21	20.03	1 <sup>st</sup>
Animal destruction	6	4.61	6 <sup>th</sup>
Pumping machine	19	17.43	2 <sup>nd</sup>
Total	99	100	

Source: Field Survey, 2017

The third critical ranked challenge facing farmers is the limited access to credit which tends to slow down the rate of technology adoption among farmers. Credit facilitates timely farm operations (planting, weeding, and harvesting), increased access to inputs (improved seeds, tools, and pesticides) and it is directly linked to irrigation technology adoption. Table 3 shows clearly that some of the ranked constraints, such as pumping machines and limited equipment and tools, are directly linked to access to credit. This suggests that access to credit is a major constraint to smallholder irrigated farmers in the study area. Focusing on improving direct access to credit to smallholder farmers should be a policy priority to stakeholders, aimed at increasing production, improving productivity, and creating employment for the youth. The One Village, One Dam policy of the government could be augmented to include credit for greater impact.

### **Results of the determinants of access to credit**

Access to credit was analysed using credit accessibility and credit utilisation as dependent variables and the results are presented in Table 4 and Table 5.

Table 4 shows that credit accessibility by farmers is influenced by both socio-economic and institutional factors. The probit estimates revealed that age of a farmer is negatively related to credit accessibility and is statistically significant at 1% level. This means that older farmers are less likely to have access to credit. As noted by Kuwornu *et al.* (2012), financial institutions fear that older people may not live for long, and

advancing credit to them may result in high default. This finding supports Elisha *et al.* (2016), who reported a negative significant relationship between age of rice farmers and access to informal credit in the Tolon District of Ghana. In addition, individual demand for financial services declines as they grow beyond the economically active age group (Akudugu, 2012).

Farmer experience in production is positive and statistically significantly related to access to credit. The positive coefficient is in line with theoretical expectation since farmers with experience in the vegetable business are more likely to keep proper records, optimise input use, and build good relations with credit providers, and are more likely to have access to credit. These support recent findings by Saqib *et al.* (2017) that farming experience influences access to credit in Pakistan.

Farm size has a positive and significant influence on access to credit as revealed in Table 4. Traditionally, financial institutions tend to favour large-scale farmers in their credit decisions than small-scale farmers for reasons of collateral and repayment ability. This result suggests that small-scale farmers with good management practices could also benefit from credit schemes.

No link was found between the decision of farmers to adopt irrigation technology and their access to credit. Technology adoption may impact on farm productivity through increased production but it is not directly related to credit access. The positive coefficient is, however, in line with *a priori* expectation since farmers who adopt improved irrigation technologies are more likely to have access to credit. The results, therefore, show a weak link between technology adoption and farmers access to credit. This suggests that irrigation technology adoption by a farmer does not influence access to credit but that other important factors matter in the access to credit chain. This finding is in line with Liverpool and Winter-Nelson (2010), who found no relationship between farmers' access to credit (microfinance participation) and the use of improved technologies or consumption growth in Nigeria. Similarly, the perception of land as a constraint does not drive farmers to access credit.

**Table 4: Probit estimate of the factors affecting access to credit**

Variable	Coefficient	Std. Error	z	Pr.  z >Z*
Farmers' age (AGE)	-0.0548***	0.0145	-3.78	0.0002
Farmer experience (EXP)	0.06713***	0.02161	3.11	0.0019
Decision of farmer to adopt irrigation technology (DAT)	0.5494	0.3608	1.52	0.1279
Farm size (FMS)	0.6111**	0.2389	2.56	0.0105
Perception of land constraint (PLC)	0.0190	0.3664	0.05	0.9585
Trust in financial institution (TFI)	0.6204*	0.3272	1.90	0.0579
Access to remittances (REM)	-0.6387**	0.3198	-2.00	0.0458
Access to market (MKT)	-0.1924	0.4193	-1.46	0.6463
Extension contact (EXT)	0.0990***	0.0321	3.08	0.0021
Farmer category (FAC)	-0.0053	0.3632	-0.01	0.9882
Savings (SVS)	0.4977	0.3330	1.49	0.1351
Constant	-0.0907	0.6914	-0.13	0.8956

\*\*\*, \*\*, \* implies significance at 1%, 5%, 10% respectively

Other parameters: Log-likelihood function= -54.703; Restricted Log likelihood = -76.1734; Prob>Ch2 = 0.00001; McFadden Pseudo R<sup>2</sup> = 0.2818; Hosmer-Lemeshow Chi<sup>2</sup> = 6.3822; P-Value = 0.49589.

A positive significant relationship exists between farmers' trust in financial institutions and access to credit. Trust plays a critical social role in credit markets and the outcome is in line with theoretical expectations. This suggests that farmers who have trust in financial service providers, and work to build and maintain good relations, are more likely to have access to credit sustainably. As reported by Akudugu *et al.* (2013), lack of trust in financial institutions significantly influences financial inclusion and there is a need to build mutual trust in the credit market.

In addition, the coefficient of remittances had a negative and significant relationship with credit accessibility. This negative relationship is consistent with theoretical predictions, since farmers who have access to alternative financing options (remittances) are less likely to acquire credit. The fact that few farmers (35%) from the sample had access to remittance income means that irrigated farmers have limited

sources of income. Since remittances were mainly used to support consumption instead of production activities, such a relationship is anticipated.

Extension contact with farmers is positively and significantly related to credit accessibility at 1% level. This means that farmers who receive extension education are more likely to have access to credit from FSPs. This is in line with the positive benefits that come with extension service delivery: proper record keeping, access to information on credit sources and market performance, technical advice on crop agronomy, and increased yields. The result agrees with previous studies (Dzadze *et al.*, 2012; Muhongayire *et al.*, 2013; Anang *et al.*, 2015; Obuobisa-Darko, 2015), that reported a positive significant relationship between extension contact and access to formal credit in Ghana and Rwanda, respectively.

Interestingly, farmer category and possession of a saving account do not influence farmers' access to credit in the study area. Other variables found insignificant were farmer production experience, farm size, the perception of land as a constraint, and access to markets.

Table 5 revealed the main factors that influence credit utilisation by farmers in northern Ghana. The adoption of improved irrigation technologies under irrigated vegetable farming is shown to have a positive relationship with credit utilisation, but statistically insignificant. This means that the link between credit utilisation and technology adoption in irrigated vegetable production is weak. This has important policy implications for farmers interested in scaling up production through improved irrigation technology adoption.

**Table 5: Probit estimate of the factors affecting credit utilisation**

Variable	Coefficient	Std. Error	z	Pr z  >Z*
Farmers age (AGE)	-0.0166	0.0147	-1.13	0.2573
Farmer experience (EXP)	0.0376*	0.02176	1.73	0.0839
Decision of farmer to adopt irrigation technology (DAT)	0.4181	0.4497	0.93	0.3526
Knowledge of credit sources (KCS)	0.0925	0.3922	0.24	0.8134
Farm size (FMS)	0.1522	0.2435	0.63	0.5320
Perception of land constraint (PLC)	-0.8007*	0.4240	1.89	0.0592
Trust in financial institution (TFI)	-0.1333	0.4026	-0.33	0.7406
Access to remittances (REM)	0.4136	0.3598	1.15	0.2504
Access to market (MKT)	-0.9243*	0.4850	-1.91	0.0567
Extension contact (EXT)	0.0020	0.0362	0.06	0.9556
Farmer category (FAC)	-0.7744	0.4817	-1.61	0.1080
Savings (SVS)	0.6986*	0.3728	1.87	0.0609
Constant	-0.7675	0.9157	-0.84	0.4019

\*\*\*, \*\*, \* implies significance at 1%, 5%, 10% level respectively.

Other parameters: F = 40.3105; Log likelihood function = -40.1306; Restricted Log likelihood = -53.629; Prob >Chi<sup>2</sup> = 0.0087; McFadden Pseudo R<sup>2</sup> = 0.248; Hosmer-Lemeshow Chi<sup>2</sup> = 6.682; P-Value = 0.5712.

The perception of farmers on land access as a constraint to production is found to have a positive significant relationship with credit utilisation in northern Ghana. This means that irrigated vegetable farmers, who perceived land as a constraint to production, are likely to utilise credit for farm expansion and purchase of improved seeds and quality inputs for increased production. The policy implication is to use innovative ways to remove barriers to small irrigation farmers' access to land, especially for women. Increased urbanisation in Ghana has made access to land a key issue in production, even in rural areas where tenure is common. This outcome

supports previous findings by Akudugu *et al.* (2009), that access to land is a key determinant of women's access to credit from rural banks.

Furthermore, a negative significant relationship was found between farmers access to output markets and credit utilisation. This suggests that farmers' access to market does not contribute to increased credit utilisation. This is unexpected, because the more farmers have access to the market, the likelihood to utilise credit for investments in irrigation technologies to produce more, sell more, and get more income, is raised. This may be attributed to the infrastructure and price information constraints faced by smallholder vegetable farmers in an effort to sell their produce. At the same time, only a few (3.6%) of farmers from the sample actually utilised credit during the 2016 production year. The level of credit utilisation among smallholder vegetable farmers, therefore, remains low. This has financial policy implications for both government and private sector players in the design and implementation of targeted credit schemes for smallholder farmers for efficient credit utilisation in production.

Saving with a financial institution has great advantages in helping farmers to develop a savings culture, build a credit history with the institution, and serve as collateral for them to access loans. The possession of saving accounts by farmers is shown to impact positively and significantly on their ability to utilise credit. Promoting financial inclusion among vegetable farmers through the opening of bank accounts and strengthening of bank/financial literacy is one viable policy implication for this result. This result confirms the findings of Dzadze *et al.* (2012), who reported the positive influence of savings habit on formal credit utilisation in the Central Region of Ghana.

Table 6 shows that, with the exception of farm size and perception of land as a constraint, all the other variables are insignificant. The coefficient of credit accessibility is positive but statistically insignificant. This further confirms that access to credit does not influence the decision of farmers to adopt irrigation technology. Farm size is revealed to have a negative significant influence on the decision of farmers to adopt irrigation technology. This suggests that as the size of farm increases, farmers become reluctant in practicing irrigation technologies. This is relevant, especially in the case of technologies that are labour-driven. Furthermore, the perception of land as a constraint has a negative significant influence on farmers' decisions to adopt irrigation technologies, demonstrated at smallholder level. This means that where land

constraints exist, irrigated farmers are not likely to invest in technologies designed to increase productivity.

**Table 6: Profit estimate of farmer decision to adopt irrigation technology**

Variable	Coefficient	Std. Error	z	Pr.  z >Z*
Farmers' age (AGE)	0.0202	0.0155	1.30	0.1927
Farmer experience (EXP)	-0.0262	0.0212	-1.24	0.2162
Credit accessibility (CRA)	0.5677	0.3591	1.58	0.1139
Farm size (FMS)	-0.3924*	0.2006	-1.96	0.0505
Perception of land constraint (PLC)	-0.5736*	0.3352	-1.71	0.0871
Trust in financial institution (TFI)	0.0328	0.3474	0.09	0.9247
Access to remittances (REM)	0.0984	0.3407	0.29	0.7726
Access to market (MKT)	0.5350	0.4427	0.12	0.9038
Extension contact (EXT)	-0.0096	0.03354	-0.29	0.7729
Farmer category (FAC)	-0.2508	0.3999	-0.63	0.5305
Savings (SVS)	-0.04482	0.3415	-0.13	0.8956
Constant	1.2786*	0.76671	1.67	0.0954

\*\*\*, \*\*, \* implies significance at 1%, 5%, 10% level respectively.

Other parameters: F = 48.626; Log likelihood function = -48.2968; Restricted Log likelihood = -56.4024; Prob >Chi<sup>2</sup> = 0.143; McFadden Pseudo R<sup>2</sup> = 0.143; Hosmer-Lemeshow Chi<sup>2</sup> = 15.4937; P-Value = 0.0084.

## CONCLUSION AND POLICY IMPLICATIONS

This study has analysed the link between access to credit and the decision of smallholder irrigated vegetable farmers to adopt irrigation technologies in northern Ghana, using primary data collected from 110 farmers concentrated in two locations. Access to credit was decomposed into two levels (credit accessibility and credit utilisation) and used alongside with the decision of farmers to adopt irrigation technology, as dependent variables, to estimate three different probit models.

The results show that a weak link exists between farmers' decision to adopt improved irrigation technologies, and access to credit and utilisation. The limited number of farmers in the sample (3.7%) that used credit during the 2016 cropping season could account for this observation. Applying the same methodology to a sample of farmers with complete access to credit is one way this study could be extended.

The high costs of inputs, limited use of water pumping machines, and access to credit are highly ranked production constraints facing SSI farmers in northern Ghana. The use of a watering can for irrigation purposes still dominates among farmers, though there is growing interest among farmers in using motorised pumps for water lifting. The majority of farmers (82%) in the study area, involved in vegetable production, still do not have access to any form of credit from both formal and informal sources. This calls for more involvement from the private sector in agricultural financing and the setting up of innovative financing schemes by the government for the sector.

The study revealed that the age of farmers, trust in the financial institution, access to remittances, and access to effective extension services, are significant factors that influence farmers' credit accessibility. Any policy that is focussed on deepening extension services such as the 'Planting for Food and Jobs' flagship programme, where community extension agents would be recruited, trained and deployed to strengthen extension service delivery, is a step in the right direction. Furthermore, the perception of land as a production constraint, access to markets, and possession of a savings account are significant factors that influence small-scale irrigated vegetable farmers' credit utilisation in the study villages of northern Ghana.

To make credit more accessible to smallholder farmers, private sector participation in the development and implementation of farmer-friendly credit packages is necessary. At the policy level, there is need to grant tax incentives to private FSPs who tailor lending to smallholder farmers. The promotion of the national financial inclusion strategy by various stakeholders involved in implementing the programme needs to be strengthened and increased more effectively to help increase the number of marginalised groups and individuals who still do not have any bank account to operate. This will significantly impact on credit accessibility and utilization by farmers.

Strengthening farmer education through extension service delivery has greater prospects in supporting them to develop record keeping skills, analysing basic credit



terms and improve their savings' ability. This will likely impact on their ability to access credit from FSPs to support their operations. Also, investing more in basic market infrastructure, market information generation and dissemination, and linking vegetable producer associations to various consumer groups and institutions, will help address pricing and marketing challenges that farmers currently face.

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**SUSTAINABILITY MARKET ORIENTATION: AN ALTERNATIVE  
STRATEGIC ORIENTATION**

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**ABSTRACT**

Research on strategic orientations is currently ongoing to establish a strategy that delivers the highest competitive advantage or firm profitability. Consequently, there are calls for revising market orientation. This paper provides an alternative to market orientation. Due to the weakness of market orientation to handle stakeholder issues or macro-marketing issues, sustainability market orientation is presented as an integrative concept that combines the strengths of market orientation, macro-marketing issues, sustainability issues and stakeholder concerns. The stakeholder theory and resource advantage theory are used to examine sustainability marketing. The deployment of sustainability market orientation could deliver firms with superior performance, more than practicing market orientation.

**INTRODUCTION**

Marketing scholars and practitioners over the last century have advanced arguments in support of market orientation (Hinson, Abdul-Hamid & Osabutey, 2017). Market orientation is believed to provide firms with superior organizational performance (Mahmoud, 2016). Market orientation is also considered by some scholars as an organizational culture which efficiently and effectively creates behaviours necessary for the creation of superior firm performance (Hinson *et al.*, 2017). Some weaknesses have been established in utilizing market orientation alone, and accordingly, some other strategic orientations have been introduced to augment the benefits of practicing

market orientation alone (cf. Hinson *et al.*, 2017). Some of these strategic orientations are firm positioning (Blankson *et al.*, 2013); entrepreneurship (Boso *et al.*, 2013); innovation (Naidoo, 2010), and corporate social responsibility (Mahmoud *et al.*, 2017). Revelations from these previous studies have together argued that a combination of other strategic orientations to market orientation delivers improved organizational performance (cf. Hinson *et al.*, 2017; Boso *et al.*, 2013). Leveraging on the concept of level of analyses, the extant discussion on market orientation seems to have been discussed at the micro levels, while neglecting the macro level issues (Mitchell, Wooliscroft & Higham, 2010). Thus, the focus on market orientation has been on the immediate business surroundings, comprising of customers, competitors and firms. Granting that the developed micro level strategy (market orientation) has delivered some organizational benefits to practitioners, the fact remains that there are some other factors of a business landscape that are neglected, and whose concerns have not been included in strategic development and implementation (cf. Mahmoud, 2016). These other environmental factors, such as social environment, ecological environment, and technological environment, are highly uncontrollable and could form the basis to market orientation strategy development.

In addition, market orientation lacks the ability to meet the requirements of all organizational stakeholders as it focuses on some stakeholders, for example customers (Mahmoud, 2016). With the organizational benefits secured from practicing market orientation single-handedly, firms that incorporate other organizational stakeholders in deploying market orientation, may achieve superior organizational performance than those firms that deploy 'traditional' market orientation. Therefore, this paper calls for the integration of stakeholders into the development of market orientation. This call might be an emphasis on the need to deliver customer requirements profitable without compromising society (Martin & Schouten, 2014). Thus, the societal marketing philosophy supports this thought. Due to the criticisms razed against market orientation or the practice of market orientation, the need to provide a replacement to the market orientation construct seems to be timely, especially at a time that businesses are in search of strategic options to survive and grow in turbulent competitions, highly regulated markets, and with sophisticated customers.



As such, sustainability market orientation is advanced as an alternative strategy or natural replacement to traditional market orientation. Sustainability market orientation is an organizational philosophy that combines market-oriented principles, sustainable development, stakeholder approach, and macro-marketing systems' management approach to balance social equity, environmental integrity and economic prosperity (Mitchell *et al.*, 2010; Crittenden *et al.*, 2011; Mahmoud, 2016; Lim, 2016).

This paper will add to the literature on sustainability through sustainability market orientation. This paper contributes to the existing sustainability literature in three manners. Firstly, it proposes a sustainability market orientation as a replacement to traditional market orientation. Secondly, sustainability market orientation constructs are specified for further investigations on the concept. Thirdly, the paper presents some propositions for empirical verification by researchers.

The remainder of the paper is organized as a discussion of the sustainability and marketing nexus; sustainability marketing; sustainability market orientation; conceptual framework; and discussions, conclusions and future studies.

## **REVISITING SUSTAINABILITY AND MARKETING CONCEPTS**

The concept of sustainability has implications for several management disciplines, including marketing. Accordingly, concepts like sustainability marketing, sustainable marketing and green marketing are available in the extant marketing literature (Kumar, Rahman & Kazmi, 2016). Most discussions on the concept of sustainability are conversed along the lines of sustainable development or the triple bottom line (Crittenden, Crittenden, Ferrell, Ferrell & Pinney, 2011). Notwithstanding the perspective of a conversation, the sustainability concept is usually conceptualized on economic, environment and social dimensions (Kumar, Rahman & Kazmi, 2013). Thus, the sustainability practices of an organization are assessed by its economic, environment and social impacts (cf. Crittenden *et al.*, 2011). Similarly, sustainability marketing is discussed on how marketing activities and decisions interface with economic, environment and social outcomes (Lim, 2016). There have been some arguments on whether sustainability and marketing can be harnessed together since sustainability argues for reduction in consumption whiles marketing promotes consumption (cf. Jones, Clarke-Hill, Comfort & Hillier, 2008).

Previous sustainability marketing scholars have addressed the sustainability and marketing relationships (Jones *et al.*, 2008; Gordon, Carrigan & Hastings, 2011). Consequently, there are extant attempts providing a conceptualization for sustainability market orientation. For example, Mitchell *et al.* (2010) conceptualized sustainable market orientation by examining the existing three sustainability constructs and market orientation. Thus, to them sustainable market orientation comprises of a firm's economic, social, environment and market-orientedness. In a similar conceptualization, Mahmoud (2016) empirically evaluated sustainable market orientation as a strategic tool for banks in Ghana. The Mahmoud (2016) paper found that sustainable market orientation resulted in sustainable firm performance. Crittenden *et al.* (2011) also conceptualized market-oriented sustainability to include core ideology, dynamic capabilities, and societal engagement. To them, these constructs, when moderated with stakeholder involvement, will result in organizational performance. Finally, Lim (2016) presented a conceptualization of sustainability marketing where the dimensions included social, economic, environment, technology and ethics.

Clearly, there may not be a universally accepted conceptualization of sustainability market orientation. The phenomenon of sustainability issues in marketing is ongoing, with varied understanding on how to examine market-oriented sustainability. The need to explore management views on sustainability is relevant to the extent that it may provide insights on why and how organizations are practising sustainability.

In 2010, Ferdous noted that there was little evidence on the manager's perspectives or views on sustainability. Therefore, this paper provides an avenue for the views of management on sustainability management to be examined. In the sustainability management literature, there are arguments about a variation in meaning of the concept of sustainable marketing and that of sustainability marketing. Belz and Peattie (2012) argued that sustainable marketing is quite narrow, while sustainability marketing is broader. To them, 'being sustainable could mean being long-lasting or durable, and thus sustainable marketing is building long-lasting customer relationships effectively - without any particular reference to sustainable development or consideration of sustainability issues, whereas sustainability marketing relates more explicitly to the sustainability agenda (cf. Belz & Peattie, 2012). Consequently, the

choice of sustainability market orientation is over sustainable market orientation, as used by Mitchell *et al.* (2010) and Mahmoud (2016).

### **Sustainability marketing (SM)**

Sustainability is a significant concept in modern markets. Sustainability marketing (SM) encompasses a philosophy and a range of activities (Villarino & Font, 2015). SM is a derivative of the concept of sustainable development, which extends the marketing theory to include social (equity and equality), economic and ecological issues (Nkamnebe, 2011). According to the Brundtland Commission, sustainable development refers to “development that meets the needs of the present without compromising the ability of future generations to meet their own needs (WCED, 1987, p.43). Nkamnebe (2011) argued that SM lacks a universal definition due to its enigmatic nature, however, SM is a situation where a social structure can be preserved profitably and forever, without debasing the systems on which it depends (Isaksson & Steimle, 2009). More so, SM is the building and maintaining of sustainable relationships with customers, the social environment and the natural environment (Belz & Peattie, 2009). In addition, SM is maintaining the resiliency of the common pool resources that are used by all, but owned by none, such as clean air, clean water, and the like (Espinosa & Porter, 2011). And more recently, SM is seen as a process of creating, communicating, and delivering value to customers, in such a way that both natural and human capital are preserved, or enhanced, throughout (Martin & Schouten, 2014). Sustainability marketing is arguably a ‘megatrend’ and going to have similar impacts, like total quality management on firms who implement it (Tollin, Christensen & Wilke, 2015).

### **Market orientation**

Market orientation is a core philosophy underlying corporate marketing management (Mitchell *et al.*, 2010). The concept of market orientation is well-researched concept. Market orientation is the implementation of the marketing concept and is considered a cultural orientation (Slater & Narver, 1995; Olavarrieta & Friedmann, 2008; Hinson *et al.*, 2017). There is much evidence suggesting that market-oriented culture can determine firm performance (Mahmoud, 2016), with a developing mind-set that market orientation alone may not deliver the needed firm performance (cf. Hinson *et al.*, 2017; Mahmoud *et al.*, 2017). As such, several complementary theorists have postulated

that market orientation should joint with corporate social responsibility (Mahmoud *et al.*, 2017), positioning (Hinson *et al.*, 2017), entrepreneurship (Boso *et al.*, 2013), and innovation (Naidoo, 2010). All this evidence provides indication that market orientation requires to be re-examined and should consider other stakeholders of firms.

### **Sustainability market orientation (SMO)**

Sustainability market orientation (SMO) is a strategic orientation that applies balanced and equitable intergenerational management of environmental, economic and social resources (Mitchell *et al.*, 2013). SMO is an organizational philosophy that combines market-oriented principles, sustainable development, stakeholder approach, and macro-marketing systems' management approach to balance social equity, environmental integrity and economic prosperity (Bansal, 2005; Mitchell *et al.*, 2010; Crittenden *et al.*, 2011; Lim, 2016). SMO is argued to provide firms with a competitive advantage (Crittenden *et al.*, 2011; Mahmoud, 2016). Extant marketing literature has attempted the combination of some or all of these constituents of SMO (Mitchell *et al.*, 2011; Mahmoud, 2016). According to Mahmoud (2016), SMO can be leveraged to secure enhanced firm performance. This may due to the fact that an organizational culture is a source of sustained competitive advantage and superior performance (Olavarrieta & Friedmann, 2008). A market orientation might increase a manager's level of awareness about sustainability marketing strategy (Crittenden *et al.*, 2011).

According to Knosmanen and Knosmanen (2009), sustainability is generally accepted as one of the key success factors driven by ethical and moral notions to achieve long-term business goals and objectives. In a study conducted by Nguyeu and Slater (2010), two out of three companies on the Fortune list of 'Global 100 Most Sustainable Corporations' outperformed the less sustainable competitors. The outcome of the study (Nguyen and Slater, 2010) agreed with the definition of sustainability given by Porter and Kramer (2006), where it was suggested that sustainability is a strategy for creating competitive advantages in business. Previous studies (Verbeke, 2003; Camino, 2007; Fraj-Andres, 2008) have attested that sustainability is a business practice that should be assessed in terms of economic, environmental and social dimension. Having established the scholarly positions, it is pertinent to assert that marketing perspective to developing sustainability strategy will lead to the concept of sustainability marketing. The adoption of sustainability marketing as an important

approach in business is meant to create real value for a brand when it is viewed from consumers' perspective (Hult and Ketchen, 2001).

This paper extends the contribution of Mitchell *et al.* (2010) and Mahmoud (2016) on the conceptualization of sustainability market orientation by adding an ethical orientation and technological orientation to social orientation, economic orientation and environmental orientation. The Mahmoud (2016) paper added market orientation to the sustainability market orientation constructs which this paper argues that such an addition is inappropriate. Therefore, the advanced sustainability market orientation constructs are: ethical orientation, technological orientation, social orientation, economic orientation and environmental orientation (cf. Lim, 2016).

## **THEORY BACKGROUND**

A lot of management or organizational theories could be used to explore sustainability marketing. The following theories are identified as theories with capabilities of explaining sustainability marketing practices of firms (Connelly *et al.*, 211).

In the extant marketing literature, there seems to be an agreement that marketing erstwhile focused primarily on customer and firm relationships, even though there was an acknowledgment of a firm's responsibility to deliver profits to shareholders (cf. Bhattacharya & Korschun, 2008; Freeman, Harrison, Wicks, Parmar & de Colle, 2010). Contrary to that view, marketing has been proven to interface between society and firms (Freeman *et al.*, 2012), resulting in the utilization of the concept of stakeholders. Stakeholders are persons or groups with interest in an entity (Maignan, Ferrell & Ferrell, 2005). They include customers, employees, shareholders, pressure groups, the public, and government, among others. Consequently, the adaption and adoption of the stakeholder theory by marketing scholars in examining marketing phenomena, serves as a guide and warning to marketing managers, focused not only on a small set of stakeholders, which is considered as inappropriate (Kotler, 2003; Bhattacharya & Korschun, 2008). The sustainability literature similarly espouses a stakeholder induced argument when it leverages on the concept of dependability where business depends on society for resources, and society depends on businesses for solutions. Indeed, several firms are adopting sustainable practices due to stakeholder pressure (Font, Walmsley, Cogotti, McCombes & Hausler, 2012). As a result, an investigation

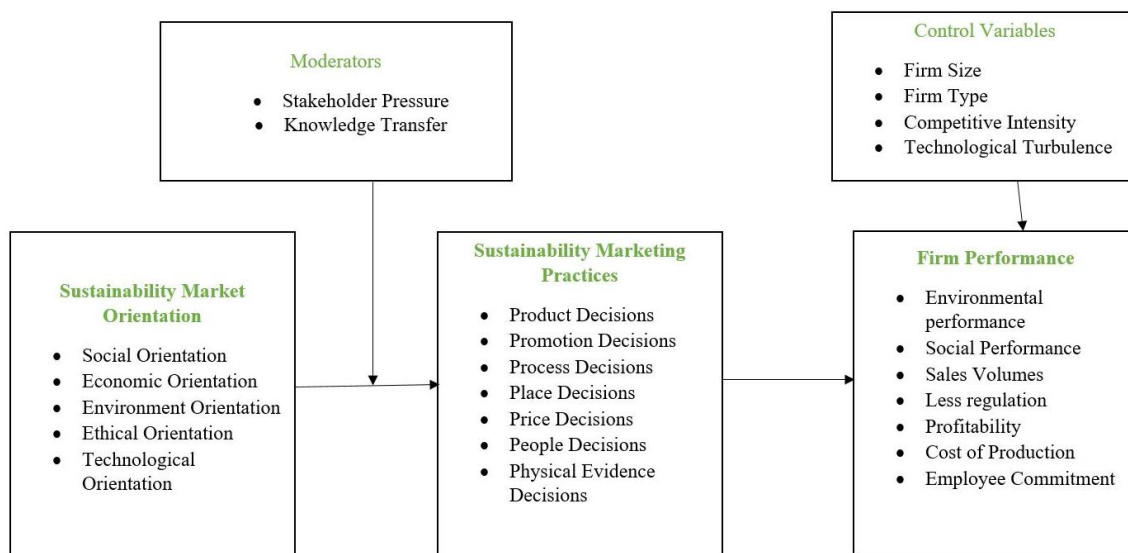
into sustainability market orientation cannot flourish without the stakeholder theory serving as its theoretical underpinning. In addition, it is arguable that earlier utilizations of the stakeholder theory in marketing embraced the theory in its complete form (Freeman *et al.*, 2012). As such, the stakeholder theory may be deployed in examining the sustainability market orientation of managers. In addition, the resource advantage theory postulates that firms can achieve superior performance by occupying marketplace positions of competitive advantage. This is achieved via management decisions that transform distinctiveness in resources into a market offering that is valued by one or more market segments (Green, Toms & Clark, 2015).

The RA theory comprises of a firm's core competencies, which are higher-order resources, that can be categorized as financial, legal, physical, organizational, human, relational and informational (Prahalad & Hamel, 1990). Market oriented firms are believed to create corporate cultures that serve as foundations for building a competitive advantage strategy, which determines firm performance (Narver & Slater, 1990; Manzano *et al.*, 2005). Due to the current focus on delivering social and environmental benefits, in addition to the traditional economic benefits (Elkinton, 1998), sustainability market orientation becomes a natural replacement to the concept of market orientation. Sustainability has become a key success factor to most organizations as it is believed to increase market opportunities and reduce risks (Kuosmanen & Kuosmanen, 2009). Consequently, the reconceptualization of market orientation to sustainability market orientation will deliver firms superior performance. Consistent with the RA theory, the incorporation of sustainability mind-sets into firm activities will lead to superior performance (Ferrell, 2010).

### **Conceptual framework**

The sustainability market orientation, and its relationships with sustainability marketing practices, and their impact on firm performance, are discussed in this section. In extant marketing literature, the concept of marketing mix comprises of: product decisions, price decisions, place decisions, promotion decisions, people decisions, physical evidence decisions, and process decisions. Consequently, these controllable elements are utilized to understand how managers who share sustainability views are practicing marketing.

As may be seen in Figure 1, having a sustainability mind-set may result in practising sustainability marketing practices, especially when moderated by shareholder pressure and knowledge transfers. Thus, firms may only practice sustainability marketing when managers are mindful of sustainability management. The engagement in sustainability marketing practices will lead to enhanced firm performance. Future researchers are reminded to control factors including firm size, firm type, competitive intensity, and technological turbulence. These factors are known to impact firm performance and would allow researchers to estimate accurately the consequences of sustainability market orientation. The explication of each item on Figure 1 are provided below the figure.



**Figure 1: Sustainability Market Orientation Consequences**

Source: Based on extant literature

The sustainability market orientation is measured on five dimensions (see Figure 1). These dimensions include: social orientation, economic orientation, environmental orientation, ethical orientation, and technological orientation.

### Economic orientation

Economic sustainability is a must for human welfare. It can be defined as the ongoing ability of an economic system to provide all human needs. The global economy is, without a doubt, the system with the greatest impact on both society and the natural environment. The world’s human population depends on economic systems for virtually all material needs. When the economy suffers, people suffer, and the reverse is also true. The economy depends on human productivity. People who are hungry, homeless, or ill have less opportunity to contribute economically to their communities

than people who are healthy and prosperous. Economic sustainability is always a must for human wellbeing. Economic sustainability is the ongoing ability of an economic system to provide for all human needs (Martin & Schouten, 2014). The global economy is, without a doubt, the system with the greatest impact on both society and the natural environment.

### **Social orientation**

According to Martin and Schouten (2014), social sustainability refers to the ongoing ability of communities to provide for the well-being of their members. Healthy, thriving communities provide for the overall health and welfare of their members. In order to lead fulfilling and productive lives, people need access to goods, such as food, medicines, and clothing, and to services, such as housing, transportation, health care, education, and recreation. In addition, people need opportunities to participate in and contribute to community processes.

### **Ecological orientation**

This is also known as environmental orientation. In examining the sustainability of firm executives, their views of the environmental degradation are considered. Proponents of this orientation have argued that without functioning ecosystems, social and economic systems break down (Martin & Schouten, 2014). The environmental sustainability dimension emanates from the growing demand on scarce resources and the pollution generated by the rising living standards of the relatively affluent (Martin & Schouten, 2014). According to these authors, poverty pollutes the environment, creating environmental stress in different ways.

### **Ethical orientation**

The concept of ethics in marketing may be traced back to the 1960s (Murphy, 2005). Several other marketing scholars have examined marketing phenomena using ethical theories (Laczniak & Murphy, 1993; Murphy *et al.*, 2005; Schlegelmich & Oberseder, 2009). Ethics in marketing may be seen as the application of moral standards, including dictums of right and wrong to marketing decisions, behaviour, practices, and institutions (cf. Laczniak, 1999). Ethics have been conceptualized in sustainability to include ethics of the mean/power, precautionary principle, responsibility and power equilibrium, planetary ethics, and the environment as a stakeholder (Murphy, 2005).



## **Technological orientation**

Much of the hope for a sustainable society depends on the development of new technologies. Implicit in the development of new technologies is innovation. Firm sustainability with technological orientation describes the preparedness of managers to implement new technologies that deliver value to both firms and customers, without compromising the needs and welfare of future generations. Commitment to sustainability can drive innovation in products and processes.

## **Sustainability marketing practices**

McCarthy translated the '4Ps' (product, place, price and promotion) of marketing into '4Cs' (customer solutions, customer cost, convenience and communication) (Peattie & Belz, 2010), as sustainability criteria, into marketing strategy. According to Obermiller, Burke and Atwood (2008), the focus for adopting sustainability marketing strategy is to achieve competitive advantage, through a position that is desirable, different and defensible. Sustainability marketing strategy not only helps through the 4C criteria defined by McCharty to achieve a competitive advantage, but also to open doors for cost-savings and innovation (Whiting, 2008), as companies cannot compete successfully if they cannot be sustainable by being innovative and cost saving. In addition, Kumar *et al.* (2012) posited that sustainability marketing strategy should be focused on segmentation, targeting and positioning customers or markets, on the basis of sustainability criteria in terms of 4Ps and 4Cs.

'Green' products, generally meaning products that are less damaging to the environment, or human health, than traditional equivalents, began to emerge in the late 1980s. Sustainable pricing comprises of the economic, environment and social cost associated with the manufacturing and marketing of a product (goods or services). Pricing that violates the four system conditions in the Natural Step Framework is a price that fails to include the costs of eliminating or offsetting greenhouse gas emissions, and a price that is kept low through the systematic use and disposal of new synthetic compounds. Consequently, firms could use sustainability management in their pricing decisions. The place decisions relate to the decisions of management about marketing channels. Through sustainability, place decisions deliver business performance and value to customers, while building environmental and human capital. Some of the considerations of place decisions are

branch locations, and the raw material used to build branches. In addition, the promotional activities of marketers seem to be noticed through the materials used, sending messages to consumers.

### **Consequences of SMO**

There are a number of outcomes in the practice of sustainability marketing. These outcomes are either negative or positive outcomes. Many management concepts have consequences for adopters and non-adopters. The sustainability concept equally has a number of consequences. Some of the consequences are brand performance and sustainable performance (Mahmoud, 2016); product preference (Luchs, Naylor, Irwin & Raghunathan, 2010); competitive advantage, lower costs, innovation, better workforce, differentiation, being ahead of regulation (Martin and Schouten, 2014); equity and economic growth (Hunt, 2011); green customers, green products, re-manufactured, BTO products (Sharma *et al.*, 2008); and promoting economic development and raising living standards (Gordon *et al.*, 2011). Performance can have a variety of meanings (e.g., short or long term, financial or organizational benefits), and it is generally viewed from two perspectives in previous literature. Firstly, there is the subjective concept, which is primarily concerned with the performance of firms relative to that of their competitors (Golden, 1992). The second view refers to the objective concept, which is based on absolute measures of performance (Chakravarthy, 1986; Cronin & Page, 1988). For this study, a subjective rather than an objective approach was used for the following two reasons. Firstly, in Chinese societies, such as Hong Kong, company information is usually regarded as highly confidential to external parties or outsiders. Respondents may be reluctant to provide hard financial data. Secondly, past studies have reported a strong association between objective measures and subjective responses (Dawes, 1999; Jaworski & Kohli, 1993).

The diversity of performance measures used in the literature constitutes an additional source of methodological heterogeneity. In general, the measurement of organizational performance has been a traditional research field in strategic management (Connolly, Conlon & Deutsch, 1980; Marr & Schiuma, 2003). Several classification criteria have been proposed. In order to clarify this, it is possible to distinguish between effectiveness and efficiency measures. The former refers to the consolidation of a strong market position, for example, customer satisfaction, image

and reputation, sales, market share, or new product success. The latter refers to optimal resource allocation - for example, benefit, profitability or ROI. A distinction between situation measures, related to current performance and trend measures, related to the change in performance, can also be made. In this line, Baker and Sinkula (1999a, 1999b) distinguished between the effectiveness dimension of performance, related to success, in comparison to competitors, and adaptability measures, related to the success in responding over time to changing conditions and opportunities in the environment.

Venkatraman and Ramanujam (1986) suggested a two-dimensional classification scheme. In one way they differentiate between financial and operational indicators, but in contrast, they also distinguish between primary and secondary sources of information. Financial measures are related to accounting measures and economic performance, for example, profit or sales. Operational measures refer to the operational success factors that might lead to financial performance, for example, customer satisfaction, quality, market share or new product development. Data for primary measures are collected directly from the organization, while information for secondary measures are collected from external databases.

An additional interesting classification distinguishes between objective and subjective measures. The former refers to performance indicators impartially quantified. They are generally financial indicators obtained directly from organizations or through secondary sources. The latter refers to the judgmental assessment of internal or external respondents. They usually cover financial and operational/commercial indicators. Some studies have found consistency between objective and subjective measures (e.g. Covin, Slevin & Schultz, 1994; Dawes, 1999; Dess & Robinson, 1984; Han *et al.*, 1998; Hart & Banbury, 1994; Pearce, Robbins & Robinson, 1987; Venkatraman & Ramanujam, 1987). Nevertheless, they also recognize the existence of some divergences, and the convenience of both approaches. In particular, several studies, centred on the relationship between market orientation and performance, have reached different conclusions, depending on the consideration of objective or subjective measures of performance. Almost 50% of these studies reported a stronger relationship for subjective performance than for objective performance (Agarwal *et al.*, 2003; Balabanis, Stables & Phillips, 1997; Gray *et al.*, 1998, 1999; Jaworski & Kohli, 1993; Martin & Grbac, 2003; Schlegelmilch & Ram, 2000; Selnes *et al.*, 1996). On the

contrary, only 20% reported a stronger relationship for objective, rather than for subjective performance (Atuahene-Gima & Ko, 2001; Hooley, Lynch & Shepherd, 1990; Voss & Voss, 2000).

### **Control variables**

Different organizations are affected by different numbers of environmental factors. External environmental factors change rapidly, are uncertain, and complex, and also create problems for organizations. Any organization ignoring or being unresponsive environmental factors is inviting trouble. Hotel external environment factors affect the relationship between strategic planning and performance (Phillips, 1999). Competition is a key characteristic of the external environment. Within their competition, environment hoteliers tend to understand the strengths, weaknesses, and performance associated with providing specific products or services when seeking information about customers, and modifying their offerings based on customer data. Market turbulence describes the rate of change in customer composition and customer preferences (Kohli & Jaworski, 1990; Slater & Narver, 1994; Subramanian & Gopalakrishna, 2001). As the pace of change accelerates, the need for managers to change their products and services grows. Also, a hotel rating represents the resources and strengths of a hotel. This means that a higher rating hotel may perform better than lower rated hotels. However, the study combines data from both low and high rated hotels, making it necessary to control for the differences in rating (Agarwal *et al.*, 2003).

Several researchers have argued that links between market orientation and performance depend on organizational environment (Jaworski and Kohli, 1993), for example, the relationship between market orientation and performance may be moderated by market and technological turbulence and competitive intensity (Kirca *et al.*, 2005; Qu & Ennew, 2003; Rose & Shoham, 2002; Subramanian *et al.*, 2009). This study adopts external environmental factors based on the concept of Jaworski and Kohli (1993), including market turbulence and competitive intensity.

## **DISCUSSIONS AND IMPLICATIONS**

The recent discussions on the need for firms to adopt or practice sustainability practices makes the conversation on sustainability marketing timely. Managers are

quite familiar with the propositions of market orientation, where the focus is on the customer, this means being customer orientated, competitor oriented and inter-functional coordinated (Narver & Slater, 1990; Hinson *et al.*, 2017). This paper argues for economic, social, environment, technological, and ethical orientedness as propositions of sustainability market orientation.

## **CONCLUSION AND DIRECTION FOR FUTURE RESEARCH**

This study argued that sustainability market orientation is a replacement to 'traditional' market orientation. Based on extant literature and contemporary development, sustainability is receiving high attention in boardrooms, and many governmental or regulatory agencies are discussing the benefits of implementing sustainability practices. The deployment of sustainability market orientation could deliver firms with superior performance over practicing market orientation. Many of the conceptual underpinnings of sustainability marketing have been provided for scholars (Gordon *et al.*, 2010). However, there is a gap in literature on the sustainable practices of Ghanaian firms in exception of Hinson *et al.* (2015) and Mahmoud (2016). These contributions focused on sustainable communications and sustainable market orientation which are all sub-disciplines in marketing. Consequently, there is a need for conceptualizations from Ghana on the sustainability marketing practices of firms. In addition to the conceptual contributions, theory has not been fully utilized to examine sustainability marketing. In response to the call of Connelly *et al.* (2011), there are opportunities for using a single theory or a combination of theories to explain sustainability marketing. Finally, more conceptual and theory-based papers on sustainability marketing are needed to agree on the definition, antecedents and consequences of sustainability marketing.

Sustainability is a key concept of both organizations and marketing researchers. Regarding the future, continuing debate about concerns about population growth, climate change, and associated developments, may make sustainability a strategic imperative for firms and researchers. Marketing as a discipline constantly evolves, and as such, the inclusion of sustainability issues into the definition of marketing is expected, if not already espoused by scholars and associations, like the American Marketing Association or Chartered Institute of Marketing. The use of stakeholder theory, resource dependence theory, social network theory and the value co-creation

concept (service dominant logic) will help researchers conceptualize and contribute to sustainability marketing. This view is arrived at due to the ability of these theories to explain relationships, which is a strategic imperative in business markets. Thus, the openness of sustainability cannot be achieved without the support of other players (stakeholders) in the business market.

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**E. F. Adanlawo, H. Rugbeer, G. M. Naidoo and M. M. Reddy**  
**CSR INITIATIVES COMMUNICATION BETWEEN LANDLORD AND**  
**TENANTS: A STUDY OF THREE SHOPPING MALLS WITHIN KZN,**  
**SOUTH AFRICA**

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## **ABSTRACT**

The locality of shopping centres/malls within communities has resulted in landlord and tenants to be more inter-dependent with each other. This study examined the relationship between the parties in fostering sustainable development to communities, through the use of corporate social responsibility (CSR) initiatives. The study focused on three different types of shopping centres from within the King Cetshwayo District Municipality, KwaZulu-Natal, South Africa. Knapp's relationship escalation and termination model was used to analyse the relationship between landlord and tenants, and how the relationship could be maintained (maintenance) to result in CSR projects for community development. This study combined the use of both qualitative with quantitative research methods. The findings show the practical implications of the model proposed in this study, which focuses on eliminating the communication challenge which obstructs CSR projects' implementation.

**Keywords:** CSR, Effective communication, Landlord, Tenants, Relationship escalation, Termination model.

## **INTRODUCTION**

The locality of shopping centres/malls within communities has made many businesses owners relocate to centres/malls and this has invariably changed the economic landscape for many businesses that were operating in isolation. The concept of a shopping centre/mall has instigated many businesses to come together to operate within this environment. It is more convenient for consumers to patronise the centre, and at the same time, retail shop owners have benefitted from increased sales that were brought about being under one roof with many shops. The landlords of shopping centres/malls, with their tenants, have been inter-dependent with each other, as one cannot do without the other. This develops a relationship between the tenants and the landlord of the shopping centre. Shopping centres that are established by multi-national companies are considered to use corporate social responsibility (CSR) initiatives with their tenants to assist in community development. The anchor tenants within these shopping centres/malls are responsible to the local community to provide CSR projects, such as job creation, and in return for this, they also depend on the local residents to purchase products from their businesses. Most of these retailers (tenants) and their landlords are multi-national branded companies, which operate both locally and internationally. It is believed that if the two parties, landlord and tenants, could work collaboratively in terms of CSR, it would mean well for the community in which they operate. The research study is based the premises that the landlord and the tenants ought to work together using CSR in bringing sustainable development to the community where their businesses are located.

The focus of this study is to find out if the multi-nationals who own shopping centres (landlords), partner with their various tenants to achieve corporate social responsibility (CSR) initiatives, as a way of giving valuable assistance to the development of the communities in which they operate their businesses. As the business of shopping centre is a collaborative business that involves landlord and tenants, consumers, as well as local community residents, may ask the question of what are the landlords, together with their tenants, are doing to be more socially responsible in the

communities in which they do business. As business organisations, shopping centre owners are regarded as corporate citizens who perform the duties of a citizen in society. According to Moon *et al.* (2003:3), business responsibility to its stakeholders is the reason why business has to assume the identity of a citizen.

This study focused on three different types of shopping centres: a regional shopping centre, represented by Boardwalk Inkwazi Shopping Centre at Richards Bay, a small regional centre, represented by Sanlam Centre at Empangeni, and a community centre, represented by Esikhawini Shopping Mall. All the three shopping centres are located within the King Cetshwayo District Municipality. The respondents for the study were the management of these centres/malls, and the local residents of the three communities in which the centres are located. The survey method was a questionnaire, administered to one-hundred and fifty respondents in each of the three communities, making a total of 450 questionnaires in all. This was complemented by interviewing the management of the shopping centres.

## **PROBLEM AND PURPOSE OF THE STUDY**

The social-economic problems facing South African society are numerous, ranging from an unemployment rate that is currently 27.7% (Stats SA, 2017a), and the HIV/Aids epidemic with 12,6% of the total population estimated to be living with HIV (Stats SA, 2017b). As a popular Yoruba (from Nigeria) adage would say, 'A single hand cannot lift luggage on the head'. The government alone cannot face and solve these numerous problems. So, therefore, all the stakeholders, including shopping centre landlords, partnering with their tenants, must play the role and duties of corporate citizens by coming up with plans that will bring about a solution to the numerous problems facing society.

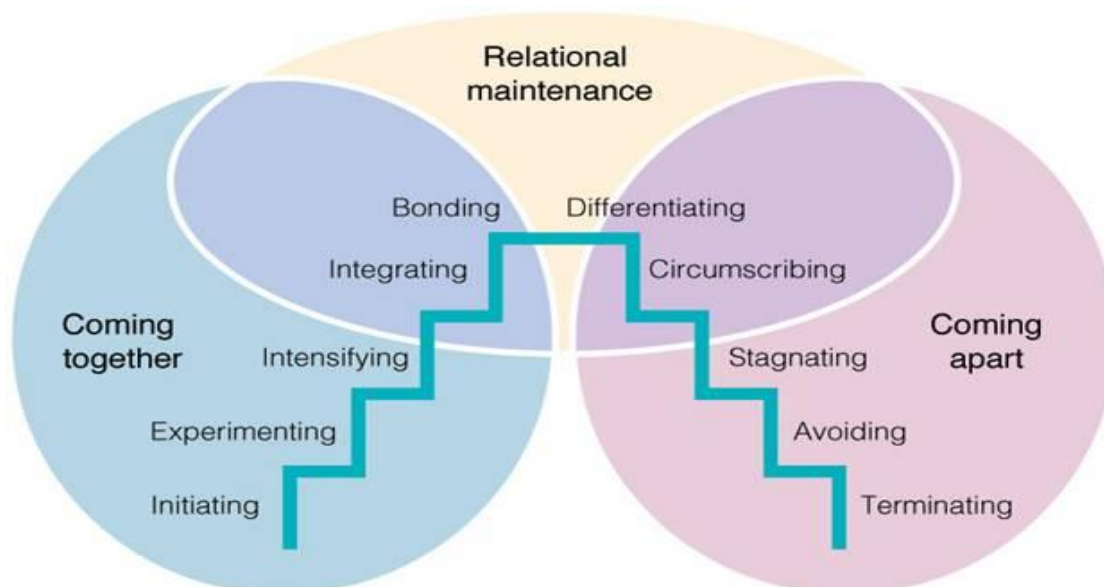
It is the belief of the authors that if every single business assist community development in the communities that those businesses operate, the social-economic challenges faced by South Africa will be reduced and perhaps a thing of past. The major question which this study intends to address is: What are the landlords in partnership, with their tenants, doing with regards to CSR to improve and develop the community where their businesses are located?

For this broad aim to be achieved, these objectives have been focused on:

- i. To institute the effectiveness of forms of communication that exists between the landlords and their tenants.
- ii. To make certain if landlords and tenants partner on CSR projects to develop the community.

## CONCEPTUAL FRAMEWORK

This study examines and relates Knapp's relationship model, which is one of the best-known explanations of how communication operates in a relationship. Knapp's model is arranged into ten unique stages, which are under two interrelating phases, Knapp's Relationship Escalation Model (REM) and Knapp's Relationship Termination Model (RTM) (Fox *et al.*, 2013:773). The two stages help to recognise how a relationship develops and wanes. However, the researchers are of the opinion that Knapp's model ought to contain a third part that details relational maintenance. This relational maintenance is the use of communication to maintain and keep the relationship healthy. This third part of relational maintenance can still be seen in Knapp's relational model below:



Source: Adler *et al.* 2014

## DISCUSSION

Knapp's relational model states the ten different stages as initiating, experimenting, intensifying, integrating and bonding (Relationship Escalation); and differentiating,



circumscribing, stagnating, avoiding and terminating (Relationship Termination). In relation to this study, there are three stages which will be looked at to examine the relationship between shopping centre landlords and their tenants.

**Coming together:** This initiating stage is when landlords who own shopping centres rent spaces to various tenants (anchor and small businesses) within a centre and start to build a relationship with the tenants. At this stage, the landlord creates a good impression by erecting a fascinating shopping centre to lure these tenants, especially anchor tenants that will draw consumers to the centre. This is followed with the experimenting stage, whereby business commences and different tenants (anchor and small business) rent spaces in the centre. At this stage familiarisation begins: the landlord communicates regularly with the tenants through the centre management. It is at this stage that a relationship is built. It is worth knowing that the sustainability of a shopping centre in business requires the landlord to sustain respectable relations with his or her tenants. The tenants depend on the centre as the major attraction to consumers (Oppewal *et al.*, 2006:262).

**Relational maintenance:** This is the stage at which effective knowledgeable communication has bonded both the landlord and the tenants together for common purposes (bonding), and the landlord has in mind what he or she intends to do, as do the various tenants. There may be individual differences (differentiating), but for the relationship that is built by the two parties involved in the name of the business, they are able to integrate and come up with an agreed strategy to attract more customers to the centre (integrating). Ismail (2009:205) was of the opinion that if landlords of shopping centres in partnership with their tenants engage in sound CSR activities, it will attract more customers and as well bring a positive impact to the centre. The landlord and tenants staying together is essential to any shopping centre. Thus, the mall can be viewed as a business organisation that includes the owner and the shop occupants.

**Coming apart:** As stated earlier, communication is the foundation for building a good relationship. If there is a break in communication between the landlord and his or her tenants, there is a tendency that they are likely to start drifting apart (stagnating). Business organisation goals, especially shopping centre's goals, can be reached by a group of people who work together. Fielding (2006:34) asserted that effective communication is a means to achieve such goals. The rental that is charged by the

landlords should be considerate as this may lead to why some tenants might want to leave the centre and eventually terminate the relationship between the two. Roberts *et al.* (2010:599) stated that landlords need to take the necessary steps to retain their tenants, as attracting new tenants at times could be very costly. The authors are of the view that attracting new tenants can also be very challenging in certain shopping centres. The authors postulate that well-treated shop occupants will remain with landlords.

## **RESEARCH METHODOLOGY**

Denzin and Lincoln (2011:3) averred that research design summarises the strategies for the research project, and it is also used as the guide for the collection and analysis of data. Three sorts of research techniques are distinguished: quantitative, qualitative, and using both quantitative and qualitative research methods (Wisker, 2007:7).

This study combines qualitative and quantitative research methods. This study aimed to establish the partnering efforts of shopping centre landlords with their tenants to create corporate social responsibility (CSR) projects to improve the local communities where they operate their businesses. It aimed to ascertain the CSR initiatives that were and are presently being implemented by the Sanlam Centre landlord and tenants in Empangeni, the Esikhawini Mall landlord and tenants in Esikhawini, and the Boardwalk Inkwazi Shopping Centre landlord and tenants in Richards Bay. Questionnaires were distributed in Empangeni, Esikhawini and Richards Bay, which are all within the King Cetshwayo District. The research responses from the respondents of the study were converted into chart, table and numerical form. The data analysis was done according to the objectives of the study. The three local community residents' questionnaire was made up of three parts. The first part was on information regarding community residents. The second part was on forms of communication that exist between landlord and tenants. The third part focused on CSR projects that are/were initiated by landlords in partnership with their tenants.

The questionnaires for the shopping centres' landlords, through their management teams, consisted of four parts: The first part asked for information on the shopping centre/mall, the second part was on the methods of communication between landlord and shop occupants. Part three analysed projects started in association with the

occupants and the years of execution, while the last part investigated the manner by which CSR projects were initiated. The findings were analysed accordingly.

## RESULTS AND DISCUSSIONS

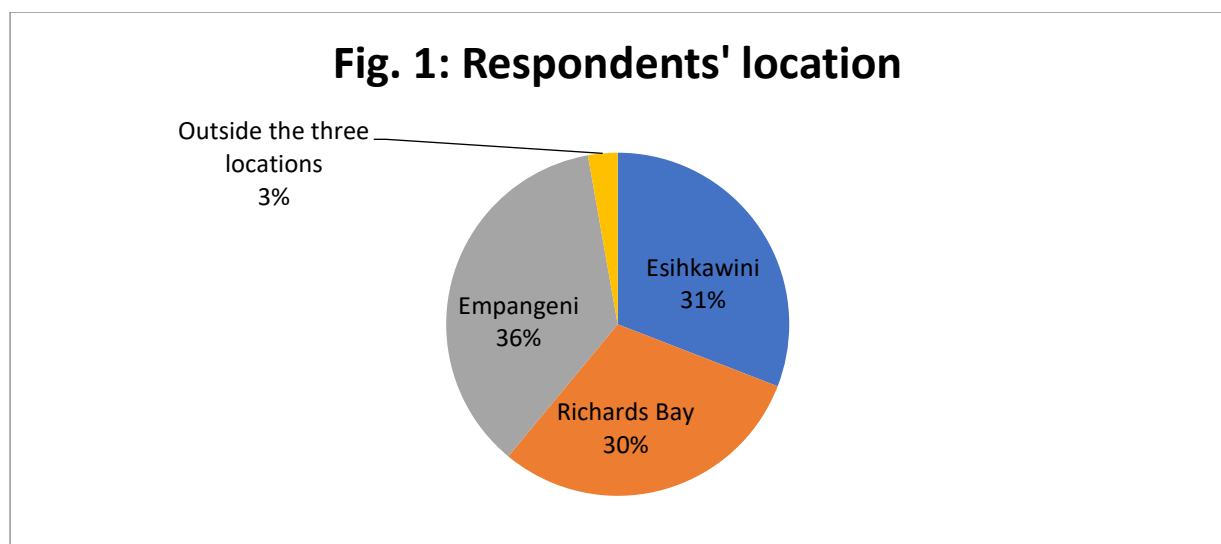
This research work was carried out in the year 2016 as Master's degree research work. The following research questions were used:

1. What is the profile of the respondents?
2. Are you aware of a joint CSR project (s) initiated by landlord and tenants?
3. Has the location of a shopping centre in your community impacted positively on the community?
4. What forms of communication exist between landlords and tenants?
5. How do landlords and tenants partner in CSR projects for the community?
6. Do you partner with your tenants to drive CSR initiatives?

### 1. Profile of the respondents

With regards to the location of the study respondents, the point was to endeavour to distinguish the community which the respondents represent.

The figure below clarifies the location of the study's respondents. It shows how many respondents returned the questionnaire.



**Figure 1: Respondents' locations**

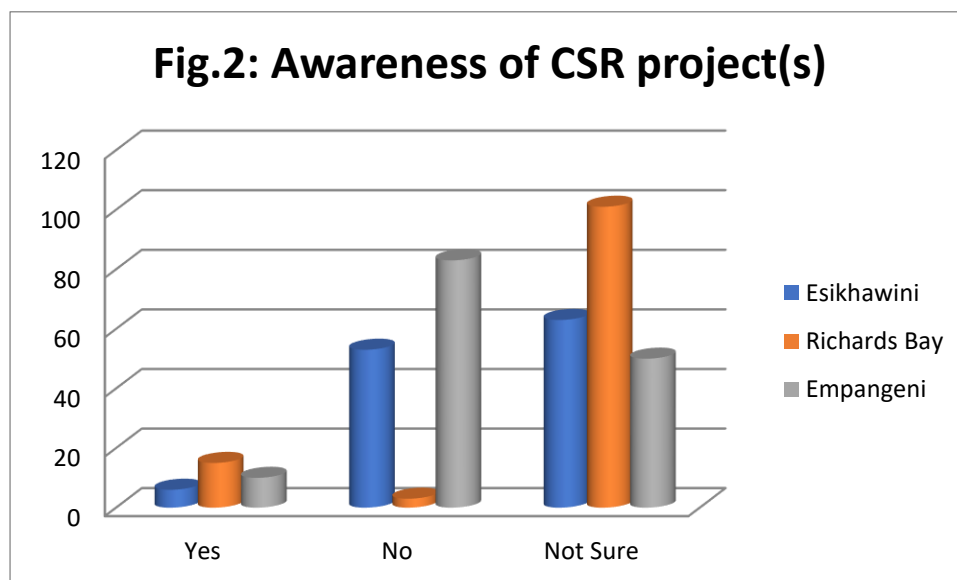
A total number of 450 questionnaires were distributed, 150 questionnaires to each community that participated in the study. A huge number of 395 questionnaires were

returned. Figure 1 shows the total number of respondents that took part in the study. The figure shows that 31% of the total respondents of the study, which is 122, returned the questionnaire from Esikhawini, 30%, which is 119 respondents, returned the questionnaire from Richards Bay, while 36%, which is 143, returned it from Empangeni. The remaining 3%, which represents 11 questionnaires, were returned from respondents who were not inhabitants of any of the represented communities. It was an indication that patrons of these shopping centres are not limited to the local residents but also to the neighbouring communities, as some respondents indicated that they do not live within the location of the shopping centres.

## 2. Awareness on CSR project (s) initiated by landlord and tenants

The findings demonstrate the popularity of CSR projects that were jointly implemented by the landlord and tenants in their various communities. The aim was to know if any CSR project(s) was/were embarked upon by the landlord, in partnership with their tenants, in the community where the centre is located.

The figure below provides the views of this research. It displays the number of respondents that are aware of CSR projects jointly executed by the landlord with their tenants.



**Figure 2: Awareness of CSR project(s)**

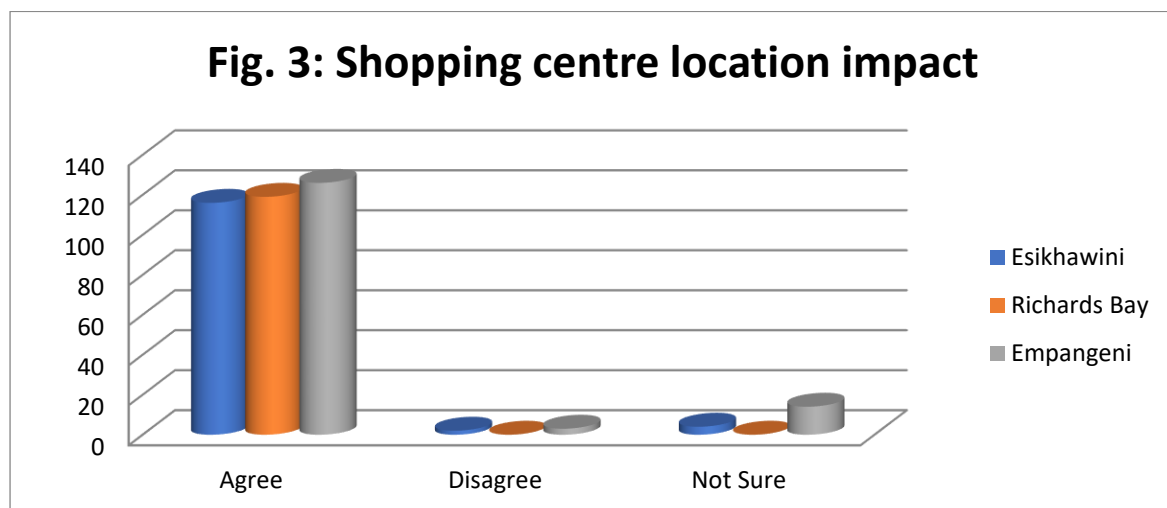
The figure above reports on CSR projects initiated within the three communities by the mall/centre landlord in partnership with his or her tenants. Only a few numbers of the respondents from the three communities were fully aware of CSR partnering projects

by centre landlords and tenants. The majority of the respondents were not sure if there were no projects in the community by the landlord and tenants. As the figure portrays, only 6, 15, and 10 respondents were aware of such projects in Esikhawini, Richards Bay and Empangeni, respectively. This is an indication that the majority of the three communities' residents were unaware of any CSR projects implemented by the mall landlord in partnership with the tenants. The result may prove that the three local community residents are unfamiliar with such projects perhaps because such projects are not communicated to the communities. There is a need for the centre landlords together with their tenants to report on CSR projects. Nwagbara and Ugwoji (2015:79) averred that reporting on CSR creates an opportunity for community residents to be informed about the social activities of landlord and tenants. It may be posited that if landlords, with their tenants report their CSR activities, it may influence their business positively.

### 3. Impact of the shopping centre located in the community

This part aimed to find out if the members of each of the community feel the impact of the location of the shopping centre within the community in which they reside. It intended to know if the residents feel the mall/centre is to the advantage or disadvantage of the community.

Figure 3 below elucidates on the response of the respondents from the three communities that are involved in this study.



**Figure 3: Shopping centre location impact**

The findings illustrate that 116, which constitutes 93% of respondents from Esikhawini, agreed that the impact of the mall is felt. A similar response was received from

Richards Bay and Esikhawini respondents, as almost all the respondents agreed that Boardwalk Inkwazi Shopping Centre has had a great impact on the community. This result shows that all the three shopping malls/centres which are located in these communities have positively affected the community.

#### 4. Forms of communication that exists between landlords and tenants.

The findings relating to the forms of communication employed by landlords through their management team to communicate with their tenants are demonstrated in Table 1.

**Table 1: Forms of communication with tenants**

Forms of communication	Boardwalk Shopping Centre			Esikhawini Mall		
	Yes	No	Sometimes	Yes	No	Sometimes
Regular meetings	√					√
Communication by mail/emails	√			√		
Suggestion boxes		√			√	
Open door policy	√			√	√	
Newsletter	√				√	
Regular needs survey	√				√	
Other (indicate what.....)		√			√	

The Boardwalk Inkwazi Shopping Centre landlord, through the centre management, adopts regular meetings, corresponds via mail/messages, bulletins, customary necessities overview and an open entryway approach to communicate to their tenants. While Esikhawini Mall administration guaranteed that it also has an open entryway arrangement framework to convey to their occupants, it was found that the administration of Esikhawini Mall is in Richards Bay. This begs the question of how might they create an open entryway approach when the landlord and tenants are 33.29 km apart.

It is apparent that a good communication system is maintained between Boardwalk Shopping Centre management their tenants. However, such communication does not exist between Esikhawini Mall management and their tenants. This has created a barrier to the flow of communication between Esikhawini Mall landlord and the tenants. Pinder *et al.* (2003) stated that frequent meetings between tenants and landlords enhance their relationship which will result in better business for both parties. The utilization of electronic media, for example, emails between landlord and their tenants, as a method for correspondence, will prompt viable correspondence and a better connection between the two (Locker & Kaczmarek, 2011:115).

### **5.Partnering of landlord and tenants for CSR projects**

This study aimed to establish if the landlords' partnered with their tenants in CSR activities for the development of the community where their business were located. The finding proves that the Esikhawini Mall landlord does not a partnership with his or her tenants for CSR activities. The landlord, through the management, admitted that the mall does not partake in CSR activities. The landlord of Boardwalk Inkwazi Shopping Centre declared that all projects relating to CSR projects were linked with their tenants' support. The landlord, through the management, admitted that CSR is seen as a marketing strategy to improve their business. Some of the tenants the landlord partners with to embark on CSR initiatives for local community development include Bata, Pep Clothing, Pep Home, Smugglers Care, Lapenda Beads, Moments of Grace, and Bargain Books.

### **6. CSR strategies by landlord and tenants**

Three different questions were asked in this section to identify the strategies employed by the landlord with their tenants to drive CSR initiatives.

The table below showcases the response of the landlords through their management.

**Table 2: CSR strategies by landlord and tenants**

Questions: Indicate whether the following statements are true or false	Boardwalk Shopping Centre		Esikhawini Mall	
	True	False	True	False
1. Communication between the landlord and local community include corporate social investment strategies:	√			√
2 We receive valuable feedback from the local community:	√		√	
3 My organisation has a well-defined policy on CSR:	√			√

The answers to question 1 specify that Boardwalk landlord communicates his or her CSR strategies to the residents of the local community. While Esikhawini Mall landlord does not communicate their CSR strategies. The findings show that CSR initiatives are conducted by Boardwalk Shopping Centre engage in, while such practice is not functional at Esikhawini Mall. In response to question 2, the landlords of both malls indicated that they receive valuable feedback from the local community. Boardwalk landlord ascertains its well-defined policy on CSR, while the landlord of Esikhawini mall declined from answering the question. Ligthelm (2008:37) hypothesised that a contributing factor to the success of shopping centre business is the strong communication participation which takes place between shopping centre landlords and the local community.

## **COMMUNICATION OF CSR PROCESSES BETWEEN LANDLORD AND TENANTS**

This part of the study aimed to ascertain the partnership that exists between landlords and tenants in embarking on CSR projects for the community, where they are located. The questions that come under this part are mostly associated with corporate social responsibility initiatives adopted by the landlord in partnership with their tenants and the methods they use to communicate CSR between themselves.



The table below presents 2 questions and the responses of the landlords, through management, to the questions:

**Table 3: Communication of CSR process between landlord and tenants**

Questions	Boardwalk		Esikhawini mall	
	<i>True</i>	<i>False</i>	<i>True</i>	<i>False</i>
1 Communication between management and tenants include CSI strategies	√			√
2 We receive valuable feedback from tenants	√		√	

The findings to with regards to the forms of communication between landlord and tenants highlighted that when it comes to CSI strategies, the Esikhawini Mall landlord had no collaboration with his or her tenants. However, the Boardwalk Landlord collaborates with their tenants when it comes to CSI for the upliftment of community development in which they operate their business.

Corporate social investment is a way by which an organisation can portray a good image within society. Williams and Zinkin (2008) highlighted that a sustainable development practice is guaranteed only when a business organisation gives back to the community it is located.

The two mall landlords, through their management, specified that they receive valuable feedback from their tenants regarding the communication between them. According to Cloete (2010:616), when communication between shopping centre landlords and their tenants are open and effective, it leads to successful business for both parties. It is worth stating that good a relationship between landlord and tenants is the foundation for valuable feedback and this could only be possible when the relationship is well maintained and results in effective communication between the two.

**The manner of CSR projects of both landlord and tenants.**

Since the management of Empangeni Sanlam centre refused to be part of the research, this study was unable to establish whether they conducted any CSR partnership projects with their tenants. Table 4 and Table 5 below give details of the kind of CSR activities embarked by the Esikhawini Mall landlord and Boardwalk Inkwazi Shopping Centre, in partnership with their tenants. The tables show the CSR activities for a period of three years.

**Table 4: CSR activities of Esikhawini Mall for three years**

<b>Name of project</b>	<b>Year</b>	<b>Purpose</b>	<b>Was the project successful?</b>
Christmas promotion	2014	Give back to the community	Yes
Christmas promotion	2015	Give back to the community	Yes
Christmas promotion	2016	Give back to the community	Yes

The above results clearly show that the landlord has, since 2014, conducted Christmas promotions, in order to give back to the community. The landlord of the mall, through the management, acknowledged that the projects have been successful. It should be noted that corporate philanthropy is what the landlord is doing, and not a corporate social investment. Hall (2006:4) postulated corporate philanthropy is a way by which business gives back to its community either through monetary donations and non-cash contributions.

Boardwalk Shopping Centre responses are provided in Table 5 below.

**Table 5: CSR activities of Boardwalk Shopping Centre**

<b>Name of project</b>	<b>Year</b>	<b>Purpose</b>	<b>Was the project successful?</b>
CANSA Boardwalk cater	2016	Raise awareness, funds for CANSA organisation	Yes
Endangered Wildlife Trust	2016	Collected funds for them	Yes
Gift box Joy	2016	Gits for orphans of Richards Bay family care	Yes

The table shows CANSA Boardwalk cater in the year 2016 as a major aspect of activities that was started with the goal to bring issues to light and collect donations for CANSA. The Endangered Wildlife Trust and Gift Box Joy were additionally different undertakings that were executed in the year 2016. The administration of Boardwalk expressed the reason for the Endangered Wildlife Trust was to gather reserves for the association. The Gift Box Joy was to give presents for the orphans of Richards Bay community.

## LANDLORD APPROACH TO CSR INITIATIVES

The objective of the following questions was to determine the manner in which shopping centre landlords initiated projects of CSR with the tenants.

**Table 6: Landlord approach to CSR initiatives**

The above project/s was/were initiated in the following manner:		Boardwalk		Esikhawini Mall	
		True	False	True	False
1	The research was undertaken to establish what the community needed.	√			√
2	Management decided on what they felt that the community needed.	√		√	
3	Management opted not to undertake any CSR projects for good reasons.		√	√	
4	Projects were initiated according to budget constraints.		√	√	
5	My organisation is profit driven and management does not support the idea of corporate social responsibility		√	√	

The research was conducted by the Boardwalk landlord to determine what the community needed. However, the landlord of Esikhawini Mall does not embark on any research to know the needs of the community residents.

On the question whether management decided on what they felt that the community needed, the Boardwalk landlord emphasised that after research had been done, the management decided what the community needed that demanded urgent attention. Esikhawini Mall response was that they make decisions on their own, without consulting the community.

The landlord of Esikhawini mall, through the management, opted not to undertake any CSR projects, while the Boardwalk Shopping Centre landlord emphasised that the organisation is in support of CSR and they make it as a strategy to reach the community.

The question whether projects were restrained according to budget constraints was applicable to the Esikhawini Mall landlord, but the Boardwalk landlord refuted the statement stating that partnering with its tenants was a strategy they adopted to counter any foreseen challenges.

Esikhawini Mall management conceded that the shopping mall was benefit driven and its administration did not bolster the possibility of corporate social duty. Boardwalk management maintained that the centre was in support of CSR. Corporate social responsibility is a way to build a good relationship between a landlord and local community residents. Moon and Muthuri (2006), in Adanlawo (2016:144), stated that, 'the best way a business can involve with its community is by supporting its immediate environment using corporate social responsibility initiatives as an approach to give back to the community'.

Sharma and Kiran (2013:22) postulated that a landlord must integrate monetary, welfare, communal, and environmental plans into business strategies. The authors stated further that they must not only aspire to make good returns for their owners, but the community where the business is located also should be considered and an effort must be made to impact the community at large.

## **CONCLUSION**

According to the findings, Esikhawini Mall, as a community shopping centre, is not involved with its tenants in CSR activities for the community's development. This is to say that the mall is only doing what they refer to as a Christmas bonus without the involvement of its various tenants. A community shopping centre should be closer to the community by engaging in CSR activities to retain the patronage of the local residents. The fact that the mall is smaller compared to a regional shopping centre, like Boardwalk Inkwazi Shopping Centre, does not restrain it giving back to the community. Besser and Miller (2001:122), in Adanlawo (2016:146), proposed that, 'landlords with their tenants should be involved in community development by constantly investing in projects for the development of the community'.

The forms of communication that exist between the proprietor of Boardwalk Shopping Centre and inhabitants is exemplary, and this has added to better connections between the two. The landlord has possessed the capacity to hold his or her shop

occupants throughout the years and include them in CSR exercises for group improvement. It is intriguing to realize that independent venture inhabitants are not forgotten. Pinder *et al.* (2003) asserted that landlords ought to regard every tenant as an esteemed partner and it is vital that the needs of the occupants are met. This has been identified by Boardwalk Shopping Centre management. They have involved the anchor and small business tenants when conducting CSR projects for the development of the community.

However, such projects are not properly communicated with the members of the community because the majority of the respondents of this study are unaware of such projects. The reasons for the unpopularity of the projects might be that local community leaders (representatives) were not involved when such projects were initiated discussed or when the meeting was conducted. According to Besser and Miller (2001:223), local residents of the community must be aware of the kind of support given to the community by the business organisation, in order for CSR to inspire business success. Another reason is the communication of CSR initiatives: this research established that CSR activities of landlord and tenants are not communicated through the right channel to the local dwellers of the community. Skinner *et al.* (2010:283) hypothesised that for CSR activities to be effective, it must have a communication strategy that is aligned with the strategic objective and the programme's mission.

The study projects that there is a gap in communication which exist between the landlord and tenants of Esikhawini Mall which invariably has a negative impact on the community. A small percentage of Richards Bay and Esikhawini local community residents are not involved in two-way communication with their shopping centre management. There is a one-way communication which occurs between landlords of shopping centre landlords and the local community. This does not give room to the local residents to make known their views to the centre management.

The impacts of CSR initiatives that were executed by landlords with their tenants are not felt. The majority of Empangeni, Esikhawini and Richards Bay dwellers could not identify the CSR projects which were conducted in their local communities. Residents of the local communities were of the view that the shopping centre's landlord should be involved in social projects, which will benefit them as a community (Becker-Oslen *et al.*, 2006:48).

Since the management of Empangeni Sanlam centre refused to be part of the research, this study was unable to establish whether they conducted any CSR partnership projects with their tenants. Prior to 2010, the landlord of Boardwalk Shopping Centre had been conducting CSR partnership projects with his or her tenants, i.e., the Endangered Wildlife Trust, CANSA Boardwalk cater, and Gift Box Joy. From this it can be deduced that the management of Boardwalk Mall values giving back to the local community through community development initiatives and projects. This is a term which is commonly referred to as 'Corporate Community Investment' (CCI). Moon and Muthuri (2008:3) were of the view that CCI is business cooperation which focuses on social activities in order to address the challenges the group encounters, which they solve by providing some sort of financial or in-kind contribution. Ioannou and Serafeim (2010:4) stated that corporate philanthropy is a method used by businesses to give back to the group (community) via financial non-commitments and money-related gifts. It should be noted that Boardwalk management is fulfilling their corporate philanthropic responsibility. With regards to Esikhawini Mall, the landlord has not participated in any community-based CSR projects. Management's primary focus is on making a profit, which is only to benefit to their investors. The main patrons of Esikhawini Mall are the residents from Esikhawini. More than just making a profit, the landlord of a shopping centre has a responsibility which should be more than to just further than their profits (Crane & Matten, 2010:51).

## **RECOMMENDATIONS**

We suggest that landlords, together with their tenants, should incorporate noticeable corporate social responsibility activities into their marketing strategies, rather than corporate philanthropy or giving.

Landlords should report on the CSR projects implemented. We suggest that proper research should be done to identify the right channels to communicate CSR initiatives to the community.

Communication challenges between the shopping centre management team and tenants should be tended to. Regular meetings are an avenue through which better relationships can be built between landlord and tenants. The management of shopping centres should exercise day-to-day communication with their tenants as this will build

a good relationship and result in the improved business. It was discovered during this research that Esikhawini Mall does not have a management office within the mall. The mall is managed by Schoonies Enterprise, located in Richards Bay. It must be a struggle to conduct effective and constant communication between the management and the tenants when the distance between them is more than 30km.

The following gaps may affect generalisation of this study: The sample frame for this study only consisted of three major shopping centres within the King Cetshwayo District. The study may not be an indication of corporate social responsibility activities of shopping centre landlords and tenants for community development in the whole district. The management of the shopping centres was interviewed with the exclusion of the tenants, so the extent of the relationship between them is not known. Project sites were not visited because of time constraints. Empangeni Sanlam Centre withdrew from the study at the last hour.

This study is the first to investigate the CSR initiatives used by shopping centre landlords, in partnership with their tenants, for community development. We hope that this study will inspire future work by researchers in this dynamic area of CSR. The focus of future work could be on CSR initiatives of multinational retailers in shopping centres, and CSR activities as the key mechanisms in drawing patrons to the shopping centre.

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**STRATEGIC MANAGEMENT PRACTICE AMONG PRIVATE**  
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**ABSTRACT**

The student population and financial strength of private universities in Ghana have been decreasing over the past five years. The industry players have recommended effective strategic management practice as a panacea to this dwindling performance. However, how well these private universities incorporate strategic management in their operations is not known. The main purpose of this study was to examine the strategic management practices of private universities in Ghana. The target population for this study comprised of the management of private universities in the Ashanti Region of Ghana. The study purposively selected 87 management members from 9 private universities. A descriptive analysis technique, in the form of mean, standard deviation, Kurtosis and Skewness, was used. A self-administered questionnaire was used to collect the data from the respondents. The study established that the universities had a strategic plan and that all the universities had organization mission, vision and objectives and procedures on policy development in their strategic plans. The study findings further established that the universities implemented their strategies as planned, but to a lesser extent. The study findings established that the

strategic evaluation and control activities of the majority of the universities were not effective. Based on the findings, it is concluded that the strategic management practices of private Universities in Ashanti Region were not effective.

## **INTRODUCTION**

Prior to 2000s, students seeking university education had to endure years of rejection and disappointment. This is because only few public universities were available to admit few students out of the many that would apply. The inability of the public universities to admit a large number of students seeking admission, dominated a number of public discussions because the experts argued that it posed a national security threat. Consequently, individuals and organizations were encouraged to establish private universities to supplement the public universities. Two private universities were established in Ghana in the year 1999 (Adu, 2009). Since then, there has been a proliferation of private universities in Ghana. These private universities have significantly contributed to the access to a university education. For instance, in the year 2006, there were 9 500 students enrolled in the various private universities. This accounted for 8.2% of the total students' enrolment in the universities (Adu, 2009). The Ashanti Region of Ghana had its fair share of the contribution of tertiary institutions towards students' enrolment. The Ashanti Region is the most populous region in Ghana. In addition, the Ashanti Region of Ghana has the largest pre-tertiary population in Ghana. There was thus an urgent need for private universities to supplement the limited admission space offered by the two public universities in the region. In response to this, a number of private universities were established in the Ashanti Region. This relieved the burden of students and guardians of waiting for three years before gaining admission to universities. Despite the remarkable contribution of the private universities in Ghana over the years, there appears to be a downturn in the success story of universities in the Ashanti Region. A number of these private universities have ceased operations, whilst many of them complain of dwindling students' population. The gloomy situation of the private universities in the Ashanti Region of Ghana has been a cause of concern to the various stakeholders. These universities have however been implored to put in place effective strategies to turn around their performance. Consequently, the implementation of strategic management has been the clarion call.

Strategic management is the channel of performance improvement based the fact that strategic thinking is directed towards the definition and measurement of performance (Durand, Grant & Madsen, 2017). Consequently, the concepts and practices of strategic management have been held unto globally and across sectors because of their contribution to organizational success. Today, organizations, from both the private and public sectors, have taken the practice of strategic management seriously as a tool that can be employed to fast track their performances (Weiss, 2016). Strategic planning is arguably the most important ingredient in the conduct of strategic management, and the framework for formulating and implementing strategies is the formal strategic planning system (Steiner, 2009). Despite the criticism levelled against strategic management during the 1970s and 1980s, it was still useful and it only needed to be improved and redeveloped (Porter, 2008).

The authors noted that strategic management has potential advantages and intrinsic values that eventually translate into improved firm performance. It is, therefore, a medium that helps to enhance firm performance. Organizations can reap several benefits from appropriately practicing strategic management. At first, strategic management provides better guidance to the entire organization on the crucial question of 'what it is we are trying to do and achieve?' (Thompson, Strickland, Gamble & Jain, 2006). The second benefit is seen financially as an effective strategic management system that increases profitability (Certo & Peter, 2008) since it provides managers with a rationale to evaluate competing budget request for investing capital and new staff (Thompson *et al.*, 2006). In addition, it must be noted that strategic management systems provide consistency of actions, and clear objectives and direction for employees, thus, boosting their commitment for the sake of the sacred objective of achieving corporate synergy.

Having to survive in a turbulent and rapidly changing environment, the tertiary institutions, and for that matter private universities, in the Ashanti Region of Ghana have to refine and respond to the new challenge, similar to any other institution that may have to refer to strategic management to protect their future by planning for it (Dankwa, 2012). As far as its evolution in the private universities twenty years ago, to the best of the authors' knowledge, there is practically no literature existing as far as this topic, nor were there any conceptual or empirical research publications in the area of education, as far as strategic management is concerned as a whole. Consequently,

there is a need to provide empirical evidence on the extent to which strategic management is practiced among private universities in the Ashanti Region of Ghana. This study thus examines the strategic management practice among private universities in the Ashanti Region in Ghana.

## **LITERATURE REVIEW**

### **Concept of strategic management**

Controversies surrounding the definition of some concepts is absent with regards to the definition of strategic management. There has been uniformity among researchers when it comes to the definition of strategic management. Bergh, Sharp, Aguinis and Li (2017) defined strategic management as a systematic approach to the major and increasingly important responsibility of general management to position and relate an organisation to its environment, in a way that will assure its continued success, and make it secure from surprises. In this definition, the emphasis is on the environment-organisation relationship for the purpose of achieving the objective of continued success and remaining protected from environmental surprises through the adoption of a systematic approach to general management. Carroll, Primo and Richter (2016) also defined strategic management as the formulation and implementation of plans and carrying out of activities relating to the matters which are of vital, pervasive or continuing importance to the total organisation. This is an all-encompassing view of strategic management and considers all plans and activities which are important for an organisation. Similarly, according to Weiss (2016), strategic management is the process through which organisations analyse and learn from their internal and external environments, establish strategic direction, create strategies that are intended to help achieve established goals, and execute these strategies, all in an effort to satisfy key organizational stakeholders. Devaro and Boyd (2016) also defined strategic management as an ongoing process that evaluates and controls the organisation and the industries in which the organisation is involved; assesses its competitors and sets goals and strategies to meet all existing and potential competitors; and then reassesses each strategy annually or quarterly [i.e. regularly] to determine how it has been implemented and whether it has succeeded or needs replacement by a new strategy to meet changed circumstances, new technology, new competitors, a new

economic environment, or a new social, financial, or political environment. According to the authors, strategic management is the identification of the purpose of the organisation and the plans and actions to achieve the purpose. It is that set of managerial decisions and actions that determine the long-term performance of a business enterprise. It involves formulating and implementing strategies that will help in aligning the organisation and its environment to achieve organisational goals.

From the foregone definitions, it can be synthesised that strategic management is the process of creating an organizational strategy, based upon a mission and vision, which keeps the organization on course. Ferlie, Crilly, Jashapara, Trenholm, Peckham and Currie (2016) opined that the mission, vision and strategy of an organization play an important role in the expression of its identity, the position it takes on the issues it faces, and its future direction. The three concepts are closely interconnected as all three must be developed, or at least be clear and under consideration at the start of a (large scale) organizational development process. According to the authors, strategic management is a process of making explicit the goals of the enterprise, the environment in which it operates the strategies, and finally the feedback loops that tell the firm whether each of these steps has been identified correctly.

### **Empirical review**

There are a number of empirical studies on the strategic management practice of firms and organisations. The majority of these studies concentrated on the effect of strategic management practice on the performance of firms. However, the few studies that specifically examined the strategic management practice of firms and organisations include: Mungai (2012); Nyariki (2013); Johnson (2014); Onyango (2014); Ndungu *et al.* (2014); Christou (2015); Moroa and Muturi (2015); and Omsa, Ridwan and Jayadi (2017). Mungai examined the strategic management practices of the banking sector in Kenya. Specifically, Mungai (2012) used a census survey to analyse the level of integration of strategy implementation and formulation of all licensed commercial banks in Kenya. The study revealed that all the banks considered implementation issues during the formulation stage of strategic management. Similarly, Mungai's (2012) evidence showed that the management of the banks involved themselves heavily in the strategic management activities whilst the employees did not play significant roles in the strategic management practice of the banks.

Similarly, Nyariki (2013) examined the strategic management practices of small and medium-term enterprises (SMEs) in Kenya. The results of the study showed that majority of the SMEs adopted strategic management. The specific strategic management activities of the SMEs included: product strategy, market strategy, product pricing, market differentiation, product quality, technology, price differentiation, service quality and product and service innovation.

Johnson (2014) also studied the strategic management thinking and practices of public sector organisations in Norway. Johnson (2014) specifically interviewed selected managers in the Norwegian public sector to determine the extent to which strategic management and thinking were integrated in the Norwegian public sector. Johnson (2014) found that the specific strategic management activity practiced by the organisations was strategic planning.

In Kenya, Onyango (2014) also assessed the extent to which Kenya Commercial bank Limited practiced strategic management. Onyango (2014) found that the top management of the bank adopted diverse strategic management practices and committed a considerable amount of time, manpower, resources and technology during the strategic management practice of the firm. In addition, Onyango (2014) found that the top management of the bank practiced strategic management along six stages of strategic management process comprising: the formulation of the firm's mission and vision, situational assessment, strategic objective determination, strategic analysis and choice, strategic implementation and strategic evaluation and control. It can however be observed that the first four steps identified by Onyango (2024) have been consolidated in this study, and other studies, as strategic planning and formulation (Devaro & Boyd, 2016; Carroll *et al.*, 2016; CarrFerlie *et al.*, 2016).

Similarly, in Cyprus Christou (2015) conducted a study to determine the level of strategic management practice and implementation among SMEs. The evidence provided by Christou (2015) showed that there was a greater awareness among the SMEs in Cyprus on the importance of strategic management and thus the majority of the firms implemented strategic planning, strategic implementation and strategic evaluation. Omsa, Ridwan and Jayadi (2017) also examined the strategic management practice of SMEs in Indonesia, and how it affected the performance of these firms. The study employed both a questionnaire and interviews as data collection instruments. A total of 158 firms were examined. The results of the study

indicated that majority of the SMEs in Indonesia were not practicing strategic management.

It can thus be observed from the discussion that a mixed practice was found. However, the majority of these empirical studies revealed that strategic management was practiced to some extent by organizations. Similarly, the observation was that majority of these studies concentrated on companies, whilst a few also were related to the public sector. However, a study on universities was not found, thus making a case for this study.

## **METHODOLOGY**

The study was conducted within the framework of both descriptive and survey study designs. A survey is used in most research which aims directly at generalized understanding, rather than comprehensive understanding of a single, idiosyncratic case (Yin, 2003). Saunders, Lewis and Thornhill (2009) contended that survey study is mostly employed to assess thoughts, opinions, and feelings. Ellis and Levy (2009) posited that surveys are an excellent way to assemble much information from a wide variety of people. This makes surveys relatively cost effective. The population of this study comprised of nine private universities in the Ashanti Region of Ghana. The main reason for choosing only private universities in the Ashanti Region was that the environment in which Ghanaian private universities operate has become increasingly uncertain, and more complex than the public universities, due to increasing competition. The targeted respondents comprised of all the management and administrators of the private universities. There were eleven (11) private universities in the Ashanti Region during the study period. However, only nine (9) private universities were selected for the study. Two private universities were omitted because they were established less than two years as at the time of this study.

In addition, a purposive sampling technique was used to select eighty-seven (87) administrators and management members of the universities. These management members and administrators were purposively chosen because they were believed to be the formulators and implementers of the strategic objectives of these private universities. A self-administered questionnaire was used to collect data from the respondents. The questionnaire was closed ended and involved a five point Likert-



scale, where 1 was interpreted as strongly disagree and 5 interpreted as strongly agree. Descriptive data analysis methods, such as mean rating, standard deviation, kurtosis and skewness, were used to analyze the data. The results were presented in tables.

## RESULTS AND DISCUSSION OF FINDINGS

The study examined the strategic management practices of private universities in the Ashanti Region of Ghana. The results of the study are presented in tables 1, 2 and 3.

**Table 1: Strategy plan and formulation variables**

Variables	Mean	SD	Kurtosis	Skewness
Mission clearly stated and communicated	4.62	0.057	0.646	1.675
Vision clearly stated and communicated	4.68	0.048	0.757	-0.434
Objectives clearly stated and communicated	4.15	0.154	1.645	0.796
Clear communication of strategies to staff	2.73	1.465	-2.786	-1.568
Availability of effective strategic planning unit	1.84	0.254	--2.766	-1.287
Use of environmental analysis tools	1.79	0.197	-2.974	0.574

The results on the strategic planning and formulation activities of the private universities in the Ashanti Region of Ghana are presented in Table 1. The respondents were asked to indicate whether the universities had missions that were clearly stated and communicated. It can be observed from Table 1 that the majority of the respondents strongly agreed that the universities had their mission clearly stated and communicated to all staff. With a mean rating and standard deviation of 4.62 and 0.057 respectively, it suggests the strength of agreement of the respondents. Similarly, the respondents were asked to indicate whether the universities had visions that were clearly stated and communicated. As presented in Table 1, almost all the respondents strongly agreed that the universities had visions that were clearly stated and communicated. Clearly, the result (mean = 4.68 and SD = 0.048) indicates that the visions of the private universities were clearly stated and communicated to the staff of the universities. The result (mean = 4.15, SD = 0.154) further shows that the universities had objectives that were clearly stated and communicated to all

stakeholders. However, the study found that strategies were not clearly communicated to the staff of the universities (mean = 2.173, SD = 1.464). In addition, the universities did not have an effective strategic unit (mean = 1.84, SD = 0.254).

**Table 2: Strategy implementation practices**

<b>Variables</b>	<b>Mean</b>	<b>SD</b>	<b>Kurtosis</b>	<b>Skewness</b>
Regular and effective analysis of strategies	3.52	0.767	0.575	0.956
Planned strategies are always implemented	2.91	1.136	0.766	-0.767
Strategy implementation is effective	3.26	0.896	0.692	1.242
Implementation plan are well documented	3.37	1.074	0.543	0.864

It can be observed from Table 2 that the respondents agreed that a comprehensive strategic analysis was conducted as part of the strategic planning process. The mean rating for this response is 3.52, which shows that comprehensive strategic analysis was conducted as part of the strategic planning process. From Table 2, it can further be observed that the respondents agreed that formulated strategies were implemented as planned. The mean rating and standard deviation for this response were 2.91 and 1.136, which shows that a slight majority of the respondents agreed that formulated strategies were implemented as planned. Table 2 further shows the response obtained from the respondents on whether strategies were effectively implemented. The response (mean = 3.26) shows that strategies were effectively implemented. As presented in Table 2, the majority of the respondents agreed that the strategic implementation plans of the universities were always documented. This item obtained a mean rating of 3.37, clearly indicating that the strategic implementation plans of the universities were always documented.

**Table 3: Strategic evaluation and control**

<b>Variables</b>	<b>Mean</b>	<b>SD</b>	<b>Kurtosis</b>	<b>Skewness</b>
Frequent evaluation of outcome	4.01	0.544	1.003	1.428
Frequent review of strategic plans	3.94	0.857	0.556	-1.016
Regular comparison of actual and targeted results	3.06	0.756	1.124	0.786
Results are always communicated to staff	2.83	1.044	0.984	0.963
Corrective actions are always taken	2.96	1.055	1.359	1.855
Strategic recommendations always implemented	2.64	0.967	1.253	-0.576

The responses provided by the respondents on the strategic evaluation and control practices of the universities are presented in Table 3. First, the respondents indicated that strategic outcomes were frequently evaluated (mean = 4.01) in the private universities. The respondents were further asked to indicate whether strategic plans were frequently reviewed. As the response presented in Table 3 shows, the respondents agreed that strategic plans were frequently reviewed. With a mean rating of 3.94, it clearly indicates that strategic plans were frequently reviewed in the private universities. The response provided by the respondents on whether the universities did not regularly compare actual and targeted results showed that the universities did regularly compare actual and targeted results (mean = 3.03).

It can also be observed from Table 3 (mean = 2.83) that strategic results were not always communicated to staff in the private universities. From Table 3, it can be observed that corrective actions were not always taken after strategy evaluation and control. The mean rating for this response was 2.96, which shows that almost half of the respondents disagreed that corrective actions were always taken after strategy evaluation and control. Finally, Table 3 illustrates the response obtained from the respondents on whether strategic recommendations were always implemented. The response (mean = 2.64) shows that strategic recommendations were not always implemented.

## **DISCUSSION OF FINDINGS**

There are several findings that were established in this study. Firstly, the findings of this study have shown that the universities were practicing strategic management in one way or the other because the majority of these universities had a clear vision and objectives, winning strategies to achieve the objectives, and a sound mission statement to drive the universities towards success. In addition, the study established that the universities had a strategic plan and that nearly all the universities had organization goals and procedures on policy development in their strategic plans. However, the strategic plans of the universities were not clearly communicated to staff, indicating a communication gap. It must be indicated that this result is particularly worrying since the inability of the management of the universities to clearly communicate the plans of the universities could result to an ineffective strategy implementation. This is because all the staff of the universities contribute one way or the other, and thus, if the strategies are not well communicated to everybody, it will be difficult for the objectives of the universities to be achieved.

The study findings further established that the universities implemented their strategies as planned, but to a lesser extent. Additionally, on average, the study findings revealed that most of the universities did engage in regular and effective analysis of their strategies. In this way, if the universities do analyze their strategies, it will be very easy to monitor their progress. The result further established that planned strategies were not always implemented. Similarly, the study revealed that strategy implementations were not effective. This is least surprising since it was earlier found that the strategies of the universities were not clearly communicated to them. In this way, the inability of the management of the universities to communicate the strategies of the universities to the staff would result in an ineffective strategy implementation. Similarly, the study revealed that strategy implementation plans were clearly documented. This result is also not surprising since every institution does have a clearly written strategic plan.

The study findings established that the majority of the universities did frequently conduct strategy evaluations. Similarly, the evidence obtained showed that strategic evaluations were done frequently. This means that the staff were aware of how the strategy plans were reviewed. It does appear that this finding makes sense since strategic plans are normally reviewed by top management and communicated to staff.

The findings further indicate that results were always communicated to the staff. With the strategic plan, the inability of the management of the universities to communicate results to the staff would leave them wondering about the efficiency and effectiveness of their strategies.

The comparison of actual results to planned or targeted results is one of the most important activities in strategy evaluation and control. However, the results obtained suggest that this activity was not frequently done. It must be once again indicated that this activity is normally done by the management of these universities. However, the great communication gap between management and staff would leave the staff in the unknown as to whether actual results were regularly compared to targets. The study findings further established that most of the universities did not take corrective measures on the strategic management practices by reviewing them, and their strategic control process was not satisfactory. In addition, the majority of the respondents could not indicate whether strategic recommendations were always implemented. Again, since the system of communicating strategic plans to staff is weak, the staff would not be able to indicate whether strategic recommendations were always implemented.

## **CONCLUSION**

Using a self-administered questionnaire, the study revealed that the universities had a strategic plan and that all the universities had organization mission, vision and objectives, and procedures on policy development, in their strategic plans. The study findings established that the strategic evaluation and control activities of the majority of the universities were not effective. In addition, the universities implemented their strategies as planned, but to a lesser extent because, on average, most of the universities did not implement their strategic plans. Based on the findings, it is concluded that the strategic management practice of private universities in Ashanti Region was not effective. The study recommends that a comprehensive analysis of strategies should be undertaken during the strategic formulation period to enable sound decision making and judgments by all participants involved in the strategic planning process and there should be a unit, since strategic management is a continuous process.

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P.W. Baur

## THE 'DECISION-MAKING' OF THE 'ART THIEF', AN ECONOMIC PERSPECTIVE ON 'CULTURAL ARTEFACTS'.

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### ABSTRACT

Every year, thousands of individual historically significant artefacts, exchange hands across the world. What makes these artefacts so significant is that they contain within them an element of 'cultural value'. This cultural value is specific to the information, subjective norms and institutional importance relevant to religious, social and geographic importance. In regards to this, the cultural value may reflect a price. However, every transaction has two or more perspectives, the most common of which being the buyer and the seller, each having their own personal or unique reasons for being involved within this type of market. This article looks at the way in which the value of articles of 'cultural significance' are considered within an economic contest, and proposes a methodology to determine the role of value within a cultural framework, from which to construct a stable economic model.

**Keywords:** Art collections, Artefacts, Cultural artefacts, Cultural significance, Decision-making, Historical cultural, Institutions, Museums.

### INTRODUCTION

'The absence of artistic treasures is a huge loss to African countries' economies and contributes to a loss of national and personal identity' (Ratha & Kabanda, 2015). Every year, thousands of individual historically significant artefacts exchange hands across the world. What makes these artefacts so significant is that they contain within them an element of 'cultural value'. This cultural value is specific to the information, subjective norm and institutional importance relevant to religious, social and geographic importance. In regards to this, the cultural value may reflect a price. However, market price only represents a specific relationship between the concepts

of demand and supply, while every transaction has two or more perspectives. The perspectives originate from the buyer and the seller, each having their own personal or unique reasons for being involved within the market of trading cultural artefacts.

From a seller's perspective, the exchange of these cultural artefacts can serve beyond merely creating an income. The income can take the form of a commodity, such as gold, diamonds or other precious metals, which can be converted into an independent currency, ranging from 'hard' local cash, to a more abstract cryptocurrency. This too can be used to perform certain functions, depending on the nature of the deal.

The buyer's perspective may reflect some similarities in motivation to that of a seller, but essentially the similarity rests only at a fundamental level. In purchasing culturally significant artefacts, the buyer may have additional motives beyond wishing to hold such goods for simply intrinsic purpose. These could include a form of investment, generating a return, or as a store of value. Such artefacts may also act as financial security, which resembles a more dynamic future contract than a static object endowed with cultural significance. In contrast, even as an object of intrinsic value, forming a part of a grander collection within a private museum, there is a secondary purpose, namely the preservation of artefacts of cultural significance. As a collective good, there is no specific restriction on who would benefit from such goods. Nonetheless, the storage of an artefact removes such an artefact from the definition of a collective good. In other words, the artefact becomes exclusive to the beneficiary, or nobody at all.

While an artefact remains in the bounds of a collective good, then everyone might benefit, assuming unrestricted access. Restrictions would include entrance fees and privacy of ownership. For example, 'fine art' produced by a famous artist on display in a state-owned museum, such as Leonardo da Vinci's 'Mona Lisa' in the Louvre museum in Paris, or pieces from Tsar Nicholas II's private collection, including paintings and drawings, housed in the State Hermitage of St. Petersburg, Russia, may be considered as collective goods. Therefore, appropriation of art or artefacts of cultural significance could fall into the definition of collective goods, namely those found in the British Museum, based in London, which boasts the Egyptian gallery, displaying the world's second largest collection of Egyptian antiquities outside Egypt, including the Rosetta Stone.

For most of these examples, the public sector, or greater society, has access to such artefacts of cultural significance. There are however levels of benefits (positive externalities), some being measurable, such as the revenue generated to view collections. There remain also the non-measurable benefits, such as the pleasure derived from being physically in the presence of an artefact, for example, 'The Flood Tablet', currently held in the British Museum, originating from 7<sup>th</sup> century BC, Syria. Revenue collected from visitors is used for preservation of the items of 'cultural significance', and thus also serves as means with which to categorise an item of cultural significance into a 'store of value'.

Items that are removed from greater society do not fall into the space which would define them as a 'collective good'. By removing the artefact from a space which would be considered as a positive externality, results in it being automatically translated into a negative externality. For example, an item made in gold, such as the 'Malagana Treasure', originating in Colombia, may have a positive externality in a museum, but if it was stolen or removed, and melted down to a chunk of gold, it becomes a means of exchange in the 'black' (illegal) market. Incidentally, the area in which the Malagana Treasure was found has been subjected to looters, and it is estimated that millions of pesos worth of goods have been stolen and possibly destroyed. Yet, the trade in the black market does not mean that artefacts of cultural significance will be destroyed; there is also a possibility that such items would be exchanged and traded in these markets. Ironically, the trade may even aid in the preservation of such items. Due to the nature of the black market, an area of little regulation, the motion of 'upstream' preservation may have negative 'downstream' consequences, such as the funding of illicit military and social activities.

Constructing an economic argument will involve incorporating certain structural supports relevant to a global market economy. This argument will draw on philosophy, politics, society, and history. In other words, the debate presented here will consist of a myriad of themes, supporting the conceptualisation of the economics of culture. Definitions for value, cultural appropriation, and progressive trade will be suitably developed and refined to match the nature of this research.

The fundamental terms for art and artefacts will sometimes be interchangeable, but bear resolute differences within this discussion. While the premise of the debate will work within a free market economy, questions need to be posed from a social

perspective, such as collective value and the role of artefacts within a social view. This paper will highlight the struggle between normative beliefs, and the role of exchange within unregulated market environments.

Not all activities of cultural significance will behave in the same way, i.e. institutionally. This will have a direct consequence on the concept of time (space and time). Modelling the trade of cultural significance artefacts will demonstrate remarkable similarities and differences to that of other art forms, such as opera, dance or theatre. While an artefact has a certain tangible quality, given the context, many other forms of art would be less tangible, at least in the near future. For example, a sculpture (tangible) made today may be both more or less significant as a unit of cultural significance today than the same sculpture 10 000 years from now. A popular theatre production (intangible) presented today may move into mythology in the future, such as Homer's Iliad. Three components are important in this analysis, namely, space time and form. Herein, value is plotted as a relationship between space and time and the role of institutions, setting the normative belief creating form.

The role of this paper is to develop an argument which justifies that the value of an artefact of cultural significance will depend much on both the role of social institutions, as well as the period or spatial distribution from which the significance of the artefacts originated.

## **CULTURAL ARTEFACTS THROUGH THE EYES OF AN ECONOMIST**

Culture 'is who we are; shapes our identity; is a means of fostering respect and tolerance among people; is a way to create jobs and improve people's lives; is a way to include others and understand them; helps preserve our heritage and make sense of our future; empowers people.' This is why, they argue, culture 'works for development.' (Bokova, 2013)

Preserving and promoting cultural heritage and cultural products can help reduce extreme poverty in those developing countries that are economically poor but endowed with a rich and diverse heritage. Cultural activities can foster nation building, bridge social differences, and much more (Kabunda, 2014). Cultural economics is difficult to define, as it is placed between several disciplines, most commonly between art history, art philosophy, sociology, law, management, and economics. Within the



field of cultural economics, it is necessary to make the distinction between the performing arts (music, theatre, opera, dance), the visual arts (paintings, sculpture, art objects), and cultural heritage (museums, historical buildings, monuments and sites). However, there are some overlapping areas between the fields, for example, museums accumulate paintings, or some artists in the visual arts may produce art performances, which are presented in art galleries (Ginsburgh, 2001).

'Cultural artefacts' is a term used in the social sciences, particularly in the world of anthropologists, ethnologists, and sociologists, for anything that has been created within society, from which information about the culture of its creator can be derived. Art and culture are produced by individuals and institutions, operating within the economy, and therefore cannot escape the constraints of that material world (Heilbrun & Gray, 2001). However, cultural artefacts differ from the standard term for 'goods' used by economists.

An economist would refer to economic 'goods' or simply put, 'goods', as any objects which may satisfy human wants and provide some form of utility (satisfaction or benefit) to the person purchasing the item (Parkin, *et al.*, 2013). While goods may or may not contain elements of cultural significance to the consumer, the cultural significance could have an impact on the utility derived from the good. For example, Ginsburgh (2001) mentioned that the activities of artists generate externalities that cannot be priced, such as civilizing effects, national pride, prestige, and identity.

Economic goods can also have either tangible (physical) qualities, or intangible (non-material) qualities, or both. In most cases, applying the principals of neoclassical theory, goods should be either tangible or intangible. By economic thinking, or economic analysis, neoclassical theory means the 'optimal allocation of scarce resources to alternative ends' (Klein, 2011). Economic goods have constraints, and these constraints are set in the natural world, a world endowed with scarcity.

Furthermore, economic goods will experience scarcity in relation to the demand for those goods. It is this scarcity, which we derive from the natural world, which creates value, and through exchange, price. The possibility of market exchange for cultural goods differs from economic goods, as cultural goods, such as cultural artefacts, cannot be based on individual calculations of economically rational actors alone, but must be attributed to the social contexts in which actors are embedded, and that also

shape their expectations. As such, the market for art is closely linked to non-economic, cultural ideas of value because the very monetary valuation of art works is already considered to be a debatable area within the art world (Beckert & Rössel, 2013).

Intangible goods derive their value from something that does not have a physical measurement. In many modern economies, there is a shift whereby economic value is increasingly based on services that have little or no physical content. Intangible goods are knowledge, education, patents, goodwill, trademarks, branding, information, communication, sustainability and culture. While intangible goods have no physical measurement, they have form. Form is derived through institutions, giving meaning to intangible goods. Cultural goods are both tangible and intangible. Tangible in that it has something which has a physical property, and intangible in that there is a connection to a specific identity.

Cultural artefacts are different from economic goods, as cultural goods are those which are both tangible (physical qualities) and intangible (cultural qualities).

Art as a cultural artefact has, throughout the evolution of society, occupied a special position among human activities. Some might rank art as the highest of all callings (Heilbrun & Gray, 2001). Therefore, in economics term, art is also a "merit" good. In other words, its existence has a tendency to improve the environment for those who are in its presence. While generations change over time, art remains constant, holding with it a certain degree of social significance, or store of value. Art, as a merit good, is transferred from generation to generation, as a store of culture, where the value is in its cultural significance. Culture is transmitted via education, not only institutional, but also from parents to children. Since parents can hardly be considered as purely altruistic, an externality is generated, which needs support for efficiency (and equity) reasons (Ginsburgh, 2001).

Economic goods are usually categorised into the degree of homogeneity (standardised). This makes it easier for the economist to explain prices, and ultimately value of goods, and the real answer to distribution. This naturally clashes with the nature of cultural heritage, where an important part of understanding cultural artefacts is the concept of heterogeneity (uniqueness). Art works are, with some exceptions, heterogeneous (Baur, 2014). Each creation is unique and markets can hardly be analysed by the usual supply-demand mechanism (Ginsburgh, 2001).

Thus, there is a directional flow of thought from societal to meaning. The interpretation of cultural artefacts is usually supported by a cultural platform, which has been constructed to support symbols. Society is organised into an infinite number of individual social structures, each consisting of specified individual spheres of cultural composition, through which societies generate their own independent meaning systems. While some individuals may consider themselves conservative or liberal, it is questionable how prepared they are really to tolerate others political perceptions or views. Deriving meaning through the thought process is consequential to an interpretation of the material or the environmental (Baur & Els, 2014).

While cultural artefacts have an undefined lifespan, the meaning underlying the artefact remains specific to the culture, which has a limited existence, as one culture replaces another over a period of time. Art, or artefacts with cultural significance, can act as a record of that past, specific event. As such, therein is a hidden store of information that carries justifiable theoretical value (Brighenti, 2007). The stored information could be considered hidden, because the interpretation of this information is dependent on the contextual background of the interpreter, or reader of the material (Baur & Els, 2014).

Art is an expression of an assemblage of signs and symbols arranged in a specific predefined form to create meaning. Because symbols are designed to carry meaning, they are chosen to be aesthetically impressive, and semantically relevant within a specific contextual social framework (Brighenti, 2007). However, meaning is not universally singular. The value of art goes beyond simple economic value. Art can be educational, life-enhancing, and help to define personal and national identities. The absence of historical art creates an emptiness in the history and heritage of many African countries, and impacts the personal motivation, creativity and innovation of people (Ratha & Kabanda, 2015).

It is the interpretation of the signs and symbols presented in that idea that becomes the significant component. In order to interpret the creative form, there are numerous underlying processes acting upon each other, forming emotional responses within the audience. The interpretation of this expression is subjective, as the emotional response elicited by the audience is only a construct of the interpreter's own personal and social values and beliefs (Brighenti, 2007).

These values and beliefs should be protected in what is often referred to as cultural democracy. Because values and beliefs are shaped over time, the experience of the observer is shaped through a series of life's conflicts, cultures, and social communities within which we interact. This is a product of the entire environment in which the observer gained their life experience and knowledge. The social beliefs are shaped by the collective interpretation, through the lenses of society (Baur & Els, 2014). It is important that society protects and promotes cultural diversity, and the right to culture for everyone in our society and around the world. Society should encourage active participation in community cultural life, to enable people to participate in policy decisions that affect the quality of their cultural lives, and to ensure fair and equitable access to cultural resources and support (Institute for Cultural Democracy, 1998).

The interpretation of items that are cultural significant is very much reliant on an observer's own interpretation of what the observer would construct as meaning and the interpretation of expression as a notable aspect of culture, where culture is a concept of bounded rationality. The emotional response elicited from cultural artefacts should take into account very diverse environmental, social, cognitive and individual perspectives. 'A culture provides very important symbolic and expressional elements that are used for generations and generations as a source of communication between their communities, is a community that will never be forgotten' (ZBC, 2018). The perspective that centres on the interplay between culture and economy has also been expressed in the notion of 'cultural economy', which recognizes that the economy is bound up with processes of social and cultural relations (Kabunda, 2014).

### **ECONOMIC DEVELOPMENT, ONE WITH ART CULTURE AND HERITAGE.**

Amantha Zen (2014) mentioned that development should be seen in regards to human perspective, rather than simply the expansion of material means, and must take note of the enrichment of people's lives. As mentioned by Throsby (2010), 'where culture leads, trade follows'. For example, the performing arts cannot but have a major role in making our lives richer and finer. In this sense, the creative wealth represented by the tradition and practice of the arts is constitutively a part of the process of sustainable economic development (Kabunda, 2014).

Culture embraces all of society's intellectual achievements and developments, both holistically and collectively. Culture is generally perceived in customs, social behaviours, norms, traditions and wellbeing. Culture is often the basis of every legal framework, imprinting itself in society's choices and preferences, impacting on politics, economics and social expression. Unesco (2002) defined culture as 'the set of distinctive spiritual, material, intellectual and emotional features of society or a social group, and that it encompasses, in addition to art and literature, lifestyles, ways of living together, value systems, traditions and beliefs'.

Like heritage and identity, culture is a term that causes much confusion and suffers from its misuse. Traditionally, it has been used to refer to the ways of life of a specific group of people, including various ways of behaving, belief systems, values, customs, dress, personal decoration, social relationships, religion, symbols and codes. Cultural consciousness is often expressed through art and literature, and eventually in time, will filter its way through to future generations, where some elements may be withheld, and other elements discarded. The nature of culture, being both exclusive and inclusive, requires a multidimensional approach in research, and should be analysed across several social tiers. Further, successful policy design and implementation is centred on cultural arrangements, and where policy is not in line with societies established culture, and will eventually result in social conflict.

The social world is so complex and multidimensional that people must create numerous institutional concepts to try to describe, codify and understand its varied dimensions. Thus, society, race, culture, identity, state and nation-state are all concepts that people have created to help understand reality (Baur & Els, 2014). African art and culture, in many instances, deals with making sense out of the world. It also deals with religious aspects of life. The first African art were terracotta figures that didn't concern itself with normal human representation. African art doesn't does not just focus on recreating the world in another form, but rather concentrates on explaining the world to reduce the fear of what is unknown ([www.all-about-african-art.com](http://www.all-about-african-art.com), 2018).

In a country like South Africa, there is not one heritage, or an easily delineated set of distinct identities. The nature of African culture is of little sense, for the Xhosa, Zulu, Pedi, Dinka, Himba, Berber, Arab, and so forth, all represent vastly different modes of practice and have little in common save for their relative geographic proximity in

relation to the rest of the world (SAHO, 2017). Multi diversity is a thing of the present, which has been born from years of migration and political and social turmoil. The cultures, languages and heritages that exist within South Africa are multiple, diverse, and dynamic. Intersectional issues of gender, ethnicity, and race further complicate the matter of identity and make it highly inadvisable to categorise the different people contained within South Africa's borders (SAHO, 2017).

Moyo (2018) mentioned that on the list of items taken from the colonisers includes our heritage that have now been scattered across the world. Heritage might be best broken up into two types: natural and cultural. A country's natural heritage is its environment and natural resources, like gold and water. Cultural heritage, in contrast, can be an altogether more contentious issue. The use of the identity cultural heritage describes those items which contribute to the specific identity of a particular community of people. These can be a special monument, like a building, sculpture, painting, a cave dwelling or anything important because of its history, artistic or scientific value (SAHO, 2017).

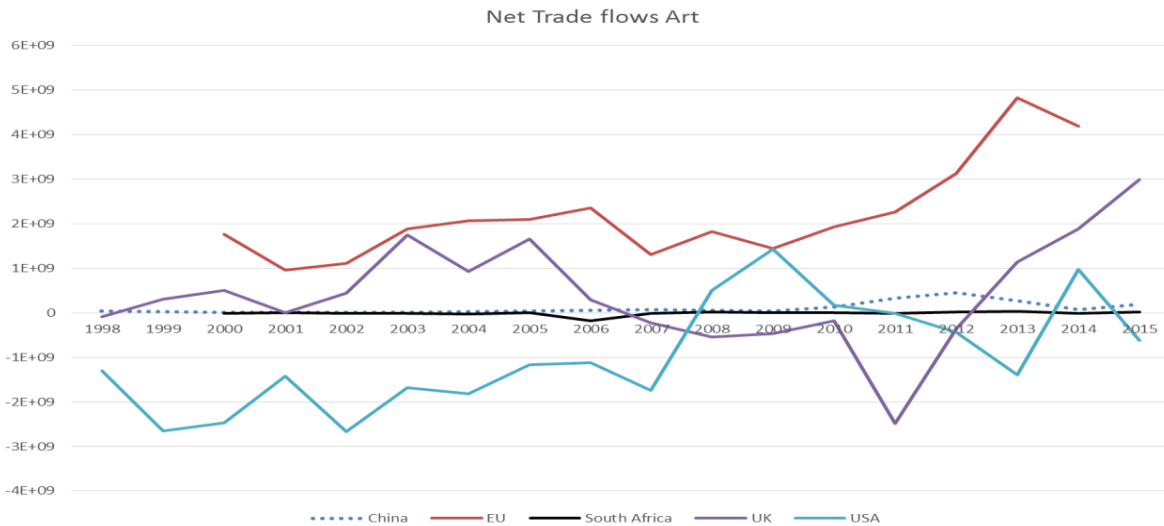
The request for the return of objects of cultural heritage have largely been met with resistance. While Moyo (2018) stated that the British are accused of being the biggest culprits of the plunder of Africa's cultural treasures, most colonizing powers have a share of the blame. Many works of art are reminders of the history of families, clans, and villages that made up ancient African societies. It appears to be true that with most of that indigenous knowledge having been erased and stolen from Africa, Africans are left with little evidence of Africa's pre-colonial history (Moyo, 2018).

African art and culture are sometimes considered one and the same. Culture is the history, practices and beliefs that make up a society. In Africa, art was seldom used for decorative purposes, but rather to give life to the values, emotions and daily customs of the various ethnic groups throughout the continent. However, the term for cultural art and cultural artefacts is insufficient to capture the range of what is meant by objects of cultural significance. Other forms, including music and dance, are equally important. Emotions, sensations, motives, needs, imagination, perceptions and memory are integral parts of a cultural cognitive schema which is expressed through the use of different art forms, including dance and music (Baur & Els, 2014). In the case of African culture, the music was the main artefact of their culture and the impact of music on the African culture was quite significant. For example, in South Africa,

music was a major aspect in driving the movement against apartheid (Kabunda, 2014). African music, including music made by Africans in other parts of the world, was influenced by language, the environment, the local politics and a variety of cultures, as the population of Africans were distributed across the world (UKEssays, 2013).

The term 'cultural industries' traces its genealogy back to earlier work in the Frankfurt School in the 1930s and 1940s, which scathingly decried the commodification of art, as providing an ideological legitimization of capitalist societies, and the emergence of a popular culture industry. From a particularly socialist view, culture and the economy are seen as mutually hostile, each driven by logic so incompatible that when the two are made to converge, the integrity of the former always suffers. By the early 1960s, however, many analysts had begun to recognize that the process of commodification does not always or necessarily result in the degeneration of cultural expression. Industrially produced goods and services have many positive equalities. From the 1980s onward, the term 'cultural industries' were considered in a more positive light. This referred to forms of cultural production and consumption that have at their core a symbolic or expressive element, including music, art, writing, fashion and design, and media industries, and investment in the traditional rural crafts. The cultural industries generate significant economic value, while including social and cultural value too (Kabunda, 2014).

The relationship between trade and development is widely acknowledged. The strategy to promote trade in services, an area now recognized as an opportunity for developing countries, is timely. Moreover, as noted earlier, trade in artefacts with crucial inputs serves as a development for the infrastructure of trade in other areas, as can be seen in Figure 1 and Table 1 below.



**Figure 1: Comparing the global trade in art, antiques and collectables**

**Table 1: An econometric analysis when investigating the global trade in art, antiques and collectables between 1998 and 2015**

	China	EU	SA	UK	USA
<b>Import</b>	0.195***	0.661	0.029*	0.777	0.592
	China	EU	SA	UK	USA
<b>Export</b>	0.349***	0.608	0.427**	0.676	0.769

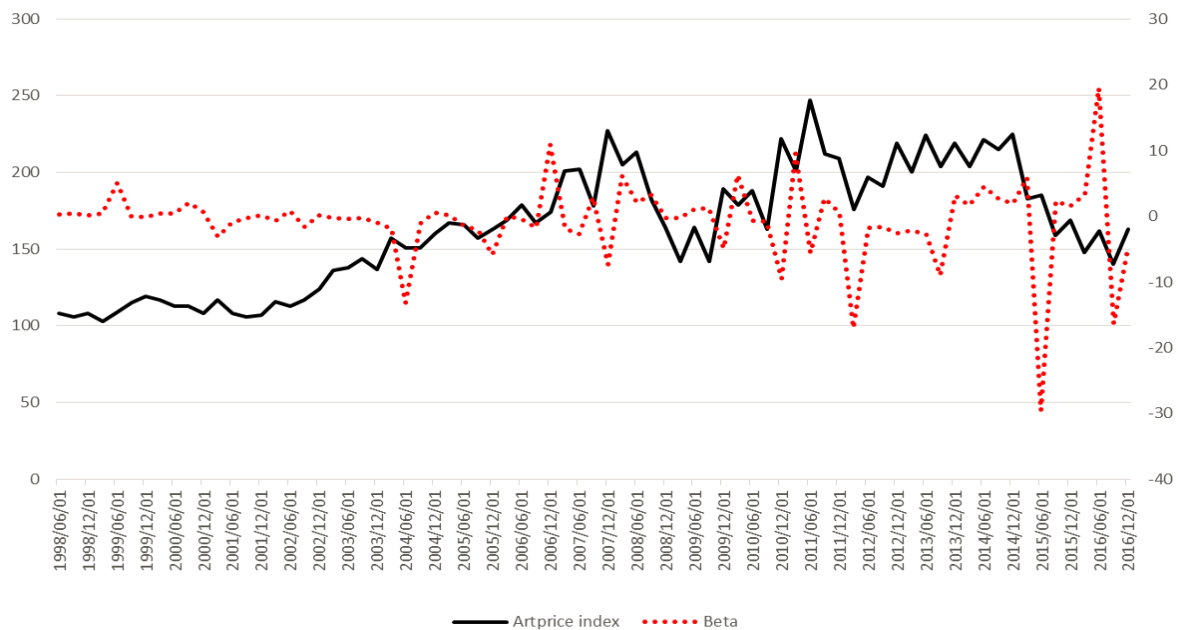
Using a synopsis of imports and exports of art, antiques and collectables, the relationship highlights some interesting findings. Table 2 highlights that South Africa's imports of art and collectables are very low, and the data are not statistically significant, yet South Africa's exports of art and collectables show a high positive correlation with investment (Adj. R Squared 0.478), where investment total is measured as the percentage of GDP in South Africa rand. However, the low correlations in China are possibly due to media censorship issues.

There remains a huge task when analysing the cultural industries, as there is a lot of unrecorded transactions happening, mostly within the informal sector. A lack of data is counter supportive for goods art policy, so as to make the cultural industry more inclusive, and in some cases, rise it above the fundamentals of the black market economy. This point is strengthened by Kabunda (2014), who declared that a sound arts policy in development is often weakened by the lack of good economic data. The reasons for this include the difficulty to measure the true value of the intangible and



tangible aspects of the arts in purely quantitative terms. Also, there is a reluctance of some people in the arts community to push for what they see as the ‘commodification’ of the arts. Furthermore, a lot of arts’ services are cash-related transactions, and are not always reported.

The risk remains a concern in the trade of art. Figure 2 below shows the relationship between Artprice index and the level of risk, beta.



**Figure 2: World Artprice Index, and the relationship with beta (risk)**

In the world market for art, the adjusted  $R^2$  value is at 0.31, which implies that only 31% of the assets’ performance is explained by the risk exposure. The alfa ( $\alpha$ ) value, indicating the performance of the asset, indicates that the art market underperformed ( $\alpha = -150.84$ ). According to Baur (2017), the low performance of the market for art is as a result of other factors, such as the value of the asset to investors, and other social, psychological and institutional factors. Art as an investment item may be different from other conventional investments, in that art may also be a store of value, which has very different behavioural trends from equity markets, where equities would be seen as a means of generating profit, while the art market may be perceived as a market for goods which hold profit. Looking at Figure 2 above, the average value of beta ( $\beta$ ), between 1998 and 2016, was -0.2817. This implies that there is a store of value associated with these assets, which occurred 48% of the time between 1998 and 2017. The market for art was shown to be riskier than the general market, but also more profitable than the S&P 500, which occurred 52% of the time. The market for

cultural artefacts is clearly less risky, however delivering lower returns, in the formal market for fine art.

Baur (2016) stated that modelling the market for cultural artefacts is challenging because firstly, the market structure is extremely different, and secondly, the asset holds characteristics of cultural artefacts that is very different from most of the other tradable assets within the market. However, according to Baur (2016), the leading problem is the lack of homogeneity for cultural artefacts. This means that while cultural artefacts may hold a store of value, which may be therefore suitable as an investment tool, it is near impossible to predict the return to the investor. This is due to cultural artefacts being endowed with a great deal of fundamentals underling the desire to hold the asset. These fundamentals are often in themselves connected to a cultural bias embedded within the social constructs. Therefore, there is no predetermined objective structure from which to measure a singular value. The most common trend used to measure such a value is found in the construction of price index systems, employed by different institutions, which dominate over the market for artefacts with cultural significance.

## **DEVELOPING A DECISION-MAKING MODEL FOR CULTURAL ARTEFACTS**

Risk and uncertainty are underpinnings of decision-making models. Due to the asymmetrical distribution of information between dealers in artefacts of cultural significance and institutions, there is uncertainty over the value of artefacts. Not all activities of cultural significance will behave in the same way, i.e. institutionally. This will have a direct consequence on the concept of time (space and time). Modelling the trade of cultural significance artefacts will demonstrate remarkable similarities and differences to that of other art forms, such as opera, dance or theatre. While an artefact has a certain tangible quality, given the context, many other forms of art would be less tangible, at least in the short term. For example, a sculpture (tangible) made today may be both more or less significant as a unit of cultural significance today than the same sculpture 10 000 years from now. A popular theatre production (intangible) presented today may move into mythology in the future, such as Homers Iliad. Herein, value most likely is plotted as an inception between the axis which represents space and time, and the axis which represents the role of institutions.

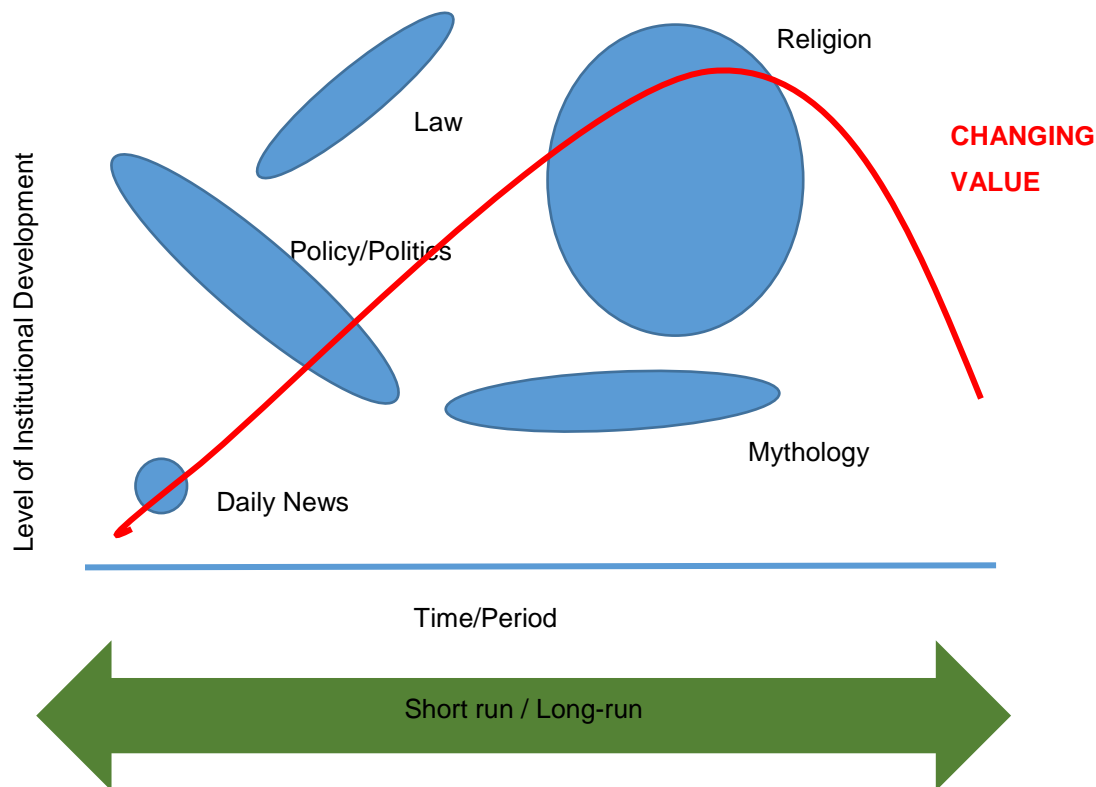
Institutions are neither formal nor informal, as a typical market structure would propose. Institutions are decision-making bodies with some influence in the market. Beyond the institution are the institutional variables which are defined as legal, political, cultural and administrative factors. These factors give the institution form. Baur (2016) posited that these institutional variables can be either informal or formal. In the case of informal, these would include socio-cultural behaviour or norms. In the case of decision-making, the informal institutional variable represents the non-rational behaviour of the economy. Formal institutional variables make up the rules and regulations of society.

Form can take up the characteristics inherent in perceptions, tastes, attitudes, relationships, aspirations and other beliefs related to human behaviour. In other words, this would be the essence of an individual's subjective experiences, or the socio-cultural factors. It is noted that institutions and agencies are not binary oppositions of each other, such as government and informal culture, which are embedded into each other as suggested by Kauko (2004).

When examining Chinese businesses, culture is an important feature where antediluvian tradition and superstition tend to intermingle with modern business practices. In an article by Tsang (2004), it is mentioned that *feng shui* is still considered an important part of developing good business practice. While superstition is often perceived as inconsistent with modern business management principles, and despite the various schools of thought on decision-making, its most common portrayal interprets action as rational choice. The aspects of human behaviour were described by Chong, Guillen and Riano (2010), who illustrated that political and institutional variables interact with each other with increasing levels of electoral competition, greater levels of political cohesion, lower levels of electoral fraud, better governance and, in general, more democratic values.

Baur (2016) mentioned that the effect on prices is being captured by the measures that reflect the political (institutional) process within the country, rather than by the nominal political regime, or even the broad political environment. Given alternatives, the economic tourist is seeking value. The institutional context clearly has a significant impact on determining value. For the economic tourist, this would mean that prices are not a determining factor of value, but an indication of social, cultural and political trends.

Therefore, it appears from this argument that the trade of artefacts that are culturally significant will depend much on the role of social institutions. A possible example of how the above discussion could be mapped, could possibly look like this presented in Figure 3 below. Naturally, this is all hypothetical, but it helps distinguish between the role of information, the role of the institution, the period the artefact was created or became established, and quite possibly some form of significance.



**Figure 3: Determining value for the decision-maker by considering the relationship between time, space and form for artefacts of cultural significance**

The value line may hold merit in that it shows the changing nature of value as an artefact was to move from the short run into a long-run phase. For example, assuming that Trump is a political artefact, and being political, it is also highly institutionalised. “Trump, being popular currently, has, presumably, high value. Yet, as Trump eventually falls out of power over time, his value begins to diminish. This is because his institution is replaced with a new meaningful institution, which may be more appropriate at that new point in time. However, suppose that Trump is well archived, due to institutionalisation, and assuming that he has supposedly created a legacy, somewhat of an intertemporal memory, which survived the short run, (possibly even used as an example of policy development by future generations), then his value

begins to increase into the future, not as Trump, but a conceptualisation of Trump. Thus Trump moves from policy into mythology, and as such, the value of the Trump artefact gains value into the long-run.

## **CONCLUSION**

Cultural artefacts are found in all walks of life. There is no basic formula that can be applied amongst academic researchers that clearly defines what the value of an artefact of cultural significance really is. Much of the problem is inherent in what is used to define culture.

Entire continents have been robbed of cultural artefacts, from the Americas and Africa to Asia and Australia. Entire histories have been lost, and painstakingly brought back to the light, unfortunately, in some cases, centuries after, the true victims have lost their voice through the passages of time. Some countries try and protect what they have, others protest and ask for the return of artefacts that they believe to be of importance to them. Much of the plundering of the cultural artefacts have been due to colonization. South African students in Cape Town, Rhodes and Wits have demanded that their cultures are once again recognised amongst the archives of globalisation.

Borders are dissolving, new cultures are been established, but old cultures should not be forgotten. The introduction of concepts such as the fourth industrial revolution and the growth of multinational corporations, both electronic and other, have opened the way for people to question the manner in which they fit once again into a business world, where interconnectivity is at its greatest, and cultural identity is foremost.

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**M. Bridgette and R. Patient**

**THE INFLUENCE OF STRUCTURAL VARIABLES ON THE  
CREATION OF TECHNOLOGY-ORIENTED VENTURES IN  
MANGAUNG METROPOLITAN MUNICIPALITY AND MATJHABENG  
LOCAL MUNICIPALITY: A CASE OF INTERNET CAFÉS**

Mokgosi Bridgette and Rambe Patient

**ABSTRACT**

The contribution of individuals (e.g. age, gender, entrepreneurial experience and exposure) and institutions (e.g. role of family role models, family recognition of venture creation) tend to dominate the explanations of differences between successful and unsuccessful entrepreneurs. However, there is limited literature that considers the role of broader structural factors, which have a bearing on the extent to which individuals can succeed as prospective entrepreneurs. Yet structural factors, such as the entrepreneur's prior participation in technically-oriented disciplines, such as Science, Technology, Engineering and Mathematics (STEM), and societal prejudices that often give preference to men rather than women, in terms of funding opportunities and general perceptions of prospects of success in businesses, also differentially influence individuals' success in entrepreneurship. As such, the current study explored the influence of participation in STEM and social prejudice on the successful incubation of small technology-oriented ventures, in particular internet cafés. Drawing on quantitative approach, a survey was conducted among 91 owner/managers of internet café SMMEs in the Mangaung Metropolitan Municipality and Matjhabeng Local Municipality. The findings demonstrate that marketing, and social prejudices in marketing, were conceived as positively and significantly associated with venture creation, which perhaps explains the domination of male-oriented businesses. The study recommends that the internet cafés should continually develop new marketing strategies and exploit existing opportunities in the market to ensure the market-related growth of their businesses.

**Keywords:** STEM, Structural variables, Technological venture, Women.



## INTRODUCTION

The current study examines the influence of structural (i.e. small business owner/manager's participation in Science, Technology, Engineering and Mathematics [STEM] disciplines and social prejudice) variables on the creation of technology-oriented ventures, especially internet cafés in the Marga Mangrove Metropolitan Municipality and Matjhabeng Local Municipality. The study was motivated by prior research's extensive foci on individual factors that influence venture creation, such as gender (Fafaliou & Salamouris, 2014; Wasdani & Mathew, 2014); age (Sajilan, Hadi & Tehseen, 2015; Yaghmaei & Ghasemi, 2015); race; highest qualification (Civelek, Rahman & Kozubíková's, 2016) and the Small Enterprise Development Authority [SEDA] (2016). These studies indicated that gender, age, and higher education tend to shape entrepreneurial behaviour, which has a bearing on actual participation in venture creation. The reality is that such a concentration on micro level variables downplays macro level factors (i.e. structural factors) that also shape venture creation, such as social prejudice that is rampant in society. Similarly, other studies seem to concentrate on institutional factors such as STEM (Ceylan & Ozdilek, 2015) and social prejudice (Stamarski & Son Hing, 2015) as the main explanations for the differential levels of success in the incubation of new ventures. In the same manner, giving preponderance to institutional factors exclusively negates other structural variables at the centre of explicating venture creation - a gap this study seeks to close (Raidimi, 2014; Hechavarria & Ingram, 2016; Husselmann, 2016). This current study, therefore, concentrates on establishing the extent to which structural variables, such as entrepreneurs' prior participation in technical disciplines such as STEM (Liu, Lou & Shih, 2014; Lindemann, 2015, Richardson, 2016) and social prejudice, shape venture creation among technology-oriented ventures.

1. How do structural (e.g. Science, Technology, Engineering and Maths [STEM] and social prejudice) variables influence the creation of technology-oriented ventures in the Marga Mangrove Metropolitan Area and Matjhabeng Local Municipality?

## **PROBLEM STATEMENT**

Much literature concentrates on individual personal factors (Sajilan, Hadi & Tehseen, 2015); Stander, 2015); Tweneboah-Koduah & Adusei, 2016) and institutional factors, such as family role models and family recognition of venture creation (Jekwu, 2016; Kassean, Vanevenhoven, Liguori & Winkel, 2015; Morgenroth, Ryan & Peters, 2015; Tarling, Jones & Murphy, 2016) as main factors that influence the creation of technology-oriented ventures. However, very few studies focus on the influence of structural variables such as STEM (Nimmessgern, 2016; Shauman, 2017) and social prejudice (Rambe & Mokgosi, 2016) on the creation of technology-oriented ventures. The problem, therefore, is the limited attention in literature to structural variables that shape the creation of technology-oriented ventures, such as internet cafés.

## **PROBLEM BACKGROUND**

Despite the multiple explanations for the invisibility of structural variables in explicating venture creation, gender-blind policies for admission and participation at university, and the dominance of patriarchy, seem to provide a logical reason for the eclipsing of such variables.

### **Gender-blind policies for admission and participation at university**

Universities adopt gender-blind admission and participation policies that assume that female and male students have equal opportunities to excel in STEM disciplines. Maltese and Cooper (2017) suggested that, 'differences in STEM interest between sexes manifest as a larger number of females pursuing and completing advanced degrees in certain STEM fields (e.g., biology, chemistry) over others (e.g., physics, engineering)'. The reality, however, is that these policies are unrealistic to the extent that they assume that female students (who bear the brunt of domestic work at home, and who are less preferred to excel than males) can withstand all their historically and socially-induced responsibilities (they bore throughout high school) in order to thrive at university. Yet evidence of limited effective participation of females in STEM subjects is manifest in their limited throughput and graduation rates in comparison to men. There is also higher evidence of female dropouts on STEM subjects. Silim and Crosse (2014) concurred that girls tend to abandon STEM fields, and consequently the engineering pathway, in large numbers. Collectively, these factors negatively affect

the capacity of females to participate in technology-oriented entrepreneurship and venture creation.

### **Dominance of patriarchy in South Africa**

Patriarchy seems to have a huge impact on the South African society, as tradition and value systems continue to elevate men at the expense of women. For instance, Noge (2014) stated that 'patriarchy is a permanent force in South Africa' - implying that patriarchy may contribute directly to social prejudice as the male gender tends to be assisted more than the female gender. Furthermore, Mgcotyelwa, (2012); Marumo (2014) and Noge (2014) stated that South Africa is confronted with serious challenges because it is a patriarchal society that is divided along gender lines. It can be argued that the patriarchal nature of society, which imposes the responsibilities of providing for families on men, explains the male dominance in entrepreneurship and self-employment. More so, the prevalence of patriarchal tendencies mean that women are more likely than men to restrict their authoritative decisions in an entrepreneurship profession because of lack of confidence and trust in their capacities (Vossenber, 2013). Mazonde and Carmichael (2016) argued that social conditions shape social gender roles and stereotypes in terms of professions considered suitable for women. It can be argued that social conditions create prejudices that catapult men, entrench masculinity and undermine femininity with implications for access to financing and success as entrepreneurs. For instance, financial institutions tend to judge male applications more favourably than females due to the entrenched belief that males tend to be more successful entrepreneurs than females. The limited visibility of female role models in businesses tend to entrench the problematic assumptions that females do not make great entrepreneurs. Perhaps this affirms Hechavarria and Ingram's (2016) conclusion that women are less motivated to pursue entrepreneurship than men because of the discrimination they usually encounter within society at large.

### **LITERATURE REVIEW**

While there are many structural variables, participation in STEM and social prejudice in marketing and funding of SMMEs are often highlighted as some profound determinants in explaining and hindering individuals' participation in venture creation. These two structural variables are elaborated in the subsequent sections.

## **Participation in Science, Technology, Engineering and Mathematics (STEM)**

As already highlighted, skewed participation in STEM is considered as one of the important structural variables that shape the interest in entrepreneurship in South Africa. Historically, women have been underrepresented in Science and Engineering (S&E) occupations in South Africa and the rest of the world (Price, 2010), and this has implications for their limited visibility in science and technology-oriented occupations and STEM-based entrepreneurship. Smith (2012) and Martin and Barnard (2013) found that the desire to gain acknowledgement from colleagues was significant for women's STEM careers, and women showed increased success when they had peers who believed they were capable of being successful. However, graduation rates and throughput at South African universities do not seem to support the view that female students have effectively participated in this discipline, comparative to their male counterparts. Attempts to increase the number of women in these occupations is manifest in that various policies that focus on increasing the number of females who enter tertiary education in STEM fields (Price, 2010), as well as the recognition of successful women in this discipline in business and in higher education. These interventions include increasing female enrolment in STEM disciplines and gender mainstreaming programmes, aimed at increasing female effective participation in these disciplines. Other interventions include Women in Science Awards (WISA) and the provision of targeted funding to female students at university. Despite these programmes, women continue to be under-presented, at both the levels of enrolment at tertiary levels, and the creation of new technology-oriented ventures in South Africa.

### **Social prejudice**

Social prejudices are also at the centre of women's discrimination in both STEM subjects and participation in entrepreneurship. Most people associate both the Science and Mathematics fields with males, and the humanities and arts fields with females. Implicit bias is even common among individuals who entrench these stereotypes and this bias affects individuals' attitudes towards female involvement in STEM and participation in technically oriented entrepreneurship. It can be assumed that the traditional dominance of patriarchy, which entrenches the reproductive role of women and questions their role as breadwinners and creator of ventures (Rambe & Mokgosi, 2016; Rambe & Moeti, 2017), contributes to such stereotyping and prejudicing of women in business. The over-burdening of women with multiple family

and household roles also explains their limited participation levels in both STEM and entrepreneurship. Raidimi (2014) and Husselmann (2016) argued that women perform three traditional roles in society: reproductive, productive and community management roles. This triple burden forecloses opportunities for women's engagement in important disciplines such as STEM, and by extension, participation in technically oriented entrepreneurship.

### **Social prejudice and marketing of SMMEs**

Men may be more predisposed to getting structural support when marketing their products and services than their female counterparts if they aspire to become entrepreneurs. Social prejudices tend to undermine the marketing strategies of female owned businesses, for example retail and service-related businesses (Mazonde & Carmichael, 2016; Pounder, 2016; Wei-Cheng 2016), irrespective of their marketing competencies. Furthermore, Kumbhar and Kumbhar (2011), and Chinomona and Maziriri (2015) stated that women entrepreneurs are confronted with several problems, such as limited access to start up finance, technology, management and marketing skills. Lack of marketing training and experience imply that women are unable to market goods and services competitively, and hence undermine the chances of success of their business activities. Mandipaka (2014) and Hammawa, and Hashim (2016) concurred that women are unable to market goods and services strategically. Furthermore, a lack of accurate information on the new markets and market segments, and the ever-increasing demands by clients for variety, pose challenges to the thriving of women entrepreneurship (Farah, 2014).

### **Social prejudice and funding of SMMEs**

The prevalence of social prejudice undermines the capacity of marginalised groups, such as women, to acquire the financial literacy needed to run businesses successfully. Lusardi and Mitchell (2011), and Musie (2015) highlighted that low levels of financial literacy among women is common throughout the world and, generally, women appear to know less about financial matters. Mustapha and Subramaniam (2015) posited that women operating small and micro scale businesses struggled to increase their productivity levels, found it hard to secure finance or start-up capital, and high quality labour force to enhance their businesses. Despite claims that women

tend to have better credit repayment records than men, women in business find it harder to raise finance than their male counterparts.

Female access to financial (and/or social) resources for the creation of new ventures is somehow obstructed and narrowed by gender disparity at individual levels, much as it can be constrained by male-dominant stereotypes (Aaltio & Wang, 2015; Rambe & Mokgosi, 2016). Such stereotypes at structural levels include the belief that female entrepreneurs are incapable of running a business professionally and with integrity, as well as men (Aaltio & Wang, 2015). These continual stereotypes and prejudices in finance manifest in the reality that women have more of a struggle in securing credit than men and have lower profit margins (Nsengiman, 2017;). Furthermore, Machado, Gazola, Fabricio and Anez (2016) stated that the difficulty for enterprising women is linked to gender bias since female are considered docile, weak, and lacking the capacity of working within a commercial society.

## **METHODOLOGY**

This study employed a quantitative research approach and survey research design. A survey approach is considered desirable when the researcher intends to test the associative and analytical relationship between independent and dependent variables. A survey is considered ideal when the current status, opinions, beliefs and attitudes are to be assessed by means of questionnaires or interviews from a known population (Maree & Pietersen, 2016). Since this study sought to explore the influence of structural variables on the creation of technology-oriented ventures, such as internet cafés, a survey design best suited this investigation.

### **Population, sampling, data collection and analysis**

The scope of the empirical investigation was limited to SMMEs, predominantly internet cafés in the Mangaung Metropolitan Area and Mathjabeng Local Municipality, in the Free State province of South Africa. The Free State Development Corporation (FDC), the funding agency that supports small, micro and medium enterprises (SMMEs), estimated that the number of internet cafés in the Mangaung Metropolitan Area and the Matjhabeng Local Municipality to be 95 entities. As a result, a survey was conducted on 91 internet cafés operating in the Mangaung Metropolitan Area and Mathjabeng Local Municipality. However, the small sample size meant that a census

involving all the 95 internet café owner/managers had to be conducted. A total of 58 respondents voluntarily participated in the survey, representing a response rate of 63.7%.

In conformance with the quantitative design, the measurement instrument, a structured questionnaire, was designed and distributed and completed by the respondents. All the questionnaire items were measured on a five-point Likert scale. The measures of reliability of each of the Likert scale constructs were calculated to determine their level of internal consistency. The data collected were coded and analysed using the Statistical Package for the Social Sciences (SPSS), version 23. The detailed analysis was conducted using descriptive statistics, such as frequency tables and inferential statistics, e.g. correlation analysis.

### Validation of the questionnaire

The Cronbach's alpha coefficient was also used as an indicator of how the questions that form a construct measure that variable. A Cronbach's alpha coefficient of at least 0.700 indicated adequate internal consistency and hence reliability. Table 1 summarises the results of the test for reliability.

**Table 1: Reliability statistics**

Construct	Number of items	Cronbach's alpha	Comment
Science, Technology, Engineering and Mathematics (STEM)	7	0.819	High internal consistency
Social prejudice	5	0.847	High internal consistency
Funding of SMMEs	3	0.738	High internal consistency
Marketing of SMMEs	2	0.852	High internal consistency
Venture creation: Opportunity identification	6	0.913	High internal consistency
Venture creation: Risk taking	4	0.845	High internal consistency
Venture creation: Resource mobilisation	5	0.902	High internal consistency
Venture creation: Implementation of business decisions	4	0.782	High internal consistency
Overall questionnaire all Likert scale questions	53	0.938	High internal consistency

The reliability statistics illustrate that all constructs in the questionnaire had a very high internal consistency. Hence, the items were in mutual agreement on what they intended to measure. The overall questionnaire also had a very high internal consistency (Cronbach's alpha statistic=0.938) and hence, it was deemed to be very reliable.

### 5.3 Biographical profile of the study sample

The demographic data of the sample of internet café owner/managers is illustrated in Table 2.

**Table 2: Sample demographics**

Personal details	Category	Frequency	Percentage
Gender	Male	31	53.4%
	Female	27	46.6%
Age in years	<20 years	3	5.2%
	21-30 years	36	62.1%
	31-40 years	16	27.6%
	41-50 years	1	1.7%
	51-65 years	2	3.4%
Race	White	9	15.5%
	Black	43	74.1%
	Coloured	5	8.6%
	Asian	1	1.7%
Nationality	South African	50	86.2%
	Non-South African	8	13.8%
Highest academic qualification	No formal Education	2	3.4%
	Primary	2	3.4%
	Middle School	1	1.7%
	High School	28	48.3%
	Tertiary	22	37.9%
	Postgraduate	3	5.2%
Role in the business	Owner	10	17.2%
	Manager	20	34.5%
	Owner/Managers	3	5.2%
	Other	25	43.1%
Do you own a business?	Yes	14	24.1%
	No	44	75.9%

Table 2 illustrates a moderate representation of male internet café owner/managers (53.4%) compared to female internet café owner/managers, who constituted 46.6% of



the respondents. About 89.7% of the respondents were young and middle-aged individuals in the 21-30 and 31-40 age groups, respectively. About 48.3% of the internet café owner/managers had a matric qualification. However, 37.9% of the respondents held a tertiary education qualification, whereas 5.2% had post school qualifications. These demographic trends reflect that a sizeable number (56.8%) of internet café owner/managers had lower educational achievements (had either a matric qualification or a lower qualification). The majority (56.9%) of respondents were either owners or managers of small technology-oriented ventures.

### **Internet café owner/managers' participation in STEM subjects**

Since the study sought to establish the relationship between participation in STEM subjects and creation of new venture, internet café owner/managers' participation in STEM was considered as a critical point of departure. Table 3 summarises the results of these owner/managers' involvement in STEM discipline.

**Table 3: Summary of internet café owner/managers' participation in Science, Technology, Engineering and Mathematics (STEM)**

SECTION C1: SCIENCE, TECHNOLOGY, ENGINEERING AND MATHS (STEM)		Frequency Distribution						Descriptive		Latent Factor (Principal component) Coefficient
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	% Agree/ Strongly Agree	Mean	Std Dev	
Q29. Did you do any of these subjects in your high school or university education Science, Technology, Engineering Mathematics (STEM)?	Count	0	28	0	30	0	51.7%	1.48	0.50	-0.201
	%	0.0%	48.3%	0.0%	51.7%	0.0%				
Q30. In my high school/university education both male and females were doing STEM subjects.	Count	5	5	16	13	19	55.2%	3.62	1.27	0.804
	%	8.6%	8.6%	27.6%	22.4%	32.8%				
Q31. In my high school/university education there was no preference of any particular gender in STEM subjects.	Count	3	6	14	12	23	60.3%	3.79	1.22	0.760
	%	5.2%	10.3%	24.1%	20.7%	39.7%				
Q32. In my high school/university education, both males and females were retained in the education system.	Count	3	2	16	16	21	63.8%	3.86	1.12	0.872
	%	5.2%	3.4%	27.6%	27.6%	36.2%				
Q33. In my high school/university education, both males and females had a high throughput rate (effective and meaningful academic participation).	Count	5	6	16	12	19	53.4%	3.59	1.28	0.799
	%	8.6%	10.3%	27.6%	20.7%	32.8%				
Q34. In terms of the graduation rates, both males and females had a high completion rate.	Count	8	6	15	16	13	50.0%	3.34	1.32	0.747
	%	13.8%	10.3%	25.9%	27.6%	22.4%				
Q35. My partner/guardian/parents preferred me to do STEM in my high school or university education.	Count	14	9	11	11	13	41.4%	3.00	1.50	0.648
	%	24.1%	15.5%	19.0%	19.0%	22.4%				
Cronbach's alpha								0.819		
% of total variation accounted for by latent factor								51.99%		

### **The gender demographics on retention and throughput rates**

Table 3 shows that about 63.8% of the respondents contended that the education system retained both males and females. Additionally, 53.4% agreed that both males and females had a high throughput rate. These statistics imply that although significant gains have been realised concerning student involvement in STEM, the South African higher education system still has a room for improvement judging from the sizable number of respondents who disagreed with statements on gender-related retention and throughput rates.

### **The level of preference for males and females in enrolling for STEM subjects**

From Table 3 it is evident that the majority (60.3%) indicated that no gender preferences were evident at high school/university. Moreover, 55.2% agreed/strongly agreed that both males and females did STEM subjects. About 51.7% affirmed that they did STEM subjects at high school or university while 48.3% disagreed. Despite the commendable strides on gender participation and lack of gender preferences, these moderate statistics are symptomatic of continual lack of gender parity as far as participation in STEM is concerned. As such, equal enrolment and gender equity do not necessarily translate into gender parity and effective participation in STEM.

### **Gender perception of internet cafés owner/manager**

The opinion of the majority of the participants was that South African society generally believes that technology business creation is suited for both genders. Table 4 shows the results that summarized this.

**Table 4: Summary of social prejudice**

SECTION C2: SOCIAL PREJUDICE		Frequency Distribution						Descriptive		Latent Factor (Principal component) Coefficient
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	% Agree/ Strongly Agree	Mean	Std Dev	
The South African society generally believes that technological business creation is suited for both men and women.	Count	3	7	13	17	18	60.3%	3.69	1.19	0.767
	%	5.2%	12.1%	22.4%	29.3%	31.0%				
The South African society generally believes that the running of technological business is well handled by both men and women.	Count	3	10	21	14	10	41.3%	3.31	1.11	0.812
	%	5.2%	17.2%	36.2%	24.1%	17.2%				
Communities generally believe that both men and women understand the impact of the technological developments on technological businesses.	Count	2	14	16	18	8	44.8%	3.28	1.09	0.878
	%	3.4%	24.1%	27.6%	31.0%	13.8%				
The South African society generally holds both male and female-oriented technological businesses in higher regard.	Count	2	14	22	16	4	34.5%	3.10	0.97	0.880
	%	3.4%	24.1%	37.9%	27.6%	6.9%				
The South African society generally believes that both male and female owned technology-oriented businesses tend to survive longer.	Count	1	12	27	11	7	31.0%	3.19	0.96	0.596
	%	1.7%	20.7%	46.6%	19.0%	12.1%				
Cronbach's alpha								0.847		
% of total variation accounted for by latent factor								62.99%		

**Technological business creation and survival is suited to both men and women**

The majority (60.3%) of the respondents believed that the South African society generally believes that the creation of technology businesses is suited to both genders. Even though almost 40% held different sentiments about the suitability of male and female involvement in businesses, the majority indicated that both genders are ideal for operating technology-oriented businesses, such as internet cafés. The considerable percentage that held ambivalent views about female involvement in venture creation cast doubt on the extent to which South African entrepreneurs perceive the realisation of the ideals of the South African democratic society, where

the genders are meant to be celebrated, even with regard to the pursuit of entrepreneurship.

### **Gender perceptions on the impact of technology developments on technological businesses**

About 44.8% of the surveyed internet owner/managers claimed that communities generally believe that both men and women understand the impact of technological developments within the technological businesses, whilst 27.6% disagreed/strongly disagreed. Again, the split of opinion on this matter entrenches aspersions on the extent to which the genders have grasped the impact of technology on their business - perhaps affirming the variations of the different genders with regard to exposure to technology in the business environment and their prior educational backgrounds.

### **Survival of male and female-owned technology-oriented businesses**

As shown in Table 4, 31% agreed/strongly agreed to the question on whether the South African society generally believes that both male and females owned technology-oriented businesses tend to survive longer. Even though it is not clear from this result which businesses tended to last longer (female or male owned businesses), the relevant literature has generally emphasised the gender disparities in business continuity and sustainability that tends to favour male-owned businesses.

Since the review of literature alluded to the persistence of gender discrimination and prejudice in accessing start-up and working capital, it was imperative to explore the extent to which different gender perceived access to finance by different gender groups.

Table 5 summarises the results of this investigation on owner/managers' perceptions on different gender's access to finance and possession of financial management skills.

**Table 5: Summary of social prejudice in the funding of SMMEs**

Social prejudice in the funding of SMMEs		Frequency Distribution						Descriptive		Latent Factor (Principal component) Coefficient
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	% Agree/ Strongly Agree	Mean	Std Dev	
The South African society generally tends to believe that both male and female run technology businesses tend to find it easy to obtain financial support from private financial institutions.	Count	3	18	18	13	6	32.8%	3.02	1.08	0.810
	%	5.2%	31.0%	31.0%	22.4%	10.3%				
The South African society generally tends to believe that both male and female run technology businesses tend to find it easy to obtain financial support from public lending.	Count	7	15	16	14	6	34.5%	2.95	1.19	0.844
	%	12.1%	25.9%	27.6%	24.1%	10.3%				
The South African society generally tends to believe that both male and female owned technology-oriented businesses tends to have strong financial management systems.	Count	6	11	19	14	8	37.9%	3.12	1.19	0.776
	%	10.3%	19.0%	32.8%	24.1%	13.8%				
Cronbach's alpha								0.738		
% of total variation accounted for by latent factor								65.72%		

**Prevalence of strong financial management systems among different gender**

The results revealed that only 37.9% of the respondents affirmed that both male and female-owned technology-oriented ventures have strong financial management systems. Again, the statistics are clearly indicative of the skewed gender gaps that persist in terms of financial training. Just like the STEM discipline, the financial and

accounting fields tend to be dominated by men at university and this could have implications for emergent businesses.

### Financial support from public lending institutions

A total of 34.4% of the respondents claimed that South African society believes that both male and female run technology businesses find it easy to obtain funds from public lenders. The high gender preferences prevalent among public funding institutions are evident in the lack of consensus on whether both genders can access financial support easily.

### Marketing strategies and social networks on internet cafés owner/manager

Table 6 establishes whether respondents had marketing strategies and durable social networks.

**Table 6: Summary of social prejudice in the marketing of SMMEs**

Social prejudice in the marketing of SMMEs		Frequency Distribution						Descriptive		Latent Factor (Principal component) Coefficient
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	% Agree/ Strongly Agree	Mean	Std Dev	
The South African society generally tends to believe that both male and female oriented technology businesses tend to have effective marketing strategies.	Count	2	11	24	16	5	36.2%	3.19	0.96	0.935
	%	3.4%	19.0%	41.4%	27.6%	8.6%				
The South African society generally tends to believe that both male and female oriented technology businesses tend to have durable social networks.	Count	3	13	18	17	7	41.4%	3.21	1.09	0.935
	%	5.2%	22.4%	31.0%	29.3%	12.1%				
Cronbach's alpha								0.852		
% of total variation accounted for by latent factor								87.41%		

As illustrated in Table 6, 41.4% of the respondents said that South African society tends to believe that both male and female owned technology-oriented businesses have durable social networks. This is not surprising since those who have been traditionally in businesses (predominantly males) tend to have more developed social and business-related networks compared to new entrants in business.

As far as the South African society's views on the effectiveness of marketing strategies of male and female owned technology-oriented SMMEs are concerned, 36.2% of the respondents agreed/strongly agreed that the society generally tends to believe that both businesses have effective marketing strategies, while 23.4% disagreed/strongly disagreed. The split of opinion on this matter is indicative of the reality that, although fundamental strides have been made in female entrepreneurs' marketing of their businesses, gender disparities are evident.

### **Structural and venture creation correlations**

Table 7 determines whether there is a correlation between structural and venture creation variables



**Table 7: Correlations between structural and venture creation variables**

Correlations		Structural Variables				Venture creation				
		Science, Technology, Engineering and Maths (STEM)	Social prejudice: Venture creation	Social prejudice: Funding of SMMEs	Social prejudice: Marketing of SMMEs	Opportunity Identification	Risk taking	Resource mobilisation	Implementation of business decisions	
Structural Variables	Science, Technology, Engineering and Maths (STEM)	Correlation								
		p-value	-							
		N								
	Social prejudice: Venture creation and operation	Correlation	0.333*							
		p-value	0.011	-						
		N	58							
	Social prejudice: Funding of SMMEs	Correlation	0.146	0.460**						
		p-value	0.275	0.000	-					
		N	58	58						
	Social prejudice: Marketing of SMMEs	Correlation	0.102	.463**	0.486**					
		p-value	0.448	0.000	0.000	-				
		N	58	58	58					
Venture creation	Opportunity identification	Correlation	0.119	0.217	0.120	0.305*				
		p-value	0.374	0.101	0.369	0.020	-			
		N	58	58	58	58				
	Risk taking	Correlation	0.063	0.241	0.195	0.260*	0.791**			
		p-value	0.639	0.068	0.142	0.049	0.000	-		
		N	58	58	58	58	58			
	Resource mobilisation	Correlation	0.172	0.121	0.155	0.172	0.632**	0.647**		
		p-value	0.198	0.364	0.246	0.196	0.000	0.000	-	
		N	58	58	58	58	58	58		
	Implementation of business decisions	Correlation	-0.001	0.173	0.138	0.068	0.680**	0.762**	0.673**	
		p-value	0.995	0.193	0.303	0.613	0.000	0.000	0.000	-
		N	58	58	58	58	58	58	58	
* . Correlation is significant at the 0.05 level (2-tailed).										
** . Correlation is significant at the 0.01 level (2-tailed).										

Table 7 reveals that most structural variables do not affect venture creation (most p-values > 0.05) except for social prejudice in marketing of SMMEs.

## DISCUSSION

Table 2 illustrated that there is a sizable number of females who are involved in small technology-oriented ventures, which seems to suggest females' increasing penetration in traditionally male-dominated businesses, such as science and technology-oriented domains. Furthermore, about 89.7% of the respondents were young and middle-aged and these statistics suggest that a youthful population is more involved in the creation of technology-oriented ventures, such as internet cafés, compared to the ageing population (i.e. those above 50). This finding agrees with Kalane's (2015) finding that the most active business owners are generally aged between 20 and 44 years old, even though entrepreneurial activity is envisaged to decline after 44 years of age. Perhaps, self-employment through venture creation is increasingly becoming a popular alternative to the pursuit of further qualifications, especially for those who do not qualify for higher education. This interpretation resonates with the South African government's call for high school leavers to venture into self-employment instead of looking for employment, in a country where the youth unemployment is around 35% (Statistics SA, 2016).

The results in Table 3 demonstrate that women's participation at higher institution has increased even though their enrolment numbers in STEM is not yet satisfactory. Beyene (2015) acknowledged the strides made at primary and secondary schools' levels, areas where women tend to be under-represented, even though enrolment at university need to increase to improve gender parity. The findings on the retention of male and female students resonate with Castillo, Grazzi and Tacsir's (2014) recognition that women's participation at higher institutions has increased, even though their enrolment numbers in STEM is not yet satisfactory.

The data presented in Table 4 illustrate that most small South African businesses lack financial management skills, as well as the capability to comprehend market dynamics and trends. These findings also resonate with Adisa, Abdulraheem and Mordi's (2014) view that financial management remains one of the biggest problems confronting small businesses in developing countries.

The results in Table 5 also indicate that most owners/managers find public funding not easily accessible. This finding does not correspond with Osano and Languitone's (2016) claims about the easy accessibility of public funding in South Africa, due to the

variety of public financial schemes and programmes that support female and male owned SMMEs. Yet, the aforementioned finding verifies the observation that despite the availability of these funding programmes, there is a low level of awareness of these funding programmes, especially that of government support schemes (Osano & Languitane, 2016). Moreover, the poor performance and unstable income generation capacity of these SMMEs also make securing internal financing challenging (Ogubazghi & Muturi, 2014).

The data presented in Table 6 illustrates that the uncertainty surrounding marketing strategies seems to suggest the wide variations among male and female owned businesses concerning their marketing strategies. It can be inferred that there is not a wide uptake of a wide range of emerging technologies, such as social media platforms, content repositories and web-based technologies for marketing. The small proportion that disagreed with the persistence of gender parity with regard to effective marketing strategies cohere with Mandipaka's (2014) findings that women are unable to market goods and services tactically due to their limited access to training and experience on how to partake in business activities.

The significant correlation between social prejudice in marketing and venture creation, as seen in Table 7, can be attributed to the prevalence of gender-based prejudices that marginalise women when it comes to marketing strategies, and networks for the business. The social prejudice, especially concerning women (e.g. claims that females do not make great entrepreneurs) may undermine their capacity to marketing strategies and network, which are critical to business success.

## **IMPLICATION FOR FURTHER RESEARCH**

Even though high schools and universities continue strengthening the existing gender-based participation in STEM, women are still unrepresented. Any future study should explore the reasons why women are conceived to be at a greater risk of marginalisation in STEM, compared to men.

The fact that social prejudice in marketing impacts venture creation means that the dismantling of patriarchy and social discrimination in marketing is critical to the growth of gender parity in venture creation. Future research should explore the role of

patriarchy in entrenching discrimination in marketing strategies and how this can be addressed.

## **RECOMMENDATIONS**

The reality that slightly more than half of the respondents indicated that they participated in STEM subjects demonstrates that more financial investment and policy interventions are needed to increase the participation of women in these disciplines.

As there were more males in technological ventures as compared to females, it can be recommended that more gender sensitive policies need to be established by the South African government to specifically target more women to be involved in technology-oriented ventures.

The persistence of gender gaps in the training of owner/manager of technology-oriented firms imply that more gender parity and gender sensitive approaches are needed in the financial training of these entrepreneurs to prevent the continual marginalisation of women entrepreneurs.

The prevalence of gender disparities concerning the development of durable social and business networks imply that business lobbying groups should devote greater attention to supporting the development of female-based business networks to allow female owned businesses to expand their stakeholder base (e.g. customers, suppliers and regulators).

The considerable impact of social marketing on venture creation denote that both female and male-owned businesses should be sensitized to the importance of marketing strategies to ensure that they broaden their market base and thrive in a highly competitive business environment.

## **CONCLUSION**

There is a growing recognition, with regard to gender that, although women entrepreneurs play a key role in economic activity, the growth of their SMMEs, especially those located on the technology sector, has remained significantly subdued. This marginal participation points to the heavy representation of males in technology-oriented ventures, i.e. internet cafés, compared to women. The study revealed that

although some significant strides have been made in female participation in STEM subjects at university, there was little evidence of effective female participation in technology-oriented businesses, judging from the number of female owned businesses.

The findings on the prevalence of social prejudice affirm established findings in literature, which reiterate the marginalisation of female owned businesses in relation to funding and marketing. The reality that only social prejudice in marketing impacted on venture creation demonstrates that marketing institutions, which promote small businesses, should target female owned businesses for marketing training to improve their visibility of their businesses, and reduce the dominance of male-owned businesses on the market.

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**R. P. Gunpath, I. Madre and S. Pudaruth**

**DETERMINANTS OF SOCIAL MEDIA USAGE BY EXPORT  
ORIENTED MAURITIAN SMES OPERATING IN THE TEXTILE  
INDUSTRY**

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**ABSTRACT**

The textile industry is considered the backbone of the Mauritian Export Processing Zone (EPZ). However, export-oriented small and medium-sized enterprises (SMEs) operating in this sector are now facing fierce competition from low cost producing countries due to shrinking trade barriers. In fact, finding customers for exports was identified as a key challenge for these SMEs.

Nevertheless, SMEs are being offered an array of opportunities with the emergence of social media. This empirical research was thus performed with the main aim to ascertain the marketing purposes for which social media can be used, examine the potential benefits and challenges associated with such use, and identify the determinants which influence its use by local SMEs. As a result of the findings derived, a greater number of SMEs can be encouraged to reach a greater number of consumers by using social media as a marketing tool, to eventually increase their exports.

A survey was undertaken and a questionnaire was distributed to export oriented SMEs in the textile industry of Mauritius. Out of the 100 questionnaires administered, 56 were received. An analysis of primary data collected revealed that compatibility, interactivity,

cost-effectiveness and organisational innovativeness acted as determinants of social media usage by SMEs.

Based on the findings of the study, several recommendations were made in order to prompt the use of social media by SMEs. At the level of policy makers, recommendations comprised of providing training to SMEs, positioning SMEs in Mauritius as a focal point, the placement of tech-savvy graduates in SMEs and providing SMEs with incentives to be more innovative. Recommendations at the level of SMEs consisted of defining strategies, guidelines and resources, and regular involvement in social media activities so as to engage consumers. In order to be able to compete in the global arena, export oriented Mauritian SMEs operating in the textile sector should therefore 'reinvent' themselves.

**Keywords:** SMEs, Social media, Textile industry

## **INTRODUCTION**

'A brand is no longer what we tell consumers it is, it is what consumers tell each other it is', is rightly stated by Scott Cook, co-founder of Intuit. Indeed, the emergence of social media, triggered by the advent of Web 2.0, has created new ways to communicate, collaborate and share content (Enders *et al.*, 2008), to such an extent that consumers can select the content they want, in the way that they want it, and when they want it (Damian and Calvin, 2009). The credibility of a brand will thus be questioned if a firm's marketing story varies from the one being told by online consumers (BBC News, 2006). Thus, organizations must adopt new approaches so as to connect with customers, in order to meet their needs more accurately, and ultimately increase the brand's reputation.

However, given the dynamic and competitive market in which SMEs are operating, they are faced with financial constraints and do not have the luxury of engaging in aggressive and large-scale marketing actions, which further limits SMEs export opportunities.

The textile industry in particular is regarded as a catalyst of the Mauritian industrial revolution (Enterprise Mauritius, 2018). However, international trade liberalization has rendered the textile industry vulnerable as SMEs are now facing fierce competition from low cost manufacturing economies. In Mauritius, the number of Export-Oriented

Enterprises (EOE) has decreased, and finding customers for exports was found as a key challenge for SMEs (Ministry of Business, Enterprise and Co-operatives, 2017). Export-oriented Mauritian SMEs in the textile industry therefore need to re-invent themselves in order to compete at an international level. The use of social media thus represents a plethora of opportunities which SMEs can exploit to derive greater competitiveness. They can indeed reach a greater number of consumers by using social media, which involves minimal costs (Derham *et al.*, 2011), as compared to traditional marketing methods.

Research on social media usage in a corporate context is available in the existing body of academic literature (Meske and Stieglitz, 2013) but very little research exists on social media in the context of SMEs, as most studies focus on large enterprises (Ortega Góngora, 2016). The ability of SMEs to use social media is therefore an area which requires further research, as little is known about it (Cesaroni & Consoli, 2015). In addition, there is little representation of social media studies from Africa, as compared to Europe, Asia and America (Zeng & Gerritsen, 2014, cited by Odoom, Anning-Dorson & Acheampong, 2017).

The above-mentioned gap and research problem provides impetus for our study, which contributes to existing literature in the following ways. Firstly, this research is undertaken in the context of export-oriented SMEs operating in the textile industry of Mauritius, a developing and emerging market of Sub-Saharan Africa (International Monetary Fund, 2017). Secondly, this study seeks to ascertain the marketing purposes for which social media can be used, examine the potential benefits and challenges associated with such use, and identify the determinants which influence its use by SMEs. Findings derived can thus be used to encourage a greater number of SMEs to employ social media as a marketing tool, to access a greater number of consumers in the domestic, as well as foreign markets, to increase their exports.

The following section demonstrates the literature review, hypothesis development and theoretical framework. The research methodology employed for this study is depicted in the subsequent section, which is followed by discussion of research findings and analysis. The paper is finally concluded with some recommendations.

## LITERATURE REVIEW

### Social media

In the last decade, the world has experienced a paradigm shift in how the web is being used. 'Web 1.0 was commerce. Web 2.0 is people' as rightly stated by Ross Mayfield, CEO of SocialText. Indeed, Web 2.0 technologies satisfy the human need for social connection (Lai & Turban, 2008), as it is a more personalised, communicative form of the internet, that emphasizes active participation, connectivity, collaboration and sharing of knowledge, and ideas among users (McLoughlin & Lee, 2007). Social media can therefore be referred to as a Web 2.0 innovation, as it simplifies the process of web-based sharing, where, by the click of a button, users can share content among their networks (Technopedia, 2011).

Although there is no formal definition of social media in the existing body of academic literature (Xiang & Gretzel 2010), several authors made an attempt to define this global phenomenon. For instance, Fernando (2012) argued that social media primarily refers to 'internet-based tools for sharing and discussing information'. In addition, Bradley (2010) stated that social media is 'a set of technologies and channels targeted at forming and enabling a potentially massive community of participants to productively collaborate'. Another definition is inspired from Kaplan and Haenlein (2010, P.61), who advocated that social media is 'a group of internet-based applications that build on the ideological and technological foundations of Web 2.0 and that allow the creation and exchange of user generated content'. However, according to Damian and Calvin (2009, P.152), social media refers to 'web-based software and services that allow users to come together online and exchange, discuss, communicate and participate in any form of social interaction. That interaction can encompass text, audio, images, video and other media'.

Social media is indeed connecting millions of users across the world. For instance, Statista (2018) reported that Facebook, which is the most popular social network platform worldwide, had 2.07 billion monthly active users in the third quarter of 2017, whereas Twitter had 330 million monthly active users, on average, in the third quarter of 2017. In fact, a report effected by Nielsen (2012) indicated that individuals spend more time on social networking sites than any other category of sites and 17% of the PC time of consumers is spent on Facebook.

## **Export-oriented Mauritian SMEs operating in the textile industry**

SMEs have been identified as engines of economic growth as they offer unique opportunities for Mauritius to create quality jobs, diversify and democratise the economy, as well as increase export earnings. Indeed, the latest census of economic activities (2013) showed that Mauritius accounts 124 972 small establishments, and SMEs contributed to 40% of GDP, and 55% of total employment in 2013 (Ministry of Business, Enterprise and Co-operatives, 2017). In Mauritius, the newly promulgated SME Bill No. XV of 2017 classifies a small enterprise by an annual revenue of more than Rs 2 million, but less than Rs 10 million, and a medium enterprise is characterized by an annual revenue of more than Rs 10 million, but less than Rs 50 million.

In 1970, inspired by the Hong Kong and Singapore models, the government of Mauritius adopted an export-oriented strategy and enacted the Export Processing Zone (EPZ) Act (Ministry of Industry, Science and Research, Ministry of Business, Enterprise and Co-operatives, 2010). With the aim of boosting the domestic textile and clothing industry through foreign investment, export-oriented manufacturers were provided strong incentives, such as duty-free import of raw materials, and a ten-year tax holiday. In fact, the signing of the Lomé Convention in 1975 and the Multi-Fibre Agreement (MFA) in 1974, as well as the African Growth and Opportunity Act (AGOA) in 2000, subsequently strengthened the attractiveness of the Mauritian EPZ, as Mauritius was given preferential access to USA and European markets (Ministry of Business, Enterprise and Co-operatives, 2017).

The textile industry is thus considered as the foundation of the Mauritius EPZ as it reinforces the manufacturing base of the economy with a contribution of 8.7% to the GDP, 56% of the value added for the manufacturing sector, and 43% of domestic exports (Enterprise Mauritius, 2018). However, SMEs operating in the textile sector are facing greater competition from low cost producing countries, as a result of shrinking trade barriers.

### **2.3 Use of social media and SMEs**

Jenny Servis (Leinbach-Reyhle, 2015) stated that, 'Ten years ago it may have been a choice to jump on the online bandwagon, but now it's an absolute must to survive and thrive as a small business'. Due to the greater access to information that consumers enjoy with social media (Vollmer & Precourt, 2008), organisations have limited amount

of control over the content and dissemination of information, as consumers are able to communicate with each other (Mangold & Faulds, 2009).

Indeed, traditional media is less effective as compared to social media usage, given that consumers are spending less time watching television and reading newspapers (Rashtchy *et al.*, 2007). In fact, information regarding products and services derived from social media is perceived by consumers as more trustworthy than messages transmitted via traditional channels of marketing communications (Foux, 2006). According to the Magento Marketing Team (2015), 93% of consumers are turning to social media for assistance in their purchasing decision, and 90% of consumers trust products which are recommended by their peers. Enterprises therefore need to build closer relationships with consumers in order to be part of the content that they are consuming (Rashtchy *et al.*, 2007). Given that social media provides for the establishment of a virtual community, organisations and consumers can communicate, collaborate and co-produce in order to improve products and services (Cesaroni & Consoli, 2015)

In fact, Mangold and Faulds (2009) argued that social media performs two functions in the marketplace, that is it allows consumers to interact with each other, and it also allows organisations to interact with consumers. Social media therefore offers an opportunity for social interactions both for individuals, as well as businesses (Fischer & Reuber, 2011). Consequently, social media enables friendly social networking between individuals, but it can also be used by enterprises to achieve business goals (Cesaroni & Consoli, 2015).

Previous studies investigated the various purposes for which social media can be used by SMEs. For instance, Meske and Stieglitz (2013) argued that social media platforms are used by SMEs as a way to get in touch with customers and support internal communication and collaboration. In addition, SMEs were also found to use social media to receive feedback from customers, attract new customers, cultivate relationships, increase awareness and communicate the brand online (Michaelidou *et al.*, 2011). It was also used for various organisational objectives such as communication, marketing, sales advertising and customer service (Bhanot, 2012). In line with Burton-Jones and Gallivan (2007), this study measures social media usage by employing the system-centred approach, where the measures of the system usage are based on the various tasks for which the system is used.



## **Determinants of social media usage by SMEs**

Studies available in existing literature theorise that the use of social media is influenced by several factors. For instance, social influences from experts, competitors, as well as customers, were found to influence the adoption of social media by SMEs (Pentina *et al.*, 2012). In a similar manner, a study by Wamba and Carter (2013) indicated that age and geographic location also have a significant impact on Twitter adoption by SMEs. Likewise, adoption of social media by SMEs was found to be significantly affected by perceived usefulness and age of marketing executives (Siamagka *et al.*, 2015). In addition, variables such as compatibility, interactivity, cost-effectiveness and organisational innovativeness were also found to significantly influence the use of social media (Ainin *et al.*, 2015; Lee & Kozar, 2004; Odoom, Anning-Dorson & Acheampong, 2017; Siamagka *et al.*, 2015; Wamba & Carter 2013; Wang *et al.*, 2010). Consequently, this part of our study examines the use of social media by SMEs along four determinants, namely compatibility, interactivity, cost-effectiveness and organisational innovativeness.

### **Compatibility**

Based on the diffusion of innovation theory, compatibility refers to the degree to which an innovation is perceived as being consistent with the needs, past experiences and existing values of potential adopters (Rogers, 1983). As such, potential adopters of an innovation might be reluctant to adopt an innovation if they are required to change their existing values and espouse new values. Nonetheless, small business will be more likely to adopt information systems which are compatible with existing work practices (Thong, 1999). However, findings from previous studies found that compatibility had both positive and negative influence on technology adoption. For instance, Low *et al.* (2011) found that compatibility is an insignificant attribute in SMEs adoption of cloud computing, whereas Ramdani *et al.* (2009) concluded that compatibility did not have a significant impact on the adoption of enterprise systems. In contrast, Wang *et al.* (2010) concluded that compatibility is a significant factor of technology adoption, as did Hsu *et al.* (2007), who found that users are more likely to adopt MMS if they feel that using MMS is compatible with their values and beliefs. Moreover, findings from Ainin *et al.* (2015), and Odoom, Anning-Dorson and Acheampong (2017) demonstrated that compatibility positively influences social media usage. Although findings demonstrate varying results, the following hypothesis

is proposed in order to test the relationship between compatibility and social media usage:

H1: Compatibility significantly and positively influences social media usage.

### **Interactivity**

According to Hoffman and Novak (1996), traditional media allows firms to communicate with consumers in a passive one-to-many communication model where there is a limited response from consumers. However, social media provides an additional feature, namely interactivity, where users are able to provide content in response to a source or communication partner (Ha & James, 1998). As such, interactivity is defined as 'the degree to which two or more communication parties can act on each other, on the communication medium, and on the messages and the degree to which such influences are synchronized' (Liu & Shrum 2002, p. 54). Therefore, an interactive media, such as Facebook, enhances two-way communication, as firms can engage with a greater number of consumers and have meaningful interactions, whereby essential feedback and new ideas may be derived. In line with the findings of Ainin *et al.* (2015), and Odoom, Anning-Dorson and Acheampong (2017), it can thus be argued that the interactive feature of social media has an impact on its usage by SMEs. In light of the above argument, the following hypothesis is put forward:

H2: Interactivity of social media significantly and positively influences its usage.

### **Cost-effectiveness**

In order to reach multiple consumers who are spread over geographical distances, traditional media requires a considerable investment, which is limiting particularly for SMEs which face resource constraints. Thus, given the low cost solution that social media represents, it can be implied that cost is a significant factor in predicting the adoption and use of such a technology. However, findings from Alam and Noor (2009) revealed that perceived cost is insignificant in determining ICT adoption, and Sin Tan *et al.* (2009) indicated that the majority of SMEs disagreed that cost has a direct impact on ICT adoption.

In contrast, it is advocated that if the initial set-up cost of ICT is high, SMEs will less likely adopt it (Dixon *et al.*, 2002, cited by Ainin *et al.*, 2015). However, Derham *et al.* (2011) argued that the low cost, minimal barriers to participation and low level of IT

skills required to use social media makes it particularly suitable for SMEs. As such, social media strategies do not require astronomical budgeting as enterprises can generate communication strategies that reach, as well as engage consumers in numerous ways, through platforms such as Facebook, that do not require expensive media spends (Hanna *et al.*, 2011). In fact, as demonstrated by Ainin *et al.* (2015) and Odoom, Anning-Dorson and Acheampong (2017), it can be advanced that cost-effectiveness is a determinant of social media usage. Consequently, the following hypothesis is formulated:

H3: Cost effectiveness significantly and positively influences social media usage.

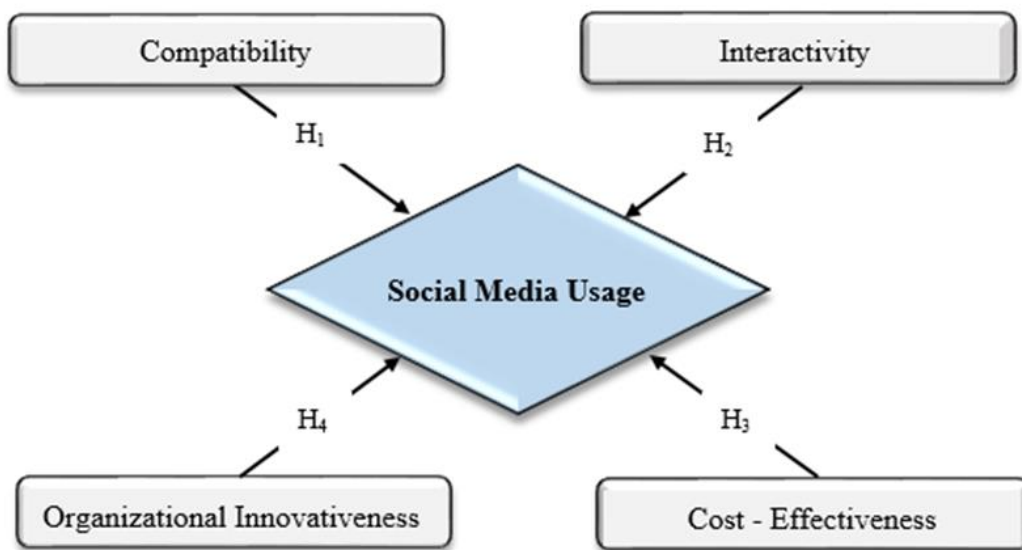
### **Organisational Innovativeness**

In order for SMEs to survive in such a competitive environment, innovation is of paramount importance. Nonetheless, it is argued that organisational innovativeness is an essential criterion in determining a firm's ability to adapt to new innovations and technologies (Tuominen *et al.*, 2004) as it indicates an organisation commitment to learn and seek a better understanding of consumers, competitors and emerging technologies (Calantone *et al.*, 2002). Organisational innovativeness is thus defined as the 'notion of openness to new ideas as an aspect of a firm's culture' (Hurley & Hult, 1998). In particular, findings from Wamba and Carter (2013) demonstrated that organisational innovativeness has a significant impact on Twitter adoption by SMEs. Siamagka *et al.* (2015) also revealed that organisational innovativeness has a positive impact on the adoption of social media by SMEs. In fact, Frambach and Schillewaert (1999) claimed that smaller firms are more likely to be receptive towards new products and technologies as they are more innovative and flexible. Indeed, the ability of managers of small business to easily identify the unfulfilled needs of consumers, due to their closeness, contributes to greater organisational innovativeness (Hausman, 2005). As a result, the following hypothesis is advanced:

H4: Organisational innovativeness significantly and positively influences social media usage.

### **Theoretical framework**

The theoretical framework which is applied in this study is illustrated in Figure 1.



**Figure 1: Theoretical Framework**

Source: Adapted from Ainin *et al.* (2015); Odoom, Anning-Dorson & Acheampong (2017); Siamagka *et al.* (2015)

## METHODOLOGY

### Research design

This study consists of explanatory research as it seeks to establish the relationship between compatibility, interactivity, cost-effectiveness, organizational innovativeness and social media usage by SMEs. A deductive approach was thus employed by developing a theoretical framework which is consequently tested using statistical data. With regards to the research method, a quantitative method was used, as quantitative analysis techniques enables the exploration, description, presentation and examination of relationships and trends within the quantitative data collected. A survey is also used as research strategy, as a large amount of quantitative data can be collected from a sizeable population, in order to perform descriptive and inferential analysis (Saunders *et al.*, 2009).

### 3.2 Data collection method

In this research, primary data were collected from export-oriented SMEs operating in the textile industry of Mauritius, whereas secondary data were gathered from online articles, textbooks, government publications, reports and academic journals, from virtual sources such as EBSCO, Research Gate, JSTOR and Emerald Library.

## Data collection form

A self-administered questionnaire was employed as the research instrument in this study. Every item was measured by utilizing a five-point Likert scale where 1=strongly disagree, 2=disagree, 3=undecided, 4=agree and 5=strongly agree. The questionnaire was segmented into 6 parts as illustrated in Table 1.

**Table 1: Segments of questionnaire**

Part	Description	Sources of constructs
A	Marketing purposes of social media	Michaelidou <i>et al.</i> (2011)
B	Potential benefits associated with social media usage	Ainin <i>et al.</i> (2015) and Odoom, Anning-Dorson and Acheampong (2017)
C	Challenges associated with social media usage	Michaelidou <i>et al.</i> (2011)
D	Compatibility	Ainin <i>et al.</i> (2015) and Teo <i>et al.</i> (1997).
E	Interactivity	Ainin <i>et al.</i> (2015) and Odoom, Anning-Dorson and Acheampong (2017)
F	Cost-Effectiveness	Ainin <i>et al.</i> (2015)
G	Organizational Innovativeness	Siamagka <i>et al.</i> (2015) and Ellonen <i>et al.</i> (2008)
H	Demographic Information of SMEs	Author

## Sample design and data collection

The SMEs targeted for this survey were export oriented ones operating in the textile industry of Mauritius. Consequently, the Exports Directory 2017 – 2018 of Enterprise Mauritius was referred to, wherein 174 export-oriented enterprises were listed as operating in the textile industry. Convenience sampling was thus used to select 100 out of the 174 export-oriented enterprises in the textile industry as the sample. In order to collect primary data, the questionnaire was uploaded on 'Google docs' as it is simple and free to operate. The questionnaire was then distributed to SMEs via e-mail.

## **Analysis and interpretation of data**

The SPSS 20.0 statistical computer software and Microsoft excel were employed so as to perform descriptive and inferential statistics. As such, Pearson correlation analysis, as well as measures of central tendency, were carried out in order to assess the relationship between the dependent variables and the independent variables. The significance of each variable was also determined.

## **RESULTS AND DISCUSSION**

### **Sample demographics**

Out of a sample size of 100, only 56 SMEs completed the survey, representing a response rate of 56%. The respondents included in this survey comprised of 39.3% females and 60.7% males, and the group of respondents which had the highest participation rate in the survey was aged between 50 – 59 years old, as they represented 39.3% of the sample size. However, 30.4% of the respondents come from the age group of 40 – 49 years old, 17.9% of the respondents were more than 60 years of age, and only 8.9% of the respondents come from the age group of 30 – 39 years old. Finally, only 3.6% of the respondents were less than 30 years of age. The survey sample comprised of SMEs which had been in operation within a period of 6 – 10 years, representing 35.7 % of the sample size, as well as SMEs which have been operating 1 – 5 years, representing 35.7 % of the respondents. However, 19.6% of SMEs have been in operation for more than 10 years, but only 8.9% have been operating for a period of less than 1 year. In addition, 67.9% of the sample size consists of small enterprises, whereas 32.1% of the sample size consists of medium enterprises.

### **Social media usage**

66.1% of SMEs were users of social media, whereas 33.9% were non-users. With regards to the marketing purposes for which social media can be used, 33.9% of SMEs strongly agreed and 32.1% agreed that it can be used to attract new customers. Of the respondents, 41.1% strongly agreed and 25.0% agreed that their brand can be promoted online through the use of social media. With regards to if social media can be used to build relationship with customers, 37.5% agreed and 25.0% strongly agreed. Of the total respondents, 32.1% agreed and 16.1% strongly agreed that social

media can be used to receive feedback from customers. It can also be observed that the mean value of all four statements is greater than 3. Consequently, it can be concluded that the majority of SMEs found that social media can be used as a means for the above-mentioned marketing purposes. Moreover, the grand mean revealed a score of 3.445 indicating that respondents have, on average, rated on a scale of 3.0 and above.

### **Potential benefits of social media usage**

Pertaining to the potential benefits which SMEs may derive from the use of social media, 37.5% of the respondents strongly agreed and 19.6% agreed that it would result in enhanced brand visibility. In addition, an increase in the number of customers as a potential benefit was agreed upon by 33.9% and strongly agreed upon by 30.4%. Also, 26.8% of the respondents agreed and 17.9% strongly agreed that social media leads to an increase in sales transactions. However, there was a small minority of SMEs which disagreed that it results in improved brand visibility (21.4%) and an increase in the number of customers (26.8%), whereas 26.8% were neutral with regards to an increase in sales transaction. Nonetheless, given that the mean scores of all three statements were greater than 3, it can be concluded that the majority of SMEs approved that social media can potentially benefit their firms. The grand mean also amounted to 3.42, indicating that respondents have, on average, rated on a scale of 3.0 and above.

### **Challenges of social media usage**

Regarding the challenges that are associated with social media usage by SMEs, 30.4% of SMEs disagreed and 23.2% strongly disagreed that they are uncertain as to whether or how social media can benefit their brand. Given that the mean score is below 3, it can therefore be argued that the majority of SMEs are aware of how social media is beneficial to their firms. However, with regards to the remaining challenges, most of the responses varied between 'strongly agree' and 'agree', with scores ranging from 37.5% to 67.9%. Likewise, 67.9% of the respondents strongly agreed that negative feedback may affect the firm's reputation, 55.4% agreed that there are no appropriate measures of return on investment, 48.2% strongly agreed that it requires a big investment in terms of time, 42.9% agreed that it involves trust, privacy and

security issues, and 37.5% strongly agreed that staff are distracted and lost focus on their main duties.

Given that the mean scores are congregating towards 4, it can thus be concluded that all challenges, except for uncertainty as to whether or how it can benefit a brand, that are associated with social media usage, are major apprehensions for the SMEs which are reluctant to use social media, as well as main concerns for the SMEs that are actually using social media. In addition, the grand mean revealed a score of 3.82, indicating that respondents have, on average, rated on a scale of 3.5 and above.

### Hypothesis testing

In a bid to test the hypotheses, and assess the relationship between compatibility and social media usage; interactivity and social media usage; cost-effectiveness and social media usage and organizational innovativeness and social media usage, Pearson’s correlation analysis was performed.

#### Hypothesis 1: Compatibility and social media usage

**Table 2: Correlation between compatibility and social media usage**

		Compatibility	Social media usage
Compatibility	Pearson correlation	1	.769**
	Sig. (2-tailed)		.000
	N	56	56
Social media usage	Pearson correlation	.769**	1
	Sig. (2-tailed)	.000	
	N	56	56

\*\* . Correlation is significant at the 0.01 level (2-tailed).

It can be observed from Table 2 that the result of the Pearson correlation analysis ( $r = 0.769$ ,  $n = 56$ ) indicates that there is a strong positive relationship between compatibility and social media usage. Furthermore, the test revealed that the significance value ( $p = 0.000$ ) is less than the significance level ( $p = 0.05$ ). As such, there is enough evidence to conclude that the relationship is statistically significant, and not obtained by chance. Therefore, we reject the  $H_1-0$  and accept  $H_1$ , as the results suggest that more SMEs are likely to use social media if it is compatible with



their organization. Consequently, compatibility significantly and positively influences social media usage.

### Hypothesis 2: Interactivity and social media usage

**Table 3: Correlation between interactivity and social media usage**

		Interactivity	Social media usage
Interactivity	Pearson correlation	1	.778**
	Sig. (2-tailed)		.000
	N	56	56
Social media usage	Pearson correlation	.778**	1
	Sig. (2-tailed)	.000	
	N	56	56

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Table 3 demonstrates that the result of the Pearson correlation analysis ( $r = 0.778$ ,  $n = 56$ ) shows a strong positive relationship between interactivity and social media usage. Moreover, the test has revealed that the significance value ( $p = 0.000$ ) is less than the significance level ( $p = 0.05$ ). Consequently, there is enough evidence to conclude that the relationship is statistically significant and not obtained by chance. As such, we reject the H2-0 and accept H2, as the results suggest that more SMEs are likely to use social media if they find it interactive. Subsequently, interactivity significantly and positively influences social media usage.

### Hypothesis 3: Cost-effectiveness and social media usage

**Table 4: Correlation between cost effectiveness and social media usage**

		Cost effectiveness	Social media usage
Cost effectiveness	Pearson correlation	1	.893**
	Sig. (2-tailed)		.000
	N	56	56
Social media usage	Pearson correlation	.893**	1
	Sig. (2-tailed)	.000	
	N	56	56

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Table 4 illustrates the result of the Pearson correlation analysis ( $r = 0.893$ ,  $n = 56$ ) which indicates a strong positive relationship between cost-effectiveness and social

media usage. In addition, the test has revealed that the significance value ( $p = 0.000$ ) is less than the significance level ( $p = 0.05$ ). There is therefore enough evidence to conclude that the relationship is statistically significant and not obtained by chance. As a result, we reject the H3-0 and accept H3, as the results suggest that more SMEs are likely to use social media if it is cost-effective. Consequently, cost-effectiveness significantly and positively influences social media usage.

#### **Hypothesis 4: Organisational innovativeness and social media usage**

**Table 5: Correlation between organisational innovativeness and social media usage**

		Organisational innovativeness	Social media usage
Organisational innovativeness	Pearson correlation	1	.747**
	Sig. (2-tailed)		.000
	N	56	56
Social media usage	Pearson correlation	.747**	1
	Sig. (2-tailed)	.000	
	N	56	56

\*\* . Correlation is significant at the 0.01 level (2-tailed).

It can be derived from Table 5 that the result of the Pearson correlation analysis ( $r = 0.747$ ,  $n = 56$ ) shows a strong positive relationship between organisational innovativeness and social media usage. The test has also revealed that the significance value ( $p = 0.000$ ) is less than the significance level ( $p = 0.05$ ). There is therefore enough evidence to conclude that the relationship is statistically significant and not obtained by chance. Therefore, we reject the H4-0 and accept H4, as the results suggest that more SMEs are likely to use social media if they are more innovative. Consequently, organisational innovativeness significantly and positively influences social media usage.

## RELIABILITY TESTING

**Table 6: Cronbach's alpha reliability tests**

Variables	Cronbach's alpha
Social media usage	0.951
Benefits of social media usage	0.928
Challenges of social media usage	0.299
Compatibility	0.885
Interactivity	0.903
Cost-effectiveness	0.951
Organisational innovativeness	0.861

From Table 6, it can be observed that the Cronbach's alpha value of the challenges of social media usage is inconsistent with a score of 0.299. It may be the result of a poor interconnectedness between the scales used. However, the Cronbach's alpha values for all remaining variables are above 0.7, implying that the scales used are reliable.

### Discussion of findings

In light of the findings derived from this survey, it can be concluded that SMEs are aware that social media can be used as a marketing tool to attract new customers, promote their brand online, build relationships and receive feedback from customers. However, some SMEs did not benefit from any improved brand visibility or an increase in number of customers, while some were neutral as to whether social media can increase the number of sales transactions of their brand. This might be the result of no appropriate measures of return on investment, as agreed upon by the majority of SMEs. It can be also argued that some SMEs are just following the trend by having a mere social presence, but in order to enjoy the potential benefits, they should exploit such a tool wisely.

A great deal of SMEs supported the fact that negative feedback on social media might cause damage to the firm's reputation and it also entails trust, privacy and security issues. Social media was found to be a cost-effective marketing tool but it required a big investment in terms of time, and concurrently, staff are distracted and lose focus on their main duties. However, as stated in the research problem (supra), a major challenge faced by the SMEs is to find customers for exports. Therefore, by knowing

how to exploit the interactive features of social media, SMEs can better connect with customers. They may thus incorporate its use in their strategy, values and beliefs so that it is compatible with their business practices. Finally, SMEs should be encouraged to be more innovative by adopting technologies, such as social media, where they can gain a better understanding of the market and its consumers.

## **RECOMMENDATIONS AND CONCLUSION**

With regards to the findings derived, various recommendations are proposed at the level of policy makers as well as SMEs.

### **Recommendations at the level of policy makers**

#### **Training to SMEs**

SMEs were found to be willing to adopt social media if it was compatible with their work practices, and they should therefore be educated about the various benefits which they can enjoy in a cost-effective way by using social media. For instance, training courses might be segregated into level 1, level 2, level 3 and so on, while SME Mauritius could monitor their progress through regular assessments.

#### **SME Mauritius should position itself as a focal point**

Secondly, a textile SME in Mauritius might use social media to build an online image on the web space but it will eventually take time. SME Mauritius is an already known authority and it might have a greater reach. It can thus create its own social media page and regularly post information on particular SMEs in order to make consumers aware that these SMEs do exist.

#### **Placement of tech-savvy graduates in SMEs**

One of the challenges of using social media for SMEs is that it requires a big investment in terms of time. However, the University of Mauritius introduced Marketing with digital technologies as a degree course. The relevant authorities might then act as patrons and fund schemes to place tech-savvy graduates in export-oriented textile SMEs with the sole task of managing their social media marketing campaigns.

## **Incentives to SMEs to be more innovative and use social media**

In 2017, the MOBEC launched the SME Innovation Award whereby winners were rewarded for innovative products and processes. Further awards of the SME Innovation Award could include categories which reward SMEs having creative social media campaigns, with the most likes, share and views, so as to prompt SMEs to be more innovative and use social media.

## **Recommendations at the level of SMEs**

### **Define strategy, guidelines and resources**

Instead of using social media on an ad-hoc basis, SMEs should devise clear strategies and guidelines while using it. Indeed, it is difficult to measure results if goals for social media adoption are not set (Kuikka & Äkkinen, 2011). For instance, if the goal is to increase sales transactions, it might measure this through the amount of online purchase via its social media pages.

Moreover, SMEs should clearly define resources when implementing a social media strategy. Given that the SMEs indicated that their staff are distracted from their main duties, they should clearly define responsibilities and designate specific employees whose tasks would be to manage social media campaigns. Adequate training should then be provided to these employees, and guidelines with regards to information security should be explicitly set out. This might avoid the risk of potential information leakage but it might also provide follow-up steps in case there is a breach in information security (Kuikka & Äkkinen, 2011). In addition, by establishing proper guidelines, employees can best react and respond to negative comments effectively in order to recover the confidence of consumers.

### **Activities to engage customers**

Finally, having a mere online social media presence does not suffice, as it is more important to use it well. The Facebook page of two export-oriented Mauritian textile SMEs have in fact been observed. Firstly, in the case of Sheentex Ltd, its last post on 23.12.2017 demonstrates the picture of model with a man's knitted pullover. Although it has a community of 944 people who like its Facebook page, only 1 of them hit the "like button" of its latest post which represents only 0.1% of its Facebook community. Secondly, the last post of Cap Kali Ltd on 02.11.17 portrays a picture and a caption to commemorate the arrival of indentured labourers in Mauritius. However, out of a

community of 514 people who likes its Facebook page, its latest post only received 8 likes, which represents only 1.6% of its Facebook community. In both cases, it can be observed that there were no incentives to engage consumers. In contrast, Dorothy Perkins, an international fashion retailer, engages with customers by providing them with fashion advice and also involves its customers through contests.

By engaging with customers on a daily basis, SMEs can gain customers' input in order to improve their product standards. They may even gain 'brand evangelists' who voluntarily promote an organization via social media (Damian & Calvin, 2009). SMEs should therefore talk with their customers instead of talking at them (Mangold & Faulds, 2009). They might use major events, such as the St Valentine Day and the World Cup 2018, as a means to engage with customers through contests.

## **CONCLUSION**

Export oriented textile SMEs in Mauritius should be better equipped so that they can demarcate themselves from competitors. In this digital era, the use of social media definitely provides SMEs with a competitive edge. This research thus aimed to ascertain the marketing purposes for which social media can be used, examine the potential benefits as well as the challenges that such usage entails and identify the determinants which influence its use by SMEs.

As advocated by André Gide, 'man cannot discover new oceans unless he has the courage to lose sight of the shore'. Therefore, in order to prompt greater use of social media by SMEs, several recommendations (supra) have been suggested. Social media may involve several challenges but if it properly executed, there is a wide array of opportunities which SMEs can exploit from its use.

To close this study, it must be highlighted that this study did not assess the impact of social media usage on the export performance of the export-oriented textile SMEs. Further research can therefore be conducted to establish the extent to which the use of social media has enabled these SMEs to increase their exports.

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**ADVANCING LEGAL CONSCIOUSNESS IN SOUTH AFRICA: USING  
LAW AS AN INSTRUMENT OF SOCIAL CHANGE**

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**ABSTRACT**

The article argues that there is a dire need in South Africa to build a legally conscious society, where the layperson can understand and insist on their legal rights, whilst also respecting the rights of others. Despite South Africa being a beautiful country and a popular tourist destination, a large percentage of people live in rural areas, largely uneducated, and living in poverty, with limited legal awareness and resources. The lack of access to private legal practitioners and justice are barriers to protecting human rights, despite a well-intended Constitution. With the high level of crime in the country, coupled with poverty and exorbitant legal costs, the need to assist the disadvantaged, and create a legally conscious society, has never been greater. This article will seek to explore creative ways in which the common citizen can become legally proficient and protected, without a total reliance on the traditional legal bodies and processes. It will be argued that adopting a legal realist approach, together with counter-hegemonic practices, can assist in transforming a one-dimensional legal system into one that is legally conscious, people-focused, and interactive.

**Keywords:** Hegemony, Legal consciousness, Legal ideology, Legal psychology, Legal realism.

## **INTRODUCTION**

Law pervades all facets of life, and it should be seen as a tool that can aid in the betterment of society. It should therefore be studied as an insignia of knowledge that permeates the 'real' world, and one that is used as instrument of social change (Kessler, 1995). A need exists in South Africa for legal education to take the lead in bringing about social change. A symbiotic relationship between law and society, where each affects the other in a positive way, is crucial to building a vibrant and legally conscious society, which is measured in terms of how law is understood, interpreted and applied (Harrington & Merry, 1988). However, in South Africa, with a population of close to fifty million people, of which probably fifty percent live in rural areas, with limited legal awareness, and lack of resources amongst the poor, the lack of access to private legal practitioners and justice are barriers to protecting human rights, despite a well-intended Bill of Rights and Constitution (Holness, 2013). With the high level of crime in the country, coupled with poverty and exorbitant legal costs, the need to assist the disadvantaged and create a legally conscious society has never been greater. As Wachtler (1991) said, 'A system of justice that closes the door to those who cannot pay is not deserving of its name'."

There is a great need for law to be used as an instrument of social change, and legal practitioners, scholars, activists and institutions of learning all have a vital role to play in advancing social justice and creating a legally conscious society. All law schools should focus on the sociological aspect of law, which is founded on three claims that are closely interwoven: law must be understood as a social phenomenon, law constitutes one aspect of social control, and that a mere analysis of legal concepts is insufficient to explain 'law in use' (Wacks, 2005). The changing South African setting, characterized by gaps in legislation, fluctuating social needs, and scientific expansion, has presented the ideal platform for creativity and consciousness (Summers, 1985). It is important that lawyers, law-making bodies, and even the lay person, see law as more than merely a system of rules that can be applied mechanically in order to achieve an outcome (Duxbury, 1991). As an ever-evolving product of 'social

construction', law must be seen for the practical function that it serves in society (Omoregbe, 2004). Within the domain of the legal profession in general, there is a degree of ignorance about the efficacy of being able to 'combine astute legal analysis with an awareness of social conditions' which may be the key to improving not only young legal minds, but society in general (Goldberg, 2010). The need to socially transform and replace the declining interest in the law in South Africa with a deep-rooted respect for legal culture and the rule of law has never been greater (Hodgson, 2015). Empowering society with the knowledge of basic legal rights is crucial to closing the gap between the people and the law, and building a legally conscious society will contribute to the attainment of justice and social equality in South Africa (Hodgson, 2015). The challenge that most societies face, not least South Africa, is how to develop a legally conscious society that knows and understands the language and structure of power (Ewick & Silbey, 1998). This article seeks to examine how a change in values, philosophies and structures can undertake advancing legal consciousness in South Africa. In this regard, the article will seek to explore creative ways in which the common citizen can become legally proficient and protected without total reliance on the traditional legal bodies and processes. It will be argued that adopting a legal realist approach, together with counter-hegemonic practices, can assist in breaking down impediments to legal consciousness, as well as challenging dominant ideologies, and transforming a one-dimensional legal system into one that is people-focused and interactive.

### **MOVING AWAY FROM THE TRADITIONAL APPROACH – LEGAL REALISM**

According to Wizner (1988), law has traditionally been viewed as the sole instrument of legal control, devoid of any consideration for social issues and community values. The lawyer-centric approach, understandably developed during the colonial and apartheid past of South Africa, has created a dearth of knowledge about legal rights, and the rule of law in general (Hodgson, 2015). In recent times, a gradual awareness has emerged that law is not just a lawyer's tool, but an important component of society, which cannot be isolated from social facets (Cotterrell, 1984). In this article, it will be debated that the ability to view law as more than an instrument of legal control is essential to building a legally conscious society – one that is concerned with real-life



outcomes, that can ultimately lead to societal transformation and legal fulfilment (Anleu, 2010). In this regard, there is a need for inward reflection by members of the legal profession, and as a starting point, law students should be taught that their role goes beyond just practicing the law. In order to bring about social change and transform society, law schools and students need to move beyond the traditional 'black and white' approach to viewing, studying and applying the law. To this effect, legal realism is essential to supporting a transformative South Africa, where concepts such as social justice and consciousness are explored and engaged with regularly.

Legal realism is a revolutionary theory which opposes the traditional approach to law (Wilkins, 1990). The key tenet of legal realism is that man-made law is subject to change and evolution (Duxbury, 1991). The roots of legal realism lie in the idealistic, sociological-positivist approach of Roscoe Pound, who stressed the importance of distinguishing between 'law set forth in books' and 'law in action' (Pound, 1910). As long as a century ago, men like James Carter, who was a famous nineteenth century forbearer, believed that the law must be 'adapted to human affairs' in order to attain and maintain justice rather than seek uniformity (Carter, 1890). This liberal view of law was seen as a direct threat to the traditional or formalistic approach, but despite resistance towards the new order, the realistic view of law continued to grow and gain credence (Jackson, 1968). Another key figure who influenced the realist movement was Justice Holmes, who was widely regarded as the founder of American legal realism (Gilmore, 1961). Holmes saw law as a catalyst to achieving social and societal goals.

Legal realists believe that law is not restricted to factors within the legal domain, but it is linked to real-life outcomes and social factors that influence the law and legal decisions (Cotterrell, 1984). They believe that law is more than just abstract concepts found in legal textbooks. Realists view law for the practical function that it serves in society (Omogbe, 2004). Realism moves beyond the single path of logic, and focuses on social factors that speak to the legitimacy of law and the sociological investigation into the sciences (Cotterrell, 1984). The enquiry into the social factors that make law has created the opportunity to explore behavior, beliefs and realities (Hosten, 1983). Realism has forged a therapeutic link between law and other disciplines, and to a large degree can be attributed to identifying and addressing the gaps in the purely formalistic legal system of the past (Wilkins, 1990). The approach

of realists is to search for 'real factors' in legal outcomes, and this has enabled them to challenge the objectivity and consistency of legal rules (Hosten, 1983). Understanding legal realism, and adopting a legal realist approach, is crucial to transforming the current legal culture into one that views ordinary people as important agents in a transformative legal system.

Courts have a huge role to play in bridging the gap between people and the law. Recent court decisions show a shift away from formalism towards a realist approach, where the socio-economic impacts of legal decisions are being highlighted. A typical example is case of *Prince v President of the Law Society of the Cape and others* 2002 2 SA 794 (CC), where the Constitutional Court had to decide on the issue of freedom of religion. Prince applied to the Law Society to have his contract for articles registered. In his application, he disclosed that he had two previous convictions for possession of cannabis and that as a Rastafarian, he would continue to use cannabis as it was an integral part of his culture and religion. The majority court emphasized that the main issue in the matter was whether the law was inconsistent with the Constitution. It became clear that the judges in their majority were hesitant to go outside the text, and they adopted a positivistic approach when arriving at their decision. However, Justice Sachs in his minority judgment remarked:

*'...because they are politically powerless and unable to secure their position by means of a legislative exemption, the Rastafari are compelled to litigate to invoke their constitutional rights. They experience life as a marginalized group seen to dress and behave strangely, living on the outer reaches rather than in the mainstream of public life. The court has accepted that: 'to understand the other one must try, as far as is humanly possible, to place oneself in the position of the other.' An inflexible application of the law that compels him to choose between his conscience and career threatens to impoverish not only himself but all of South Africa and to dilute its burgeoning vision of an open democracy'.*

Justice Sachs clearly recognized the need for judges and the current legal system to move beyond the text. He identified the fact that Rastafarians were powerless when pushing to have their views aired in the political arena. The judgment highlighted the popular belief that politics, social circumstances and policy considerations can and should play a role in the decision of courts in South Africa. This case has emphasized the fact that legal education is being transformed by a growing awareness that law, as

an important aspect of society, cannot be isolated from social phenomena (Darby and Cotterell, 1994).

A realistic approach to law is crucial in the sense that it stimulates a critical understanding of the law (Dias, 1985). The understanding that law is more than a set of rules is the starting point for any law student, lay person, or attorney in developing a cultured set of 'tools' to solve and deal with legal issues in the 'real' world (De Groot, 1998).

Despite criticism levelled at realism and realists over the years, such as the over-reliance on the 'human factor' in the judicial decision-making process, and the failure to adhere to formal structures and rules, there is no doubt that realism has encouraged critical thinking and problem-solving in legal education (Hosten, 1983). It is this critical thinking and common-sense understanding of the legal system, and the world, that can be crucial in creating a legally conscious society. The construct of consciousness becomes clearer when one adopts a realist approach to understanding and interpreting the law.

## **THE CONCEPT OF LEGAL CONSCIOUSNESS**

The ability to shape the law, make meaningful legal decisions, understand one's rights, and participate fully in the legal system is possible if society is able to know and understand its rights. Building a legally conscious society is necessary in order to bridge the gap between people and the law in South Africa. There is a growing body of literature on legal consciousness, and it is important to understand this crucial concept in an effort to inwardly reflect on what is needed in order to build towards such a society. Legal consciousness is a theoretical concept, and a topic of empirical research, developed among socio-legal scholars to explain how law sustains its institutional power across wide spans of time, space, and variable performance (Silbey, 2008). It is also viewed as the aspect of law that is concerned with how the ideas, representations, and actions of lay-people in society help to sustain legality's presence as a dimension of social life (Ewick & Silbey, 1998; Silbey, 2005). The concept is crucial to how mature a country is viewed in terms of democracy, peace building, and national development, and the term is intended to suggest some parallels between the institution of the law, and a system of language to be mastered and

understood (Kaugia, 1996). In a recent study, Bieliauskaite and Slapkauskas (2015) defined legal consciousness as a manifestation and product of the development of the rule of law. It has been described further in terms of (1) the attitude of people to the law as a universally important value, (2) the impact on legislation, and (3) the necessary condition of precise and diligent law implementation (Bieliauskaite & Slapkauskas, 2015). Legal consciousness is said to become essential when society experiences reforms and radical changes in the system of values, content, and forms of public life. Legal consciousness has also been described as 'the unit of objectively existing images, ideas, emotions and theories, which expresses the attitude of society, groups and individuals towards law as a social institution, the legal system and its elements' (Bieliauskaite & Slapkauskas, 2015).

Moreover, legal consciousness involves two structural elements, namely, legal psychology and legal ideology (Bieliauskaite & Slapkauskas, 2015). While legal psychology relates to the feelings a person experiences when he or she is confronted with legislative and law enforcement activities of varying social structures, it also relates to a person's feelings when an assessment is made about the extent to which justice and personal interests are considered. Vaisvila (2000) viewed legal consciousness as consisting of feelings, such as the sense of justice, emotions, habits, moods and stereotypes, resulting from people's trust or distrust in the governance and legal system, and processes such as rulings of the courts of justice. Alternatively, legal ideology refers to the system of legal ideas, theories and approaches through which people know the existing law, assess legal reality, and express the desired law (Bieliauskaite Slapkauskas, 2015). Contrary to legal psychology, legal ideology mainly focuses on law.

Accordingly, legal consciousness can be referred to as the expression of ideas and behavioral attitudes of people towards the legal system of a society and a country at large. Essentially, the customs, experiences, and feelings of people, in relation to legal phenomena, constitute the psychological aspect of legal consciousness, and among these are a sense of justice and a loathing of crimes and illegal actions (Merry, 1990). The dynamic nature of legal consciousness is reflected by the fact that not only do external factors, such as the court system, law-making bodies and law enforcement amongst other aspects, establish legal consciousness, but internally learned experiences and processes play a huge role in developing specific legal

consciousness (Silbey, 1992). Legal consciousness studies have shown that law provides the framework for citizens to construct meaning to their experiences in daily life, and it is how people perceive the rule of law and justice that impacts on the promotion of human rights and development in a cohesive society (Marshall & Barclay, 2003). An understanding of the words used in a legal context is crucial for the layperson to be able to interpret the law and draw conclusions (Canadian Bar Association, 1992). Educating people about the way they understand and think about the law is crucial to creating consciousness about the law. In this manner, education is a process of teaching and learning, which product must be seen in the behavioral change of the people being given such exposure (legal education). The Multiple Action Research Group (working for the promotion of legal awareness) defined legal consciousness as 'critical knowledge of legal provisions and processes, coupled with the skills to use this knowledge to respect and realize rights and entitlements'. Therefore, legal education (consciousness) should not be solely theoretical, but should blend with the practical aspect also, simply because the education of the legal consciousness must be seen practically and not as mere paper work. Further, Bilder (1999) defined legal literacy as a 'spectrum of functional skills', relating to the legal system and conduct of lawsuits. Thus, a certain degree of legal literacy is required for effective participation in modern society. However, it is not necessary for the average citizen to reach the professional standard of thinking and writing like a lawyer. However, the lawyer who is professionally trained in law has a crucial role to play in advancing legal consciousness, and this can only be achieved if they are made to see beyond the traditional approach to law.

It is not just the lawyer who plays a role in advancing legal consciousness. The layperson has a crucial role to play in assigning meaning to social structures, and how they understand and use the law is crucial to the legality construction process (Larson, 2004). A knowledgeable or legally conscious population is likely to conduct itself in a manner that constructs legality, seeks solutions, minimizes conflicts, and engages in conflict prevention strategies (Ewick & Silbey, 1998). Moreover, increased public awareness about the law and legal system strengthens public confidence and trust in the law-making bodies, the court system, law enforcement, and the judicial system as a whole. A legally conscious society will view the legal system as one that is for their comprehensive benefit, and active participation in the legal system will lead to a better

and happier society. This has immense benefits in terms of raising citizenry values and building a rationalistic society. However, in order to achieve this goal, it is imperative that the barriers that have slowed down the process of advancing public awareness about the legal system in South Africa are decimated.

## **BARRIERS TO LEGAL CONSCIOUSNESS**

### **Hegemony**

In South Africa, despite the existence of a well-respected Constitution, there still exists antipathy towards the law and the courts, as access to courts remains a fantasy for the poor (Hodgson, 2015). The business of lawyering in a commercial sense, the overly technicality of law to the lay person, the general negative perception of lawyers and the legal profession, as well as the distrust of state machinery are key factors that have created a division between ordinary people and the law (Hodgson, 2015). The court system in South Africa is seen by the poor as being highly colonized and an institutions of bourgeois rule, with many people firmly believing that the law only works for the capitalist class and not the poor (Mdlalose, 2012). A hegemonic South African legal system is generally seen to go against the constitutional imperative of access to justice. In searching for a legal system that serves all, it becomes imperative to understand the concept of hegemony and find ways to empower all groups, especially including those who are perceived as inferior.

Hegemony describes how a social group is controlled by means of domination, physical force or submission (Litowitz, 2000). According to Litowitz (2000), any form of dissent is restrained through social institutions or a hierarchical structure, and hegemony serves to instil a sense of inferiority on subordinated groups. In a legal context, the legal system promotes hegemony by routing various forms of individual conflict into an authoritarian public setting, such as a court of law, which tends to remove such cases from their social context (Gabel & Harris, 1982). The social order is also legitimized through legal reasoning, which tends to reinforce existing hierarchical power relations (Gabel & Harris, 1982). Courts and the judiciary are seen to be the enforcer of legal norms, yet most legal conflicts do not reach or enter this forum. Fortunately, hegemony can be challenged through counter-hegemonic practices or consciousness, such as client empowerment and organizing (Ewick and

Selby, 1998). It has often been said that the legal system tends to aid the wealthy, as the poor cannot afford to take their cases to court, and legal aid does not cover all types of cases, and all classes of litigants. For this very reason, the need to prioritize a counter-hegemonic system, which seeks to prevent the elite from perpetuating their power, wealth, and status, is crucial to providing access to justice to all citizens. A counter-hegemonic system, where structural relationships between the legal profession, courts, communities, and programmes seeking to promote independence and accountability, is crucial to raising legal consciousness and achieving social justice (MacDowell, 2015).

### **The ability of education to promote social progress**

The field of education is central to promote social progress, but this is largely dependent on the quality of the education system. John Dewey, America's most influential philosopher of education, stated that, 'through education, society can formulate its own purposes, can organize its own means and resources, and thus shape itself with definiteness and economy in the direction in which it wishes to moves' (Dewey, 1966).

According to the World Education Forum, in Dakar, Senegal (2000), if all students in low income countries could leave school with basic reading skills, about one hundred and seventy-one million people could be lifted out of poverty. This statistic shows that education is the means of living (life), which amounts to far more than just reading, writing, and arithmetic. It is one of the most important investments a country can make in its people and its future, and it is therefore critical in reducing inequality, and resolving conflict in every society.

Thus, the role of education (higher level education particularly) involves passing on societal culture, norms and values (including the law), which should be measured by the change in values of learners who have undergone such training. In essence, legal education is supposed to play the same role. Legal education can be seen as a form of practical training that provides interpretations of the rule of law to the general public, thereby cultivating a greater understanding of the law. Justice in a country, as a whole, will be better promoted by knowing the rules and regulations governing a society. The education sector in South Africa should take interest in working to raise a legally conscious South African population. It has been suggested that there is an urgent

need in South Africa for law schools to produce graduates who are committed to social transformation, and have the capacity to be accountable and responsible in a professional and social context (Klare, 1998). Law schools have a responsibility to transform legal education, and move towards a legal order that contributes to the betterment of society (Fourie, 2016). It is clear that people in the legal profession, and indeed the whole nation, stand to benefit from a strong legal profession that contributes to a legally literate community.

Leonard J. Long, Professor of Law, at the Quinnipiac University School of Law, highlighted the significance of legal literacy in the United States' legal education by stating that, 'law students, law firms, consumers of legal services, and society as a whole would benefit from having a legal profession comprising of and dominated by people who are literate in American law, its history, and its jurisprudence'. (Long, 2009). Unfortunately, Professor Long lamented that legal literacy is not promoted, mainly due to the fact that it is not viewed as necessary for the practice of law, thereby contributing to the anti-intellectual tradition in American law generally. This problem that has been identified in relation to America, also exists in South Africa, and many other countries around the world. The question relating to how the higher education institution sector, as well as professional legal associations, can support government initiatives to raise legal consciousness among the South African people has been strongly debated recently. The basis of this concern is the fact that a lack of knowledge of the rules gives advantage to the those who are knowledgeable and informed. Enhanced legal literacy among the populace can serve to empower ordinary citizens to insist on their rights and protect themselves against exploitation. It is common knowledge that people in the legal profession at times engage in unethical behavior. In many situations, people in the legal profession engage in fraudulent acts against the very people they have undertaken to protect their rights and fight their cases. A legally literate population will resist such frauds, and can serve as a strong antidote to such exploitations, which could then improve the functioning of government, and also private institutions in the country. A legally literate and conscious population can also lead to enhanced standards, and the well-being of the citizens, as well as the proper functioning of businesses and civic culture. The higher education sector needs to recognise the need to equip the general population with legal consciousness. While educating people is important, emphasizing and raising the legal consciousness or



literacy of the masses is a key aspect that has been neglected. The idea that people are capable of learning throughout life, and that they should be encouraged to do so is a notion that applies equally to legal consciousness (Kyrasek & Polisensky, 1968). Of course, such education may not be a profitable activity for most people in the legal profession, and may even be regarded as a project for the government, but the more legal literacy and legal consciousness education eludes the higher education sector, the less education impacts positively on societies.

### **Lack of psychosocial training in assertiveness and self-esteem**

In many developing countries, such as Jordan, there exists many barriers for women accessing the justice systems, such as psychological, cultural and financial barriers (Arab Council for Judicial and Legal Studies, 2007). Many legal awareness sessions tend to focus on information provision, rather than information use, and campaigns tend to devote insufficient time to addressing underlying factors as to why women do not access legal frameworks (Al-Badayneh, 2012). In many developing countries, cultural aspects play a crucial role, where commitment to families is strong and problems are viewed as internal family matters. South Africa is no different. Outside structures are often viewed with disdain, and violence against women is seen as personal and family issues, rather than legal problems, especially in male dominant cultures (Btoush, 2008). Women are hesitant to report abuse due to feelings of shame, depression, and fear of intimidation, and those who are brave enough to do so, are stigmatized, socially ostracized, and seen as rebelling against their families (Haj-Yahia, 2002). Legal awareness and empowerment programmes are crucial for equipping women with information about their constitutional rights, as well as providing them with the tools to advance their social conditions. However, coupled with awareness programmes, the need for psychosocial support and basic assertiveness skills training, that enable women to receive and decode the information they have received into action is most important (Arab Council for Judicial and Legal Studies, 2007). It is hoped that such training will, over an extended period, promote legal consciousness amongst women, as well as erase generations of human rights' violations and disempowerment.

## **THE WAY FORWARD**

### **Legal education and schools**

There have been many cases where governments have promoted long-term legal literacy missions or awareness campaigns. An example of this is when institutions arrange legal literacy events. Legal awareness can also be achieved through camps, lectures, and interactive workshops, or ‘crash’ programmes on the essential and elementary legal laws. Among the general public, many are willing to spend time listening to scholars on contemporary issues that have significant bearings on the rights and livelihoods of ordinary people. Strategically located display boards in public places (railway stations, bus stations, market places, in front of major government offices and police stations) can be used to help government officials, police, and the public to understand the spirit of law.

Children are fundamental to socio-economic sustainability. Raising the legal consciousness of children is a worthy choice that will guarantee a legally conscious adult population, who understand and insist on their rights, while respecting the rights of others in the future. It is therefore suggested that a legal and civic education course be made compulsory in all schools until grade ten, similar to that of the subject of South Africa history that is taught in schools. The course should instil in children the culture of valuing human rights, respecting life and property, and living in harmony with people of different cultures and beliefs. The government should play a facilitating role by ensuring the development of an appropriate curriculum and texts to promote quality and standards.

Furthermore, the establishment of a programme that ensures the transfer of new legal research from the higher educational institutions (HEIs) to the public, as and when they emerge, would serve as an important dimension in raising legal literacy. The notion of research and engagement in higher education is thus an important agent in promoting access to justice, and creating a legally conscious population in South Africa. The dissemination of accurate and reliable legal information is not only crucial to creating new knowledge and updating existing knowledge, but also relevant to all legislative processes. Research can make massive contributions to all communities, and play an important part in addressing social, cultural, and economic issues and problems in South Africa. HEIs, through research, can ensure that societal issues,

such as legal rights, children and women abuse, as well as other socio-economic issues, become the focal point in the country. In particular, research undertaken by postgraduate students should highlight legal issues that are current, topical and pertinent to the society. Importantly, the findings from such studies must be available and accessible to the general public, most especially through social media and other platforms easily accessible to the people.

### **Law schools**

Law schools have a responsibility to impress upon law students that law is not just about financial gain and court battles, but that law can be used as an instrument to better society and bring about social change. Law teachers need to ensure that law students view law as part of the fabric of society, and this can be achieved by instilling values in them that engage the Constitution, shape a new legal order, and ultimately lead to social change (Fourie, 2016). There is an urgent need to ensure that law curricula focus on social responsibilities and constitutional values, and thus a transformative legal education framework is crucial to the transformation of a new legal order (Quinot, 2012). Fourie (2016) suggested adopting a therapeutic jurisprudence approach when attempting to transform legal education, and the benefits of such an interdisciplinary approach to studying law's impact on emotional life, and psychological well-being, is that it tends to support key values of humaneness, social justice and fairness. There is no doubt that there are benefits to such an approach, as law can be studied as a potential therapeutic agent that can promote legal consciousness and constitutional democracy.

### **Psychosocial training in assertiveness and self-esteem skills**

The United Nations has expressly stated that, 'access to justice is a basic human right as well as an indispensable means to combat poverty, prevent and resolve conflict' (Arab Council for Judicial Legal Studies, White Paper of Access to Justice and Legal Aid in the Arab World, 2007). Violence amongst women in the world continues to escalate, and research suggests that as high as fifty percent of women in the world are experiencing, or have experienced, some form of violence in their lives (Kumar & Supriti, 2013). As indicated earlier, women are hesitant to report abuse due to feelings of shame, depression and fear of intimidation, and those who are courageous enough to do so, are often denounced, socially detested and seen as defiant by their families

(Haj-Yahia, 2002). Psychological, cultural and financial barriers can be overcome with legal awareness and empowerment programmes. However, awareness programmes on their own may not be sufficient to erase generations of human rights violations, but such programmes, coupled with psychosocial support and basic assertiveness skills training, can successively assist women to overcome their mental trauma, and make practical use of their knowledge of legal rights (Arab Council for Judicial and Legal Studies, 2007).

### **Counter-hegemonic practices**

The notion that law 'only works for the rich', and is repressive towards the poor, needs to vanish in order for South Africa to build a legally conscious society. Courts, for example, are reliant on the State to support and uphold its decisions, and reinforce its independence and legitimacy, yet quite often they come under attack by politicians or high-ranking officials who question its independence. Any form of mistrust in the justice system can have a detrimental effect on its legitimacy. Those who are wealthy or have influence are generally seen to navigate the justice system easily, using their means to afford bail, invest in their own private investigators, and appoint the best legal representatives. In contrast, the poor are sometimes denied bail on frivolous grounds, or cannot afford bail and are then forced to await their trial behind bars. Many cannot afford their own legal representatives, and are appointed state-funded or legal aid attorneys who are often overworked. Legal Aid South Africa does provide legal assistance in all courts in South Africa, but their services are restricted in respect of civil justice, and further limited to those who fail their means test. Countries such as Brazil and India with large populations have engaged institutionally with providing legal assistance to the poor by codifying free services to the poor as an obligation (Klaaren, 2014).

Court judgments at times fail to facilitate 'public dialogue' as many are lengthy, complex, and not readily accessible to the disadvantaged. There is an urgent need to dismantle hegemonic power in the South African legal system. The need to prioritize a counter-hegemonic system, which seeks to prevent the elites from perpetuating their power, wealth, and status, is crucial to providing access to justice to all citizens. Awareness programmes, highlighting client empowerment, and stakeholder relations, are crucial to eradicating hostility when poor people access the law. Taking the law and the courts to the people and especially the rural areas of South Africa can make

a difference. There may be a need to change the structure of some of the courts, and create more user-friendly courts which do not require legal representation, increase the number of village or community courts, and focus more attention on alternative dispute resolution mechanisms (McQuoid-Mason, 1999). A counter-hegemonic system that promotes a synergetic relationship between all legal role-players is crucial to raising legal consciousness (MacDowell, 2015).

### **Street law and legal clinics**

Street Law is a legal education programme that takes law to the schools and the street, and provides people with an understanding of how the legal system works (McQuoid-Mason, 1999). Street Law fundamentally aims at making people aware of their legal rights, and how the legal system can be used to protect them. Stated differently, the core aims of Street Law education is to bring awareness of civil rights, democratic principles, conflict resolution, the advocacy process, criminal and civil law, employment law, family law, and consumer rights. The overall goal is to ensure that legal literacy facilitates national development. Essentially, through street law, the public can become conscious of their rights, duties, and responsibilities. Legal consciousness would be further enhanced if most South African universities decide to adopt schools across the countries, and educate them on constitutional freedom, social justice, and responsibility. In fact, the street law education approach to enhancing legal consciousness is not limited to students, but can, and should, be extended to all persons outside of the legal profession (such as educators, police and security officers, youth groups, churches, workers, businesses, and many others who will benefit).

Currently, law clinics exist almost in most law faculties and schools in South Africa. While most of the law clinics are operated using contract staff, they do play an important role in providing legal support to communities, as well as crucial training and practical skills for senior law students (McQuoid-Mason, 1982; McQuoid-Mason, 2007; McQuoid-Mason, *et al.*, 2010). Essentially, the university-based legal aid clinics supplement the role of national legal bodies. Although most clinics deal with an array of legal problems, certain forms of litigation are restricted by law to legal practitioners (McQuoid-Mason, 1999). The overall goal of the clinic is to enhance the legal literacy and consciousness of the indigent citizen. Consequently, law clinics ensure that legal education is brought into direct contact with the people who have genuine legal

problems, and desperately need guidance. Funding for such clinics remains a serious issue, and an issue which should be tackled by government and possibly Legal Aid in South Africa, as many clinics cannot afford to train candidate attorneys or offer satisfactory services due to lack of funding (McQuoid-Mason, 1999). Legal clinics through legal clinical education are strategically placed to impart the skills of legal knowledge to the masses, through appropriate channels such as workshops and trainings. Law clinics can extend their activities to communities and tribal authorities in order to ensure that new legislation, which directly impacts on people and the communities, are made known to them. Through this approach, both legal assistance and legal literacy can be accomplished simultaneously.

## **CONCLUSION**

KwaZulu-Natal Judge President, Achmat Jappie, at the annual general meeting of the South African National Editors Forum held in Durban, South Africa (Sanef, June, 2017) commented that, 'without information citizens cannot make informed decisions. If citizens can't make informed decisions then they are nothing more than bunch of sheep'. As harsh as these words may seem, it is clear that the Judge was calling for a legally conscious society that supports a transformative South Africa. A transformative and legally conscious South Africa is one where people understand and enjoy their rights, and bridges the gap between people and the law, which is crucial to building an energetic and knowledgeable society (Mubangizi, 2004).

The article has clearly outlined the fact that legal consciousness is an important asset for those disadvantaged socially and economically. An awareness of the law and the legal system brings about confidence and trust in a democratic society, and this has immense benefits in terms of progress towards an equal and free society. There is no doubt that South Africa has one of the most liberal constitutions in the world, but a dearth of access to justice, and a lack of understanding of the legal process, renders most of the legislation ineffective at the stage of implementation. A largely unregulated legal profession, the political and socio-economic legacy of apartheid, unchanged foundational legal rules, and erratic state expenditure, favouring criminal rather than civil justice, have also contributed to a lack of access to justice (Klaaren, 2014). A truly transformative South Africa requires a new approach that places legal consciousness

at the nucleus of a new legal order. Adopting a realist approach to law, where law is seen as part of the social fabric, is key to moulding a legally proficient society. Moving away from hegemonic practices can eradicate mistrust in the justice system. The field of education is key to promoting social progress and legal awareness. By its structure and arrangements, the higher education sector can promote widespread legal consciousness in South Africa, by means of a number of mechanisms including, but not limited to, street law programmes, law clinics, and law school activities. Higher education can equip students with the skills, knowledge, habits, and attitudes that they would require in order to become legally conscious, and to make others legally conscious. There is an urgent need to equip people with the skills needed to be active participants in a democratic society, and only once this is achieved, will society be transformed into one that is in control of its thoughts, actions, and lives.

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**L. Maciko and M. Simatele**

## **USAGE OF FINANCIAL SERVICES IN RURAL COMMUNITIES OF SOUTH AFRICA: BARRIERS AND OPPORTUNITIES**

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### **ABSTRACT**

In a desire to increase financial inclusion, the government of South Africa partnered with key financial institutions in the country to provide low cost bank accounts for low income individuals. Despite a significant uptake, evidence shows that the use of these accounts is very low. This paper investigates the factors that have contributed to the low usage levels of financial services amongst low income households in two selected provinces of South Africa. Focus group discussions were conducted. Some traditional factors, such as distance have been cited and the focus group discussions reveal key reasons why there is a need for services to be closer. Older respondents cited the main problems such as risk and fear of spending nights in town to access services, as well as a distrust of financial institutions, and a lack of appreciation for the prudent practices by banks. Many respondents indicated that they preferred to borrow from individuals they knew and whose practices they understood, unlike those of the banks.

**Keywords:** Access, Financial inclusion, Financial services, Human development, Usage.

### **INTRODUCTION**

Inclusive financial systems have been associated with faster and equitable growth (Demirguc-Kunt *et al.*, 2018). The central bank made a shift in its policy agenda for the enhancement of a financially inclusive system (Johnson and Nino-Zarazua, 2011). Many governments responded with significant efforts to increase financial inclusion. This was also a response to international organizations such as the G20, statutory bodies, Brics nations, public-private sectors, and the World Bank when the Maya

Declaration made a global commitment towards financial inclusion. This was adopted by 61 countries in 2011 to expand access to financial services for the poor (Villasenor., 2015). Furthermore, Demirguc-Kunt *et al.* (2015) stated that 'out of 143 economies, 67 percent have a mandate to promote financial inclusion and more than 50 countries have set formal targets and ambitious goals for financial inclusion'. When this is measured by access, there has been rapid increases in financial inclusion globally. Demirguc-Kunt *et al.* (2018) showed that 69% of adults globally have access to a financial account, which is 18% increase over a period of six years.

In the South African context, ten years ago, there was financial sector reform undertaken with the aim of creating an inclusive society. This resulted in the introduction of legislative and commercial initiatives that aimed to facilitate financial inclusion, which the government believed was a vehicle towards inclusive economic growth. Furthermore, this resulted in regulatory changes that allowed different institutions to partake in the financial services sector (Villasenor *et al.*, 2015). This was a response from the South African government to calls for increased financial inclusion by partnering with the country's biggest four banks and developing an entry-level bank account referred to as Mzansi account. By 2008, more than 6 million accounts had been opened, but of the 6 million accounts opened, only 3.2 million of these have been used (Bankable and FrontierAssociates, 2009). In 2010-2013, there was a rapid increase of ATMs in rural and previously disadvantaged areas (Finscope, 2014). This approach did not succeed, just like the Mzansi account had failed. Some researchers such as David-West (2016) argued that this failure was as a result of the cost incurred by banks that served in rural areas. This confirmed Sawyer's view that the less revenue banks get limits their potential for further investment (Sawyer 2016). The traditional banking model did not work again leaving the poor in a worst-off situation.

People continued to use their accounts as mailboxes as they believe that this is the safest method of keeping their money (NationalTreasury, 2017). Recently, the South African government established the means of achieving financial inclusion through setting targets, as indicated in the National Development Plan (NDP). One of those targets is to increase financial inclusion in the country to 90% by 2030 (Banking Association of South Africa, 2015). This makes this study to be of great importance, not only to public policy makers, but also to academic scholarship and practices (Arun and Kamath, 2015). For policies to be implemented, it still needs to be discovered

what has been the main obstacles that led previous reforms to fail. Most of the time financial inclusion in South Africa has been measured based on access, however, the benefit of access to financial services can only be harnessed if individuals are able to use these accounts in safe and convenient ways. This is supported by the data from the Findex database which shows an increase of individuals with dominant accounts (Demirguc-Kunt *et al.*, 2018).

This lack of usage limits the efficiency of financial inclusion in the country. It is therefore important to understand the factors that keep account owners from using them. This paper investigates the barriers associated with the usage of financial services especially in the presence of increased outreach. Opportunities that exist for usage in rural areas are also explored.

## **PREVIOUS STUDIES**

There is now a mounting body of research which takes into consideration people's preferences in choosing and using financial products (Collard *et al.*, 2001, Lederle, 2009). This growing literature does not only enable financial service providers to understand consumer needs when planning and delivering financial services, but also recognizes how vital usage of financial services is determined by individual preference. Various researchers have concurred that ownership of a bank account is not sufficient, there needs to be usage for financial services to add value in the lives of the people (Anderloni *et al.*, 2007, BMRB Social Research, 2006, Corr, 2006, Kempson *et al.*, 2000). This takes into recognition that some accounts are only used for receipt of money, which does not equate to full usage of financial services.

Researchers argued that consumer's ability to use financial services is dependent on financial literacy, this is confirmed by the supply-demand framework which shows association between financial service utilization and financial literacy (Cole, 2009; Osei-Assbey, 2009). Financial literacy gives people the ability to use services offered to them. Approximately 33% of adults globally have an understanding of basic financial concepts, while 3.5 billion are financially illiterate. This creates difficulty in using a product where concepts are not understood. A study conducted by Ikdal (2017) suggested that South Africans are vulnerable to widespread financial literacy. This is one component that explains the inability to use of the offered financial services. A

paper by Xu and Zia (2012) proposed financial literacy as a tool to empowering consumers and as a vehicle in promoting usage of financial services . This becomes important as people would have awareness and knowledge about the services offered to them, the risks that comes with the services plus the skills, attitudes and behaviours necessary to make sound financial decisions (OECD/INFE, 2015).

A study by Osei-Assbey (2009) examined the factors prompting demand for a bank deposit account. He discovered that socio-cultural, religious and financial literacy led to self-exclusion, from the market factors price of the service. A study by Allen *et al.* (2016:10) revealed that price exclusion is the second most-cited reason for not owning an account because banks are too expensive.

Through this study there is a movement away from the narrow phenomena that recognizes access as being sufficient, into embracing the use of the mainstream financial services by rural households as being equivalently important. Regan and Paxton (2003) concurred with this assertion by indicating that people should have access to a range of products and services but also requires the opportunity and ability to use these (depth of engagement). The critical aspect of this research is on the usage of financial services by the customers it is designed for. There is a strong emphasis that customers must be able to make valuable use of financial products however this has not been achieved more especially in rural communities.

## **METHODOLOGY**

The primary focus of the study was the rural areas of the South Africa. Two largely rural provinces were selected: the Eastern Cape and KwaZulu-Natal provinces. The purpose of the study was to understand the reasons individuals do not use financial services that they have access to. Due to the exploratory nature of the study, a qualitative and flexible method of data collection was necessary. Focus group discussions offer these advantages and were used. Twenty focus groups of between five and 10 participants were conducted. Purposeful sampling was used to select participants. The attributes taken into account were age, gender, geographical location, impoverished areas, dependence on government grants and relying on grants in order to obtain as varied responses as possible. Including parameters of such a large number of characteristics allows for the inclusion of theoretical

possibilities that could affect the usage of financial services. The nature of the South African villages meant that the villages were ethnically homogeneous, with almost all participants from KwaZulu-Natal being Zulu speaking and the ones from the Eastern Cape Province being Xhosa speaking.

A thematic analysis was used. The themes were based on the objectives of the study: identifying financial services being used in rural areas, identifying factors associated with non-usage of available financial services and the opportunities that could drive increased usage of financial services.

A total of 171 participants took part in the study. Among the participants, 39% were males and 62% were females. Participants were aged between 20- 61+. A proportion of 30% within age group of 30-40 were the most contributors of these focus groups, among these 45% were females and 32% were males. The least contributors had a 10% proportion and fall in the 61+ age range, among these 11% were males and 0.08% were females.

On the two provinces, about 94 (55%) contributors were Zulus, as compared to 77 (45%) of Xhosas. Overall, only 30% of these respondents were working, as compared to 41 % that were unemployed. Furthermore, 11% were retirees while 23% were studying at tertiary institutions.

## **DISCUSSION OF FINDINGS**

### **Results**

In this section of the results, the researcher will first present the socioeconomic characteristics of the respondents. Secondly, the findings of this study will be discussed. These findings are discussed according to the emerging themes as stated in the previous chapter. From the 20 focus group discussions across the two provinces the following themes emerged. These themes and categories emerged from theory, analytical reflection and the coded respondent stories (focus groups). Thematic analysis was used to develop themes. Three themes were realised which are: (1) motives for use of financial services, (2) motives for non- use of financial services, (3) experience on usage of financial services.



## Socio-economic characteristics

Focus group discussions were conducted in 20 villages from the Eastern Cape and KwaZulu-Natal. The respondents' profiles of this research are shown below (See Table 1). The nearest villages among these are located 20 km away from the nearest bank, while the furthest is 60 km away from the nearest town. This makes most of the villages that contributed on this study to be geographically excluded. All these villages are heavily dependent on agriculture and are impoverished.

**Table: 1**

<b>Household Reference Group</b>	<b>Age Group</b>	<b>Proportion</b>	<b>%</b>	<b>Males</b>	<b>%</b>	<b>Females</b>	<b>%</b>
	20-29	33	19%	14	21%	24	23%
	30-40	51	30%	21	32%	47	45%
	41-50	42	25%	15	23%	11	10%
	51-60	28	16%	9	14%	15	14%
	61+	15	10%	7	11%	8	0.08%
<b>Sex</b>	Male	66	39%				
	Female	105	61%				
<b>Economic Status</b>	Working	51	30%				
	Unemployed	70	41%				
	Retired	11	6%				
	Education	39	23%				
<b>Tribe</b>	Xhosa	76	45%				
	Zulu	95	55%				

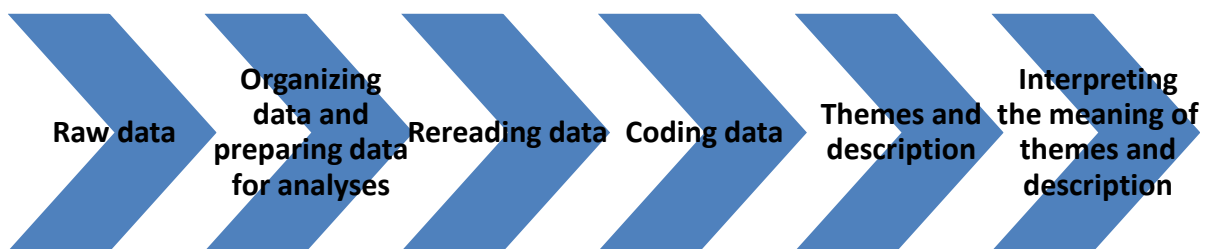
## Phenomenological explication

According to the phenomenological accounts given by the participants, it appears that there are a number of factors that challenge people in rural communities in their use of financial services. All of the respondents were able to explain their motives for using, or not using, of financial services, challenges on the use of financial services and contributed to the use of financial services. In their subjective accounts, most of the respondents attributed their challenges of using financial services to lack of money,

unemployment, geographical exclusion, expenses, unaccounted deductions and transactional costs.

### **Coding and emerging themes**

The author conducted focus group discussions in the EC and KZN and their experiences were recorded through an audio recording. This was followed by a verbatim transcription as indicated on the appendix A. The codes arose from the transcribed recorded focus group discussions. The texts were coded and analysed for themes (See appendix A). The author has relied on descriptive coding, which is capitalized code on the right side of appendix A. The indicated descriptive code gives a summary of the extract. In getting the codes and themes the author followed the steps indicated on figure 1 below:



**Figure 1**

Source: Author's own work

This whole process began with raw data which was realised during the focus group discussion. This required the researcher to understand the meaning of the data and absorb the material. This process proceeds the preparation of data which constitutes the recording and verbatim transcription. The third step required the researcher to make sense of the respondents' contributions. When respondents explained the reasons that made them open bank accounts, they said it was because they expected to receive a salary, SASSA grants from the government and allowances from relatives and friends. The author coded these as *income* (See appendix A). Others mentioned that they started to work and this was coded as *employment*. The traditional leaders indicated that they opened bank account to limit the risk of being robbed and this was coded this as *risk mitigation and risk*. Lastly on motives for use, other respondents among traditional leaders felt that they had to adopt way of storing money and the author coded this as *technology*. When asked for challenges they have experienced

in the use of financial services they indicated distance, which was coded as *geographical exclusion*. Furthermore, high transport costs were mentioned as areas of concern and this was coded as *expenses*. Bank charges were coded as *transactional costs*. There are 18 codes that came out from the transcripts. The author had to identify similarities and differences of the respondents' views. One would note that codes were predetermined from the research questions or the participant's response and those that emerged were put together.

The coding gave rise to themes and subthemes. The codes comprised of a concept, a line or a paragraph with the material relating to the themes under consideration. Through identification of frequent themes, the plan was to determine how prevalent the barriers to usage of financial services are in rural communities through the participants' stories. Three themes were discovered which are motives for use of financial services, challenges on use of financial services and factors contributing to lack of borrowing loans from formal financial institutions. There are also 11 subthemes that that were realised as indicated in Table 2 below.

The researcher did not just summarise the content but thought in terms of the processes, tensions and contradictions that appeared. Lastly, an optimal level of complexity was found by grouping common themes and subthemes. A number of times these were found to be interrelated as they gave the findings of the qualitative research. Essentially, the following techniques were adopted in identifying the themes:

1. An analysis of the frequency of words participants were saying.
2. Careful reading of larger blocks of texts (compare and contrast).
3. What theory says physical manipulation (cut and sort procedure).
4. This was completed through classifying themes and adopting quotes.

**Table 2**

<b>Codes</b>	<b>Themes</b>	<b>Sub-themes</b>
Expected Income Allowances Remittances Transfers and Social Grant	Motives for use of Financial Services	Economic Motives  Social Motive
Distance High Traveling Cost Unemployment Bank charges Unaccounted deductions Risk	Challenges on use of Financial Services	Geographical Excl.  Transaction costs
Financial Status Employment Exclusive System Documents Interest rates Friends and Family	Factors contributing to lack of borrowing loans from formal financial institutions	Financial Viability  Attitudes toward credit from financial institutions Social Funds Financial literacy

### **Motives for use of financial services**

This theme refers to every interaction the respondents have had with the bank, starting with reasons that underpin the opening of a bank account, followed by transacting, savings, borrowings that they might have had. Based on the narratives and stories of the respondents, it does appear that there are a variety of reasons that contributed to the participants opening a bank account and making use of various financial services. All the participants were able to explain what motivated them to use financial services. The researcher identified three subthemes that came up a number of times. A number of respondents attributed their actions to a form of income they expected to receive after getting employed. This makes the expected income to be the first subtheme. In

addition to salaries, there were other subthemes that were identified such as transfers, and social grants.

### **Expected income as a motive for use of financial services**

The study found out that expected income is one of the most salient themes for necessitating usage of financial services. Almost all the groups interviewed had the same thing to say about their reasons of opening a bank account. Essentially, what the respondents used financial services for was for the purposes of transacting.

The following extracts showed this:

**Sandile, Ceza:** *I opened a bank account to receive a salary.*

**Hlabathini:** *I started to work and therefore I needed to transact.*

It was interesting to discover that from the focus group discussion with traditional leaders in KwaZulu-Natal income expectation did not come up as a motive for them to use financial services. What was raised is that:

**The Council of Traditional leaders:** *Times have changed and we have to adapt. There is a demand for use of technology and we cannot be distant from that. To prevent ourselves from being robbed as a result of carrying too much money we are forced to use financial services.*

From the above it can be said that for most people in rural communities open bank accounts when they are employed for the purpose of receiving income and transacting. However, it is interesting to note that the leaders of the very same communities have different reasons for using financial services as compared with their constituency. The leaders are mitigating the risk of robbery through using technology for financial transactions

### **Transfers and social grants as motives for usage**

A large number of people from the communities of interest indicated that the social grants and receipts of transfers should be considered as reasons that drive them to usage of financial services. It was discovered that most people use financial services to only withdraw and make deposits. The story and narrative of Village 6, Kohlokolo, Nhlonga is shown here as an example:

**Village 6:** *We depend on the SASSA (grant).*

**Kohllokola:** *The only source of income we have is the grant from the government.*

**Nhlonga:** SASSA and the allowance we get from our kids are our sources of income which drives us to use financial services.

One can note that the motives people have on use of financial services makes most of them to use banks as a 'mailbox'. There are probably reasons that attribute to this.

## **DISCUSSION AND INTERPRETATION**

It is worthy to note that out of the focus group of 20, it is only one focus group that mentioned risk mitigation as a motive to open an account. This means that approximately 158 people opened accounts due to an expectation of receiving income. Furthermore, it is interesting to note that it is only the community leaders who felt that access and use of financial services was a way of limiting risk of robbery through embracing technology. The motive of the majority of respondents on opening bank accounts might explain why people use their bank account as mailbox. There is still a need to motivate for sustainable use of financial services if we are to see the socio-economic development of the low-income households and rural resident. It can be argued that usage can be expanded if people are taught about the available financial products, and those financial products be designed in a manner that suits their needs according to where they are based and their financial viability.

The different motives of leaders that are contrary to the constituency is quite insightful on what might be contributing to their different reasons underpinning usage of financial services. In general, most people in rural communities have limited their use of financial services into buying of airtime, transfers once in a while with less savings. However, for most community leaders they do have savings.

## **CHALLENGES IN THE USE OF FINANCIAL SERVICES**

The challenges in use refers to the ability of people to access banks so that they may transact by making deposits, saving, borrowing and using other forms of financial products available. Many of the respondents shared their own experiences in the use of financial services. The stories and narratives they shared are either the reasons

they are still using financial services or are the causes which has contributed with non-usage of financial services. The participants cited a variety of cases they have come across. In communities where most people indicated that they do not use financial services, few sub themes dominated. This study discovered that were common subthemes in most rural communities that appeared as motives which contribute to non-use of financial services. The author decided to group all the topics that frequently came up as subthemes. These subthemes are

- 1) Unemployment.
- 2) Geographical exclusion.
- 3) Expenses.

### **Unemployment**

This paper discovered that unemployment is one of the factors that limit people in the use of financial services. For example, being unemployed shows that there is no consistent form of income that people may rely on, therefore this limits the ability or interest of people to use financial services such as withdrawing, depositing and making loans. The issue of unemployment is a major concern and is at an alarming rate especially in rural communities. It came as a surprise when the author discovered that most people that participated on this study were unemployed and solely dependent on government grant. The researcher discovered that people in rural communities consider employment to be an important factor for them to receive or not to receive employment. This refers to communities such as Ngqinisa where people rely on agricultural projects, Kohlokolo where the participants rely on 'stokvels' (group banking projects) and other projects. A number of times when the question was on the barriers to usage of financial services the above-mentioned provinces used a possessive pronoun "we". The following extracts illustrate this:

**Ndevana:** *We do not use financial services because we are **unemployed**. If you do not have money a bank will close your account as they did to ours. Banks are for the people with ongoing source of income. If I would have a chance to advise them, I would say they should not close of accounts of people who **do not have money**.*

**Ntabamhlophe:** *We have **no money** because of **unemployment**.*

**Mpefu:** *There is no need for us to have a bank currently as we are **not employed**. They closed my account without telling me because there was **no money**.*

**Sandile: Person A:** *I was employed when I used to get some loans, I do not think I would be attractive anymore to banks now that I am **not working**.*

**Person B:** *I did borrow, at those times things were working in my favour because I was **employed**. Life was good, I had a good understanding with my bank. When I retired I never borrowed again.*

**Person C:** *I am **not employed** so banks are not places I even think about when I do not have money. For example, you have already heard from the other people that they got loans because they **were working** for well-known companies. So it's all about status and I am not in that level, Omashonisa work well for me thank you.*

#### **Village 6:**

**Person A:** *I borrowed money when I **was working** and they gave me. I wanted money again but I did not get it. I think because I was relying on Sassa I was not eligible as I am in a lower rank.*

**Person B:** *I have borrowed money **while working** and I never had challenges.*

There is a need for government to create an inclusive system that will enable those who are not employed, with no collateral, and no credit record to be in the formal system. This is mainly because outside the formal system, the people in rural communities are vulnerable to informal lenders. Based on the above statements, it can be suggested that people in rural communities are unable to fully utilize financial services due to the national problem of unemployment. This suggests that some of the respondents have interest of using financial services however their reality of unemployment has made them to be unable.



The following extracts from the interviews corroborate their experiences.

**Ceza (50 km):** *Distance makes use of financial services to be unattractive. Old people panic to travel long distances however they would use banks if they were close. They then tend to sleep in town when they expect payment so that they can arrive first at the bank and avoid long queues. Most people in this community struggle to get transport when they go to town.*

**Ceza:** *Travelling costs make it difficult to use financial services. We spend R85.00 return to go to town.*

**Khlokolo:** *We spend R 64.00 on a taxi and it takes 1hour 30min to get to Kwa Nongoma out town. My child tell me, if R200 has been deposited on my account how much will be left considering the R64 .00 for taxi fee and the charges? (absolute silence in the room). That is one of the reasons we prefer to keep our money.*

**Ngqinisa:** *We spend R56.00 on the road just to withdraw R200.00, on top of that there is Mr hungry to entertain (Group laughs). This makes life complicated.*

**Nhlonga (40km):** *It surely does, we spend most of our money on the transport hence we opt to withdraw the money at once.*

It was also interesting to note that even some people who reside 20 km away from the nearest town felt that that distance impedes their use of financial services. This was raised more than once, starting with the traditional leaders and other communities in the KZN province. This can be seen below:

**The Council of traditional leaders (20km):** *The cost of travelling is too much. We go to town to withdraw R100 but upon arrival there are deductions of R20. On the R20 you are left with R80 you have to pay R20 for transport. Then you are left with little money.*

**Mpefu(20km):** *I also felt the distance gave me a challenge on the day as I was not aware of the required documents, only to be told there that there are other documents required and I had to bring the letter from the council and then they required proof of residence.*

As much as there were shared views with regards to distance, it should be noted that within this theme, disparities existed between the respondents' stories and narratives. Some participants cited the following:

**University of Zululand (20km):** *The distance is fair therefore I would not bring it as a factor that limits usage of financial services. However source of income is a major challenge. If I have no income there is no reason for me to use financial services.*

**Ndevana (20 km):** *Distance has nothing to do with use or non use of financial services, it's all about whether you have money or not.*

As reflected from the extracts above, it does appear that the combination of distance and high travelling costs is a common challenge to most of the respondents. Regardless of their intentions to use financial services, they are consistently faced by this reality which makes financial services unattractive to them. It is realised that there is a positive relationship between distance and travelling costs, the further the distance from financial services, the higher is the cost of travelling to utilize those services.

### **Risk component**

A number of people complained about unapproved debit orders. It is not clear how this happens but what matters is that at the ultimately people have lost their money. This means that a number of people are scared to use banks due to the risk they bring. A number of participants feel strongly about this. This has led to the respondents lose their trust in banks due to their experiences and the experiences of people they know. This can be seen from their statements below:

**Ndevana:** *The **unknown deductions** from my account were the most frustrating, If these are **not known** by the bank then who should know? An amount of **R500 was deducted** from my bank account and I was advised to open a new account as this could not be traced. Remember these are the same people I have given my trust and money yet there are things they don't know.*

**Idutywa:** *A friend of **mine lost thousands** from a bank and there is no trace up to date. Imagine losing something you not sure when you will ever have it.*

**Village 7:** *I **lost an amount of R1500 from a bank**. This happened immediately after I withdrew money. When I went to the bank one of the people there told*

*me that someone uses my pin. Since I am the only one who has this pin tell me, how did they know my pin? How can I trust them in going forward. Banks are exposing us by giving our information to people whom we do not know, there should be a confidentiality clause. Our money ends up being deducted and when we track how they know our details it's through a bank.*

**Tshabu:** *There are **unknown transactions** which deduct money from clients, the banks do not assist, and they just give you a number to call rather than calling the number. Sandile: There are unknown transaction which we call money mouse at the bank. These create a challenge for us.*

**Mpefu:** *I had an investment and I did not use the whole money when I took a small portion of it. To my surprise the banks **could not trace the money** I invested which was left. They could only see that I withdrew some. What angered me is that they never called me regardless of the promise to.*

The above statements suggest that people have used financial services before but it is their unpleasant experiences which have made mistrust banks with their money for future use. The risk component and how unreliable banks have proved to be have made people distance themselves. This has made people to opt to use their accounts as a 'mailbox', and others prefer to withdraw their money at once as they view this way as the safest method of keeping their money (National Treasury, 2017). There is a general sense of deep mistrust which is based on fears of exploitation. Ikdal (2017) stated that when the South African government introduced the payment of social grants into used bank accounts, financial institutions targeted the recipients with funeral coverage and micro-loans. What resulted in a mistrust of banks is that the costs were automatically deducted from the recipient's account. This caused an outrage as other recipients were left with little to survive on. Such experiences do contribute to mistrust between financial service providers and the customers.

### **Transactional costs**

It has been realised across the provinces of interest that there is lack of knowledge with regards to bank charges by banks. This comes from people who have used financial services however but they still question the system due to a lack of financial literacy. Bank charges seem to be most misunderstood by users of banks. There

seems to be no standard approach used as they vary from client to client, from bank to bank. This can be seen from the respondents' statements below.

**Ndevana:** *It is not clear what the standard amount of **bank charges** are. Every time we lose our money we are told about bank charges. It's better to keep my money in my wardrobe than to be a victim of those **bank mouses** that eat our money (group laughs).*

**Village 2:** ***Bank services** increase on daily basis, for example you are told there is a **R45.00** bank charges and then you notice there are also amounts of **R70.00** which are not accounted for.*

**The council of traditional Leaders:** ***Bank charges** cannot be confirmed.*

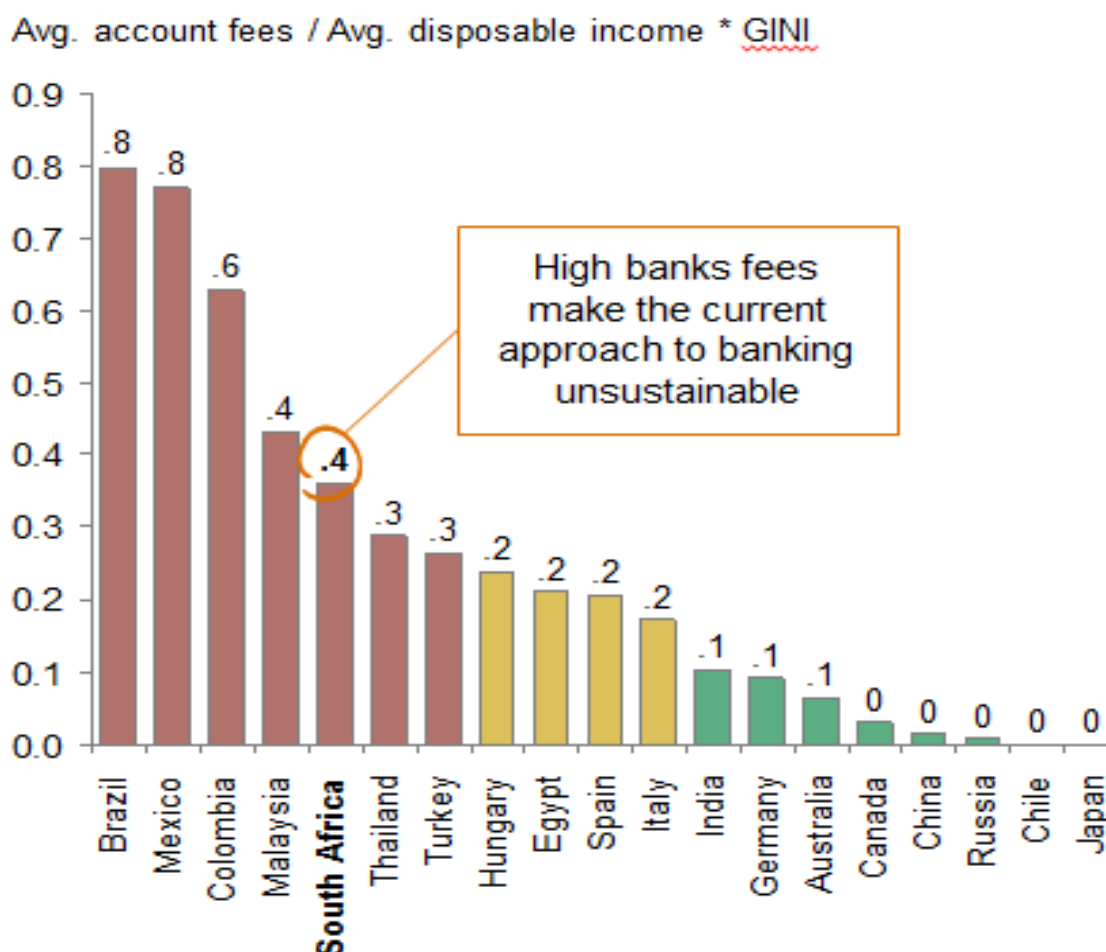
**Ntabamhlophe:** *There is little money which cannot stay in the bank due to those **charges**.*

**Sandile:** *It's the fluctuating **bank charges** which is not understandable.*

**Mpefu:** *My challenge has been with **bank charges** its only when I began to deposit money that **charges** kicked in and I was never aware of this. I feel that **bank charges** are unnecessary because people do not have money.*

One would state that questions with regards to bank charges come as a result of lack of financial literacy. This makes users not interested in using financial services due to their observation of the trends of 'fluctuating' bank charges. It should be noted that the concerns over bank charges are not only a concern for the people in rural communities, because South Africa is regarded to have a high fee structure as compared to developed countries, such as Australia, Germany and India. Out of the 70% of adults with access, only 24% made more than three monthly transactions, such as withdrawals, deposits and card swipes.

## South Africa's bank fees are unaffordable for the low income segment



**Figure 2**

The experiences of people in rural communities are similar in other parts of the world as a result of high bank fees. There are people with access to bank accounts but who choose not to use so that they do not incur bank charges on defaulted direct debits (Change, 2006) (NCC,2005b), (O'Reilly, 2006).

### DISCUSSION AND INTERPRETATION

The challenges faced using of financial services disable people from not only access but also with regards to making deposits, obtaining loans and being able to save and stimulate their financial being. Many of the respondents felt that if they were employed, they would use financial services. Unemployment therefore becomes an impediment in them using a bank. When one goes to a bank to open a bank account one of the

questions asked is the name of the employer. When one is not employed it limits the chances of accessing a bank. Many people struggle to get loans due to this unemployment factor. In 20 focus groups, 19 focus groups highlighted unemployment as a barrier to use of financial services.

Across the two provinces covered for this study, distance appeared as one of the common barriers that have made the use of financial services unattractive. In those communities, the longest distance to town appeared to be 80 kilometres and the shortest distance is 15 kilometres away from town. People from places such as Ngqinisa (60 km) and Kohlokolo (80km) community made strong assertions that the distance from town is a huge factor that makes them to be unable to use financial services as frequently as they would like. This is a clear indication of people who are geographically excluded. It is surprising to note that even those who are about 20 km away felt that distance is a factor to limited usage of financial services as a result of the expenses they have to incur. However, people in Ndevana locations and students from the University of Zululand had a contra belief when it comes to distance.

On the other side, a number of people identified the risk component in the use of financial services. This makes banks unattractive to a number of people, even to those who have never used financial services. There appears to be distrust between customers and banks. It has been suggested that in South Africa this is as a result of 'funeral coverage and micro-loans whose costs were automatically deducted from the recipients' accounts' (Writter, 2017). Many low-income earners were left with very little. This risk component is also expanded by the transactional costs which all the respondents felt were not justifiable. This is attested by the World Economic Forum on Financial Inclusion in Africa that the South African fee structure is four times higher than Germany, India and Australia, due to high operating costs and the cybercrime (Ikdal, 2017). There is a strong assertion that transactional costs should differ between the rich and the poor. Perhaps this is something financial service providers should take into consideration.

### **Factors contributing to lack of borrowing loans from financial institutions**

It appears from this paper that most people in rural communities do not borrow money from formal financial institutions. This comes as the results of their perceptions on how they have been treated and what they have observed. Among many of their

reasons some of the sub-themes that emerged are financial viability, lack of credit history, financial literacy and employment.

### **Financial Viability**

There is a strong assertion from the focus group discussions that for people to obtain loans from banks there is use of an exclusive system which focuses on status to determine whether they are eligible for loans or not. This can be seen from the extracts below:

**Mpefu:** *Person B, it is all about **status**. Banks give money to those who can **afford**. They do not really care about people like us, we are not attractive to banks for them to make a lot of money. Person C: I do not borrow from banks because I am not part of the **elite** that qualify to get loans from the bank. The system applied does not **attract** us to borrow. Tell me from a salary of R1000 with no credit history who will be willing to borrow me money? At least with our mashonisa they know that we have a good credit history (Yheea in the room).*

**Ndevana:**

**Person A:** *I have never borrowed money from a bank, banks **are not for people like me**, It's all about **status**. People who have money are more **attractive** to the banks.*

**Person B:** *My child I will never borrow from banks, there is nothing **catching** them to offer me anything. For example, there are people who do not need loans who get calls from banks that they are eligible to get so much loan within a space of few days. Tell me why do we not get the same as the needy? It is all about **status and attractiveness**.*

**Nhlonga:**

**Person B:** *I do not intend to, the problem is that banks have a very complicated system of determining how much money they will give you. I am probably one of the people that would not get any loan due to fluctuating money that I get. This makes me **unattractive** for business of banks. Person C, No my friend, banks are exclusive in their **system** of giving out loans, they go for the **haves and the have not** have no room of being offered loans. It's all about **status and what you have**.*

**Sandile:**

**Person A:** *I was employed when I used to get some loans, I do not think I would be **attractive** anymore to banks now that I am not working.*

**Person B:** *I did borrow, at those times things were working in my **favour**. Life was good, I had a good understanding with my bank. When I retired I never borrowed again. for example, you have already heard from the other people that they got loans because they were working for **well known companies**. So its all about **status** and I am not in **that level**, Omashonisa work well for me thank you.*

**Owen Sithole college:** *I have tried on the second month of my job, the money they were willing to give me was way less than what I required. I think the people in **well-paying jobs** are able to get what they require. Limited salary I receive contributed to this. Due to **low status** I think I am not eligible to get loans from banks therefore, I would not even try.*

**University of Zululand SRC:** *I borrowed R10 000, they gave me because **I was making deposits of R10000 per week** on the graduation attire I was selling. So it's all about **your record that makes you attractive** with banks.*

**Village 6:**

**Person A:** *I borrowed money when I was working and they gave me. I wanted money again but I did not get it. I think because I was relying on **Sassa** I was not eligible as **I am in a lower rank**.*

Most of the respondents have put it across that what determines whether they get loans or not is their financial viability and credit history. This mainly comes from people who have obtained loans before and those who have attempted to get loans. Their assertion is that it is their financial status and credit history is what makes formal financial institutions willing to give them loans, as compared to loan sharks in their communities. This implies that people are interested in obtaining loans and do get loans from loan sharks, however the above mentioned perceptions does not enable them to do the same in formal institutions.



## Financial literacy

Based on some of the issues that were raised which makes people not to be interested in getting loans from banks the researcher categories this as a challenge of financial literacy.

**Ndevana:**

**Person C:** *I also have never borrowed from a bank. I believe that it is better to get money from a person you know than be told about **interest rates** that you have no idea of **how they are calculated**.*

**Mpefu:**

**Person A:** *I have tried but I did not get it. Strangely the person who gets exactly the same salary as me did get a loan. I am therefore not interested.*

**Nhlonga:**

**Person A:** *No, there is no reason for me to borrow from people I do not know who **use strategies or systems known by only them** to determine who should get what amount. At least I know the people I borrow from have a willing heart to give.*

**Person B:** *I do not intend to, the problem is that banks have a very **complicated system** of determining how much money they will give you. I am probably one of the people that would not get any loan due to fluctuating money that I get. This makes me not attractive for business of banks.*

**Person C:** *No my friend, banks are exclusive in their **system** of giving out loans, they go for the **haves and the have not** have no room of being offered loans. Its all about status and what you have.*

**Ntabamhlophe:**

**Person B:** *No, their **system already excludes me**. I have never received anything that says I am eligible to a certain portion of money as other people. Anyway I have never tried to borrow money from banks as I know **their system favours** those with lots of money.*

**Person C:** *For what? So that I pay back interest I do not know anything about or be told that I do not qualify. At least the people we get money from we know they are there for us.*

**Village 7:**

**Person B:** *I did apply for a loan for the first time I was rejected. I do not know the reasons because my colleague got the loan even though we received the same salary. I went again the following and I did get money. For me there are no clear lines of who is eligible to what, so the system is not clear.*

**Person C:** *When I was working I used to borrow money for my kid's education. I do not know how things would be now that I am retired as I no longer have money.*

**Owen Sithole College:** *No, I do not know what I would have to do to get money there however I have been told that a lot of verification is done which makes people like me not to get loans.*

**Village 6:**

**Person C:** *I have never intended to go to banks when I need a loan, I think the process of getting money from banks is too complicated.*

It can be noted that there are a number of unclear procedures and systems in place which are not understood by people. This makes borrowing money unattractive. One would note that financial literacy would play an important role in terms of informing people about matters they have strongly indicated above.

## **DISCUSSION AND INTERPRETATION**

Financial viability and unemployment appear to be major issues that make people not to have access to loans. People are interested in obtaining loans, however, due to unemployment it becomes a huge risk for them to receive loans. Many people are not financially viable, but regardless of this they are more attractive to 'loan sharks'. From the above extracts, it appears that there is a positive relationship between employment and obtaining a loan. It can also be suggested that there is association between being unemployed and not getting a loan. These are some of the factors that participants felt causes them not to be granted loans by formal financial service providers.

## **SUMMARY OF RESULTS**

This paper has revealed that there are different barriers and factors that impede the use of financial services, furthermore this takes into consideration what influences people not to have any intention to borrow money from financial institutions. This by no way indicates that people are not interested in using financial services, but it does show the realities that impede the use of financial services.

It is suggested from the above themes that the use of financial services is strongly influenced by expected income, allowances and social grants. Secondly, people are comfortable with their practices due to a lack of trust of banks. Furthermore, the inability to use financial services is mediated by distance and costs (such as unaccounted deductions). There is a positive relationship between the distance where financial services are found and the expenses incurred to get there. Furthermore, these expenses are also felt by the people who are geographically included. These factors disallow people to be able to use financial services as they wish.

There is correlation between employment and access to financial services. This makes a source of income to be a vital factor in accessing and using financial services. Furthermore, people are not able to have access to credit due to a lack of employment or business viability, and a lack of credit history.

Lastly, the author has discovered that financial literacy (Interest rates, transaction costs) is one of the major issues that affect people in rural communities.

## **RESEARCH LIMITATIONS**

The researcher attempted to foresee the research limitations he might encounter. The researcher then made attempts to reduce the effect these might have. The most predicted limitation for this kind of research is a time constraint. This is due to the limited time the researcher is allowed to conduct this research.

Looking at ways of getting the focus groups together was not a simple task. People were available at different times while the researcher had limited time. The researcher's busy scheduled required a good plan and time management. There were also financial implications experienced by the researcher during the data collection

stage. There is little research on the area of usage of financial services. This also served as a limitation in terms of developing the literature review for the study.

## **CONCLUDING REMARKS, IMPLICATIONS AND RECOMMENDATIONS**

Access to financial services remains an important first step in stabilising the economic life of people. Poor people have the capacity to use different kinds of services offered to them however, when this is not offered to them, they remain vulnerable and their potential remains untapped. This means that without access or lack of usage, people are not able to sufficiently plan for future purposes. They are also not able to use credit to prevent exposure from economic shocks and attain self-reliance. It is through access and usage of financial services that poor people may be able to create wealth and finance high return savings but without those people are not able to finance high return investments. Inability of the two concepts to complement one another denies people wealth creation, credit and contingency planning.

The paper discovered that the intended purpose of financial services, which is to assist people to put money into productive use, has not been achieved in rural communities. This lack of usage therefore implies that the needs of the poor have not been met through sustainable use of the services. Furthermore, limited provision of financial services for low-income households has limited opportunities for them to smooth income and consumption flows, therefore this limits their benefits, such as health care and education, makes them remain vulnerable and their potential remains untapped.

Taking into consideration the barriers limiting usage of financial services, it is vital that there are programmes that will address the component of financial literacy. There are great opportunities that financial service providers can utilize. These would contribute towards sustainable life for low income earners. Lastly, concerns of unauthorised debit orders can be addressed through banks not giving client information without their consent. Failure to do this should lead to the bank being held accountable by law.

For future research, it would be interesting to examine the quantitative data to see the extent of the problem nationally. Financial literacy and mobile banking as a vehicle

towards financial inclusion in rural communities would be an interesting area to investigate

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## Appendix A

Transcript	Codes
<p>Sandile, Ceza : "I opened a bank account to <sup>1</sup>receive a salary".</p> <p>Hlabathini : "I started to <sup>2</sup>work and therefore I needed to transact".</p> <p>The Council of Traditional leaders: "Times have changed and we have to adapt. There is a demand for use of <sup>3</sup>technology and we cannot be distant from that". To <sup>4</sup>prevent ourselves from being <sup>5</sup>robbed as a result of carrying too much money we are forced to use financial services".</p> <p><b>Village 6:</b> We depend on the <sup>1</sup>SASSA (Grant).</p> <p><b>Kholokola:</b> The only source of income we have is the <sup>1</sup>grant from the government.</p> <p><b>Nhlonga:</b> SASSA and the <sup>1</sup>allowance we get from our kids are our sources of income which drives us to use financial services .</p> <p><b>Ndevana:</b> We do not use financial services because we are <sup>6</sup>unemployed. If you do not have money a bank will close your account as they did to ours. Banks are for the people with ongoing source of <sup>1</sup>income. If I would have a chance to advise them I would say they should not close of accounts of people who <sup>1</sup>do not have money.</p> <p><b>Ntabamhlophe:</b> We have <sup>1</sup>no money because of <sup>6</sup>unemployment. <b>Mpefu:</b> There is no need for us to have a bank currently as we are <sup>2</sup>not employed. They closed my account without telling me because there was <sup>1</sup>no money</p> <p><b>Ceza (50 km):</b> <sup>7</sup>Distance makes use of financial services to be unattractive. Old people panic to travel <sup>7</sup>long distances however they would use banks if they were close. They then tend to <b>sleep in town</b> when they expect payment so that they can arrive first at the bank and avoid long queue. Most people in this community <b>struggle to get <sup>7</sup>transport</b> when they go to town.</p> <p><b>Ceza:</b> <sup>8</sup>Travelling costs make it difficult to use financial services. We spend <sup>8</sup>R85.00 to go to town. <b>Kholokolo:</b> We spend <sup>8</sup>R 64.00 on a taxi and it takes <sup>7</sup>1hour 30min to get to Kwa Nongoma out town. My child tell me, if R200 has been deposited on my account how much will be left considering the <sup>8</sup>R64 .00 for taxi fee and the charges? (absolute silence in the room). That is one of the reasons we prefer to keep our money.<b>Ngqinisa:</b>We spend <sup>8</sup>R56.00 on the road just to withdraw R200.00, on top of that there is <sup>8</sup>Mr hungry to entertain (Group laughs). This makes life complicated. <b>Nhlonga (40km):</b> It surely does, we spend most of our money on the <sup>8</sup>transport hence we opt to <sup>9</sup>withdraw the money at once.</p> <p><b>The Council of traditional leaders (20km):</b> The <sup>8</sup>cost of travelling is too much. We go to town to withdraw R100 but upon arrival there are deductions of <sup>10</sup>R20. On the R20 you are left with R80 you have to pay R20 for transport. Then you are left with little money. <b>Mpefu(20km):</b> I also felt the <b>distance</b> gave me a challenge on the day as I was not aware of the <sup>11</sup>required documents, only to be told there that there are other documents required and I had to bring the <sup>11</sup>letter from the councillor and then they required proof of residence.</p> <p><b>University Zululand (20km) :</b> The distance is fair therefore I would not bring it as a factor that limits usage of financial services. However <sup>1</sup>source of income is a major challenge. If I have no income there is no reason for me to use financial services.</p> <p><b>Ndevana (20 km) :</b> Distance has nothing to do with use or non use of financial services, it's all about whether you have <sup>1</sup>money or not.</p> <p><b>Ndevana:</b> The <sup>5</sup>unknown deductions from my account were the most frustrating, If these are <b>not known</b> by the bank then who should know? An amount of <sup>5</sup>R500 was deducted from my bank account and I was advised to open a new account as this <sup>5</sup>could not be traced. Remember these are</p>	<p><sup>1</sup>Income</p> <p><sup>2</sup>Employment</p> <p><sup>3</sup>Technology</p> <p><sup>4</sup>Mitigate risk</p> <p><sup>5</sup>Risk</p> <p><sup>1</sup>Income</p> <p><sup>6</sup>Unemployment</p> <p><sup>1</sup>Income</p> <p><sup>2</sup>Employment</p> <p><sup>1</sup>Income</p> <p><sup>7</sup>Geographical exclusion</p> <p><sup>8</sup>Expenses</p> <p><sup>7</sup>Geographical exclusion</p> <p><sup>8</sup>Expenses</p>

the same people I have given my trust and money yet there are things they don't know.

**ldutywa:** A friend of mine <sup>5</sup>lost thousands from a bank and there is no trace up to date. Imagine losing something you not sure when you will ever have it. **Village 7:** I <sup>5</sup>lost an amount of R1500 from a bank. This happened immediately after I withdrew money. When I went to the bank one of the people there told me that <sup>12</sup>someone uses my pin. Since I am the only one who has this pin tell me, **how did they know my pin?** How can I trust them in going forward. Banks are exposing us by giving our <sup>12</sup>information to people whom we do not know, There should be a <sup>12</sup>confidentiality clause. Our money ends up being <sup>5</sup>deducted and when we track how they know our details it's through a bank. **Tshabu:** There are <sup>5</sup>unknown transactions which deduct money from clients, <sup>13</sup>the banks do not assist, they just give you a number to call rather than calling the number. **Sandile:** There are <sup>5</sup>unknown transaction which we call **money mouse** at the bank. These create a challenge for us. **Mpefu:** I had an investment and I did not use the whole money when I took a small portion of it. To my surprise the banks <sup>13</sup>could not trace the money I invested which was left. They could only see that I withdrew some. What angered me is that <sup>13</sup>they never called me regardless of the promise to .**Ndevana:** It is not clear what the standard amount of <sup>10</sup>bank charges are. <sup>13</sup>Every time we lose our money we are told about bank charges. It's better to keep my money in my wardrobe than to be a victim of those **bank mouse** that eat our money (group laughs).**Village 2:** <sup>10</sup>Bank services increase on daily basis, for example you are told there is a **R45.00** bank charges and then you notice there are also amounts of **R70.00** which are <sup>5</sup>not accounted for.**The Council of Traditional Leaders:**<sup>10</sup>Bank charges <sup>13</sup>cannot be confirmed. **Ntabamhlophe:** There is little money which cannot stay in the bank due to those **charges**. **Sandile:** It's the fluctuating <sup>10</sup>bank charges which is not understandable. **Mpefu:** My challenge has been with <sup>10</sup>bank charges its only when I began to deposit money that **charges** kicked in and I was never aware of this. I feel that **bank charges** are unnecessary because people do not have money.

**Mpefu:** Person B, it is all about <sup>14</sup>status. Banks give money to those who can <sup>14</sup>afford. They do not really care about people like us, we are not attractive to banks for them to make a lot of money. Person C: I do not borrow from banks because I am not part of the <sup>15</sup>elite that qualify to get loans from the bank. The system applied does not **attract** us to borrow. Tell me from a salary of R1000 with <sup>15</sup>no credit history who will be willing to borrow me money? At least with our mashonisa they know that we have a good credit history (Yheaaa in the room).

**Ndevana:** Person A:I have never borrowed money from a bank, banks **are not for people like me**, It's all about **status**. <sup>14</sup>People who have money are more **attractive** to the banks. Person B: My child I will never borrow from banks, there is nothing <sup>14</sup>catching them to offer me anything. For example, there are people who do not need loans who get calls from banks that they are eligible to get so much loan within a space of few days. Tell me why do we not get the same as the needy? It is all about <sup>14</sup>status and attractiveness.

**Nhlonga :**Person B, I do not intend to, the problem is that banks have a very complicated system of determining how much money they will give you. I am probably one of the people that would not get any loan due to fluctuating money that I get. This makes me **unattractive** for business of banks. Person C, No my friend, banks are exclusive in their <sup>16</sup>system of giving out loans, they go for the **haves and the have not** have no room of being offered loans. It's all about **status** and **what you have**. **Sandile:** Person A: I was employed when I used to get some loans, I do not think I would be **attractive** anymore to banks now that I am not working .Person

<sup>9</sup>Mailbox

<sup>8</sup>Expenses

<sup>10</sup>Transaction costs

<sup>11</sup>Identification

<sup>1</sup>Income

<sup>5</sup>Risk

<sup>12</sup>Confidentiality

<sup>5</sup>Risk

<sup>13</sup>Untrustworthy



<p>B: I did borrow, at those times things were working in my <b>favour</b> . Life was good, I had a <sup>17</sup><b>good understanding with my bank</b>. When I retired I never borrowed again. I am not employed so banks are not places I even think about when I do not have money. For example, you have already heard from the other people that they got loans because they were working for <sup>17</sup><b>well known companies and had houses in towns</b>. So its all about <b>status</b> and I am not in <b>that level</b>, Omashonisa work well for me thank you. <b>Owen Sithole college</b>: I have tried on the second month of my job, the money they were willing to give me was way less than what I required. I think the people in <b>well paying jobs</b> are able to get what they require. Limited salary I receive contributed to this. Due to <sup>14</sup><b>low status</b> I think I am not eligible to get loans from banks therefore, I would not even try.</p> <p><b>University of Zululand SRC</b>: I borrowed R10 000, they gave me because I was making <sup>14</sup><b>deposits of R10000 per week</b> on the graduation attire I was selling. So it's all about <b>your record that makes you attractive</b> with banks. <b>Village 6</b> , Person A: I borrowed money when I was working and they gave me. I wanted money again but I did not get it. I think because I <sup>14</sup>was relying on <b>Sassa</b> I was not eligible as <b>I am in a lower rank</b>.</p> <p><b>Ndevana</b>: Person C:I also have never borrowed from a bank. I believe that it is better to get money from a person you know than be told about <sup>18</sup><b>interest rates</b> that you have no idea of <sup>18</sup><b>how they are calculated</b>.</p> <p><b>Mpefu</b>: Person A, I have tried but I did not get it. Strangely the person who gets exactly the same salary as me did get a loan. I am therefore not interested.</p> <p><b>Nhlonga</b>: Person A: No, there is no reason for me to borrow from people I do not know who <sup>13</sup><b>use strategies or systems known by only them</b> to determine who should get what amount. At least I know the people I borrow from have a willing heart to give. Person B: I do not intend to, the problem is that banks have a very <sup>16</sup><b>complicated system</b> of determining how much money they will give you. I am probably one of the people that would not get any loan due to fluctuating money that I get. This makes me not attractive for business of banks. Person C:No my friend, <sup>16</sup><b>banks are exclusive in their system</b> of giving out loans, they go for the <b>haves and the have not</b> have no room of being offered loans. Its all about status and what you have.</p> <p><b>Ntabamhlophe</b>: Person B:No, their <b>system</b> <sup>16</sup><b>already excludes me</b>. I have never received anything that says I am eligible to a certain portion of money as other people. Anyway I have never tried to borrow money from banks as I know <sup>16</sup><b>their system favours</b> those with lots of money. Person C: For what? So that I pay back <sup>18</sup><b>interest I do not know anything about</b> or be told that I do not qualify. At least the people we get money from we know they are there for us. <b>Village 7</b>: Person B:I did apply for a loan for the first time I was <b>rejected</b>. <b>I do not know the reasons because ,my colleague got the loan even though we received the same salary</b>. I went again the following and I did get money. For me there are <b>no clear lines</b> of who is eligible to what, so the system is not clear. Person C:When I was working I used to borrow money for my kid's education. <b>I do not know how things would be now that I am retired</b> as I no longer have money.</p> <p><b>Owen Sithole College</b>: No, I do not know what I would have to do to get money there however I have been told that a <b>lot of verification</b> is done which makes people like me not to get loans.</p> <p><b>Village 6</b>, Person C: I have never intended to go to banks when I need a loan, I think the <b>process</b> of getting money from banks is <b>too complicated</b>. It can be noted that there are a number of unclear procedures and systems in place which are not understood by people. This makes borrowing loans unattractive. One would note that financial literacy would play an important role in terms of informing people about matters they have strongly indicated above.</p>	<p><sup>13</sup>Untrustworthy</p> <p><sup>10</sup>Transaction costs</p> <p><sup>13</sup>Untrustworthy</p> <p><sup>10</sup>Transaction costs</p> <p><sup>5</sup>Risk</p> <p><sup>14</sup>Financial viability</p> <p><sup>15</sup>Credit history</p> <p><sup>16</sup>Financial exclusion</p> <p><sup>17</sup>Collateral</p> <p><sup>14</sup>Financial viability</p> <p><sup>18</sup>Financial literacy</p> <p><sup>13</sup>Untrustworth</p> <p><sup>16</sup>Financial exclusion</p>
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**Sandile: Person A:** I was employed when I used to get some loans, I do not think I would be attractive anymore to banks now that I am <sup>1</sup>not working. **Person B:** I did borrow, at those times things were working in my favour because I was employed. Life was good, I had a good understanding with my bank. When I retired I never borrowed again. **Person C.** I am not employed so banks are not places I even think about when I do not have money. For example, you have already heard from the other people that they got loans because they were working for well known companies. So it's all about status and I am not in that level, Omashonisa work well for me thank you.

**Village 6: Person A:** I borrowed money when I was working and they gave me. I wanted money again but I did not get it. I think because I was relying on Sassa I was not eligible as I am in a lower rank. **Person B:** I have borrowed money while working and I never had challenges.

<sup>18</sup>Financial literacy

<sup>14</sup>Financial viability

<sup>1</sup>Income

**M. T. Matadi and K. Naidoo**

**A COMPARATIVE ANALYSIS ON THE IMPACT OF THE  
PREVENTION AND COMBATING OF HATE CRIMES AND HATE  
SPEECH BILL OF 2016 ON THE RIGHTS TO HUMAN DIGNITY,  
EQUALITY, AND FREEDOM IN SOUTH AFRICA**

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**ABSTRACT**

South Africa is a democratic country with a historical record of racially-motivated marginalisation and exclusion of the majority. During the apartheid era, the country was run by legislation and policies based on racial segregation. The system held a tight clamp on interracial mixing, which forced people to remain in segregated areas. For example, a citizen from the Indian community could not own property in an area allocated to white people. In this way, a great majority of people were denied basic human rights. Now, there is a supreme Constitution with an entrenched justiciable Bill of Rights, founded on the democratic values of social justice, human dignity, equality and the advancement of human rights and freedoms. The Constitution also enshrines values of non-racialism and non-sexism. The Constitutional Court has the power to declare unconstitutional any law or conduct considered to be inconsistent with it. Now more than two decades late, despite the abolition of apartheid, there is evidence that South Africa still experiences hate crimes, which violate the entrenched rights of vulnerable groups not to be discriminated against on the basis of race, sexual orientation, gender, national origin, occupation or disability. To remedy this mischief, parliament has responded by drafting the Prevention and Combatting of Hate Crimes and Hate Speech Bill. The Bill has been disseminated for public comments and suggestions. It is intended to combat hate crimes and hate speech based on sheer prejudice. The other purpose of the Bill is to bring South Africa in line with international human rights instruments against racism, racial discrimination, xenophobia, and related expressions of intolerance, identified in several international instruments. It is against this backdrop, that this paper intends to analyse the impact of the Bill on the

rights to human dignity, equality and freedom. This study is significant because the Bill was highly contested and creates a huge debate.

This study relies on a qualitative evaluative approach based on desktop and library research. The article recurs to primary and secondary sources. For comparative purpose, the paper compares South Africa with countries such as Canada and United Kingdom, which have criminalised hate crimes and hate speech. The finding from this study is that the Hate Bill has expressed positive intentions. It is suggested that the Hate Bill should not be rejected in its entirety, given the brutal psychological effect of hate crimes on their direct victims. In view of these findings, the study recommends that since hate speech clauses have an impact on the freedom of expression, equality and human dignity, it can be promulgated, subject to drastic changes and proper guidelines.

## **INTRODUCTION**

This article examines the enactment of hate crime and hate speech laws and their impacts on the rights to human dignity, equality and freedom. The first part of this article focuses on a brief overview and case law analysis in Canada and United Kingdom. The reasons for selecting these countries are that Canada is designated in the first place because it criminalises hate speech, and in addition, the South African Constitution was partially inspired by the Constitution of Canada, specifically, the Canadian Charter of Rights and Freedoms. The United Kingdom (Naidoo, 2017) was selected given the fact that this country criminalises hate crime and South Africa as a previous British colony may learn a lesson, as the English law has an impact on South African law, for example the South African Company Act.

The second part of this article emphasises the enactment of the Prevention and Combatting of Hate crimes and Hate Speech Bill in South Africa (Hate Bill) and its impact on the above-mentioned rights and an analyses of case law.

Basically, there is no standardised definition of hate crime; it differs from one jurisdiction to another. Most of the countries enacting hate crime laws have attempted to implement their own definition. For example, s319 of the Canadian Criminal Code of 1985 focuses on hate propaganda which includes public incitement of hatred and wilful promotion of hatred. In England and Wales, a hate crime is any incident which

constitutes a criminal offence, perceived by the victim or any other person, as being motivated by hostility or prejudice'. In South Africa, the Hate Bill differentiate hate speech and hate crime the clause 3 (1)of the Bill states that 'A hate crime is an offence recognised under any law, the commission of which by a person is motivated by that person's prejudice or intolerance towards the victim of the crime in question because of one or more of the following characteristics or perceived characteristics of the victim or his or her family member or the victim's association with, or support for, a group of persons who share the said characteristics: (a) age;(b) albinism;(c) birth;(d) colour;(e) culture; (f) disability; (g) ethnic or social origin; (h) gender or gender identity; (i) HIV status; (j) language; (k) nationality, migrant or refugee status ,(l) occupation or trade; (m) political affiliation or conviction; (n) race; (o) religion; (p) sex, which includes intersex; or (q) sexual orientation'.

However, there are frequent words that are repeatedly used in all attempted definitions, which are 'bias-motivated crime'. As a result, hate crime can be described as criminal acts motivated by bias, or prejudice, toward individuals or group of people (OSCE, n.d.). Hate speech, furthermore, is considered as a clear intention to be harmful, or to incite harm, of propagated hatred on the basis of certain characteristics. These include age, albinism, birth, colour, culture, disability, ethnic or social origin, gender, or gender identity, HIV status, language, nationality, migrant or refugee status, race, religion, sex, sexual orientation (see Clause 4 of the Hate Bill).

This submission commences with the analysis of case law in Canada with regard to hate speech, followed by the enactment of hate crimes in the UK. The South African context is examined with the analysis of recent case law and the enactment of the Hate Bill. This article concludes that the Hate Bill can only be promulgated if it will bring positive impact on Constitutional rights, such as human dignity, equality and freedom. In addition, emphasis needs to be made on a proper guideline to follow by the law enforcement agents and the members of the judiciary.

## **Canada**

Canada prohibits hate speech under S319 of the Canadian Criminal Code which states that:

### **Public incitement of hatred**

- 319 (1) Everyone who, by communicating statements in any public place, incites hatred against any identifiable group where such incitement is likely to lead to a breach of the peace is guilty of:
- (a) an indictable offence and is liable to imprisonment for a term not exceeding two years; or
  - (b) an offence punishable on summary conviction.

### **Wilful promotion of hatred fomenters**

- (2) Everyone who, by communicating statements, other than in private conversation, wilfully promotes hatred against any identifiable group is guilty of:
- (a) an indictable offence and is liable to imprisonment for a term not exceeding two years; or
  - (b) an offence punishable on summary conviction.

With regards to this, 'identifiable group' includes any section of the public distinguished by colour, race, religion, national or ethnic origin, age, sex, sexual orientation, gender identity or expression, or mental or physical disability (Criminal Code 1985 s319). From this definition it can be argued that wilfully promoting hatred is more subjective of an identifiable group. Furthermore, the Criminal Code restricts the distribution of hateful ideas (Criminal Code 1985 s320; MC Cullough 2018).

From s319 of the Criminal Code, two relevant offences can be extracted: public incitement of hatred and wilful promotion of hatred. It is in light of the second offence, 'wilful promotion of hatred', that the case law discussion below relies on.

In the case of *R v A.B* (2012) NSPC 31, in the Provincial Court of Nova Scotia, an 18 year old boy, along with his two friends, painted racist slogans on several areas near Dartmouth Nova Scotia. They wrote a broad range of demeaning words and symbols on walls, roadways, mailboxes and street signs (*R v A.B* (2012) NSPC, para 44). The slogans were such as 'Jews', 'white power', 'Heil Hitler'(sic). They painted the word 'nigger' in large letters in a driveway with arrows pointing at the house of a family that they knew where the only black family living on the street (*R v A.B* (2012) NSPC 31, para 8). At a diagonal from that house, the phrase 'KKK get out' (referring to the Ku,

Klux, Klan) was written (*R v A.B* (2012) NSPC 31, para 9). There was a picture of a handgun with the word 'bang' beneath it; the phrases 'Fuck niggas', 'Fuck the Pigs', 'Fuck the popo', and they also draw penises on the wall (*R v A.B* (2012) NSPC 31, para 6). *A.B* admitted that he was involved in some acts of vandalism. The issue at hand was whether the language and symbols and circumstances in which they were used constituted an offence in terms of 319 (2). *A.B* was also charged with mischief, contrary to s430 (4) of the Criminal Code, relating to acts of vandalism committed in various locations (*R v A.B* (2012) NSPC 31, para 4).

HJ Cambell refers to the *Mugesera's* case where it was held that the speech constituted an incitement to murder, genocide and hatred (*Mugesera v Canada*, Minister of Citizenship and Immigration (2005) SCC 40, 197 C.C.C. (3d) 233, [2205] 2 S.C.R. 100). The court further mentioned the case of *David Ahenakew* where at the First Nations Conference the defendant indicated that 'second world war was created by the Jews' (*R. v Ahenakew* (2008) SKCA 4, 2 W.W.R. 68). Cambell emphasised that the Saskatchewan Court of Appeal considered these statement shocking, brutal and hurtful, but it did not fit the offence under s 319 (2) (*R v A.B* (2012) NSPC 31 para 26.). The court went further mentioning the *Buzzanga's* case where the accused were supporters of building a French language school (*R v Buzzanga* 25 O.R.(2d) 705, 49 C.C.C. (2d) 369). The court also referred to other cases promoting hate propaganda. Cambell emphasised that, 'They all involve more than racist taunts, slurs, name calling and symbols. They go beyond encouragement of hatred by its open and even flagrant expression. They involve a form of expression intended to convince or incite' (*R v A.B* (2012) NSPC 31, para 30).

The relevant aspect that the court in *A.B* had to consider was the contextual interpretation. The court mentioned that, 'context is critical, what was said, by whom it was said, to whom it was said and the context in which it was said are important considerations' (*R v A.B* (2012) NSPC 31, para 38). The court thoroughly analysed what was expressed (*R v A.B* (2012) NSPC 31, para 30), who expressed it (*R v A.B* (2012) NSPC 31, paraS 50-68), the audience (*R v A.B* (2012) NSPC 31, paras 69-74), and the circumstances (*R v A.B* (2012) NSPC 31, paras 75-84). The court concluded that:

*What was "said" and to whom it was directed are largely consistent with the inference that the intent here was to intimidate a family, and to shock, offend*

*and outrage their neighbours. Scrawling on the wall and writing outside the home of a black family is consistent with those intentions. There was no speech and no pamphlet. There were no distorted facts presented. There was no call to racist action. There was no plan. There was no incident that ignited the event or prompted A.B. and his friends into action.*

*It is unfortunate that this case involves the consideration of two crimes that are labelled in ways that can result in misunderstanding as to their real meaning. A “hate crime” is, in this context, not a term used to describe an illegal act motivated by hate or the expression of racist hatred. A crime that is both hateful and racist is not necessarily a hate crime.*

*Both are characterized in law as “mischief”, which carries the connotation of childish indiscretion or relatively innocent hijinks. That is unfortunate. They are very different. These acts are best described as acts of hurtful, hate filled, intimidating, racist vandalism.*

*A.B. is not guilty of the offences under s.319(2). The intent to promote hatred has not been proven beyond a reasonable doubt. In that legal sense he is not guilty of the charges of hate crimes. He is guilty of the offences under s.430 (4), aggravated by the expressions of extreme racism and further grossly aggravated by the manner in which those expressions were specifically directed (R v A.B (2012) NSPC 31, paras 88-92).*

HJ Cambell in his judgment was reluctant to consider these acts as ‘hate crime’ which are criminal acts motivated by bias or prejudice toward a particular group of people. To be considered as a hate crime, the offence needs to meet two criteria. Firstly, the act must constitute an offence under criminal law, and secondly the act must be motivated bias. In A.B’s case these two criteria were met, however the court did not establish the wilful intention. What is commendable in the Canadian case is the contextual approach that the judge utilised to deliver his judgment. It can be argued that Canada, although it restricts hate speech, it does so cautiously in order to avoid the infringement of freedom of expression (*Saskatchewan (Human Rights Commission) v Whatcott* (2013) 1 SCR 467, 2013 SCC 11).



## United Kingdom

In Britain, the Race Relations Act of 1965 was the first anti-discrimination law, and ss1 - 5 of the Act prohibited the discrimination against a person by refusing access to public places, such as hotels, public houses, cinemas, restaurants and public transport, on the grounds of colour, race or ethnic or national origin. To do so became a civil offence. However, hate crimes, specifically motivated by race and ethnicity, were still not considered as criminal conduct (Malik 1999; Naidoo 2017). Notwithstanding, in some court cases, British judges had a discretion to consider racist motivation as an aggravating factor when sentencing, as seen in the case of *Rv Whalley* (1989)11Cr Appr(s)405 CA; *R vAlderson* (1989)11CrAppr(s)301 CA.

Later on, as racist incidents, specifically with the murder of Stephen Lawrence,<sup>2</sup> persisted, the British Labour Party, in its election in 1998, committed itself to the passing of a new law which proscribed racially-motivated violence and harassment (Malik, 1999). After coming into power, the British Labour Party promulgated the Crime and Disorder Act 1998, which created racially-aggravated crimes and sentences for such crimes (Crime and Disorder Act1998 s28). In terms of ss28-32, racially aggravated offenses related to assault, criminal damage, public order and harassment (Criminal Justice Act, s145) (later amended through the Anti-terrorism, Crime and Security Act, which added religiously aggravated offences).

Since the enactment of the Crime and Disorder Act, several cases have been prosecuted and most of them involved verbal abuse. For example, in *R v White* [2001] the defendant had called an African female bus conductor an 'African bitch'. In the case of *DPP v Pal* [2000] Crim LR 756, the defendant, an Asian man, had called another Asian man 'a brown Englishman'. The Court found that the offence did not constitute a racially aggravated offence. However, in the case of *Jonhson v Dpp* [2008] EWHC 509, where a black man verbally abused two white men, threatened and compelled them that they should return and park in a 'white area', the court concluded that considering a parking-lot according to the skin colour of the attendants constituted racial hostility (Naidoo, 2017). From the aforementioned, it appears that most of the cases dealt with in English courts were based on racist verbal abuse. However,

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<sup>2</sup> An 18 year old black teenager who faced racist insults and was stabbed twice by five white youths; see also Report, February 1999, Stephen Lawrence Inquiry, by William Macpherson available on <https://www.gov.uk/government/publications/the-stephen-lawrence/-inquiry>.

research done by the Institute of Race Relations in London has shown that between 1993 and 2010, 89 people lost their lives (Athwal, Bourne & Wood, 2010). Unfortunately, with regard to cases where aggravated penalties were imposed due to racial violence, the Institute did not provide full citations of cases (Athwal, Bourne & Wood, 2010). One of the most prominent cases was the murder of Anthony Walker.

Anthony Walker was a black British teenager who was murdered with an ice axe by a gang of racist whites in July 2005 (Wiki). Michael Barton and his cousin Paul Taylor murdered Anthony Walker in an unprovoked, racially motivated attack in Merseyside (Athwal, Bourne & Wood, 2010).

Anthony Walker was eighteen year old, living with his parents and his two sisters. On the afternoon of 29 July, Walker, along with his cousin Marcus Binns, was accompanying his girlfriend Louise Thompson, to the bus stop. They encountered Michael Barton who shouted racist slurs at Walker and his cousin. As they walking to the bus stop, Barton and his cousin Paul Taylor followed them in the car and ambushed them. Thompson and Binns escaped to get help. However, Walker was badly wounded in his head with an ice axe used by Taylor. Walker was brought to the hospital where he died. Taylor was sentenced to 23 years and 8 months of imprisonment, and Barton was sentenced to 17 years and eight months. The court emphasised that both cousins had perpetrated a 'terrifying ambush' and a racist attack of a type poisonous to any civilised society' (Olivier, 2007).

What transpires from the British context is that race and ethnicity were the most significant victim characteristics which led to the enactment of the first hate-crime law (the Crime and Disorder Act 1998, ss28-32.). Later on, many other laws have been passed in the UK to include incitement on the basis of religious belief, disability, sexual orientation (Criminal Justice Act, 2003 s146) and transgender identity. During the period of 2015-2016, police forces in the England and Wales recorded 62 518 hate crimes (Amnesty, 2016).

It can be argued that British law criminalises hate crimes which are considered as 'any criminal offence which is perceived by the victim or any other person, to be motivated by hostility or prejudice towards someone based on a personal characteristic' (Home Offices, 2013). Hate incidents in the UK can take a form of verbal abuse like name-calling, harassment, bullying and intimidation by children, adults, neighbours or

strangers, physical attacks such as hitting, punching, pushing spitting, threats of violence, hoax calls, abusive phone and text messages, hate mail, online abuses such Facebook or twitter, displaying or circulating discriminatory literature posture, or damage to property, graffiti, arson, throwing rubbish into gardens, malicious complaints, for example over parking, smells, or noise (See [www.citizensadvice.org.uk](http://www.citizensadvice.org.uk)).The police in UK are required to record hate incidents reported to them on the basis of these five personal characteristics (Citizens, 2018). Consequently race, religion/faith, sexual orientation, disability and gender-identity are the five monitored strands (Home Offices, 2013). In England and Wales, however, only incidents relating to race and religion are considered as 'aggravated offences' (Home Offices, 2013).

### **South Africa**

South Africa is a democratic country with a historical record of racially-motivated marginalisation and an exclusion of the majority of the population (Adhikari, 2010). During the apartheid era, the country was ruled by legislation and policies based on racial segregation (Group Areas Act 41 of 1950; the Population Registration Act 30 of 1950). The system banned interracial mixing which forced people to remain in segregated areas. For example, a citizen from the Indian community could not own property in an area allocated to white people. In this way, a great majority of people were denied basic human rights. Now there is a supreme Constitution, with an entrenched justiciable Bill of Rights, founded on the democratic values of social justice, human dignity, equality and the advancement of human rights and freedoms (The 1996 South African Constitution, Ss1,7,9,10). The Constitution also enshrines the values of non-racialism and non-sexism (The 1996 South African Constitution, s1). The Constitutional Court has the power to declare unconstitutional any law or conduct considered to be inconsistent with it (The 1996 South African Constitution, s2). More than two decades after the abolition of apartheid, there is evidence that South Africa still experiences hate crimes, which violate the entrenched right of vulnerable groups not to be discriminated against on the basis of race, sexual orientation, gender, national origin, occupation or disability. Some examples of this are the following cases. Nomasomi Kente, who claimed she was the victim of abuse and harassment over several years. Andre Van Deventer was convicted of assault and *crimen injuria* (*Nomasomi Gloria Kente v Andre Van Deventer* (EqC)(unreported case no EC

9/13,2014)). *Penny Sparrow*, an estate agent, who wrote a Facebook post referring to black people as 'monkeys' (*ANC v Penny Sparrow (MC)(01/2016)*). The *Masuku*, who delivered a speech to an audience at the University of Wits which offended members of the Jewish community (*South African Commission v Bongani Masuku and others (EqC) (01/2014)*). Another case where the allegations of hate speech was raised is the case of *Qwelane*, who made offending statements in the Sunday Sun Newspaper derogatory to homosexuals and members of the Lesbian, Gay, Bisexual, Transgender and Intersex (LGBTI) community (*South African Commission v Qwelane, Dubula Jonathan (Eqc)(13/2012)*). Finally, the *Momberg's* case, an estate agent who was caught on camera verbally abusing a black police officer in a racist rant (Shange, 2018). Momberg loosely tossed the 'K' word over 40 times. These are only few cases among others. To remedy to this mischief, the Promotion of Equality and Prevention of Unfair Discrimination Act 4 of 2000 (Equality Act) was enacted.

Basically, the Equality Act was promulgated to prohibit and criminalise hate speech and in the cases mentioned above, s10 of the Equality Act prohibits hate speech. The Equality Act grants the power and functions to the Equality court to make orders which may include payments or damages to individuals or appropriate organisations (s21). The Equality Court refers some cases to the Director of Public Prosecution to prosecute perpetrators for *crimen injuria* under the common law, as was the case with *Momberg* Penny Sparrow was convicted for *crimen injuria*, and was ordered to pay damages of R150 000 to the Oliver and Adelaide Tambo Foundation (OATF) to compensate for her comments (*ANC v Penny Sparrow (MC) (01/2016) (53) para 5*). Therefore, legislation such as the Equality Act and Criminal Act 51 of 1977 could respectively deal with conduct that lead to hate speech, defamation and *crimen injuria*. Notwithstanding the existence of the Equality Act, hate speech and hate crimes still persist, specifically for Black lesbian women who are raped and killed 'corrective rape', when a woman is raped in order to redress her lesbianism (Koraan & Geduld). For example in May 2017, Lerato Moloji, a lesbian from Naledi in Soweto, was found dead, beaten and stoned to death (Shange, 2018).

Furthermore, an attack on Black foreigners was also noticed in South Africa. In 2009, the Hate Crimes Working Group (HCWG) was created and made several submissions to the Department of Justice for the enactment of hate crime law. One of the first key points of their submission reads that, 'violent hate crime affects the lives of many

individuals in South Africa, where some people are targeted for violence for reasons including, because of their race, national origin, ethnicity, sexual orientation or gender identity, or religion' (Violent Hate Crime in South Africa, 2018). After several consultations, in order to remedy this mischief, parliament responded by drafting the Prevention and Combatting of Hate Crimes and Hate Speech Bill (the Hate Bill).

The purpose of the Hate Bill was to create an offence of hate crime, which is motivated by prejudice, and also to criminalise hate speech. The Bill has been disseminated for public comments and suggestions. Although the HCWG strongly supported the speedy passing of the Hate Bill to law, such a bill was highly contested by many commentators, specifically with regard to the constitutional right to freedom of expression, and the sentence of imprisonment. It was argued that more than 75 854 comments (The 1996 Constitution s72) from individuals and institutions were received by the Department of Justice (Ana, 2018). Those comments have been addressed in the revised Bill (Ana, 2018).

Fundamentally, the Hate Bill definition of hate appears wide and this has led to many criticisms, such as the violation of freedom of expression entrenched in s16 of the 1996 Constitution. Furthermore, s16 (2) of the Constitution already limited the freedom of expression, in a sense that it did not extend to the propaganda of war, incitement of imminent violence, and advocacy of hatred, that is based on race, gender or religion. Badenhorst (2016) emphasised that 'hate speech' is over-broad and will have a major 'chilling effect on free speech and religious freedom'. She added that, in its current form, the bill is unnecessary and unconstitutional (Badenhorst, 2016). Griffin (2017) was of the opinion that the bill should be withdrawn in its entirety, given the fact that the law already has the necessary framework to deal with hate speech. He opines that it is not a matter of enacting a new legislation, instead one has to address the causes of society's problems (Griffin, 2017). Wasserman proposed the opposite. According to him 'the Bill should not be rejected in its entirety' (Wasseman, 2017), which is strongly supported due to the impact of hate crime to the victim it violates. The victim's right to human dignity is provided for in section 10 of the Constitution (Wasseman, 2017). The initial purpose of the Hate Bill was to criminalise hate speech and it needed to stick to that.

With regard to sentencing, the Hate Bill was criticised in a sense that sending people to prison would create more problems, and restorative justice would be more suitable.

Even parliamentarians raised a concern that if people were sent to jail for hate offences, the prison would be overcrowded (Khoza, 2018). This concern might be contested given the fact that it is the duty of the state to respect, protect promote the rights of society in the Bill of Rights (the 1996 Constitution, s7).

Notwithstanding, as mentioned above, after several submissions, the Department of Justice significantly changed the Hate Speech Bill in order to avoid the constitutional infringement of the freedom of expression. Hate speech is considered as the clear intention to harmful or to incite harm or promote or propagate hatred on the basis of seventeen characteristics which are:

- 'Age;
- Albinism;
- Birth;
- Colour;
- Culture;
- Disability;
- Ethnic or social origin;
- Gender or gender identity;
- HIV status;
- Language;
- Nationality, migrant or refugee status;
- Occupation or trade;
- Political affiliation or conviction;
- Race;
- Religion;
- Sex, which includes intersex; or sexual orientation.' (Clause 4 Hate Bill)

Compared to the UK legislation, which only focuses on five characteristics, the South African Hate Bill is commendable in widening these elements, specifically including albinism, HIV status and nationality, given the fact that these people are considered vulnerable

The latest version of the Hate Bill mentioned the circumstances under which the Bill would not apply. The new version reads that:

*The provisions of subsection (1) do not apply in respect of anything done as contemplated in subsection (1) if it is done in good faith in the course of engagement*

*in—*

- (a) any bona fide artistic creativity, performance or other form of expression, to the extent that such creativity, performance or expression does not advocate hatred that constitutes incitement to cause harm, based on one or more of the grounds referred to in subsection (1)(a);*
- (b) any academic or scientific inquiry;*
- (c) fair and accurate reporting or commentary in the public interest or in the publication of any information, commentary, advertisement or notice, in accordance with section 16(1) of the Constitution of the Republic of South Africa, 1996; or*
- (d) the bona fide interpretation and proselytising or espousing of any religious tenet, belief, teaching, doctrine or writings, to the extent that such interpretation and proselytisation does not advocate hatred that constitutes incitement to cause harm, based on one or more of the grounds referred to in subsection (1)(a)*

Those changes are welcome as they offer protection to people expressing their views in good faith. However, what remains an issue of concern is the fine and imprisonment, not exceeding three years for first-time offenders, and a fine for a period exceeding five years for any subsequent offences (see clause 6 of the Hate Bill). With regard to hate crimes, the content remains as it was initially conceived. Looking at the changes made it can be argued that the Bill might stand a chance to becoming a law during the course of 2018.

## **CONCLUSION AND RECOMMENDATIONS**

South Africa, compared to the UK, has 17 characteristics that one has to rely on in terms of hate speech. Moreso, given the fact that hate crime has a serious impact on the victim, it should be criminalised. Hate speech has been amended to specifically accommodate academic, religious and artistic comments, however, these should be

dealt with caution. South African law enforcers need to follow a Canadian strategy, such as in the *AB's* case, which suggested that the four questions should be considered as the guidelines that one could follow. Questions such as: what was expressed, who express it, to whom was it directed, and under which circumstances? Seeking to answer these questions will help establish the element of intention on the part of the perpetrator.

It can be argued that if judges follow these guidelines, fair justice will be done to everyone, even if the Hate Bill is passed in its entirety, as may be the case.

This paper recommends a community awareness of hate crimes and hate speech. People within the community should have a clear understanding of what hate speech or hate crime is, what form it takes and how it applies in law. Pertaining to the application of the law, the four questions learnt from Canadian case can provide much assistance. Furthermore, the law enforcement agents, as well as the judiciary, need training to improve their knowledge of online hate crime and hate speech. For a successful implementation of the Hate Speech Bill, if promulgated, the courts need to ensure consistency, clarity and equal protection, across all categories of individuals. Then this Hate Speech Bill will have a positive impact on equality, human dignity and freedom. Ultimately, the application and implementation of the Hate Speech Bill will have to be aligned with the fundamental rights as entrenched in South African Bill of Rights. The Bill will promote tolerance and respect for each other.

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**E. Mbedzi and M. Simatele**

**SMMES FINANCING: THE COSTS AND BENEFITS OF LENDING  
TECHNOLOGIES IN THE EASTERN CAPE PROVINCE OF SOUTH  
AFRICA**

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**ABSTRACT**

Small, Micro and Medium Enterprises (SMMEs) are catalysts of development in most economies but often lack financing due to information opacity. While lending technologies influence lending decisions of financial institutions, the use of lending technologies as a measure of SMME finance access is missing in academic literature. Using a sample of 321 randomly selected SMMEs from the Eastern Cape province in South Africa, this study analyses the extent of credit rationing among SMMEs, based on lender and firm characteristics. Many studies cite access to credit as the main hindrance to SMMEs success, and with lending technologies being the conduits of transmitting that credit access, we hypothesise that more emphasis should be placed on the relationship between lending technologies and the level of SMME credit rationing. Since credit rationing can be both dichotomous, by event happening, and categorical, by types of rationing, the analysis uses a combination of binary and multinomial logistic regression. Findings indicate the existence of credit rationing among SMMEs. One possible policy intervention to improve SMMEs access to finance is through a lending framework, matching types of lending technologies and types of lenders that minimizes the credit rationing risks for firms. The other is to systematically allocate funds to different firm structures, based on credit rationing levels, in order to minimize the extent of inequality exhibited in the South African population structures.

**Keywords:** Credit rationing, Lender structure, Lending technologies, SMME structure.

## INTRODUCTION

Lending technology is a charter of all financing requirements that fundamentally influence the lending decision by a financial institution for a particular borrower (Koreen & Lucia, 2015). However, lending to SMMEs is limited (Makina *et al.*, 2015; Uchida, Udell & Yamori, 2012) due to the information opaqueness of SMMEs (Uchida, Udell & Yamori 2006; Uchida *et al.*, 2012).

The literature provides a significant amount of evidence that small, micro and medium enterprises (SMME) are critical to the growth of many economies (Ayyagari, Demirguc-Kunt & Maksimovic 2011; Nassr & Wehinger 2014). Furthermore, evidence shows that many SMMEs are credit constrained and consequently the attrition rate is very high in developing countries (Makina *et al.*, 2015). Mainstream lenders such as banks tend to rely on transactions-based lending, which is primarily based on hard financial data normally sourced from audited financial statements, as well as credit scores gathered from the financial histories of the firms. SMMEs, however, are informationally opaque, and therefore are more suitable to relationship lending technologies. Such technologies rely more on soft qualitative data acquired from repeated interactions with the small firms and the communities around them (Casey & O'Toole, 2014; Comeig, Fernández-Blanco & Ramírez 2015; Uchida *et al.*, 2012). Berger and Udell (2006) argued that this way of looking at lending technologies is too simplistic. They suggested that a more complex approach is required to understand the role of lending technologies in SMME lending, including looking at the lenders' structures, firm characteristics, as well as national lending infrastructures, in order to frame policies that are more relevant.

In an attempt to lean towards a more complex approach, the study seeks to assess the extent to which lending technologies affect credit rationing of SMMEs in South Africa. We deduce from literature the what informs the three structures of lending to SMMEs, in order to identify suitable independent variables for construction, is a credit rationing model suitable for South Africa. We argue that each loan is primarily extended based on the outcome of a lending technology used, thus SMMEs access to finance becomes a function of lending technologies used by financial institutions to screen borrowers (Fredriksson 2012; Wang 2016).

The different lending technologies used by financial institutions, for varying classes of customers, have different bearings on either the acceptance or denial of credit facilities (Berger & Black 2011). Therefore, a critical analysis of lending technologies used to fund SMMEs is a vital starting point, given their information opacity. Based on the three static lending structures, this paper evaluates the link between lending technologies' lender and firm structures, and credit rationing of SMMEs. The literature on lending technologies and credit rationing of SMMEs is examined, and the methods and data used are explained. Finally, the results are presented and the study is concluded, with recommendations.

## **LITERATURE REVIEW**

Berger and Udell (2006)'s seminal paper identified two classes of lending technologies: transactional-based and relationship-based lending technologies, which founded classes of lending technologies. From that time onwards, much literature has been developed around the subject. Early studies on lending technologies, such as Berger and Udell (1998, 2006), Cowling and Westhead (2010), Deakins and Hussain (1994) and Degryse and Van Cayseele (2000), identified and listed lending technologies used by lending institutions to fund SMMEs. Later studies shifted into quantifying the extent to which each of the lending technologies is used by lenders to extend credit to SMMEs (e.g. Allen 2016; Kano *et al.*, 2011; Koreen & Lucia 2015; Korkeamaki, Poyry & Suo 2014; Uchida *et al.*, 2012). In quantifying usage, most studies measure the extent each lending technology is used in a particular market and the factors influencing its usage. In a way, this tended to assess the determinants of lending technologies in different markets. In this study, the emphasis is on determining how different lending technologies, via key determinants, affect the size of financing to SMMEs - that is credit rationing.

The literature on SMMEs lending narrows down to three aspects affecting lending technologies: structure of the economy, lender and firm structures. It has been acknowledged that different types of lending institutions use different types of lending technologies to fund SMMEs (Kano *et al.*, 2011; Uchida *et al.*, 2012). The big lending institutions often tend to fund large firms using transactional lending, while the small lenders fund small firms using relationship lending (Canales & Nanda 2012; Shen *et*

*al.*, 2009). Islamic banks also offer more credit to small businesses than conventional banks do (Aysan *et al.*, 2016), while lending institutions entering an economy, via joint ventures and other forms of mergers and acquisitions, offer more credit than those that enter through greenfield investments (Viverita *et al.*, 2015). With this evidence, we observe that the structures of lending institutions are an important determinant of lending technologies or lending channels. They influence funding decisions of small businesses.

In addition to lending technologies being shaped by lender structures, they are also adopted based on strategic intent of funding institutions. The effects of lender structure on lending is reinforced by the theory of market power necessitating funding institutions to enforce specific lender-strategies. Firms with several lender relationships tend to have more credit access only in certain economies, whilst firms with strong few lender relationships have more credit access in other economies (Jiangli, Unal & Yom 2004). For instance, market-based financial systems, like in the USA, have more benefits to firms, but accompanied by less relationships with financial institutions, whereas bank-based financial systems in Europe and Japan, resulted in more benefits to firms, but in contrary, accompanied by more relationships with financial institutions. This means that the structure of financial system has a bearing on the scope of the relationships created, and thus determines the SMMEs' benefits that follow (Berger & Udell, 2002). This analogy implies that, based on local economic conditions shaping the existing lending institutional structure, lenders use different lending technologies that are amenable to the lender structure in place by aligning their own specific lender-strategies to that lender structure.

The various forms of lending technologies are adopted based on the economic structure of economy as well. Different economic structures, such as either rural-based or urban-based economic structures (Luo & Zhou 2016; Makina *et al.*, 2015), industry economy type such as a factor-driven, efficient-driven or innovation-driven economy (Meuleman & De Maeseneire, 2012) and the extent of government involvement in the economy through subsidies and credit guarantees (Nkuah, Tanyeh & Kala 2013; Trovato & Alfo, 2006), all affect the types of lending technologies lenders use given the national economic structural conditions. Similarly, the nature of legislation, and the extent of commercial law enforcement in economies, determine the level of applicability of certain types of lending technologies. For example, asset based lending

became very popular in the USA, owing to the ease of the commercial law affecting the assignment and registration of assets (Beck & Demirguc-kunt, 2006). It is important to note however, that economic structures are only relevant when making comparisons in different economies, or within economies where such structures vary significantly among different regions or provinces. So, within one small economy, or one province, these factors tend to be static, thereby affecting different economic players the same way across space.

Finally, the structure of the SMMEs themselves influences the types of lending technologies lenders use. Firms' structures, like debt structure, influence lending technologies suitable to support existing levels of debt (Kundid & Ercegovac, 2013). The level of development of SMMEs (Kimutai & Ambrose, 2013), as well as the level of appetite firms have for credit (Mac, Vidal & Lucey, 2016), are some of the firms' structures that force lenders to adopt particular lending technologies when dealing with such firms.

While the literature on lending technologies is quite extensive, it is however not broad on how various lending technologies effectively alleviate the finance problem interconnection for SMMEs, and hence their role in reducing credit rationing to small businesses.

The South African government considers the growth of SMMEs critical to stimulating growth in the economy and a primary driver of job creation and inclusive growth. The government established a number of financial institutions and created support structures that even incorporate the private sector financial institutions in order to increase financial access to SMMEs. This paper addresses one of the reasons limiting SMMEs from achieving expected growth, i.e., credit rationing via lending technologies.

Credit rationing occurs when a market disequilibrium exists, forcing lenders to either supply less credit than is required, offer credit at high interest rates, or reject credit applications outrightly (Adair & Fhima, 2014). When lending institutions are used as the main source of financing, some elements of credit rationing exist, and this is worse for SMMEs, owing to their information opacity. SMMEs can neither access financial markets, nor capital markets (Berger & Udell, 2006), and depend solely on lenders' loans as the main source of external funding. The limitation of options for funding sources expose SMMEs to high levels of credit rationing. For example, out of a survey

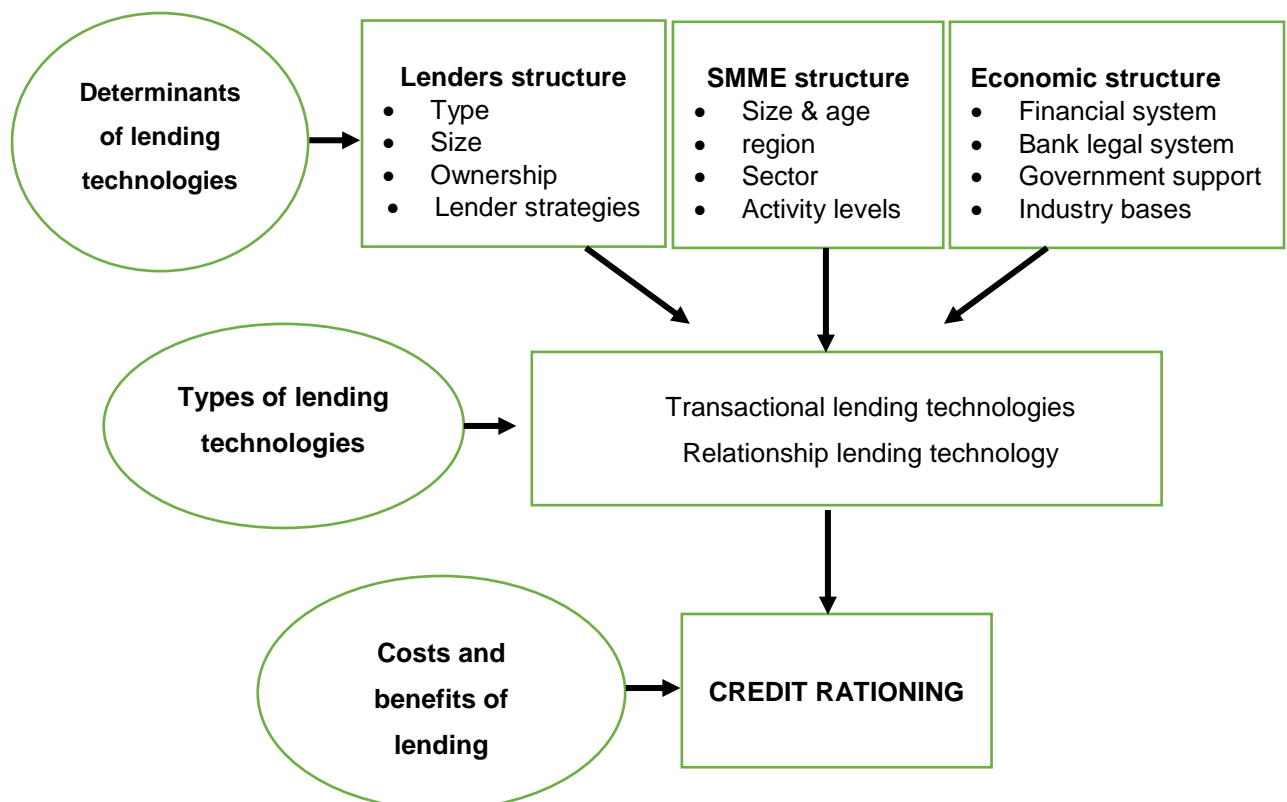


of 200 SMMEs in Bangladesh, at least 40% of them were credit rationed (Hoque, Sultana & Thalil, 2016).

In building the conceptual framework for SMME lending, we borrow from the information asymmetry information theory (Stiglitz & Weiss, 1981), and advance that lending to SMMEs hinges on the lending technologies used (Allen 2016; Butler, Kraft & Weiss 2007; Mac *et al.*, 2016; Mullen, 2012; Ravi & Hong,, 2014). From that analogy, we model that there are determinants of lending technologies applying to SMMEs on the one side, and equally, there are the resultant costs and benefits to SMMEs on the other. These relationships guide a conceptual framework of SMME lending developed in the section that follows.

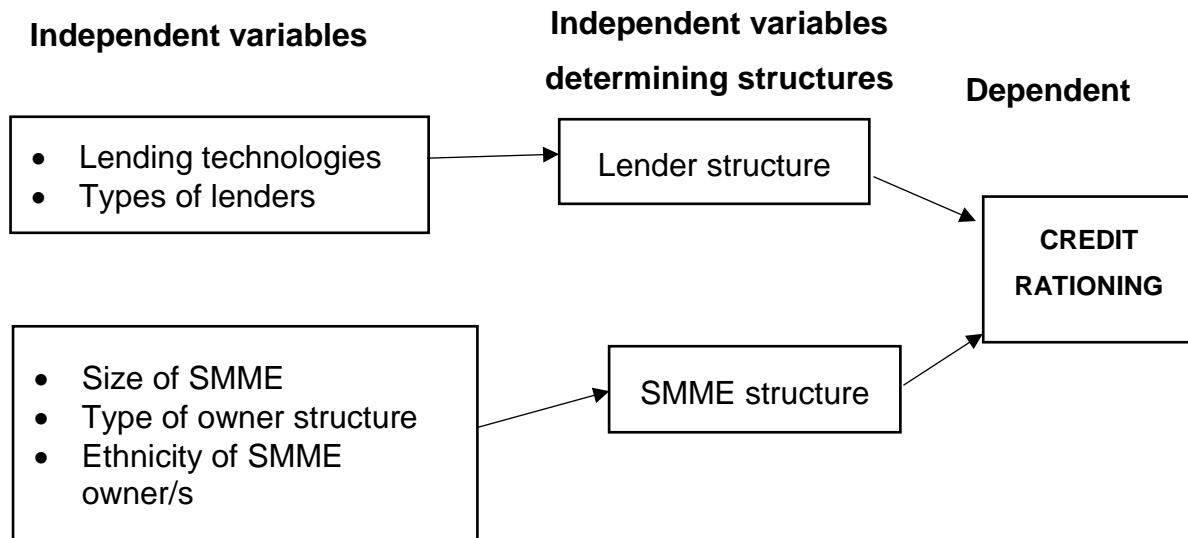
## **METHODS AND ANALYSIS**

The determinants of lending technologies are lender, SMME, and economic structures, whose main components are summarised in Figure 1 below. Lenders' structures are entrenched in types of financial institutions (Kano *et al.*, 2011; Uchida & Udell, 2006; Uchida *et al.*, 2012), size and ownership (Allen, 2016; Korkeamaki *et al.*, 2014; Ravi & Hong, 2014) and lender-specific strategies (De la Torre, Martínez Pería & Schmukler, 2010). These factors determine a lender's choices of suitable lending technologies to use. Similarly, the lending technologies selected must fit into specific country economic structures. The economic structures include financial systems, which are either market-based or bank-based (Memmel *et al.*, 2008), depth of the bank legal system to support loan contracts (Koreen & Lucia, 2015; Mac *et al.*, 2016), level of government support, and the types of industry bases in the economy. Lastly, lending technology types are influenced by the level of the development of SMMEs by size, age, activity levels, sectors and areas in which they are located (Makina *et al.*, 2015). Based on determinants of lending technologies and type of lending technologies relationship, we hypothesize that the lending technologies used have a direct impact on the outcome of lending (See Figure 1).



**Figure 1: Conceptual framework for SMME lending**

The application of different lending technologies in SMME financing has two implications: firms benefit by growing when credit rationing is low, and suffer survival costs when credit rationing is high. The costs and benefit phenomenon are evaluated empirically using credit rationing. Within a country, the main economic structural elements are not static, and thus influence lending technologies differently in different areas. In this case, data were collected in one province – the Eastern Cape province and thus economic structural variations within one province are negligible. That means the most varying determinants of lending technologies are lender and SMME structures. The model for this study was developed based on this reasoning to inform the variables analysis map below.



**Figure 2: Variables analysis**

To investigate the link between lending technologies' determinants and credit rationing in the context of SMMEs, data were collected from 322 SMMEs on the Border Kei Chamber of Business and the Nelson Mandela Bay Business Chamber databases in the Eastern Cape Province of South Africa. However, one firm was discarded because its annual turnover was an outlier in terms of the National Small Business Act (29) of 2004 SMME classifications. The data set consists of formal and registered SMMEs only, collected between 28 July 2017 and 30 September 2017 consisting of the year 2016 firm cross-sectional data (Table 1).

**Table 1: Descriptive statistics**

<b>SMME attributes</b>	<b>N</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>Std. deviation</b>
Age of firm in years	321	1	57	9.8	8.08
Experience of owner in years	321	2	53	14.8	10.12
Number of employees of SMME	321	2	192	25	37
Total annual sales of SMME	301	76 820	56 077 140	3 118 633	8 233 790
Total value of assets of SMME	287	5 300	49 041 860	1 442 145	4 745 277
Amount of loans to SMME	190	10 000	5 650 000	315 337	708 485
Total annual capital investment	253	2 700	6 491 350	225 685	653 406
Total value of capital investment	233	1 000	9 000 000	370 332	995 243
Creditors days offered to SMME	321	0	90	19	19
Debtors days offered by SMME	319	0	90	17	21
Length of bank relationship in years	316	1	53	7.99	7.17
Bank staff visits per year	123	1	4	1.78	1.43

All monetary values are in the South African rand

The SMMEs contacted have operated between one and fifty-seven years. Some firms were owned by people whose experience stretches for over five decades, resulting in client-lender relationships that exceed 50 years. The maximum annual sales recorded is R56 077 140, capitalisation over R40 000 000, and annual capital investments averaging R225 000. Of the 321 SMMEs, 190 accessed loans during the period under study, ranging between R10 000 and R5 650 000 in amount. Other than only depending on formal lenders' institution loans, some SMMEs rely on trade credit as a

form of financing. Therefore, both financial institutions financing and trade credit financing co-exist for SMMEs in South Africa.

The results indicate that credit rationing varies in the different sectors of the SMMEs (Appendix B). At a glance, firms in agriculture, forestry, fishing, and service provision sectors are more credit rationed, while the motor industry, and retail and wholesaling businesses are marginally credit rationed, compared to the less credit rationed sector, such as firms in business services, construction and manufacturing industries.

The number of firms that were not credit rationed in the sample were more (53%) than those that were credit rationed (47%). This is slightly higher than the national average rate of 41% SMMEs credit rationing experienced in South Africa (Cant, Erdis & Sephapo, 2014). Only formally registered SMMEs were included in the sample. It is expected therefore that the rate of rationing would be much higher if non-registered businesses were taken into account. There was a wide variation in the level of credit rationing across the different sectors. As expected, credit rationing was highest in the agricultural sector where the risks were higher. The levels of credit rationing were moderate in the manufacturing, ICT and construction and engineering sectors, whilst the lowest rates were observed in the service sectors.

## **RESULTS AND CREDIT RATIONING OF SMME FIRMS**

Following the hypothesis depicted in Figure 1, lenders and borrowers characteristics interact to influence lending technologies chosen and ultimately the choice whether to lend or not, as well as how much to lend, if the decision is taken to do so. The dependent variable can be represented in two ways: as a dichotomous variable, which takes the value of 1, if the SMME has experienced credit rationing of any form within the sample period, and 0 otherwise, or as a categorical variable taking the value of 1 if there was an outright rejection, 2 if there was quantity rationing and the value of 3 if there was price rationing by charging an interest rate higher than the going market interest rate. Equation (1) shows the binary representation, while equation (2) shows the categorical representation.

$$y^1 = \alpha + \beta_1 X + \beta_2 Z + \varepsilon \dots\dots\dots 1$$

$$y^i = \begin{cases} 1 & \text{if firm } i \text{ was credit rationed} \\ 0 & \text{if firm } i \text{ was not credit rationed} \end{cases}$$

$$y^2 = \alpha + \beta_1 X + \beta_2 Z + \varepsilon \dots\dots\dots 2$$

$$y^i = \begin{cases} 1 & \text{if firm } i \text{ faced outright credit rejection} \\ 2 & \text{if firm } i \text{ was quantity credit rationed} \\ 3 & \text{if firm } i \text{ was price credit rationed} \\ 0 & \text{if firm } i \text{ was not credit rationed} \end{cases}$$

**X** Includes the lender characteristics including the type of lending institution and technology used to fund firm *i*.

**Z** are the vectors of control variables based on firm attributes including firm size, type of ownership structure and ethnicity group of owners associated with firm *i*. (Appendix A explains how the variable were formulated).

$\varepsilon$  = is the vector of heteroskedastic - robust standard errors.

Equations (1) and (2) are estimated using logistics.

In addition to the variables discussed, the historical realities of South Africa have shown that race plays an important role in many economic activities of the country. Consequently, the impact of certain variables is likely to be magnified or minimised if it nests a given characteristic. We hypothesise, for example, that white-owned businesses are less likely to be credit rationed because they are likely to have a much longer history with lending institutions than black-owned businesses. To capture such effects, as a result, blacks are likely be credit rationed than other race groups. Interaction variables are used to capture these effects. The estimation followed a stepwise process to allow for the addition of interaction variables in both of the procedures resulting in four different models. Models (1) and (3) are estimated without interaction variables, while models (2) and (4) are estimated with interaction variables.

The results showing the level of credit rationing of SMMEs based on the lender and SMME structural independent variables are presented in Table 2 and Table 3 below. All the parameters' estimates are well specified, while estimations not statistically significant were dropped.

**Table 2: SMME and lender characteristics effects on credit rationing of SMMEs**

Variables	Model 1			Model 2		
	B	SE	OR	B	SE	OR
Constant	1.73***	0.27	5.65	2.21***	0.45	9.16
Lending technologies						
Asset based lending	-1.71***	0.33	0.18	-2.05***	0.38	0.13
Venture capital lending	-2.83***	0.57	0.06	-2.90***	0.61	0.06
Asset finance lending	-3.50***	0.55	0.03	-3.83***	0.63	0.02
Financial statement lending (base)						
Types of lending institutions						
Government owned DFIs	-0.71*	0.44	0.49	-0.69*	0.48	0.49
Private owned DFIs	-0.02	0.61	0.92	-0.07	0.65	0.93
Microfinance institutions (Base=Commercial banks)	-2.08***	0.73	0.98	-1.86*	0.77	0.96
Ethnicity of SMME owner						
Whites	-0.89**	0.36	0.41	-0.84**	0.33	0.43
Indians	-0.73***	0.77	0.48	-0.63***	0.72	0.53
Coloureds (base=Blacks)	-0.38*	0.84	0.68	-0.42*	0.81	0.66
Owner structure of SMME						
Female owned	0.59**	0.38	1.80	0.53*	0.40	1.69
Family owned	-1.26**	0.10	0.28	-1.05**	0.08	0.35
Partnership owned (Base = Male owned)	0.81*	0.53	2.24	0.72*	0.46	2.05
Size of SMME						
Very small	0.97**	0.52	2.64	0.85*	0.48	2.33
Small	-0.18*	0.46	0.83	-0.24	0.41	0.79
Medium (Base = Micro firm)	-0.74**	0.58	0.48	-0.80*	0.51	0.45
Asset based lending*whites				-1.19***	0.40	0.91
Asset based lending*Indians				-1.54*	0.84	0.64
Venture capital lending*white				-1.80*	0.96	0.23
Asset financing*whites				-3.20***	1.12	0.11
Asset finance*coloureds				-1.20*	1.13	0.41
Asset based*very small firm				-0.85*	0.49	1.28
Asset based*medium firm				-1.10***	0.39	1.00
Venture capital*medium				-1.84***	0.69	0.22
Asset finance*very small				-1.73**	0.70	0.54
Asset finance*small firm				-1.66*	0.86	0.57
-2LL test	301.395			269.230		
Omnibus Test	$\chi^2=143.985$ , df=7, p<0.005			$\chi^2=176.15$ , df=17, p<0.05		
Nagelkerke $R^2$	48.1%			56.2%		
Hosmer & Lemeshow goodness of fit	P=0.735			P=0.380		
Classification accuracy	72.3%			79.5%		

\* (\*\*) [\*\*\*] = Significant at 10% (5%) and [1%]

Total N=321

In order to get more insight regarding the credit rationing estimates, models (3) and (4) in Table 3 show that credit rationing at three levels is influenced by the type of

ownership and firm size interactions, the only significant paired independent variables in this case.

**Table 3: SMME structural effects on type of credit rationing of SMMEs**

<b>MODEL 3</b>	<b>Direct denial</b>	<b>Quantity rationed</b>	<b>Price rationed</b>
<b>Variables</b>	<b>OR (B)</b>	<b>OR (B)</b>	<b>OR (B)</b>
Constant	(-1.75)***	(-0.90)*	(-2.27)***
Owner structure of SMME			
Male-owned	0.38 (-0.96)**	0.36 (-1.02)**	0.95 (-0.05)*
Female-owned	0.38 (-0.96)**	0.43 (-0.84)*	0.73 (-0.32)
Family-owned	0.15 (-1.87)***	0.16 (-1.83)***	0.14 (-1.97)*
Partnership-owned # (base)			
Size of SMME			
Micro	5.45 (1.70)**	2.10 (0.74)	2.11 (0.75)
Very small	15.7 (2.76)***	3.61 (1.28)**	2.79 (1.02)*
Small	6.14 (1.82)***	1.18 (0.17)*	4.01 (1.29)*
Medium (Base)			
<b>MODEL 4</b>	<b>Direct denial</b>	<b>Quantity rationed</b>	<b>Price rationed</b>
Male-owned*Very small	9.09 (2.21)**	1.21 (0.19)	1.62 (0.48)*
Male owned*Small	4.35 (1.47)*	0.44 (-0.83)*	0.39 (-0.95)*
Female-owned*Micro	14.0 (2.64)*	0.69 (-0.37)	0.51 (-0.67)***
Female-owned*Very small	4.58 (1.52)**	1.18 (0.16)**	0.97 (-0.28)*
Family-owned*Micro	2.22 (0.79)*	0.37 (-0.99)*	0.81 (-0.20)
Family-owned*Small	2.31 (0.84)**	1.97 (0.68)**	1.51 (0.41)*
Family-owned*Medium	1.84 (0.61)*	1.66 (0.51)	2.97 (1.09)**
Partnership-owned*Micro	39.6 (3.68)*	6.67 (1.90)*	2.61 (0.98)**
Partnership*Very small	29.4 (3.38)***	6.67 (1.90)*	2.92 (1.07)*
Partnership-owned*Small	11.4 (2.44)*	3.89 (1.36)*	3.03 (1.11)**
-2LL test	152.103		
Omnibus Test	$\chi^2=43.729$ , df=18, p<0.05		
Nagelkerke $R^2$	14%		
Likelihood ratios test	P= < 0.05		
Classification accuracy	57%		

Base category= Not credit rationed \* (\*\*) [\*\*\*] = Significant at 10% (5%) and [1%]

### Effect of lender structures on credit rationing of SMMEs

With reference to the types of lending technologies used, financial statements lending is the reference category, with a base odds ratio of one. The odds ratio for each of other types of lending technologies are compared against this reference category. The



credit rationing of SMMEs is reduced by 87% when financed using asset based lending, compared to SMMEs financed via a financial statements lending. Similarly the credit rationing is reduced by 94% when venture capital lending is used, and by 98% when asset finance lending is used, compared to the case when financial statements lending funds SMMEs. This places asset-based lending, venture capital lending and asset finance lending technologies as better ways of financing SMMEs than using financial statements lending.

The lending technology variable was interacted with race (Model 2). The results show that amongst Whites themselves, there is a 9% less credit rationing when asset-based lending is used, 77% less credit rationing when venture capital lending is used and 89% less credit rationing when asset finance is used, than when financial statement lending is used. The same applies when other ethnical groups are considered, for example 36% less credit rationing is observed amongst the Indians when asset based lending is used, and 59% less credit rationing is experienced amongst Coloureds using asset financing than when financial statements lending is used. The results indicate that while lending technology affects credit rationing of firms, race enhances the effect of a lending technology used in the case of lending to SMMEs. Therefore, a pro-SMME policy must focus on advancing particular types of lending technologies, in this case asset-based lending, venture capital lending and asset finance lending technologies as channels for SMME funding, but must also capture race in funds allocation to firms.

In the case of types of financial institutions, commercial banks are a reference category. In this case, credit rationing of SMMEs is reduced by 50% when SMMEs are financed by government-owned development financial institutions, than when financed by commercial banks. However, credit rationing is reduced by 7% when financed by private-owned development financial institutions. When SMMEs are financed by microfinance institutions, credit rationing is only reduced by 4% compared to those financed by commercial banks. The findings place government-owned development financial institutions as better in terms of averting credit rationing of SMMEs.

### **Effects of SMME firm structures on credit rationing of SMMEs**

The firm's structures considered are the ethnicity of owners, type of ownership structure, and size of firm. In terms of the ethnicity of owners of SMMEs, the Black ethnicity group is the reference category. These results are also shown in Model (2).

The credit rationing of SMMEs is increased by 2.33 times for Black owned SMME firms, compared to those that are White-owned. Similarly, credit rationing increases by 1.89 times for firms owned by Blacks, compared to those owned by Indian people, while credit rationing still increases by 1.52 times for Black owned enterprises when paralleled against Coloured-owned businesses. Even though the results for the last two categories are not significant ( $p=0.380$  and  $p=0.601$ , respectively), the overall picture is that there still exists high levels of inequality in access to funding for firms owned by individuals in different ethnicity groups in South Africa, particularly against Black small business owners. It appears that notwithstanding the efforts by the government of South Africa to correct economic inequalities among the different population groups in South Africa, through measures such as the Black Economic Empowerment (BEE) policy, inequality still exists, particularly in the area of access to finance.

With regards to the type of ownership structure of the SMME, the male-owned SMMEs were selected as the reference category. In this case, the results as shown in Model (2) indicate that female-owned businesses are 1.69 times more credit rationed compared to male-owned businesses. Similarly, partnership-owned small businesses are 2.05 times more credit rationed compared to male-owned businesses. To the contrary, family-owned small businesses are 65% less likely to be credit rationed compared to male-owned businesses. The partnership-owned and female-owned businesses were mostly affected by lack of access to credit while family-owned businesses have better access. The reasons for this outcome is that financial institutions viewed family-owned businesses as having better succession plans firmly rooted from the family bond than partnership-owned or any other form of individually-owned businesses.

To probe the effect of ownership structure on credit rationing of firms, credit rationing was split into three categories: either directly denied loan, quantity rationed or priced rationed firms. These results are shown in model (3). Male-owned businesses were 62% less likely to be subjected to a straight denial, 64% less likely to be quantity rationed and 5% less likely to be price rationed compared to partnership-owned businesses. While female-owned firms were also 62% less likely to be experience straight denial, but were only 57% less likely to be quantity rationed and 27% less likely to face price rationing compared to partnership-owned businesses. However,

family-owned businesses were 85% less likely to be denied loan, 84% less likely to be quantity rationed and also 86% less likely to be priced rationed compared to partnership firms. The results further affirm that individually-owned businesses (either male-owned or female-owned) suffer more of any form of credit rationing compared to family and partnership-owned businesses.

Lastly, with respect to firm size, micro-sized firms were the base category. As shown in model (2), very small-sized firms were 2.33 times more credit rationed compared to micro-sized businesses. However, small-sized businesses were 21% less likely to be credit rationed compared to micro-sized businesses. Likewise, medium-sized firms were 55% less likely to be credit rationed compared to micro-sized firms.

To get more insight on the effect of firm size, firm size was interacted with types of lending technologies. The results are shown in model (2). The results show that amongst the very small-sized firms, 1.28 times more credit rationing is observed when asset-based lending is used than when financial statement lending is used, but there is no significant difference amongst medium-sized firms. However, as firm size increases, credit rationing is reduced when either asset-based lending or asset finance is used amongst both the small-sized and medium-sized firms. This means that firms' sizes enhance credit rationing of different types of lending technologies used to fund SMMEs. Therefore, the smaller the firms the more credit rationed they suffer with reference to the type of lending technology used, which becomes less as firm size increases.

To further understand the effect of firm size on credit rationing of firms, credit rationing was split into its three alternate measures: either directly denied loan, quantity rationed or priced rationed firms. These results are shown in model (3). In this instance, very small-sized firms are 15.7 more times likely to be subjected to a straight denial, 3.61 times likely to be quantity rationed and 2.79 price rationed. Micro-sized firms are 5.45 times more likely to experience straight denial, 2.11 times price rationed and 2.10 quantity rationed. As for small firms, they are 6.14 times more likely to face straight denial, 1.31 times priced rationed and 1.18 times quantity rationed. The results indicate that firm size also segregates firms by the type of credit rationing. As firm size increases, firms migrate from punitive conditions of crediting rationing to less punitive conditions of credit rationing. In this case, very small firms face more straight denial,

but firms become more price rationed at middle size, and only being subjected to more quantity rationing as they move into medium-sized firms.

The firm size variable was also interacted with owner type. The results are shown in model (4). The results show that family-owned businesses that are micro-sized are 2.22 times straight denied credit, 63% less quantity rationed and 19% less price rationed. While, family-owned businesses that are small-sized are 2.31 times straight denied credit, 1.97 times quantity rationed and 1.51 times price rationed. However, family-owned businesses that are medium sized are only 1.84 times straight denied credit, 1.61 times quantity rationed but 2.97 times price rationed. The results further show that partnership-owned businesses that are micro-sized are 39.6 times straight denied credit, 6.67 times quantity rationed and 2.61 times price rationed. While, partnership-owned businesses that are very small-sized are 29.4 times straight denied credit, 6.67 times quantity rationed and 2.92 times price rationed. However, partnership-owned businesses that are medium sized are only 11.4 times straight denied credit, 3.89 times quantity rationed but 3.03 times price rationed. In both family-owned and partnership-owned businesses firm size has the similar effect. In both cases, as firm size increases, firms face less straight credit denial but experiences more increases in price rationing with moderate changes in quantity rationing. Therefore, firm-size transforms the type of credit rationing faced each type of firm ownership structure from severe direct credit denial to price rationing as firm size increases.

## **CONCLUSION**

The results indicate that there were credit rationing variations of SMMEs based on both lender and firm structures. These results therefore postulate two policy implications. One ties the types of lending technologies to the respective types of funding institutions in order to minimise credit rationing and accelerate credit access. The other proposes the use of firm structures to influence fund allocation based on observed credit rationing constraints in different firm structures, notable among ethnicity groups, owner structure type and firm size.

The government-owned development financial institutions and microfinance institutions are more effective in reducing credit rationing when used as vehicles for

funding SMMEs. Similarly, when financial institutions use asset-based lending, venture capital lending and asset finance lending technologies, the outcome is associated with less credit rationing of SMME than when financial statements lending technology is used. Therefore, to minimise overall credit rationing of SMMEs, there is a need to put policy measures in place that match financial institutions with proportionately lower amounts of credit rationing with the adoption of lending technologies that also proportionately reduces the credit rationing risks for SMMEs.

The results on firm structures indicate there is also a case for credit rationing variations of SMMEs based on different ethnicity groups of owners, types of ownership structure of the business and different sizes of businesses. The businesses owned by Blacks are more credit rationed compared to those owned by other ethnicity groups. The Coloured and the Indian-owned businesses are also more credit rationed than White-owned businesses. However, the gap of the level of credit rationing between these other three ethnic groups and that of the Blacks is very wide, making blacks the most credit rationed group. In terms of the ownership structure of the business, small businesses owned in partnership and female owners are the most affected by credit rationing, while those either owned by males or families are less affected. Finally, the results also observe credit rationing increases as the size of the business becomes smaller.

However, interactions between the type of lending technologies and race exacerbates the extent of credit rationing within groups and, therefore, race becomes an important determinant factor in funds allocation. Similarly, interactions between type of ownership structure and firm size show that within each owner type, credit rationing changes from outright rejection to price rationing as firm size increases.

These variations in credit rationing, both in terms of financial institutions and firm structures, are matters that are of concern to the government. To that end, appropriate policy responses need to be formulated to advance credit access to SMMEs, especially given their contributory role in the economy. To do that, the types of lending technologies should be tied to specific types of financial institutions in order to accelerate funding to SMMEs. Similarly, firm characteristics, such as firm size, type of ownership structure and ethnic groups of owners, must be used to identify distinguished sectorial units for the purposes of fund allocation by funding institutions and the government based on proportional risk of the level of credit rationing assumed

by each sectorial unit. This must be particularly enforced especially in areas where there are government supported funding initiatives.

## Appendix A: Variables definition

Variable	Definition of variables
CR-B	A proxy for 'CREDIT RATIONING' of a firm and is a binary variable. If a firm's response to any of the three question numbers 13, 14 and 15 in the Questionnaire (i.e. once denied a loan, offered lower amount than originally applied for or offered a loan at a higher rate than market rate) in the year 2016 is a 'YES', then the firm is credit rationed and denoted 1 and 0 when all of the responses are a 'NO'.
CR-AC	A proxy for 'ALTERNATIVE CREDIT RATIONING' measure of a firm and has three levels based on the firm's response on the particular type of credit rationing they experienced, which is categorised as 1 if they faced a straight credit denial, 2 if quantity rationed and 3 if price rationed and 0 if none apply.
LT TYPE	A proxy for the TYPE OF LENDING TECHNOLOGY used to fund a firm which is a nominal variable. Deduced from a question available in the Survey Questionnaire: 'In your view, does your bank uses the following criteria in granting loans to you?'. In answering this question a firm is required to give a 'Yes' or 'No' response to each of the suggested lending technology concepts applicable to funding types in South Africa. <ol style="list-style-type: none"> <li>1) Question numbers 16, 17, 18, 19, and 20 in the Survey Questionnaire relate to financial statement lending. If any of these concepts applied to the firm, then the firm is classified to have been funded using financial statement lending.</li> <li>2) Question numbers 21, 22, 23, 24 and 26 in the Survey Questionnaire relate to asset based lending concepts. If any of these concepts applied to the firm, in addition to any of the above, then the firm is classified to have been funded using asset based lending.</li> <li>3) Question numbers 27 and 28 in the Survey Questionnaire relate to venture capital lending concepts. If these concepts applied to the firm, in addition to any of the above, then the firm is classified to have been funded using venture capital lending.</li> <li>4) Question numbers 29, 30, 31, 32 and 33 in the Survey Questionnaire relate to asset finance lending concepts. If any of these concepts applied to the firm, in addition to any of the above, then the firm is classified to have been funded using asset finance lending.</li> </ol>
FI Type	A proxy for the TYPE OF FINANCIAL INSTITUTION that funded the firm is a nominal variable. The firm was asked to name the financial institution that funded the business in the year 2016, which was then classified into one of the four groups of financial institutions operating in the Eastern Cape Province; commercial banks, government development financial institutions, private development financial institutions and microfinance institutions.
Firm Size	A proxy for the SIZE OF THE FIRM is a nominal variable. Deduced from the information about the firm using number of employees, asset value and annual revenue of a firm. These details were used to classify firms into micro, very small, small and medium sized firms in line with the National Small Business Act of 2004 classifications.
Owner Type	A proxy for the TYPE OF OWNERSHIP STRUCTURE of the SMME is a nominal variable. Deduced from information provided about who owns the firm and these were classified into male-owned, female-owned, family-owned and partnership-owned businesses.
Eth Group	A proxy for the ETHNIC GROUP of the owner or majority of owners of the firm belong/s and this is also a nominal variable. Deduced from information provided about who owns the firm and these were classified into Black, White, Indians and Coloureds in line with the major ethnicity groups in South Africa.

## Appendix B: Descriptive statistics on credit rationing of SMMEs

<b>Sector of SMME firm</b>	<b>Rationed</b>	<b>Not Rationed</b>	<b>Total</b>
Agriculture, forestry and fishing	43%	57%	100%
Professional business services and consulting	54%	46%	100%
Construction and engineering	67%	33%	100%
Manufacturing	65%	35%	100%
Retailing and wholesaling	50%	50%	100%
Service providers	44%	56%	100%
Information technology	63%	37%	100%
Motor industry	50%	50%	100%
		100%	100%
<b>Ethnicity of SMME owner</b>			
Black	44%	56%	100%
White	59%	41%	100%
Indian	50%	50%	100%
Coloured	70%	30%	100%
Other	83%	17%	100%
<b>SMME ownership structure type</b>			
Male owned	55%	45%	100%
Female owned	48%	52%	100%
Family owned	70%	30%	100%
Partnership owned	38%	62%	100%
<b>Size of SMME firm</b>			
Micro firms	55%	45%	100%
Very small firms	38%	62%	100%
Small firms	53%	47%	100%
Medium firms	71%	29%	100%
<b>Type of lending institutions to SMME</b>			
Commercial bank	49%	51%	100%
Government-owned development financial institution	59%	41%	100%
Private-owned development financial institution	79%	21%	100%
Microfinance institution	53%	47%	100%
<b>Type of lending technology used to fund SMME</b>			
Financial statement lending technology	19%	81%	100%
Asset based lending technology	54%	46%	100%
Venture capital lending technology	79%	21%	100%
Asset finance lending technology	86%	14%	100%
No lending	100%		100%
<b>Total</b>	<b>53%</b>	<b>47%</b>	<b>100%</b>

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**EFFECTS OF PERCEIVED PSYCHOLOGICAL CONTRACT BREACH  
ON JOB INVOLVEMENT AND CITIZENSHIP BEHAVIOUR AMONG  
ACADEMIC EMPLOYEES IN A TVET INSTITUTION**

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**ABSTRACT**

The aim of this paper was to establish how academic employees in a Technical, Vocational Education and Training (TVET) college perceive the effects of psychological contract breach in relations to job involvement and citizenship behaviour. Generally, researchers believe that psychological contract breach has serious consequences for employees and the organisation. These consequences may include decreased levels of trust, cynical attitudes, reduced psychological well-being, job dissatisfaction, reduced organisational commitment, turnover intentions, lowered organisational citizenship behaviours and employee performance. A quantitative exploratory research design was used to share the participants' perceptions about their work environment, and the extent to which the psychological contract has been breached. A survey instrument was used to collect data from 170 academic employees from uMfolozi TVET College. The SPSS software was used in the analysis of data. The findings confirm a significant ( $P$ -value .006) relationship between psychological contract breach and job involvement. There was a strong indication that indeed psychological contract breach has an effect on job involvement in general. The paper further discovered that academic employees at uMfolozi TVET College reported a stable psychological contract which resulted in signs of involved individuals. The findings also revealed that there is a relationship between psychological contract breach and organisational citizenship behaviour, however, it is not significant since the  $P$ -value was .119 in the regression analysis. These results could be attributed to the fact that the respondents did not significantly report perceived psychological contract breach which better explains the relationship between variables. Significantly the paper established that the respondents (academics employees) at uMfolozi TVET

College have a stable employer-employee relationship, in that there is minimal psychological contract breach. Thus, it is recommended that the TVET college should develop an annual review of the employment relationship to assess the feelings of academic employees in relation to psychological contract. Ultimately, the success of any organisation is in the way it treats its employees and the way in which the employees feel comfortable to make significant contributions even beyond the scope of employment.

**Keywords:** Citizenship behaviour, Job involvement, Psychological contract breach.

## **INTRODUCTION**

The Department of Higher Education in South Africa has worked tirelessly to transform higher education institutions with an aim to enable them to provide quality and relevant education. The transformation initiatives have been concentrated largely on the Technical, Vocational, Education and Training (TVET) colleges due to their strategic role, as outlined in the White Paper on Higher Education (2013), which is to train and equip young people with the skills that will maximise their employability in the labour market. Ogude, Nel and Oosthuizen (2005) opined that if the TVET transformation is done earnestly, TVET colleges would most likely respond effectively and efficiently to global challenges. Buthelezi (2018) noted that chief among the changes that have taken place during the transformation of the TVET sector was the employment of staff, particularly academic employees.

Initially, the employment structure of academic employees was divided into two: certain academics were employed by the Department of Higher Education and Training, while others were employed under the council of the TVET colleges. The department has since reintegrated all employees who were employed by the council into mainstream employment in its personnel. Buthelezi (2018) argued that the lack of capable human resources to facilitate policy implementation has affected the lecturers negatively. This gives credence for an investigation that would seek to establish the extent to which TVET lecturers have been affected by the changes within their work environment.

In every higher education institution, academic employees are the main drivers of its core business which is teaching and learning. In order to achieve quality education,

the academics' work performance should be stable and consistent, and this depends largely on the manner in which academic perceives the psychological contract breach in their work environment. The psychological contract plays a vital role in terms of employee perceptions of the organisation, as well as job performance. Furthermore, previous studies have found that psychological contract affects workers' attitude, behaviour and work commitment in the workplace, especially when breached (Bal & Vink, 2011). Basically, a study of psychological contract creates an opportunity to predict employee behaviour, and this could, in turn, help managers to effectively and efficiently plan and manage employee perceptions (Agarwal & Bhargava, 2013). This paper investigated the extent to which TVET academic employees perceive the psychological contract breach, and its effect on job involvement, and citizenship behaviour.

## **LITERATURE REVIEW**

### **TVET sector transformation**

The advent of democracy resulted in many changes in South Africa's higher education transformation. Due to the legacy of the apartheid system in education, establishing policies and legislation to transform the higher education environment were inevitable. Singh (2011) stated that the closure of some colleges, the clustering of Further Education and Training colleges, and merging of universities with others, are just examples of the transformation that has been in the higher education. Despite the success in some transformation endeavours in the higher education, there is a consensus that suggests that the TVET college sector is still not meeting the needs of the community and society (Strydom, Mentz & Kuh, 2010). There is a plethora of issues that affect the TVET college sector, including meeting its obligations, and this paper focuses on academic employees who are also the main source for the functioning of the college sector.

The core function of any higher education institution is usually driven by the academics. The inability of the TVET sector to meet its obligations might be attributed to the lecturers' poor performance, however, it is also essential to establish the nature of their work environment as well. Achieving quality education requires that the academics' performance is stable and consistent, and this depends on the manner in

which academics perceive the psychological contract breach in their work environment. For academics to produce quality output, the TVET college as an employer should not be seen to have breached the psychological contract, which are the beliefs usually held by individuals concerning the terms of the employment agreement (Kraft, 2008). The circumstances surrounding the TVET sector transformation might have affected the manner in which academics perceive their work environment and perhaps changed the manner to which they exert themselves in the workplace.

The effects of higher education transformation on employees have been reported by various researchers, for example, van den Berg, Manias and Burger (2008) investigated the influence of job-related factors on work engagement of staff at the University of the Free State. Their study reported that the university staff experienced certain job-related stressors, such as workload, poor remuneration, increased home-work interference and insufficient physical resources. The study concluded that academic employees in the university experienced certain work-related challenges as a consequence of organisational changes in the university.

Wyngaard and Kapp (2004) focused on colleges of education in the Western Cape province where mergers were implemented between various colleges. The study established that there were mixed feelings from the college employees regarding the implementation of college merges. However, more significantly was the discovery that merges had had a predominantly negative impact on the staff morale. The impact of merges contributed to the staff developing negative attitudes, staff resignations, feeling of uncertainty, lowering of loyalty and accountability. Pienaar and Bester (2009) cited that changes in higher education have made an impact on high-stress levels on academics in various ways. These factors are viewed by these researchers as obstacles to the careers of academics and might have severe career damage on academics. Hassan (2011) noted that few academics have *not* been affected by the impact of educational transformation within the higher education landscape.

### **Psychological contract and psychological contract breach**

The first person to coin the concept 'psychological contract' is Argyris (1960), and the rationale for this concept was based on the writing of Bernard (1938) and March and Simon (1958). The essence in the conception of the psychological contract is the



relationship between the employer and employee expectations of their relationship. The employment relationship is premised on values, aspirations, obligations, and expectations that function over and above the formal contract (Argyris, 1960). Prior to the conception of the psychological contract, Bernard (1938) had posited a theory of equilibrium on the premise that employees constant contribution relies on the sufficiency of appraisals from the organisation. In this theory laid the idea of reciprocal exchange, which is fundamental to the employee-employer relationship (Coyle-Shapiro & Parzefall, 2008). In elaborating this theory, March and Simon (1958) made some contribution to the psychological contract. In their writing, they argued that for employees to be satisfied, the difference between the enticement provided by the employer and the contributions which are expected in return should be marginal. In their contribution, March and Simon (1958) indicated that from the worker's viewpoint, the contributions by the employees has to be adequate in order to produce incentive from the organisation, in return, the organisations incentive need to be enticing to a point where it draws employee's contribution.

Coyle-Shapiro and Pazerfall (2008) argued that the contribution of March and Simon (1958) is often neglected in psychological contract literature, nevertheless, the idea of a reciprocal exchange bears a remarkable similarity to the core tenet of the psychological contract. This form of contract is not written wherein the employer and employee reach agreements. Argyris (1960) stated that instead it is a contract emerging from an implicit understanding of a group of employees and their immediate supervisor. Argyris further stated that the employer-employee relationship could help develop in such a way that employees would exchange higher productivity and lower grievances in return for an acceptable salary and job security (Argyris, 1960). The assumption behind Argyris assertion that employees are likely to excel in the organisation does not interfere much with the employee group norms. In return, the employees respond positively by respecting the right of the organisation to progress.

Essentially the premise of psychological contract existence is on the promises, there is evidence which suggests that even such promises are in two ways. Ejimonyeabala (2014) explored the literature in relation to psychological contract breach and revealed that promises are made by employees to the employers and vice versa. Among the promises that are sought by employers from the employees is loyalty, volunteering, give sufficient notice after accepting another offer, willingness to be transferred and

relocate, refuse to support the employer's competitors, work extra hours, and remaining with the organisation for a minimum number of years. In contrast, the promises that are sought by employees include job security, promotion, personal problems support, pay based on the level of performance, career development, and a reasonable salary. The promises involved in the creation of psychological contract can thus be divided into the two elements namely transactional and relational since it has been argued before that the psychological contract has these two elements anyway (Shen, 2010).

According to Shen (2010), the transactional elements focus more on monetary exchanges for example salary, working hours, employment time frame. The relational elements are less about monetary items instead they focus on job security, career development, interpersonal relations, autonomy, and support. The number of sub-elements that are involved in the psychological contract makes it complicated and these elements depend on the nature of the work environment as well as the organisations. Due to the complexity and dynamic nature of the psychological contract, it is believed that the concept of a general psychological contract should be modified when applied to a particular sector to reflect its characteristics.

In the world work, it is improbable for employers to jot down all the benefits and actions that the employer would fulfil when an employee has performed the prescribed duties consequently the psychological contract exists. The irony in this contract is that it is unwritten and thus it is subjective to how the individual perceives the employer. In this regard, Antonaki and Trivellas (2014) indicated that it is in the nature of social exchange that individuals search for fair and balanced exchange relationships. Upon establishing that an imbalance has taken place then they might attempt to restore it by even adopting negative attitudes and behaviours in order to reciprocate for the perceived unfairness, as predicted by the norm of reciprocity. This could be aligned with a biblical verse which refers to this exchange as 'eye for an eye'. Though this would take place at the expense of the organisational performance and this gives more authority to researchers to investigate employees' perceptions about their psychological contract.

In relation to social exchange and citizenship behaviour, Liu, Huang, Huang and Chen (2013) opined that employees especially those who show organisational citizen behaviour, they do so because employment to them is seen from the social exchange

relationship perspective. Therefore, when employees perceive the psychological contract breach, they will restrain their organizational citizenship behaviours and reduce their contributions to the organization. Organisations in general need extra contributions from the employees such as extra hours at work, taking extra responsibilities in order to support the objectives of the organisation.

A psychological contract breach occurs when there is a perceived breakdown of reciprocity with one of the parties failing to repay dues owed to the other party, then one party is likely to perceive a breach of the psychological contract and an imbalance in obligations (Payne, Culbertson, Lopez, Boswell & Barger, 2015). Thus, it can be assumed that a breach in the psychological contract is often caused by the imbalance between the employees' expectation and employer's fulfilment of the obligation. Payne *et al.* (2015) concurred and further stated there are other factors that lead to the imbalance in the employment relationship such as lack of fulfilment and the misunderstanding regarding the obligations. A common misconception about psychological contract breach has been the assumption that only employees could perceive psychological contract breach. Perceived breach lies in cognitive awareness while violation refers to 'emotional and affective state' resulting from one party's interpretation that the other 'has failed to adequately maintain the psychological contract.

More research discusses the psychological contract mainly from the employees' point of view thus neglecting the employers' perspective. This has been evident even in the psychological conceptual definition (Rousseau, 1989, Agarwal & Bhargava, 2013). Though this research has no intention to venture into that discussion yet, it is necessary to note that there are two parties in a psychological contract namely the employee as well as the employer and when there is a perceived failure to honour one's obligations, the views of two parties should be considered to provide a balanced view.

The employees' reactions to psychological contract breach range from attitudinal to behavioural (Ballou, 2013). Furthermore, these reactions may translate into different job outcomes that affect the overall wellness of the organization. Sharif, Wahab and Sarip (2017) argued that psychological contract breach is responsible for bad behavioural actions towards the employers. Thus reactions to a broken contract can be severe and ultimately cause detrimental workplace outcomes. Psychological

contract breach can lead to an emotional response. These often encompass negative emotional states like anger, disappointment or betrayal and can lead to worsened job performance, withdrawal and leaving the organization (Savarimuthu & Rachael, 2017). Unfortunately, breaches are a regular and normal occurrence at workplaces (Robinson, 1996).

### **Organisational citizenship behaviour**

Citizenship behaviour is one of the top researched behavioural job outcomes resulting from a psychological contract breach (Hess & Jepsen, 2009). Organisational citizenship behaviour is known as that discretionary and that self-imposed obligation to go beyond the formal role requirements (Mohanty & Rath, 2012). Organisational citizenship behaviour depends on the willingness of employees, in that way the behaviour in this context is likely to be stimulated by how the employee perceives the organisation and its management. This behaviour could play an important part in the academic environment by encouraging academics to use their discretion when responding to the needs of the students particularly those needs which are outside the conventional scope of employment (Cavanagh, Fisher, Francis & Gapp, 2012). However, Jafri (2012) noted that the breach of psychological contract affects employee organizational citizenship behaviour and this will result in the withdrawal of discretionary contribution. Fields (2002) categorised organisational citizenship behaviour as follows:

- **Altruism** refers to discretionary behaviour that is coordinated at helping other individuals with an organisationally pertinent assignment or issue, for example, taking a portion of the workloads of different representatives who have been truant.
- **Conscientiousness** refers to the discretionary behaviour that goes past the basic role requirements of the organisation, for example, not taking additional breaks and respecting the organisation's code of conduct consistently.
- **Sportsmanship** refers to discretionary behaviour that indicates the willingness of an employee to tolerate less than ideal circumstances without excessive complaining.

- **Courtesy** refers to behaviour that is aimed at avoiding the occurrence of work-related incidents, such as considering the impact of actions on other employees.
- **Civic virtue** refers to the behaviour by an employee which is discretionary in terms of demonstrating that the employee takes interest in the matters of the organisation and strive to keep up with the organisations' development.

### **Job involvement**

Another behaviour reaction that employees are likely to display when they are treated properly is job involvement. Job involvement is the degree to which individuals contribute to the job (Lawrence & Kacmar, 2012). Ueda (2012) indicated that usually, job involved employees grow an organisational personality of doing more for the organisation. Ueda continued and highlighted that high job involved individuals generally appear as satisfied with their jobs, they also display positive moods in the workplace and are always committed to the organisation, careers as well as their profession. In addition, these individuals believe that their personal and organisational goals are aligned. In support, Chen and Chiu (2009) also opined that employees who show the greater behaviour of job involvement are also likely to extend their self-respect through effective job performance display of organisational commendable behaviours.

In terms of the relationship between the perceived psychological contract breach and job involvement, the study by Min, Zhang, Restubog and Huang (2012) found that when a psychological contract is fulfilled, both employees and employers have fulfilled their obligations. In that case, the psychological needs and expectations of the workers are met, which in turn boost their sense of identity towards the job and increase their job involvement. However, inversely, when the psychological contract has not been fulfilled, the worker's personal needs and expectations are not adequately met, and this will result to work alienation and thereby reducing their job involvement.

### **Research hypothesis**

Employees whose psychological contracts have been breached respond in a number of ways. When psychological contracts are breached, there is a possibility that it can develop into full-blown violation (Pate, Martin & McGoldrick, 2003). Psychological

contracts may be breached because of differences of opinion with a superior, frustrations about assignments or tasks, and irritations because of the behaviour of co-workers. It could also be breached by unfulfilled promises which are often made to employees during the job entry level. The way in which employees deal with the circumstances which are perceived as a breach of the psychological contract has an important impact on how they view their organisation. Therefore, establishing the link between psychological contract breach and job involvement as reactionary behaviour as well as citizenship behaviour among academic employees at a TVET College is considered as paramount. Given that academics occupies a central role in producing skilled personnel for the country and their psychological contract perceptions would enable TVET College to improve the work environment. The study makes the following hypotheses:

- H<sub>1</sub>: There is a positive relationship between psychological contract breach and citizenship behaviour.
- H<sub>2</sub>: There is a positive relationship between psychological contract breach and job involvement.

## **RESEARCH METHODOLOGY**

An exploratory research design that is quantitative in nature was used to share the participant perceptions about their work environment and the extent to which psychological contract has been breached. A survey instrument was used in this study to gather the data. The population for the study consisted of the academic employees from uMfolozi TVET College. This college is located in the northern part of KwaZulu-Natal province of South Africa. A preferred sampling technique in this study was purposive which stems from the non-probability sampling strategy. Among the 220 questionnaires which were distributed, 170 were returned which indicates 77.2% response rate. The data analysis was done using computer statistical package, namely SPSS. Cronbach's alpha coefficients established the internal consistency and resultant reliability of the instruments used to collect data.

**Table. 1.1: Cronbach's coefficient alphas (N=170)**

<b>Measure</b>	<b>Cronbach's alpha</b>
Psychological contract breach	.66
Organisational citizenship behaviour	.59
Job involvement	.74

The Cronbach's alpha is a coefficient of reliability commonly used as a measure of reliability for a sample of respondents. The reliability of the summated scores calculated in the present study was determined by calculating Cronbach's coefficient alphas for all sections in the questionnaire. In Cronbach's coefficient alphas the threshold value of 0.7, which, according to Nunally (1978), is sufficient proof of the reliability of the applicable scale scores, whereas coefficient alphas above 0.5 can be regarded as acceptable for basic research. The latter applies to the present study, especially the psychological contract breach and citizenship behaviour instruments, whereas job involvement instrument can be regarded as reliable.

**Table 1.2: Respondents' demographic**

Demographic variable	Frequency	Percentage
<b>Gender</b>		
Male	69	41%
Female	101	59%
<b>Total</b>	<b>170</b>	<b>100%</b>
<b>Employment type</b>		
Contract	18	11%
Permanent	152	89%
<b>Total</b>	<b>170</b>	<b>100%</b>
<b>Post Level</b>		
Lecturer	150	88%
Senior Lecturer	20	12%
<b>Total</b>	<b>170</b>	<b>100%</b>
<b>How long have you been in your current position?</b>		
1 - 5 years	86	51%
6 - 10 years	72	42%
11 - 15	8	5%
16<	4	2%
<b>Total</b>	<b>170</b>	<b>100%</b>
<b>How long have you been with your current employer?</b>		
1 - 5 years	54	32%
6 - 10 years	64	37%
11 - 15	28	17%
16<	24	14%
<b>Total</b>	<b>170</b>	<b>100%</b>
<b>How long have you been lecturing?</b>		
1 - 5 years	57	34%
6 - 10 years	92	54%
11 - 15	14	8%
16<	7	4%
<b>Total</b>	<b>170</b>	<b>100%</b>

The gender distribution reflects a normal trend, where females are a majority (59%), whereas the males are less (41%). The employment type distribution shows that about 89% of the academic employees at uMfolozi TVET College are permanently

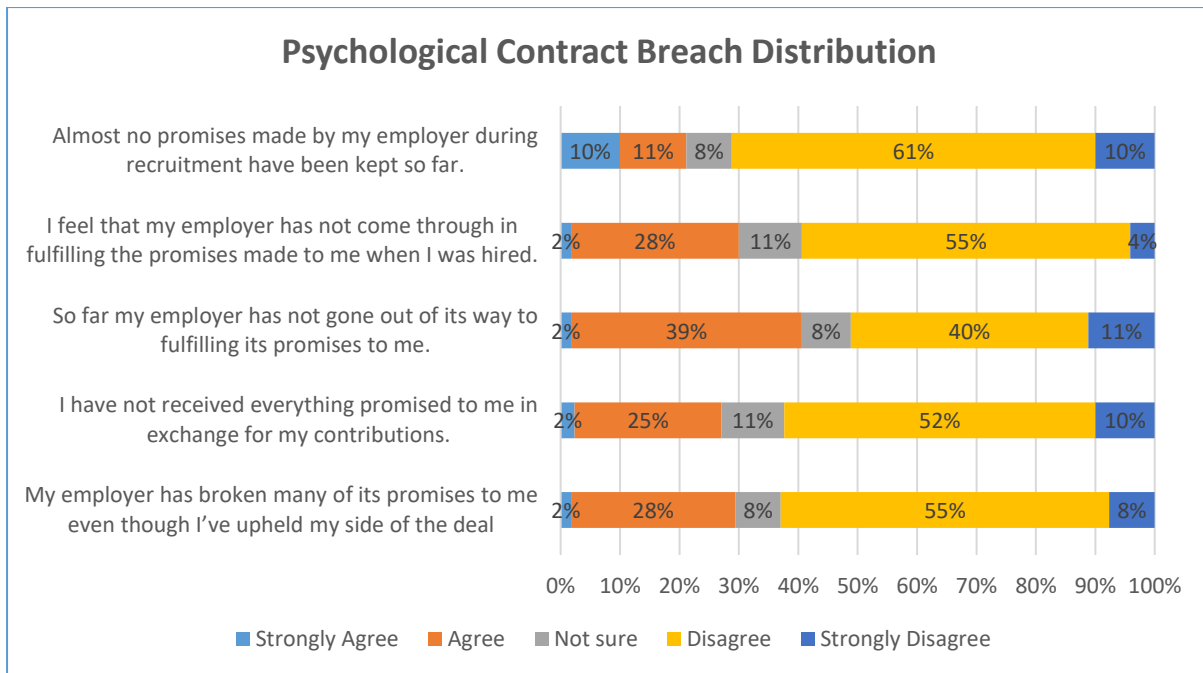


employed, and this variable also used in the data analysis as it is tested against the psychological contract breach. The majority (88%) of the academics, especially those who participated in the study, are lecturers. It was established during the data collection that senior lecturers' positions are mainly a supervisory role. The period that most (51%) of the academics have spent in the current positions is between 1-5 years, which indicates that more academics have recently joined the academic fraternity. Whereas, about 42% of the academics have been in the current position for a period of 6-10 years. There seems to be a rotation phenomenon of employees at uMfolozi TVET. The distribution of frequencies on the period that academics have been spent with the current employer is evenly spread. This suggests that some of the academics began to work for the college in different occupations. Most (54%) of the academics have been lecturing.

## **FINDINGS**

### **Psychological contract breach**

With regards to psychological contract breach, Figure 1.1 shows a summary of the items and responses related to the breach. Respondents for most of the items seem to favour the employer except that on item three were respondents are evenly balanced. In item three, about 41% of the respondents feel that their employer has not gone out of its way to fulfilling its promises to them, but the other 51% disagree with this statement. The overall reading of Figure 1.1 is that there has been a fairly balanced psychological contract between the respondents and their employer. This indicates that the employer has been fulfilling most of its obligation to its employees. While there seems to be a stable psychological contract between the respondents and the employer, some of the respondents did indicate that the employer has broken some promises.



**Figure 1.1: Psychological contract breach (n=170)**

To summarise this section, it is clear that psychological contract breach has been reported by fewer respondents. It is interesting to note that the majority of the respondents felt that the promises that were made to them during the recruitment have been fulfilled by the employer. The only key aspect which seemed to be a notable concern for the respondents was that the employer is not going out of its way to fulfilling its promises. These results affirm the literature in that employees have certain promises which they expect their employers to fulfil in the course of employment. Agarwal and Bhargava (2013) affirmed that it is the nature of the psychological contract that employees may feel entitled to receive the promises that have been conveyed by the employer. The literature further revealed that promises are usually made by employers during the interview period where the recruiters portray the employer in positive and favourable terms (Rousseau, 1989). In the social exchange theory, the results of this study support this theory in terms of employees being aware of the promises that were made to them. In that light, the Social Exchange Theory indicates that the relationship of reciprocation will ensue (Cyle-Shapiro & Parzefall, 2008).

**Table 1.1: Chi-square analysis**

Minimum was achieved
Chi-square = 11.007
Degrees of freedom = 1
Probability level = .001

**Table 1.2: Regression weights: (Group number 1 - Default model)**

	<b>Estimate</b>	<b>S.E.</b>	<b>C.R.</b>	<b>P</b>	<b>Label</b>
DV1 <--- IDV	.037	.024	1.558	.119	par_1
DV2 <--- IDV	.140	.051	2.733	.006	par_2

In Table 1.4., IDV denotes independent variable, which is psychological contract breach; DV1 denotes dependent variable 1, in this case, it is organisational citizenship behaviour; and DV2 denotes dependent variable 2 which is job involvement. It can be observed from the above table that there is a relationship between the independent variable and dependent variable.

**H<sub>1</sub>: There is a positive relationship between psychological contract breach and organisational citizenship behaviour**

The results shown in Table 1.4 reveal that there is a relationship between psychological contract breach and organisational citizenship behaviour, however, it is not significant since the *P*-value is .119 in the regression analysis. Therefore, the hypothesis of this study is rejected and the alternative hypothesis is accepted that there is a relationship between psychological contract breach and organisational citizenship behaviour. This result could be attributed to the fact that in this study the respondents did not significantly report perceived psychological contract breach, which could have better explained the relationship between variables. Perhaps in the event that academic employees report psychological contract breach in their respective work environment, the withdrawal of organisational citizenship behaviour could be expected. Thus, it can be concluded that a stable psychological contract would lead to employees engaging in citizenship behaviour unlike when the

psychological contract is seen to have been breached as previous research has reported

## **H<sub>2</sub>: There is a positive relationship between psychological contract breach and job involvement**

Hypothesis two is supported. A relationship was established as it is shown in Table 1.4, that P-values are less than 0.05 suggests that there is a relationship between psychological contract breach and job involvement. Furthermore, the results in Table 1.4 show that there is a significant relationship between psychological contract breach and job involvement, with P-value at .006. Therefore, it can be concluded that there is a positive relationship between psychological contract breach and job involvement. The results of this particular variable add to the existing literature since it has become evident that psychological contract is a dynamic phenomenon, and as other researchers have found, there is a negative correlation between psychological contract and job involvement (Chang & Lin, 2014). The current results found a positive correlation. Notable is the majority of the respondents in the current study who reported a stable psychological contract.

A study by Chang and Lin (2014) found a negative correlation between psychological contract and job involvement. The negative relationship was attributed to the changes which companies face from time to time, such as mergers, and especially when employees feel when the psychological contract was breached in the process. Contrary to the current study, though TVET colleges have been going through strategic transformation, academic employees still perceive their psychological contract as stable, since the college has committed to most of its promises. In the midst of changes, some TVET colleges were able to protect employment relationships with its academic personnel, hence employees feel indebted to reciprocate by being involved in their job. The stability of a relationship can thus be attributed to the fairness of the employer. In this case, it can be assumed that a negative relationship between psychological contract and job involvement is likely to exist when the breach is alleged to have occurred.

The results further revealed that 61% of the respondents reported that they have received almost everything promised to them by the employer. The results also showed that 41% felt that the employer has not gone out of its way to honour the

promises made to them. This number is significant indeed. There is an indication that while the employer strives to appease its employees by honouring promises, there is a considerable number of people who are not entirely convinced by the actions of the employer. Min *et al.*, (2012) found that when a psychological contract is fulfilled, both employees and employers have fulfilled their obligations, and this would result into a stable employment relationship. On the contrary, a psychological contract breach occurs when there is a perceived breakdown of reciprocity with one of the parties failing to repay dues owed to the other party, then one party is likely to perceive a breach of the psychological contract and an imbalance in obligations (Payne *et al.*, 2015). The study by Payne and his colleagues affirms the assumption that the psychological contract breach can be triggered by unfulfilled promises.

## **DISCUSSIONS**

The results of the study affirm the positive relationship between psychological contract breach and job involvement. Therefore, it can be assumed that the perceived psychological contract breach is likely to have an effect on job involvement among academic employees at uMfolozi TVET College. The effect of psychological contract breach on job involvement is such that when the expectations of both the employer and employee are met, employees would identify with the organisation. Ueda (2012) stated that, usually, the job involved employees develop an organisational personality to do more for the organisation, unlike when there is a psychological contract breach, where employees become withdrawn to the point of contemplating the intention to leave. Min *et al.*, (2012) found that the breach of psychological contract resulted in work alienation and employees reducing their job involvement.

Since the psychological contract is premised on reciprocity practice and that a stable relationship was reported in this study, it is conceivable for academics to respond positively towards their employer. Upon establishing that an imbalance has taken place then they might attempt to restore it by even adopting negative attitudes and behaviours in order to reciprocate for the perceived unfairness, as predicted by the norm of reciprocity. The reciprocation of benefits enhances trustworthiness which in turn facilitates the ongoing conferring of benefits and discharging of obligations over the long term.

The results of the study indicate that there is a relationship between psychological contract breach and citizenship behaviour, however, it was found not to be significant. In case of this study, it can be assumed that psychological contract breach is likely not to have an effect on citizenship behaviour of academic employees at uMfolozi TVET College. The academic employees at uMfolozi TVET College have not experienced constant psychological contract breach.

Liu *et al.*, (2013) opined that employees, who show organisational citizen behaviour do so because employment to them is seen from the social exchange relationship perspective. Therefore, when the psychological contract is perceived to have been breached, employees will restrain their organizational citizenship behaviours and reduce their contributions to the organization. In the study, the results show that more employees are engaged in various forms of citizenship behaviour in terms of altruism, conscientiousness, sportsmanship, courtesy and civic virtue.

The majority of respondents indicated that they will help other employees who have work-related problems (93%). For conscientiousness, the majority of the sample does not take extra breaks at work (92%) and believe in giving an 'honest day's work for an honest day's pay' (93%). The results indicated that respondents seem to engage in discretionary behaviour that goes further than the minimum role requirements of the organisation. With regards to courtesy, the results indicated that employees are courteous and try to prevent possible conflict escalation and interpersonal conflict at work. Most respondents (82%) indicated that they are mindful of how their behaviour affects other employees' jobs, actively take steps to prevent problems for other employees (100%), and try to avoid creating problems for co-workers (100%). In terms of civic, the results showed that employees engage in civic activities and 95% of the respondents indicated that they read and keep up with the organisation's announcements and memos. Furthermore, 57% also indicated that they attend functions, even those which they are not required to attend.

## **RECOMMENDATIONS**

The results of the study indicated that the respondents at uMfolozi TVET College have a stable employer-employee relationship in that there is minimal psychological contract breach. In that light the following recommendations are made:

- The TVET College should develop an annual review of the employment relationship to assess the feelings of academic employees in relation to the psychological contract.
- The promises that are made implicitly to employees during recruitment should be fulfilled for the sake of encouraging employees to make extra contributions towards their jobs. It was evident in this study that academics, in particular, pay attention to promises.
- In order to foster healthy relationships with employees, the TVET college should ensure that they:
  - Provide enough disclosure about where employees stand with the organisation (keep the communication open),
  - Provide empathy so that employees can connect emotionally with the organisation;
  - Provide recognition and admiration for employees' skills and personal qualities.

## **CONCLUSION**

The success of any organisation is in the way it treats its employees, and the way in which the employees feel comfortable to make significant contributions, even beyond the scope of employment. Although the higher institutions, such as TVET colleges, have gone through a major transformation, in the case of uMfolozi TVET College, it has not breached the psychological contract of academics. The academics reported that the college has kept the promises that were made to the employees, even though a few of the academics reported some that the promises made to them were not kept. It is important for the college to stay abreast about the issues that affect academics in the work environment.

In this study, a psychological contract is seen as a central unwritten document which determines the stability of the employer-employee relationship. It is so due to its nature, from which when it is perceived to be breached, one party in the employment relationship, particularly the employees, can engage in destructive behaviours. There is sufficient evidence on the factors that trigger the psychological contract, and those factors include, among others, the promises which are often made to employees. The

promises may not necessarily be explicit, however, in one way or the other, during the recruitment process employers tend to make promises. It is such promises which employees hold employers to, and the failure of the employer to honour the obligation, may result in attitudinal and behaviour reactions. Part of the reactions is less job involvement and employees who are not committed to citizenship behaviour. Although such behaviour is voluntary in nature, a perceived psychological contract would lead to employees' withdrawal and organisational performance would also be adversely affected.

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**M. Motha and Dr T. E. Nenzhelele**  
**THE EXISTENCE AND EFFECTIVENESS OF YOUTH**  
**ENTREPRENEURSHIP ENABLING INCENTIVES IN**  
**JOHANNESBURG SOUTH AFRICA**

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**ABSTRACT**

Youth unemployment is a major challenge throughout the world and international institutions and governments are promoting youth entrepreneurship as a key solution for unemployment and economic growth. Governments around the world have put youth entrepreneurship on top of the economic development agenda. The government of South African has policies and institutions that promote the youth to develop small businesses and youth entrepreneurship, namely the National Youth Development Agency (NYDA), National Skill Development Strategy (NSDS), Small Enterprise Development Agency (SEDA), Small Enterprise Finance Agency (SEFA) and Gauteng Enterprise Propeller (GEP). Despite all these measures, there is a still a low number of young people who start-up businesses and becoming entrepreneurs. Hence this study aimed to determine the effectiveness of the incentives for youth entrepreneurship in Johannesburg. The study was quantitative in nature and a self-administered questionnaire was used to collect data from young people between the ages of 17 and 35 years. The empirical findings indicate that there is lack of awareness amongst young people about government agencies that provide entrepreneurial support and funding. Moreover, the government agencies' objectives and outcomes are not in line with young people' expectations. Thus, there is a need for government to raise awareness of entrepreneurial services and the agencies available for to assist young potential entrepreneurs. Government should encourage young people to take up entrepreneurship education and training in order to increase entrepreneurial activities.

**Keywords:** Entrepreneurship education, Entrepreneurial support, Government entrepreneurship agencies, Youth unemployment; Youth entrepreneurship.

## **INTRODUCTION**

Youth unemployment is one of the most pressing socio-economic problems around developed and developing countries. Africa in particular, has the world's highest unemployment youth population growth (International Labour Organisation, 2016:25). Perhaps this is because young people in African countries come from vulnerable backgrounds, such as low-income household, rural areas, poor families, and some have no or little formal education (Durowaiye, 2017:29).

South Africa, as an emerging market, is faced with a massive challenge of high levels of youth unemployment. According to Statistics South Africa Labour Force Survey (2017:10), more than three million, or 32.2% of South African youth between the aged of 15 to 24 years, were not in employment, education or training institutions. The data also show that there has been an increase in discouraged work-seekers from 4% to 8% – in other words, more young people have given up looking for work over this period. A recent contributor to increases in youth unemployment is that South Africa is rated as a 'junk' state. In addition, even a graduate from university finds it difficult to find employment, an indicator perhaps that the skills being taught by educational institutions are not aligned with skills needed by the workplace (Kilimani, 2017:23). Governments, policy makers and scholars in developed and developing countries are often aware of the positive effects of youth entrepreneurship through different programmes that encourage youth entrepreneurship (Banks; 2016:439; Jakubczak & Rakowska, 2014:1716). These programmes often include entrepreneurial education and training, advisory/mentor, financial support and other aspects.

Booyens and Galvaan (2015:31) indicated that since democratic dispensation elections, the South African government has introduced policies and institutions that create and develop small businesses and entrepreneurship to improve new economic activities. The government has placed the issue of youth entrepreneurship high on its agenda to address youth unemployment. Government has established youth

development programmes specifically aimed at empowering the youth, reducing youth unemployment and promoting social cohesion (Herrington, Kew & Kew, 2014:39).

For instance, the National Youth Commission Act no 19 of 1996 established the National Youth Commission (NYC) as a custodian of youth policy coordination and development. In an endeavour to consolidate this undertaking, government further established a youth development-funding agency, Umsobomvu Youth Fund (UYF), though the latter was institutionally and administratively independent of the NYC (National Youth Policy, 2009: 8). Due to the insufficiency of the UYF agency, the government merged NYC and UYF. This further culminated in the promulgation in 2008 of the National Youth Development Agency Act, which provided for the establishment of the National Youth Development Agency (NYDA). NYDA was launched in 2009 with the primary objective of encouraging youth to take the entrepreneurship and reducing youth unemployment and unemployed graduates in South Africa. Furthermore, the government introduced programmes such as Sector of Education and Training Authority (SETA) and National Skill Development Strategy (NSDS) with the aim of preparing youth with labour force levels of skills through training intervention and learnership programmes. During 2012, the government introduced the jobs' fund that has facilitated more than 70 000 jobs over five years. The Public Works Programme employs more than half a million of youth on a short-term basis. In 2014/15, the Employment Tax Incentive Programme supported close to 700 000 jobs with a budget of more than R2 billion. According to the National Youth Development Agency (2015:18), the government training programmes offered to the youth lack trained, experienced and committed professionals for developing skilled youth and youth who want to be self-employment.

The government established institutions that fund small businesses and youth who have start-up businesses. These agencies are Small Enterprise Finance Agency (SEFA), which is the merger between South African Micro Apex Fund (SAMAF), Khula Enterprise Finance (Ltd), Gauteng Enterprise Propeller (GEP) and the small business activities previously housed within the Industrial Development Corporation (IDC) to enable the environment for the development of Entrepreneurship and Small Businesses in South Africa (Small Enterprise Development Agency, 2016:6). Despite all these massive efforts, there are still a high levels of youth unemployment and lower

numbers of youth participating in the process of starting businesses and becoming entrepreneurs (Herrington & Kew, 2016:33).

Although different youth development programmes for youth entrepreneurship have been introduced internationally and in South Africa, very little is known about the effectiveness of these programmes in encouraging youth to start-up businesses. Hence, the focus of this study is to establish the effectiveness of youth entrepreneurship incentives in supporting unemployed youth to become entrepreneurs and to start-up their own businesses in Johannesburg, South Africa.

The first part of this article is based on the literature review, constructing an understanding of the aspects that are included in youth entrepreneurship. This is followed by the methodology used and empirical findings which indicate that there is a lack of awareness amongst young people about government agencies that provide entrepreneurial support and funding. Lastly, conclusions and recommendations are drawn and suggestions are made for further research.

## **LITERATURE REVIEW**

### **Youth entrepreneurship**

Youth entrepreneurship has played an important role in economic prosperity, social stability, reducing poverty in society and job creation. When discussing youth entrepreneurship, the term 'youth' needs to be defined. Countries and policies differ in defining youth and categorizing them. The United Nations (UN) understands youth as being individuals between the age of 15 to 24 years, but it also accepts the existence of definitions used by other countries and entities (United Nations, 2014). One of such is the definition used in the European Union (EU), where Eurostat considers youth as individuals between the age of 15 to 29 years (European Commission, 2009). In the context of this study, the study adopted a definition of youth from the South Africa Youth Policy and the Global Monitor Entrepreneurship Study. The South Africa government has opted for an inclusive definition of youth as persons between the ages of 15 to 35 years (National Youth Act of 1996). The Global Monitor Entrepreneurship Report (2012:59) refers to the youth as persons who are between the ages of 18 to 34 years old. The involvement of the youth in entrepreneurship has become a debate among policy makers, governments, trade unions, academics and students

throughout most developing countries (Ridzwan, Muhammad & Rahman, 2017:81). Studies have emphasised that entrepreneurship amongst the youth is considered as an important mechanic development through job creation and innovation (Dejaeghere & Baxter, 2014:61). The study by Gwija, Eresia-Eke and Iwu (2014:12) indicated that during this era of high unemployment in the developing countries, fostering youth entrepreneurship could provide a vital solution.

The findings from the Global Entrepreneurship Monitor Report (2018:37) showed that Africa has the highest established business rate of 11.9%. In other regions, the established business rate is lower, such as Asia and Oceania at 9.7%, Latin American and the Caribbean at 8.3%, and North America at 7.0%. However, South Africa has the low rate of 2.2% of established businesses in Africa; the highest country in the continent is Madagascar at 29.4%.

The low prevalence of youth not involved in entrepreneurial activity is a concern for South Africa. Findings from the study of Lekhanya (2015) stated that very little has been done by management science scholars about promoting youth entrepreneurship in South African education institutions and government. Youth entrepreneurship is then viewed as an option for generating sustainable livelihoods amongst unemployed youth. Furthermore, in the environment of technology change to adapt with innovation, young people tend to have potential drive to participate in that innovation and sustained growth. Sharma and Madan (2014:2) indicated that promoting youth entrepreneurship will not only focus on reducing youth unemployment but more importantly make young people understand that they have alternatives to create their own destiny by starting their own businesses, and they do not need to keep waiting for government and private sectors to create jobs for them.

The study by Ibrahim, Devesh and Ubaidullah (2017:3) showed that attitude towards youth entrepreneurship is influenced by family business background, innovativeness, self-efficiency, business risk-taking and financial independence, which in turn affects student career choice as an entrepreneur. The study by Ridzwan *et al.*, (2017:85) indicated that the youth who are committed to be involved in entrepreneurship must have three essential elements within them which are as follows: firstly, to identify the business opportunities based on their surrounding environment; secondly, establish the business, and thirdly, be able to find the right resources to grow their business. Chen and Phillips (2016:66) asserted that young people who begin their career by



working in corporate environments have advantages in gaining experiences (such as an awareness of risk and operations management), expertise and accumulating an effective professional and social network that can benefit their established business. Sharma and Madan (2014:14) concluded that having previous working experience is an advantage for youth as they acquire better knowledge about business creation, and develop good networking which helps them in acquiring needed resources to confidently participate in entrepreneurship. Ridzwan *et al.* (2017:82) stated that choosing entrepreneurship as a career by the young generation gives independent and good income amongst young people. Literature has emphasised that the government, educational institutions and society should encourage entrepreneurship as a career for young people and support them.

### **Entrepreneurship**

Entrepreneurship research has evolved markedly over the past decades and has grown from a developing and fragmented state (Shane & Venkataraman, 2000:222; Gregoire, Noel, Dery & Bechard, 2006: 335), with its legitimacy being, to a maturing field of study. Different study indicates that in developed and developing countries, many individuals are turning to entrepreneurship due to lack of employment alternatives (GEM report, 2018:18; Rusu & Roman 2015:3). Gallagher and Selman (2015) pointed out that entrepreneurship is seen as establishing a small or big business that provide goods and services in local communities, and it is a critical part of growing a country's economy and creating job opportunities. Furthermore, in a time of financial crisis, entrepreneurship is one of the ways to avoid unemployment or work-related frustration while supporting personal development and offering a means of self-fulfilment. Wiger, Chapman, Baxter and De-Jaeghere (2015:540) defined entrepreneurship as 'the practical application of enterprising attributes, such as initiative, innovation, creativity, risk-taking and identifying business opportunities'. Cadar and Badulescu (2015:656) asserted that entrepreneurship is all about initiative, innovation, taking decisions, being responsible enough so as to take risks regarding the economic activities undertaken by a certain person that possesses a certain capital. Rusu and Roman (2015:1) pointed out that entrepreneurship is considered to be a comprehensive, multidimensional concept and an attempt at a new business or new venture creation, such as self-employment, a new business organisation, or the

expansion of an existing business, by an individual, a team of individuals, or an established business.

Dhliwayo (2014) argued that entrepreneurship is a competitive strategy that involves continually developing and testing new products and services to sustain continual innovation. According to Matusik (2016:562), entrepreneurship promotes the development and exploitation of new ways to do business, new ways to deliver an existing product, commercialisation of a new technology, new ways of meeting an unmet market need, or new business mode. The conclusions from the study of Rusu and Roman (2017:13) indicates that the factors, which are the economic development of a country, the abilities of individuals, their attitudes towards entrepreneurship and the opportunities in starting a business offered by a country, are the key factors that affect the dynamics of an individual to be involved in entrepreneurial activity. The study by Jabeen, Faisal and Katsioloudes (2017:154) concluded that investment in entrepreneurship should therefore have long-term positive effects on economic development and global competitiveness by creating an entrepreneurial culture amongst young people. Entrepreneurship is therefore identified as a career opportunity, with establishing new business, and at the same time expanding the job possibilities of the society.

### **Entrepreneur**

Edelman, Manolova, Shirokova, and Tsukanova (2016:430) stated that the word 'entrepreneur' comes from the French *entreprendre*, which translated roughly, means to set about or to undertake. Dijkhuizen, Gorgievski, Van Veldhoven and Schalk (2016:561), and Maziriri and Madinga (2016:24) emphasised that an entrepreneur is someone who sees a gap within the market environment and takes the advantage to fill that gap; thus, it is accepted that the entrepreneur takes more risks to increase personal interest to seize available opportunities. Gallagher and Selman (2015:90) stated that an entrepreneur is an individual who starts and runs a small business on his/her own, or partnership, or as a family enterprise, with the goal of producing a profit, according to government standard, paying tax and complying with society and law. AN entrepreneur is an individual who develops his/her own business, and that business is new in the market and helpful to society (Mukherjee, 2016:27). Furthermore, establishing a business is a chance of doing something new in the market, and with the assistant of this, entrepreneurs are able to provide goods and

services to people in society, as well as the country. Dijkhuizen, Gorgievski, Van Veldhoven, and Schalk (2016:557) argued that an entrepreneur is someone who sees a gap within the market environment and takes the advantage to fill that gap, thus, it is accepted that the entrepreneur takes more risks to increase personal interest to seize available opportunities. Entrepreneurs are individuals in the process of establishing the business they will own, or they are currently owning and managing an operating new business

According to Gedik, Miman and Kesici (2015:1082), an entrepreneur is an individual who manages, organises and presumes the risks of an enterprise or a business. Entrepreneurs require information, capital, skills, and labour to start business activities. Jakubczak and Rakowska (2015:1776) pointed out that entrepreneurs create workplaces for themselves and society, increase innovation and quickly adapt or even create market trends using available opportunities. Entrepreneurs create new businesses, drive and shape innovation, speed up structural changes in the economy and introduce new competition – thereby contributing to productivity.

Being an entrepreneur is considered a favourable career path as it not only provides an income to the owner or initiator, but in many instances provides employment to society. An entrepreneur is required in boosting change and promoting economic growth through the production of a new product, process or service (Biksea, Rivzab & Riemere, 2015:470).

Gedik, Miman and Kesici (2015:1090) suggested that an entrepreneur should be an innovator of creating a new product, process or service because all the new ideas come from thinking differently and ahead. Entrepreneurs are likely to see needs in their local environment, come up with ways to address those needs that are appropriate to local conditions, and create economic growth and jobs in the areas where they situated (Matusik, 2016:562). Most people think being an entrepreneur is all about coming up with an idea or business plan but that is process of starting a business. However, being an entrepreneur is to take any idea, whether it be a product or service, and have the skill set, will and courage to take extreme risks to do whatever it takes to turn that concept into reality and not only bring it to market, but make it a viable product and/or service that people want or need (Gedik *et al.*, 2015:1093). This indicates that an entrepreneur is an individual who establishes a business with the intention to make profit.

## **Youth entrepreneurship in South Africa**

With the high number of youth unemployed, developed and developing countries, include South Africa, have identified youth entrepreneurship as one of the key components to creating jobs, establishing new small businesses and alleviating poverty for young people (Turton & Herrington, 2012:28). The government and policy makers have placed great focus on young entrepreneurship, due to their inability to integrate themselves into the country's economy, and the economy's inability to absorb them. Findings from the study of Herrington and Kew (2017) indicate that South Africa has one of the lowest levels of entrepreneurial activity among countries in Southern Africa and Sub-Saharan Africa. The youth constitute approximately 41,2% of the South African population, but the number of young people involved in entrepreneurial activity remains extremely low at 6% of the total youth population (National Youth Development Agency Report, 2017:54). The report revealed that the government is concerned with low entrepreneurial intention amongst the young people. Only approximately 7% of the population between the ages of 20 to 59 years old, living in South Africa, were self-employed, and the majority were own-account workers - for example, they are self-employed but did not employ any individual (Central for Development and Enterprise, 2017:6). Findings from Charman (2016:5) indicated that South African youth are not committed to the full potential of business opportunities in their own society. It indicates that most of youth in the country prefer paid jobs instead of creating their own jobs or business. Hj-Din, Anuar and Uman (2015) concurred that the majority of the youth are focusing on obtaining the best positions in the public and private sectors, rather than choosing to become entrepreneurs as a solution in generating income and creating jobs. They are aiming to get high salaries in the public or private sector after completing their studies.

Findings from the report of Centre for Development and Enterprise (2017:12) indicated that majority of South Africa school leavers and tertiary graduates learn very little about entrepreneurship at schools and at higher education institutions. They have very little or no exposure to the experience of running a business and have no real understanding of what a risk-taking enterprise is all about. Herrington, Kew and Mwanga (2017:31) stated that many school-leavers and matriculants do not have sufficient literacy, numeracy and livelihood skills to be able to participate actively in the economy. According to National Development Plan Report (2011:48), from a

macroeconomic perspective, the importance of entrepreneurship in the economy is in addressing concerns such as inflation, unemployment, stagnant economic growth, and a volatile currency. Lekhanya (2015) suggested that very little has been done, from government and higher education institutions, to promote youth entrepreneurship in South African. Young people who attempt to engage in business activities lack managerial, technical and marketing skills, as well as experience, and are therefore at a disadvantage in a competitive and changing business environment. These individuals lack the skills-set that is required to be absorbed into the employment opportunities the economy seeks. The majority of graduates perceive that entrepreneurship is not suitable for them due to their lack of knowledge on this field (Hj-Din *et al.*, 2015:119). One of the most important barriers for developing entrepreneurship is the existence of a market failure regarding the access to funding of graduates who want to start-up business.

Education institutions are there central of promote youth entrepreneurship, which are more likely to increase entrepreneurial self-efficacy, self-employment, and risk-taking among higher school and tertiary graduates, thus leading to positive outcomes for individuals, firms, and society (Jabeen *et al.*, 2017:138). Furthermore, learning institutions provides three major roles that are related to entrepreneurship. Firstly, they create a culture of entrepreneurship that permeates all activities. Secondly, they provide a specific course where students can learn more about entrepreneurship itself. Thirdly, they off specific training courses for individuals who want to start their own business. However, the lack of efficient educational and professional training in entrepreneurship is hampering the ability of South Africa to benefit from the opportunities associated with growth and sustainable of small business development (Ncu, Tengeh & Hassan, 2015:519). Poor quality education and training, and lack of entrepreneurial education systems provided by South African educational institutions result in a lack of wiliness, positive attitudes and business spirit among the young people that are in the institutions. Most of the youth of South Africa lacks proper entrepreneurial training that prevents them to become entrepreneurs (Chinyamurindi, 2016:5). Otherwise, they could come forward to make use of the emerging opportunities that emanate from new technologies, new economic policies and from the changing society. When the substantial number of the youth are exposed to entrepreneurship they normally develop confidence in their abilities to run a business,

and then they are encouraged to set up new businesses. Scholars locally and globally have indicated that promoting youth entrepreneurship has the potential to contribute to social development, as it offers young people an opportunity to increase their earnings through self-employment, and to create jobs for others, thereby raising their living standards and supporting their families, while reducing poverty and building sustainable livelihoods (Davey, Hannon & Penaluna, 2016:179).

The youth and graduates have little knowledge on management, production process and marketing of their product or service. There are numbers of challenges that face South African youth in entrepreneurship, including access to financial support from various supporting entities, lack of anchor investors for their ventures, and inadequate entrepreneurial education and training.

### **Youth entrepreneurship in Johannesburg**

Entrepreneurship is an important component of the solution to South Africa's development issues and inequality. Given the failure of the private, public and municipality sectors to absorb the growing number of job seekers in South Africa, increasing attention has focused on entrepreneurship and new firm creation and its potential for contributing to economic growth and job creation (Maziriri & Madinga, 2016:1; Maziriri, Madinga & Lose, 2017:27). The National Youth Development Agency (2015:20) indicated that most of the new firms in South Africa operated by the youth are in the retail or hospitality sector and have low job growth potential. The study by Charman (2016:7) stated that young entrepreneurs in Johannesburg own business such as hair care/salon enterprises, run internet-cafes, produce music at home, are disc jockeys (DJ) at taverns/shebeens, design flyers and posters, operate gyms, design and make clothes, or run takeaways that sell westernised 'fast-food' to late night revellers. Township hair salon enterprises display considerable innovation in responding to the growing demand for personalised services, yet it should be noted that the hair care owners have limited education. Merely 27% of young entrepreneurs in the township of City of Johannesburg had obtained a school leaving certificate and only one individual had specialist training. The black youth in the township areas in Johannesburg are less enthusiastic than other races, such as white and Indian contemporaries about entrepreneurship. Findings from Chinyamurindi (2016:7) indicated three narratives that influence South Africa youth to become entrepreneurs. Firstly, an opportunity that comes out of struggle: youth who are coming from

disadvantaged families (poverty) and disadvantaged communities (poor education system and standard of living). Secondly, the opportunity found in entrepreneurship as a basis for service to community is an influence. Thirdly, becoming an entrepreneur emerges from ideals of community service.

### **Youth entrepreneurship incentives**

Globally, government policy makers and scholars are working toward developing policies and strategies in order to ensure a favourable environment to support entrepreneurship and small business development (Mbuya & Schachetebeck, 2016:229; Malebana & Swanepoel, 2015:95; Wiger *et al.*, 2015:536). Since the 1994 democratic elections, the South African government and private institutions have introduced various youth entrepreneurship programmes that empower youth through youth development, entrepreneurial education, skills training, advisory, financial support and mentoring support. A number of programmes were created, such as Youth Development Forum (YDF), Expanded Public Works Programme (EPWP), Accelerated and Shared Growth Initiative for South Africa (ASGISA), and Joint Initiative on Priority Skills Acquisition (JIPSA), in an attempt to address youth challenges (National Youth Policy, 2009:14). One of the most important barriers for developing youth entrepreneurship is the existence of a market failure regarding the access to funding of young potential entrepreneurs. According to Sahrom, Ling Tan and Yahya (2016:62), essential incentives, often termed as subsidies; grants, particularly research and commercialisation grants; funds; and tax incentives are need in order to ensure the sustainability of start-up and established businesses.

In 2001, the South African government established the Umsobomvu Youth Fund (UYF) as a national youth development initiative to promote employment opportunities for young people and enhance entrepreneurship amongst them for sustainable livelihoods. However, the National Youth Commission (NYC) was merged with the Umsobomvu Youth Fund pursuant to Section 21(2) of the National Youth Development Agency Act, No. 54 of 2008 (NYDA Act) to form the National Youth Development Agency (NYDA) (National Youth Development report, 2009/10:54). According to National Youth Development Agency (2016/17:5), the NYDA is a South African-based institution established primarily to address the challenges faced by the nation's youth. The institution was established to be a single, unitary structure addressing youth development issues at national, provincial and local government level. The South

African government established the National Skills Development Strategy (NSDS) to improve the labour force's level of youth skills through training interventions and learnership programmes. This programme was to provide workplace earning in a structured form, linked to multiple sites of work experience, and culminating in a nationally recognised qualification (Visser & Kruss, 2009:361).

The New Venture Creation (NVC) learnership is an intervention mechanism aimed at addressing the entrepreneurial skill backlogs amongst emerging entrepreneurs (Cloete & Ballard, 2011:219). The programme involves a structured learning experience through a combination of theoretical and work place learning and is directed towards achievement, giving learners the skills to start up a business. The Gauteng Enterprise Propeller (GEP) included training and mentorship to SMMEs and cooperatives, provided formalisation of informal businesses, job readiness and job placement programmes targeting the youth, establishment of SMMEs and cooperatives, and creation of access to market opportunities.

The Youth Enterprise Development Strategy (YEDS) 2013-2023, which identified promoting youth entrepreneurship, accelerated the growth of youth-owned and operated enterprises, capable of increasing self-employment among young people. The strategy was designed to address the high unemployment rate, create jobs and foster innovation among the youth in the country (Department of Trade and industry, 2013:18).

The other initiative that was implemented was the Youth Employment Accord, which is an agreement between government, organised business and organised labour, as well as community and youth representatives. This programme formulates a joint commitment to intensify youth employment and skills development through, among other priorities, improved education and training opportunities, work exposure, government driven mass employment programmes, support to youth entrepreneurs and youth cooperatives, as well as incentives for the private sector to employ more young people. Furthermore, there are other youth entrepreneurship programmes that are provided by private institutions such as South African Breweries (SAB) the Junior Achievement South Africa (JASA); the South African Youth Chamber of Commerce (SAYCC); Anglo American Zimele Programme, South African KikStart, and the Branson School of Entrepreneurship (Gwija, Eresia-Eke & Iwu, 2014:11). Herrington, Kew and Kew (2014) indicated that there were few government programmes to



improve the current state of entrepreneurship within the country, although there were programmes run by private companies, such as the Anglo American Zimele Programme and the South African KikStart initiatives. Mcilhone (2015:29). The findings from the study of Gwija, Eresia-Eke and Iwu (2014:14) indicated that even with the intervention of government and private institutions most of the youth are unaware of any entrepreneurship support structures that are provided by the government and private business.

### **Effectiveness of youth entrepreneurship incentives**

Management science scholars, governments and policy makers, on all levels, around the world, are often aware of the positive effects of youth entrepreneurship and, through various programmes, try to foster youth entrepreneurship levels. Turner and Mulholland (2018:35) pointed out that youth entrepreneurship programmes differ in their goals and objectives, with some focusing on the skills training or financial needs of the youth, while others attend to the youths' developmental needs, such as coaching, mentor support, and role models. Furthermore, these programmes include entrepreneurial education, training, advisory and financial support and many others. Entrepreneurship education programmes aim to develop and equip individuals with the necessary skills that will enable them to successfully manage their organisation on a daily basis (Davey *et al.*, 2016:180). In addition, individuals are trained to overcome various challenges that may occur in the business environment. However, some of entrepreneurship programmes fail to properly recognise why some young people become entrepreneurs, and other do not respond to existing barriers preventing young people from becoming entrepreneurs. Even so, South African youth entrepreneurial levels remain low.

Several entrepreneurship programmes have been established and are currently offered at different public and private institutions. Governments in different countries have established and invested in various entrepreneurship programmes in order to see whether youth can exploit untapped business opportunities and start-up (Brixiova, Ncube & Bicaba, 2015:18). Dlamini and Bimha (2017:75) stated that organisations in developed and developing countries such as governments, higher education institutions and private sectors, are joint development partners to promote youth entrepreneurship programmes focusing on entrepreneurial development to address youth unemployment and support economic prosperity. These programmes vary in

objectives, types of interventions, and implementation arrangements, reflecting constraints to the entrepreneurship they tend to address. Several entrepreneurship programmes have been developed with a view to raising business management, lending or borrowing money, financial literacy, coaching, mentoring, drafting a business plan, entrepreneurship education, entrepreneurship training, or vocational skills, (OECD report, 2017:59). Frequently, entrepreneurship interventions include technical (vocational), business (managerial), and financial skills training, financing support such as microcredit loans and grants, and counselling ranging from mentoring and advisory services to post-program consulting. The study by Ruso and Roman (2017:14) concluded that government expenditure on economic affairs and education would make an important contribution to promoting entrepreneurship and increasing public expenditure to stimulate start-ups that would lead to an increase in youth entrepreneurship. Cho and Honorati (2014:114) stated that some programmes are grouped according to the existing environment needs and diversity with different groups. Some programmes target potential entrepreneurs (the unemployed, school 'drop-outs', or graduated individuals), while others target existing microentrepreneurs or microfinance clients to increase their productivity. Programmes can be further modified according to the context of the policy environment, reflecting cultural factors (fear of failure or beliefs on gender roles and race), infrastructure (water and electricity), and legal and regulatory conditions (high entry barrier due to administrative hassles), among others.

Studies conclude that the provision of entrepreneurship education strengthened the entrepreneurial capacity of the youth to launch new economic and social ventures in the market place (Waghid & Oliver, 2017:80;). Van der Westuizen (2017:549) stated that effective programmes should include the involvement of entrepreneurial role models, and networks of successful entrepreneurs, and exploring entrepreneurship from diverse angles can help to stimulate innovative business ideas and identifying existing opportunities.

## **RESEARCH METHODOLOGY**

Research methodology indicates the logic of the development of the processes used to generate theory that is the procedural framework within which the research is

conducted (Mohajan, 2017:3). According to Zikmund, Babin, Carr and Griffin (2013:304), research methodology is defined as 'a discussion within the body of a research report of the research design, data collection methods, sampling techniques, data analysis and fieldwork procedures'. This study adopted a descriptive research design, using quantitative research design. Quantitative research is defined as 'a research that addresses research objective through empirical assessment that involve numerical measurement and analysis approach' (Zikmund *et al.*, 2013:134)

This study was cross-sectional in nature, as it collected data at a single point in time. It depicted the current representation of the existence and effectiveness of youth entrepreneurship incentives. The target participants of the study included the youth from the Johannesburg metropolitan areas who were between the ages of 17 to 35 years old. The unit of analysis was individual of those who intended to start-up businesses and those who were attending the National Youth Development Agency (NYDA) road show exhibitions. The criteria of participants were individuals who have formal education, for example, matric certificate or college and tertiary qualifications. The target sample size of 250 youth was selected as a part of the target population for the study. A sample size in the range of 150 to 400 is suggested, therefore, a sample size of 250 of respondents is sufficient for the study as it falls between the ranges of 150 to 400 sample size (Hair, Celsi, Money, Samouel & Page, 2006:51). A self-administration survey of 200 questionnaires were distributed to the participants to be completed and returned, of which 197 were useable.

The sample was slightly dominated by male respondents (67%), while female respondents were 33% of the total number. The majority of respondents fell between the ages group of 19 to 29 years. In terms of qualifications, 66.8% of the respondents hold Matric certificates; 14.3% of the respondents have a college qualification or higher certificate; 12.8% respondents hold a university degree, and 6.6% respondents have a national diploma. The sample of respondents provided a picture of the youth who are willing to start-up a business.

A structured measuring instrument (questionnaire) was designed as the method to collect data through self-administration. Self-administered questionnaires were personally distributed by the researcher to the respondents after the NYDA road show exhibitions. The questionnaires were handed out only to the youth who attended the exhibitions, excluding coordinators who were hosting the exhibitions. The data were

collected on the events of the NYDA road show exhibitions that were held in Johannesburg areas during March to April 2015. Self-administered means that the researcher approached respondents with a questionnaire which they completed by themselves, and which the researcher collected again after being completed. No incentive or reward was given or promised to respondents for completing the questionnaire. The self-designed questionnaire was design, used and tested with the questions using construct and variables that have been identified in the literature review.

In this study, the questionnaire used a seven-point Likert scale to measure the respondents knowledge of the existence and effectiveness of youth entrepreneurship incentives. In the seven-point Likert semantic scale the large number (7) is the best and low (1) is the worst. According to Zikmund and Babin (2010:357), a seven-point scale is better than a five-point scale, because more variation in responses is possible. The primary scale point descriptors range from strongly disagree to strongly agree, whilst the secondary scale point descriptors are whole integer numbers ranging from 7 for strongly agree to 1 for strongly disagree. The numbers helped respondents reflect on their level of agreement or disagreement with posed statements, as well as facilitating statistical analysis of the data. The respondent was required to read a particular statement or question, and then tick the response that best reflected their opinion.

The validity of the questionnaire developed for this study was found to be satisfactory. In order to ensure the content validity of the research questionnaire, questions that covered all components or information that is related to the study were formulated based on the literature study.

### **Analysis of research results**

This study used the Statistical Package for Social Sciences (SPSS) software package of the SAS to analyse and compile the descriptive statistics, inferential statistics and factor analysis. It was also used to cover naming and defining the properties of the study variables and entering data. In order to have a broader appreciation of data collected, descriptive statistical techniques were used to describe characteristics of the population or samples.

Three questionnaires were incomplete, with missing multiple responses. The response rate of the study was 88%. The descriptive analysis is a potential procedure of quantitative strategy that describes the numerical data by organisation, summarising and to interpret the sample of the research data (Monette, Sullivan, Dejong & Hilton, 2014:405). The study summarised the data, in a useful way, by providing numerical and graphical tools such as charts, tables, and graphs, to represent data in an accurate way

Inferential statistics is the method used to draw inferences about a population from a given sample (Wilson, 2014:254). The use of inferential statistics was draw conclusions that extent beyond the study immediate data or sample and to allow the study to estimate characteristics of a population from sample data. These probabilities are usually calculated automatically by statistics software. The major inferential statistics are based on the statistical models such as analysis of variance, chi-square test, t distribution, and regression analysis.

Factor analysis was implemented on variables to strengthen the reliability of the research questionnaires used in this study. Factor analysis is used to reduce a large number of variables to a smaller number of manageable factors, and by this means of simplifying the set of data, as well as to determine the fundamental structure of the data, in which a large number of variables measure a small number of basic factors (Wiid & Diggines, 2013:259). Questionnaires were checked for completeness and coded for data processing. Some participates did not complete all the demographic or qualifications details, but these questionnaires were not rejected. Questionnaires that did not have responses to all the questions on the Likert scales were left out for further analysis.

## **DISCUSSION OF RESEARCH FINDINGS**

### **The frequency distribution**

The frequency distribution shows how the data are distributed over the various categories. The frequency distributions were measured with a seven-point Likert scale where the respondents indicated their level of agreement with a series of statements.

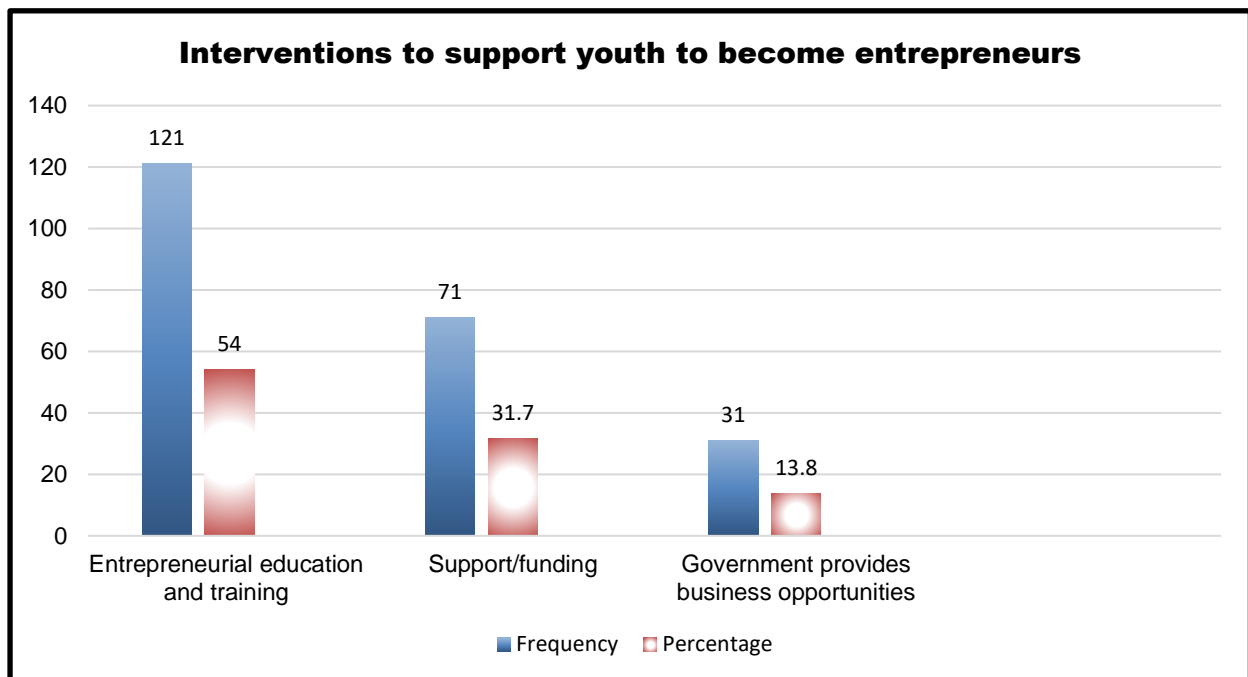
In Table 1.1, regarding existing of enabling environment for youth entrepreneurship, the results indicate that the respondents (1.3) strongly agreed that entrepreneurship

and new business create jobs (n = 108). The results in point 1.1, were that respondents strongly agreed that entrepreneurship is the best option for economic participation rather than seeking for paid employment (n = 93). In general, the respondents in points 1.12 mostly agreed that the availability of entrepreneurial education (n = 77); (1.13) training and skills will increase the chances to start-up business and to be able to run the business (n = 88). The study also shows that (1.10) respondents strongly agreed that having a mentor will encourage the youth to start a business (n = 92). There results indicated that the majority of respondents (1.2) are unsure that the South African government creates an environment that encourages entrepreneurship (n = 40).

**Table 1.1: Frequency distribution enabling environment for entrepreneurship**

P1		Strong Disagree	Disagree	Slightly disagree	Unsure	Slight agree	Agree	Strongly agree	Total
1.1	Entrepreneurship is the best option for economic participation rather than seeking for paid employment.	6	2	7	16	18	41	93	183
1.2	South African government creates an environment that encourages entrepreneurship.	12	21	19	40	39	29	23	183
1.3	Entrepreneurship and new business create jobs.	3	2	4	10	12	41	108	180
1.4	Johannesburg is an excellent place to start a business.	8	6	14	20	35	34	65	182
1.5	The city (Johannesburg) is an entrepreneurial friendly place.	5	8	18	28	33	39	52	183
1.6	Governments who create an environment favourable to entrepreneurship increase entrepreneurial activities.	5	6	2	17	31	66	71	198
1.7	South Africa has successful entrepreneurs that inspire me.	7	13	13	21	38	49	57	198
1.8	Business opportunities can increase number of youth to become an entrepreneur.	4	1	6	8	24	67	86	196
1.9	Society encourages entrepreneurship.	15	29	27	38	28	39	22	198
1.10	Having a mentor will encourage me to start a business.	6	2	3	12	15	52	92	182
1.11	Reducing business registration procedure will increase business start-up.	8	9	9	35	33	57	45	196
1.12	Entrepreneurial education and training will equip me to able start my own business.	3	4	9	13	28	63	77	197
1.13	Entrepreneurial skill would boost my chances to run a business.	1	1	2	10	26	70	88	198
1.14	Several of my role models are entrepreneurs.	16	23	11	20	40	39	48	197
4.15	My role model reflects entrepreneurship as an appealing career option.	12	20	6	22	29	52	56	197
1.16	Business opportunities are the key to start up business.	4	1	6	13	31	72	70	197
1.17	School or university has exposed me to several entrepreneurial role models.	27	31	13	20	23	40	45	199

Figure 1.1 illustrates the interventions to enable youth to become entrepreneurs. Three factors were identified for the existence of an enabling environment for youth entrepreneurship. Entrepreneurial education and training was recognised as the most important by the respondents with the score of (54%) to assist youth to become entrepreneurs. This was followed by support/funding with the score of 31.7% of the respondents. The factor that government provides business opportunities scores low (13.8% of the respondents). This indicates that there are less interventions of government to support youth entrepreneurship.



**Figure 1.1: Frequency distribution of reasons for interventions to support young entrepreneurs**

### Factor analyses

Factor analysis was used to confirm both the validity and reliability of the questionnaires used in this study. The basic principle used in factor analysis is to combine the interdependency variables so that the study can select a smaller number of variables for further analysis. The three factors that are formed by the factor analysis have been identified and labelled appropriately as:

- Factor 1: Promotion of entrepreneurial education and training.
- Factor 2: Exposure to youth entrepreneurship.
- Factor 3: Government agencies that supporting entrepreneurship.



Table 1.2 indicates that there are only three constructs of anticipated factors, which are: Construct 1 (Entrepreneurial intent), Construct 2 (Challenges that discourage/constrain to establish a business) and Construct 3 (Enabling environment for entrepreneurship).

The results from Table 1.2 show that Part 1 of factors 1 - 4 are highly correlated with one another, and have overlapping measurement characteristics, and therefore represent variables which belong to one factor. *Entrepreneurial intent* is a factor that has strong overlapping characteristic with entrepreneurial intent, which has high factor loadings.

The results from Table 1.2 shows that Part 2 of factors 1 - 4 are all loaded under construed to test the *challenges that discourage/constrain to establish a business*. These factors are highly correlated with one another and have overlapping measurement characteristics and therefore represent variables which belong to one factor.

Part 3 of factor 1- 6 are factors that are reclassified and analysed under an *enabling environment for entrepreneurship* construct. Table 1.2 indicates three factors that were important for an enabling environment of entrepreneurship with the total score of 64%. This item in the table recognised government incentives and agencies that exist in support of entrepreneurship in Johannesburg.

**Table 1.2: Creation and labels of new variables (factors)**

Part	Factor	Labels	Number of variables loaded	Total variance explained
1	1	Passion for becoming an entrepreneur.	10	59.0%
	2	Planning to start a business.	4	
	3	Lack of interest in entrepreneurship.	3	
	4	Risk taking propensity.	1	
2	1	Lack of entrepreneurial culture within the society.	4	56.0%
	2	The role of government agencies to support youth entrepreneurship.	6	
	3	Lack of information to start up a business.	3	
	4	Financial knowledge constraint.	2	
3	1	Entrepreneurship creates jobs.	2	64.0%
	2	Promotion of entrepreneurial education and training.	4	
	3	Promoting role models and mentors for entrepreneurship.	2	
	4	Exposure to entrepreneurship.	3	
	5	Government supporting business.	5	
	6	Johannesburg is a stimulating place to become an entrepreneur.	2	

**The chi-square ( $\chi^2$ ) test**

The test of significance used is the chi-square ( $\chi^2$ ) test of independence, which is applied when the study has two categorical variables (Wilson, 2014:210). Using this technique, the study tested for significant differences between the observed distribution of data among categories and the expected distribution based on the null hypothesis. The chi-square test of independence is used in this case, to determine whether the government interventions are supportive for youth entrepreneurship and start-up business through to all factors of part 3 of the questionnaire (Government agencies that supporting entrepreneurship).

All the statistical tests are carried out with 5% significance level. So, the study will reject  $H_0$  if p-value (the probability of getting the observed result by chance alone) is less than 0.05 in favour of the alternative hypothesis ( $H_1$ ), otherwise the study will fail to reject it. One of the conditions of the use of chi-square test is that the expected frequency count (row-total multiplied by column-total divided by the grand-total) for each cell, in the contingency table, must be at least 5%. So, some of the p-values for the association will not be reported if the condition above is violated. The test was performed to address the propositions.

The null hypothesis ( $H_0$ ), which states that there is no relationship that exists between the level of awareness of entrepreneurial support initiative and intention for youth to become entrepreneurs, is not rejected, except for planning to start a business (p-value = 0.001 < 0.05). That is, amongst 103 respondents who disagreed on planning to start a business, 94 agreed that government agencies are supporting youth entrepreneurship; 33 disagreed on the supportive of government agencies for entrepreneurship and 55 agreed that they are planning to start a business. This relationship is statistically significant.

## **CONCLUSION AND RECOMMENDATIONS**

The awareness and the knowledge of government agencies that provide entrepreneurial support and services or funds among the respondents were very low amongst the youth of Johannesburg. Despite the fact that the South African government has introduced several entrepreneurial support programmes in the past decade, including the National Skill Development strategy and NYDA, there is still a lack knowledge and awareness about these agencies. The implication of these findings show that there is a need to increase the visibility of and information about government institutions that provide entrepreneurial support to youth, as this would contribute to improve entrepreneurship in the country. Entrepreneurial activity increased when the government put in place entrepreneurship agencies and mechanisms to cater for entrepreneurial potential of young people within the country. As indicated by empirical results, 91 of respondents agreed with the statement that Johannesburg is a stimulating place to become an entrepreneur. According to the Integrated Development Plan (2013:10), the creation and maintenance of an enabling

environment for business is critical, and this has resulted in the city attracting and sustaining substantial investment, both local and foreign. However, the South African Statistic Labour Report (2017:6) indicated that Johannesburg has a higher number of youth who are not working. Therefore, the government should make interventions by investing in initial start-up businesses and young entrepreneurs.

The study concluded by indicating that the government agencies should create a favourable environment for the youth who want to start business by financing them and offering them training on how to start a business and how to run it. The study found statistically significant differences demonstrating that the objectives and outcomes of existing government agencies for youth entrepreneurship are not in line with the expectation of the youth who want to become entrepreneurs. The awareness and effectiveness of youth entrepreneurship incentives can contribute towards job creation, economic flexibility, innovation, technology advance, development of skills, mechanisms for coping with country crisis and social-economic transformation. Finally, the empirical study assisted in the formulation of conclusions and recommendation to the development of effectiveness of youth entrepreneurship incentives in Johannesburg and Gauteng province.

## **LIMITATIONS**

All research studies have their limitations and the sincere investigator recognises that researchers need aid in judging the study's validity (Cooper & Schindler, 2011:86). All data were gathered at a specific time, thus, the variables, responses and results may be limited to that point in time. The sample size was small as it excluded other areas of Johannesburg. The sampling is also further limited geographically as it only includes youth who were available during the time of NYDA road show exhibitions and excluded other existing youth development exhibitions and programmes that are offered by other institutions that promote youth entrepreneurship. The study did not include all areas of Gauteng. The use of closed-ended questions to gain the youth's perceptions of the existence and effectiveness of youth entrepreneurship may be biased as the respondents were not always able to express themselves verbally.

## **DIRECTIONS FOR FUTURE RESEARCH**

In future research, the sample size of the study should be increased to explain the full population's characteristics and to increase the response rate of the respondents. A longitudinal study should be conducted to determine either the availability of existing programmes and if the effectiveness of youth entrepreneurship in Johannesburg or in Gauteng can increase or influence young people to start businesses and become entrepreneurs.

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**M. A. Mubecua and O. J. David**

**SO FAR SO GOOD? TRACKING THE POVERTY REDUCTION GOAL  
OF SDGS IN KENYA, NIGERIA AND SOUTH AFRICA**

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**ABSTRACT**

The eradication of poverty has continued to dominate global discourses on sustainable development at virtually all levels of society. This attracted the attention of the United Nations (UN) General Assembly (UNGA) during the formulation of Sustainable Development Goals (SDGs) of 2030, in the year 2015, following the largely unmet Millennium Development Goals (MDGs). The challenges of eradicating poverty are particularly pronounced in sub-Saharan Africa, which lags behind other regions in most development indices, despite its rich natural endowment. Over 4.3 million Africans currently live below the poverty line, a reinforcement of the 2016 World Bank's report that many Africans are poorer now than in the 1990s. While poverty is only an aspect of the broader notion of development, and can hardly be captured only in material terms, it is central to the overall notion of wellbeing. Thus, its prioritisation in the SDGs is hardly misplaced, and its eradication, especially in sub-Saharan Africa is an urgent concern. Against the above backdrop, this paper tracks the current progress of the SDGs in selected countries in Sub-Saharan Africa: Kenya, Nigeria, and South Africa. We focus on the economic indices, employment and poverty rates of each country to understand the present performance of these countries and the feasibility

of it attaining the first goal of the SDGs. The results of the study show that the GDP of Kenya is currently low, while the poverty and the unemployment rate is very high. Nigeria still battles with economic recovery following the recession since 2016 and a soaring poverty level. Equally, South Africa is saddled with the problem of rising poverty, unemployment, and corruption. Evidence gathered from this study strongly suggests that by current indications and trends, eradicating poverty in 2030 is highly unlikely, unless drastic measures are taken.

**Keywords:** Millennium development goal, Sustainable development goal, Poverty, Sub-Saharan Africa.

## INTRODUCTION

The largely unmet Millennium Development Goals (MDGs) by 2015 necessitated the establishment of the Sustainable Development Goals (SDGs) in the global development agenda. As with the MDGs, the goal of poverty eradication ranks first in the SDGs. Seeking 'to build on the success of the MDGs' and complete its shortfalls, the SDGs 'recognizes that eradicating poverty in all of its forms and dimensions, including extreme poverty, is the greatest global challenge and is an indispensable requirement for sustainable development... in its three dimensions—economic, social, and environmental - in a balanced and integrated manner' (Yearbook of international Environmental Law, 2017). The reasons for this are not far-fetched. Rising global poverty rate and its accompanying social ills continue to threaten human society and the prospect of sustainable development. Hence, questions are aptly raised as to why the MDGs, especially the poverty eradication goal, could not be met and how could the possible reasons be addressed in the SDGs? These questions have attracted the attention of different scholars, policy-makers, and governments since 2015 (Chasek *et al.*, 2016; Wahyuningsih, 2018; Nyabuga *et al.*, 2017; WPC, 2018).

It is important to understand the present failure or success of SDGs before it expires in 2030. With reference to the goal of poverty eradication, the above question is critical especially in sub-Saharan Africa, a sub-region yet to extricate itself from the triple ills of underdevelopment, namely poverty, unemployment, and inequality. The deleterious implications of poverty for security in the sub region are well documented (Gebrewold, 2016). We concur that the reasons Sub-Saharan Africa and other countries failed to

achieve their target of eradicating poverty in 2015 may as well affect the target of 2030, mainly because there is no guideline as to what the countries have to do to meet the SDGs in 2030 (Ruch & Geyer, 2018).

As a multidimensional phenomenon, poverty is conceptualised generally as including both monetary issues, and non-monetary issues, that affect the standard of living of people (Omotayo *et al.*, 2018). Against this general understanding, the paper examines the current progress made by these countries (Kenya, Nigeria and South Africa) since all countries are in the process of achieving the SDGs in 2030. Over the number of goals in the SDGs, the paper focuses on the first goal of the SDGs which is to end poverty by 2030. The paper discusses the emergence of the SDGs. It goes further to discuss the economic progress made by each of the selected countries. The qualitative study relies on publicly available economic reports and academic literature for its data sources. These are critically engaged and discussed with the view to address the main objective of this study. Accordingly, a precis on the emergence of the SDGs has deemed a necessary point of departure since it provides the necessary background information on the poverty eradication goal.

## **THE EMERGENCE OF SUSTAINABLE DEVELOPMENT GOALS**

As highlighted earlier, the SDGs succeeded the MDGs, given that the latter had yet to meet all its goals at the time of expiry in 2015. Hence, it is useful that discourse on the emergence of the SDGs makes reference to the MDGs. The following is a brief discussion of the MDGs and how it transited into the SDGS.

### **From MDGs to SDGs**

The establishment of the MDGs was the result of the events that took place in 1990 (Jolly, 2010; Mohammadi *et al.*, 2017). The MDGs were not the first globally set international development target. For instance, in 1934, the League of Nations (currently now known as the United Nations) declared achieving universal primary education. At the end of the Cold War, there were many events held that focused on tackling poverty, and as a result, different reports were published. The first report was published by the World Development Report of the World Bank. Among other things, the report highlighted the need for poverty reduction globally (Hulme, 2009). Secondly, the United Nations Development Program (UNDP) published the first Human

Development Report, which revealed that poverty has to be alleviated. The report also showed that policies to pursue the end of poverty need to be put in place. Thirdly, the UN Conference held in 1990 led to the formation of the MDGs (Hulme, 2009). Moreover, the UN Conference acquired an aspiring programme of action, which was Agenda 21. The aim of Agenda 21 was to ensure that the present generation utilizes the available resources in a way that the resources will continue to be available for future generations (Mohammadi *et al.*, 2017). Even though there were other set international development targets, the MDGs were the first to be recognised worldwide. The MDGs were recognised because of their clarity on the objectives of development policies and the provision of funding from the international community (Feeny & Clarke, 2009).

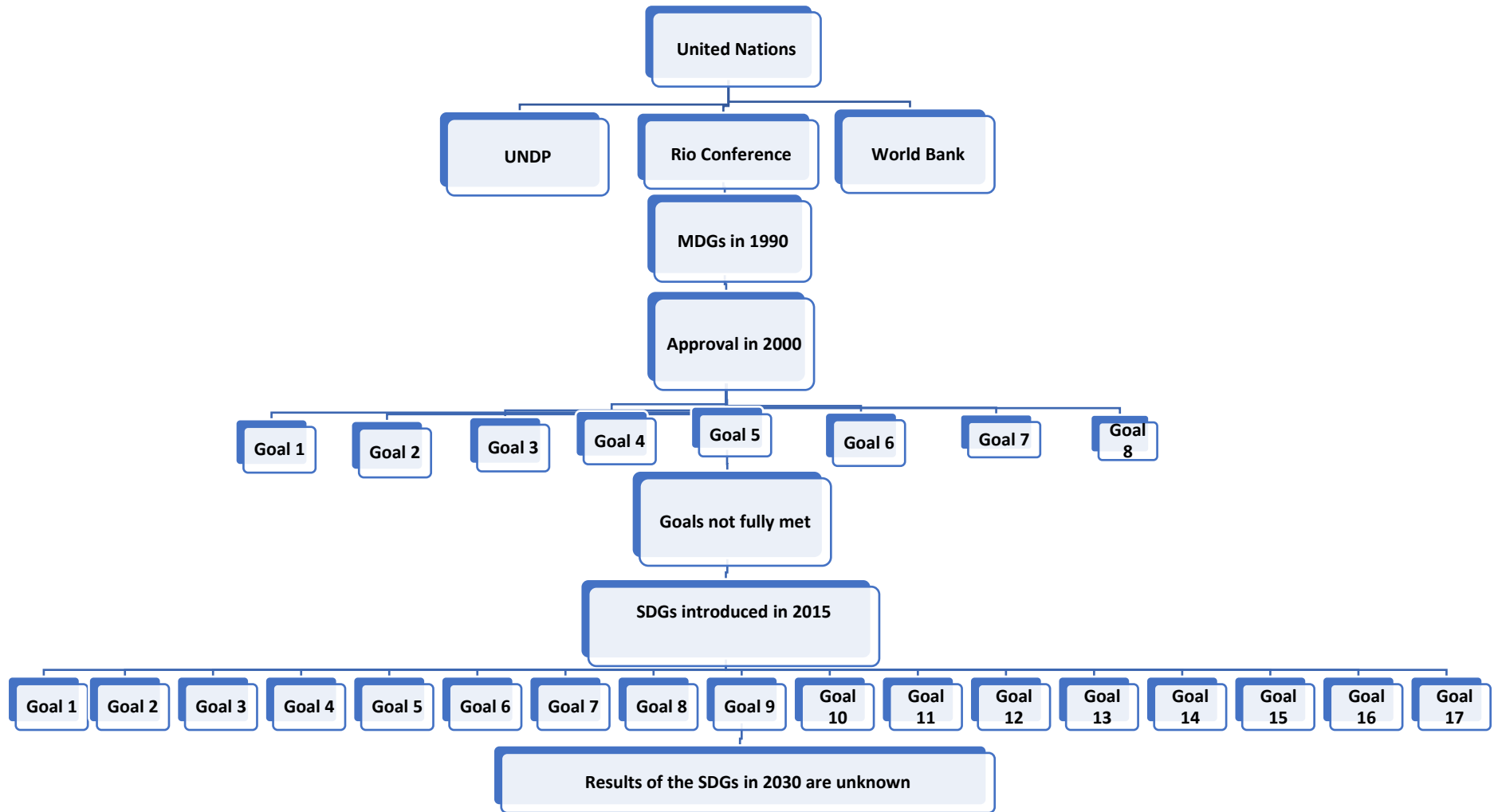
In 1996, the MDGs appeared as recommendations in a booklet of the Organisation for Economic Co-operation and Development (OECD). The booklet was titled '*Shaping the 21st Century: The Contribution of Development Cooperation*' (Clemens *et al.*, 2007). The idea of the MDGs evolved into a set of 'International Development Goals' in 2000 (Clemens *et al.*, 2007). At the turn of the twenty-first century, during a three-day Millennium Summit of world leaders at the headquarters of the UN in New York City, the UN General Assembly approved the Millennium Declaration (Wright, 2018). One hundred forty-seven presidents, prime ministers, and monarchs were gathered in the conference (Clemens *et al.*, 2007). In the Declaration, there were eight MDGs, as well as 21 targets (Udjo and Lalthapersad-Pillay, 2015). The targets intended to solve most of the challenges faced by the developing countries (Wright, 2018). The MDGs were considered as a framework for measuring the development progress made by each country (Clemens *et al.*, 2007). The MDGs acquired a different dimension of development, like poverty, inequality, education, and the environment under its framework (Gaffey *et al.*, 2015). The perpetuation of poverty made the stakeholders at the MDG conference put the eradication of poverty and hunger as a first goal (Churchill & Smyth, 2017). The intention of the MDGs was to halve poverty from 1990 to 2015 (Churchill & Smyth, 2017).

In 2010, ten years after the adoption of the Millennium Declaration and committing to the MDGs, the world leaders assembled to discuss the progress made by the MDGs. The MDGs were criticised for being at risk of turning success into failure (Clemens *et al.*, 2007). Globally, it was discovered that still 925 million people were hungry, moreover, 129 and 195 million children below five years of age were underweight. This

showed that there was still work to be done by different countries to achieve the MDGs before the year 2015 (Fanzo & Pronyk, 2011). In Sub-Saharan Africa, people were still living below the poverty line and the unemployment rate was growing. The MDGs were considered unrealistic to be achieved by many countries. In fact, by 2008, the UN predicted that there would be no African country that would achieve all these goals (Lomazzi *et al.*, 2014). Hogan *et al.* (2010) held the same view that it would not be possible for African countries to meet all the goals before 2015. Indeed, the MDGs were not met in Africa, as well as South Asia. Although there had been important progress in meeting some of the goals in countries like China, the MDGs targets were not fully met at the time of expiry, hence the transition to the SDGs (Munitlak-Ivanović & Zubović, 2017). The subsequent section discusses the start of the SDGs.

The SDG concept was designed as the successor of the MDGs in the development agenda. The concept can be defined as a new development plan proposed by the UN after the failure of the MDGs in 2015 (Wahyuningsih, 2018). The SDGs is a central agenda that comprises of a number of goals. The UN Conference on Sustainable Development (Rio+20 Conference) was conducted in June 2012. The Conference resulted in the establishment of the Open Working Group (OWG), where a crew of member states was assigned to prepare suggestions on the SDGs. On the 14 to 15 of March 2013, the OWG on the SDGs had a first meeting (Yiu & Saner, 2014). The OWG focused on the narrow set of themes and challenges which included water, energy, sanitation, green energy, risk reduction and management (Yiu & Saner, 2014). In June 2014, the UN shared the proposed post-2015 Sustainable Development Goals to improve and rearrange the part of MDGs. It is argued that the SDGs are much deeper and determined compared to the MDGs (Vandemoortele, 2011). The SDGs were formalized in the document titled, '*Transforming our world: the 2030 agenda for sustainable development*' (Munitlak-Ivanović & Zubović, 2017). The 2030 Agenda for Sustainable Development is made up of 17 sustainable goals, plus 169 targets (Rickels *et al.*, 2016). The first objective of the SDGs is also to eradicate poverty, which is the focus of the paper.

The foregoing discourse can be seen in the conceptual framework below, which helps to clarify the emergence and the transition of the MDGs to SDGs, from 1990 to 2030.



**Figure 2: Conceptual framework of the emergence and transition of the SDGs from 1990 to 2030**

Source: Author's compilation



Figure 1 depicts that in 1990 there were three important events under the auspices of the UN; the events resulted to the publication of different reports, which included the UNDP report, World Bank report, and the Rio Conference. In the recommendation of the Rio Conference, the MDGs emerged; these MDGs were formally approved in the year 2000. The MDGs had eight goals as indicated. There was a mark of failure in achieving the MDGs in most of the countries, more especially in Africa. Furthermore, after the MDGs expired in 2015, before meeting its goals and targets, the SDGs were proposed. Now the question is: will Sub-Saharan African countries (Kenya, Nigeria and South Africa) be able to meet the set target in 2030? In what follows thus, the paper tracks the present progress made by these countries with regard to the first goal of the SDGs.

## **TRACKING THE PROGRESS MADE BY KENYA, NIGERIA AND SOUTH AFRICA**

The importance of a national effort in the realisation of Agenda 2030 was highlighted by the United Nations from the onset. According to the UNGA 'Cohesive nationally owned sustainable development strategies, supported by integrated national financing frameworks, will be at the heart of our efforts. We reiterate that each country has primary responsibility for its own economic and social development and that the role of national policies and development strategies cannot be overemphasized' (cited in Persson *et al.*, 2016: 59). Hence, we shall now turn to the discussion on the possibilities of Kenya, Nigeria and South Africa in meeting the SDGs by 2030. The focus on these countries is motivated by the regional dominance in the eastern, western and southern Africa respectively. These countries constitute major economic hubs in their respective regions and thus can provide some insights into regional reality in the context of sub-Saharan Africa.

### **Kenya and the SDGs**

Kenya is classified as a lower-middle income country (Odhiambo, 2008). It became independent on 12 December 1963 after being colonized by the British (Kimenyi *et al.*, 2015). After independence, the government of Kenya worked very hard to develop strategies and policies to alleviate poverty. In the 1980s, the Bretton Woods Institutions

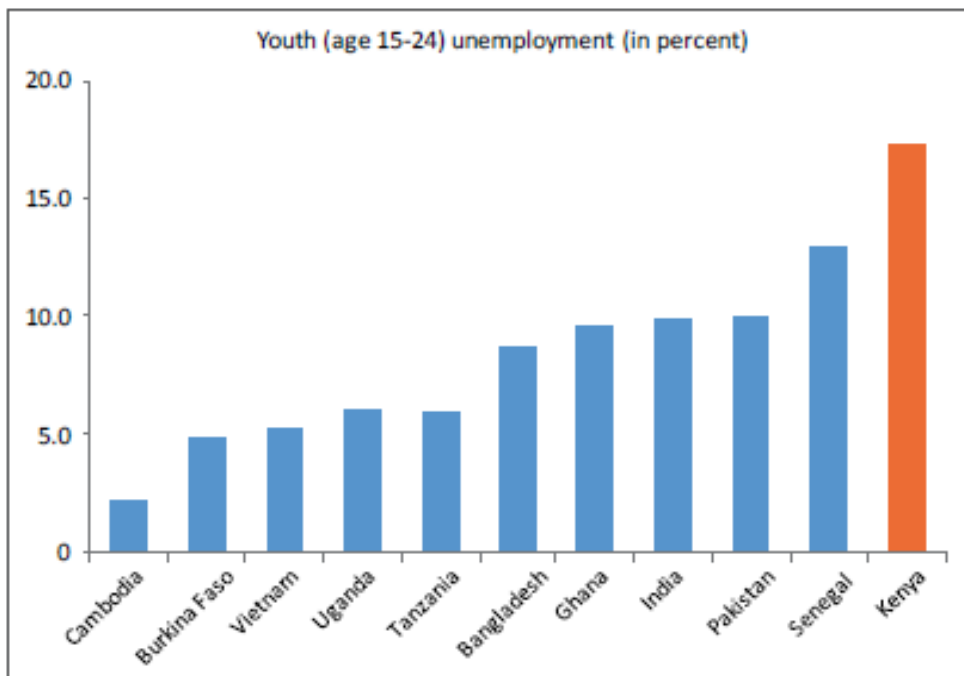
(World Bank and IMF) came to assist Kenya to fight poverty. One of the top agendas of the Bretton Woods was the implementation of the Structural Adjustment Programmes (SAPs) that aimed to improve the economy of the country (Kaluli *et al.*, 2011). The implementation of SAPs was unsuccessful since it failed to support financial liberalization and cut the government expenditure (Kaluli *et al.*, 2011). Regardless of the ineffectiveness of some programmes (like SAPs), the country made an improvement in its economy, technology, and innovation, as well as development. There was an economic recovery in the year 2003 because the GDP grew by 2.8 percent. In 2005, the GDP rose to 5.9 percent, and in 2006 and 2007 it grew to 6.4 percent (Wambugu *et al.*, 2009). As a result, the country is considered as the economic and transport hub of East Africa (Kimenyi *et al.*, 2015).

The GDP of Kenya grew approximately five percent in the past years (Jerejian, 2017). The discovery of oil in Kenya gave hope about the possibility of raising Kenya's economy (World Bank Group, 2016). Even though there is a progress there are still a number of challenges that affect the development of Kenya. Kenya faces a challenge of food insecurity; in 2016, the food security dropped by 15% (Wamunyu *et al.*, 2017). The future growth of Kenya faces many pitfalls, even though the country's economy increases, joblessness. most especially for the youth, remains high. The levels of poverty and inequality in Kenya are also high. Moreover, Kenya has set its own target in 2030 of moving from a lower-middle income country to upper-middle income country. According to the World Bank (2017), in order for Kenya to be considered as an upper-middle income country, it must make a GDP of seven percent per year. However, Kenya's GDP is less than seven percent. The goal of the SDGs (ending poverty) is much bigger than the goal set by Kenya itself of being the upper-middle income country by 2030. The failure of the country to obtain the expected GDP so that it can be considered as an upper-middle income country cast doubt about the achievement of the first goal of the SDGs in 2030. In general, for the country to end poverty by 2030, the GDP must be more than seven percent, as is set by the World Bank.

The GDP achieved by Kenya ever since the SDGs started in 2015 is below the target set by the World Bank, which is to have a GDP of seven percent per year (Kimenyi, Mwega & Njuguna, 2015a). For example, in 2015, the GDP was 6.1 percent; in 2016, the GDP

was 5.8 percent; and in 2017 it decreased to 5.5 percent. It was also predicted that in 2018, the GDP will be at 5.8, and in 2019 it will be 6.1 (World-Bank, 2017). Moreover, Kenya's public debt is increasing.

The democracy of Kenya is sometimes fragile and it has the challenge to sustain economic growth (Nyabuga *et al.*, 2017). In rural Kenya, about 30% to 40% of people manage to move away from poverty but they sometimes fell into poverty again (Shepherd *et al.*, 2014). Post-2015 policies for eradicating poverty should not focus only on escaping alone. Instead, they should also focus on sustaining people's escape from poverty. Regardless of the aforementioned challenges, when compared to other regions, Kenya suffers highly from terrorist attacks (Shepherd *et al.*, 2014). The unemployment rates of Kenya are still relatively high. The figure below shows the unemployment rate in Kenya compared with other countries.



**Figure: 2 Kenya is amongst the highest countries with youth unemployment rate**

Source: World Bank 2016.

The figure above reveals that among other countries, Kenya has a high youth unemployment rate. The economic progress made does not influence the unemployment rate of the country. There are many policies and initiatives designed locally and internationally with the intention of creating job opportunities and skills development

(Wambugu *et al.*, 2009). However, even though the policies are clear, they are not implemented, and where the policies are implemented there are no monitoring and the evaluation structure for them (Wambugu *et al.*, 2009).

In summary, it will be difficult for Kenya to achieve the SDGs in 2030, more especially the first goal of the SDGs (eradicating poverty). It was proposed that, in order for Kenya to reach the goal of becoming an upper-middle income country in 2030, it must make a GDP of seven percent a year. However, if the country cannot meet the requirement proposed by the World Bank, which is to make a GDP of seven percent a year, it will be difficult to totally eradicate poverty by 2030. The unemployment rate in Kenya, most especially regarding the youth is still high. There is still a lot of work to be done for Kenya to achieve the first goal of the SDGs of eradicating poverty by 2030. Having discussed the present progress made by Kenya the following section traces the progress made by Nigeria from 2015 up to present.

### **Nigeria and the SDGs**

Nigeria is a populous country in Africa, with an estimated population of 182.2 million in 2015. It is a middle-income country which practices both socialism and capitalism. Nigeria has the largest economy in Africa. Regardless of being a middle-income country and the largest economy, Nigeria remains a poor country (Babalola & Oyenubi, 2018). The country experiences a crisis in nutrition and poverty that is caused by the inconsistency of the GDP. The falling of the oil prices has affected the GDP of the country. In the second quarter of 2016, the economy of Nigeria was announced to be in a recession. An economic recession can be defined as a decline in the GDP of the country when businesses stop to function in the expected manner (Babalola & Oyenubi, 2018). Moreover, it was shown that 4.58 million Nigerians were left jobless in 2016. The fall in international oil prices in recent times mostly explains why Nigeria went into recession, given its monocultural oil dependent economic system. The fall of the economy caused the citizens to lose their jobs, which also impacted rates of depression and alcoholism (Ako, 2017). The table below shows that economic growth from 2014 to 2018.

**Table 1: Nigeria economic growth 2014-2018**

Country	Dec. 2014	Dec. 2015	Jun. 2016	Dec. 2016	2017*	2018*
Nigeria	6.3	2.7	-1.8	-1.5	0.8	2.3

**Source:** CBN Financial Stability Report December 2016

The table above shows the decline of the Nigeria economic growth. It can be seen in the table that the GDP of the country is poor (Ako, 2017). In spite of the recession that took place in 2016, eight years before the recession, the country was deeply affected by the global financial crisis of 2008. The global financial crisis left people jobless, unemployed, and desperate. After the global financial crisis of 2008, the economy was said to be recovering and growing. However, the recession in 2016 also disturbed the growth of the country's economy. In fact, the forecast, according to Hamel (2018), is that:

‘between 2018 and 2030 real GDP growth (2.15% per annum) will be unable to keep up with population growth, resulting in an average annual growth of GDP per capita of less than zero. These trends may have consequences for particular cohorts of the population, such as Nigerian Youth (under 25) who, according to our projections, could see their mean disposable income decrease by approximately 9% between 2018 and 2030’.

The above position is corroborated by an earlier study that suggests that by 2030 Nigeria will also ‘have more than 10 million people below \$0.70 a day’(CPAN, 2014: 6) (Adamu, 2009).

It has been discussed above that Nigeria faces a lot of challenges in the economy, moreover, the country does not show any positive progress in the economy. The paper has discussed the progress made by Nigeria since the SDGs started in 2015. The following section focuses on tracing the progress made by South Africa in meeting the first goal of the SDGs.

### **South Africa and the SDGs**

In general, South Africa is a country that is rich in mineral resources (gold, coal and platinum). During the 20<sup>th</sup> century, the country attracted the interest of the Europeans

with its minerals resources (Luthans *et al.*, 2004). The South African minerals drove colonialists to impose acts that were against the citizens of South Africa. The acts gave authority to the colonialist to continue to use the available mineral resources without restrictions (Capps, 2012). This rule was later continued by the apartheid government. For instance, The Bantu Education Act of 1953 (Act No. 47 of 1953) was one of the acts that were imposed by the apartheid government which promoted segregation. After the abolition of the apartheid in 1994, the South African democratic government developed diverse programmes for addressing the challenge of poverty faced by the majority in the country, such as the Reconstruction and Development Programme (RDP) (Biyase & Zwane, 2018). Through these programmes, the country experienced social progress from 1994 up-to-date, and as a result, public services are accessible to most of the citizens.

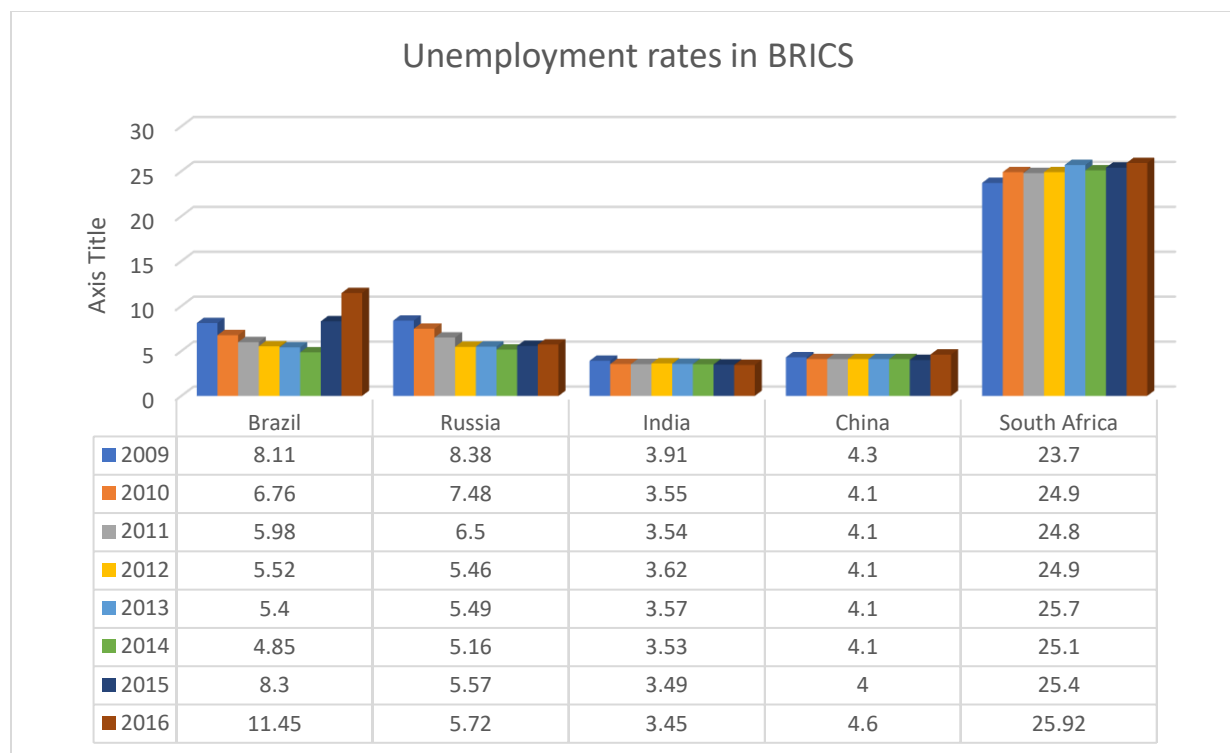
Even though the country has experienced social progress, it is still confronted with some serious problems, such as poverty, inequality, and unemployment (Ebenezer & Abbyssinia, 2018). South Africa has a long and a notorious history of high levels of poverty, corruption, and inequality (Biyase & Zwane, 2018). From the same view, David *et al.* (2018) revealed that the South African economy is defined by the persistence of poverty, corruption, and inequalities. The global financial crisis of 2008 resulted in massive decreases in job opportunities (BÖLÜKBAŞ, 2018).

Apart from the SDGs of 2030, South Africa in its National Development Plan (NDP) has set its own ambitious targets, and one of them is to get rid of poverty by 2030. The SDGs and NDP are consistent in this regard as both have a target of eradicating poverty by 2030. The NDP believes that in order for South Africa to meet the target of ending poverty by 2030 the GDP must grow by five percent. The South African GDP grew in 2015 by 1.3 percent; in 2016 the GDP grew by 1.2 percent (Yilmaz, 2018); in 2017, the annual GDP was 0.9 percent; and the GDP is expected to increase to 1.4 percent in 2018. Moreover, in 2019 the GDP is expected to grow from 1.4 to 1.6 percent (Stats SA, 2017a).

Examining the current GDP from where the SDGs started in 2015 to 2018, the GDP did not make even half of five percent. For that reason, the country will face difficulties in meeting the SDGs, most especially the first goal (ending poverty). To further put this in

context, amongst the BRICS countries, South Africa has the highest rate of unemployment (Yilmaz, 2018). This is not surprising given that the poverty rate in South Africa has grown. As the Statistician General, Pali Lehohla, disclosed in 2017, more than 50 percent of South Africans live in poverty, which is worse in Limpopo province, but least in Western Cape province (Stats SA, 2017a). The poverty trend between 2006 and 2015 was rather flat. In fact, compared to the 11 million people reported as living below the national poverty line of R441 per month, the figure stood at 13.8 million, suggesting a deterioration. It was shown that children and youths are the most affected, the latter due mostly rising level of unemployment. South Africa found itself in technical recession following the negative growth in the last quarter of 2016. According to Lehohla, in 2017, the chance of staying unemployed rose to 10% and there is no clear end in sight to this issue, owing to declining economic performance.

Correspondingly, as of June 1, 2017, the Labour Force Survey showed an increase in unemployment from 26.5% in the last quarter of 2016, to 27.7% (Ledwaba & Mutemeri, 2018; Stats SA, 2017b). This was observed to be the highest since 2003. Albeit having slightly improved to 26.7% in the first quarter of 2018, the figure suggests a bleak hope of creating 11 million jobs by 2030 (Stats SA, 2018). The reality is Africa may be better appreciated if compared to other BRICS member states, as shown in Figure 3.



**Figure 3: Unemployment rate in BRICS (2009-2016)**

Data source: Yilmaz, 2018

It is known that South Africa joined BRICS with the aim of increasing its economic growth. The figure above shows that South Africa has a high unemployment rate when it is compared with other countries. It is shown that from 2015, where the SDGs started, to 2016, the unemployment rate is increasing instead of decreasing (moving from 25.4 to 25.92 percent). Not only does the above figure reveal the discrepancies in poverty between South Africa and the other BRICS countries, it shows a rising trend in South Africa. This level of unemployment in these countries reflect the general state of poverty. It suffices to highlights that the decline in poverty in China and India has also been linked to fertility reduction, that is, demographic dividend (DD) as pertains to a decreased fertility rate. For instance, 'China managed to reduce poverty at an unprecedented rate precisely because of very rapid economic growth during the period of its demographic dividend' (Mehrotra, 2014). Such dividends are yet to be seen in sub-Saharan Africa, including in South Africa.



## DISCUSSION AND CONCLUSION

The foregoing discussion clearly demonstrates that the SDGs started because of the failure of the MDGs in 2015. Some consider the implementation of the SDGs to be unrealistic (Persson *et al.*, 2016). Sachs (2012) proposed that SDGs should have been structured in this way, for instance, 'all the world's people will have access to safe and sustainable water and sanitation, adequate nutrition, primary health services, and basic infrastructure, including electricity, roads, and connectivity to the global information network'. It is argued that the SDGs did not identify possible challenges that could make countries not to meet the target in 2030. Even though the SDGs can be met, it is impossible to meet all the targets, as there will be some obstacles during implementation (Kamruzzaman, 2016). The SDGs are still a new concept in the development agenda, with one of its goals being the eradication of poverty by 2030. There is a debate whether the SDGs will be achieved or not. For that reason, the paper tracked the present progress made by the sub-Saharan countries (Kenya, Nigeria and South Africa).

As of 11 July 2018, an estimated 4.3 million of Africa's over 1.2 billion population, that is 36.6%, live in extreme poverty, and the poverty escape rate stood at -5.6 people per hour, according to the World Poverty Clock (WPC). The figures clearly suggest a major threat to the 2030 vision of poverty eradication. In fact, according to this database, only Ghana, Mauritania and Ethiopia are on target to meet the SDGs poverty goal in the whole of the sub-Saharan Africa sub-region at their current rate. For the targeted countries, namely, Kenya, Nigeria and South Africa, the escape rates were 0.5, -5.8 and -3.1 people per hour, respectively, averaging -3.5 people per hour. In other words, 29.6%, 44.2% and 24.7% of the total population are escaping poverty per hour in Kenya, Nigeria, and South Africa respectively (WPC, 2018). (The world poverty clock arrived at this figure by using 'publicly available data on income distribution, production and consumption provided by various international organizations, most notably the UN, World Bank, and the International Monetary Fund'. It models 'how individual incomes might change over times, using IMF growth forecast for medium terms complement by long terms shared socio-economic pathways' Available at: <https://worldpoverty.io/>.. In the case of Nigeria, the general household surveys of 2012/2013 were utilized by this database.)

At these rates, it is clearly noted that all three countries are off-track in meeting the SDGs number one goal of poverty eradication by 2030. While for Kenya and South Africa, it is basically a question of being off track and not meeting the SDGs by 2030s, Nigeria is rather characterised by rising poverty at current rates (WPC, 2018). Hence, with an 'average population growth of approximately 2.34% per annum, we estimate that by 2030, Nigeria's population will grow to some 263 million people, 150 million of which will be below the age of 25' (Hamel, 2018: np)

While the data may not necessarily be absolute, the situation may actually be worse. This is considering that one other major challenge is the issue of sustaining the poverty escape rate, a tedious task in its own rights. As the Chronic Poverty Assessment Network CPAN (2014: 2) rightly observed, 'The road out of poverty is rarely a smooth, one-way street. Many people rise above the poverty line only to tumble back beneath it'. The reason for this phenomenon has been rightly linked to poor people's lack of 'skills, education or assets (such as land) to keep their heads permanently above the poverty' and their likelihood 'to fall back into poverty if they are hit by shocks such as illness, unemployment, old age, a disability, extreme climate events, or conflict' (CPAN, 2014). This report found that '30% to 40% of those who manage to escape from poverty fall back' in rural Kenya and South Africa.

Furthermore, the above bleak picture of poverty eradication trend is significantly tied to the low economic performances of these countries. It is discussed that the GDP of Kenya is low, with a high poverty and unemployment rate, for that reason, the country has to work very hard to achieve the eradication of poverty by 2030. In Nigeria, the recession of 2016, and the rising spate of political violence and instability in the various part of the country, constitute major threats to eradicating poverty by 2030. It is discussed that the GDP of South Africa is very low, and the country is affected by high unemployment, poverty, and inequalities. For that reason, the paper concludes that there is no progress made by these countries since the SDGs started in 2015. Overall, based on the achievements so far, it is most unlikely for the three regional powerhouses in sub-Saharan African to meet the SDGs first goal of poverty eradication by 2030.

The issues of fertility reduction, broadly understood in terms of family planning, universalized access to school education to secondary level (at least), and quality preventive and public health services, should be well factored in in poverty reduction in sub-Saharan Africa (Mehrotra, 2014). The importance of this is particularly obvious in the growing mismatch between population growth and economic growth. The sharp decline in the poverty rate in India, from 306 million in 2011 to some 70 million today, serves to drive home the important link between GDP growth and population. According to Hamel (2018), the fact the 'India's per capita GDP growth rate was 5.6% per annum, far outpacing average population growth (1.2% per year)' is the one of the major reasons for the above positive outlook.

The problem of the energy deficit in most of sub-Saharan African has remained a blockade to poverty eradication (Bacon & Kojima, 2016). We concur that, 'without access to electricity, the pathway out of poverty is narrow and long' and this phenomenon is very much evident already in sub-Saharan Africa where 'a large share of the population depends on traditional biomass for cooking and heating and lacks access to electricity' (World Bank, 2017: 1,3).

Consistent with extant literature, it is recommended that cooperation between government, civil society, and the private sector needs to be improved for the countries to achieve the set target of eradicating poverty. Even more than the MDGs, 'an intersectoral approach and strong commitments by governments and donors would be of primary importance to define effective goals and translate them into reality' (Lomazzi *et al.*, 2014: 7). It is noteworthy to state that the involvement of the youth, as drivers of change, is also key given that sub-Saharan Africa is the region with the highest population of youth in the world, and these youths are the most affected by the problem of poverty and unemployment. Overall, there is a need for policy implementation that addresses the social, economic and cultural forces that hinder people from escaping from poverty, as well as those that relapse people into poverty 'even if they manage to escape its clutches for a while'(CPAN, 2014: 2).

In conclusion, this study is a modest attempt to demonstrate that what would happen in terms of 2030's target of poverty eradication, seen through the lenses of current

economic reality and trend. Hence, the paper suggests that so far it is not so good. And with a business-as-usual approach to governance across most of sub-Saharan Africa, the hope of poverty eradication by 2030 is not only bleak, but the chance of poverty growing among many sub-Saharan African countries is hardly ignorable. The cases of Kenya, Nigeria, and South Africa, which constituted the focus of the study, serves to drive home this point. Therefore, there is need to create such awareness among stakeholders, especially the government, that all is not well, and things must change drastically in the coming years to actually put these countries on track towards meeting the target of poverty eradication by 2030. In this regard, further research that monitors the progress are always needed over this period to highlight what works, so that it may be capitalised upon to bring greater dividends.

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**B. Ngcobo-Gumede and E. Mutambara**

**LEADERSHIP INFLUENCE ON THE IMPLEMENTATION AND  
STRENGTHENING OF INTERNAL CONTROLS IN SOUTH AFRICAN  
GOVERNMENT DEPARTMENTS.**

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**ABSTRACT**

All organisations across the private and public sector serve certain purposes, and have a particular set of objectives, which they seek to achieve. Central to the ability of these organisations to effectively achieving their purpose and objectives is leadership. Leadership plays a role in spearheading and steering the organisations' efforts towards achieving their goals and purposes. The leadership of any organisation directly influences its ability to succeed. Also fundamental to organisations' ability to succeed are internal controls, which serve the purpose of enhancing an organisation's ability to effectively and efficiently attain their objectives, as well as safeguarding the organisations' assets, ensuring sustainability and success of these entities. Thus, it is apparent that leadership has influence over internal controls within any organisation, and this study sought to determine the influence that leadership has on the implementation of adequate internal controls. A qualitative method was used in this study since tremendous attention was paid to bringing broader insight into issues of leadership. A qualitative method with explanatory analytical approach was also used in this article. The South African government departments are clearly under-resourced and financially constrained, hence the low level of system automation and staff shortages. To address this issue, a cost-benefit analysis should be conducted to clearly show the full scale of the financial implications of the prevailing lack of capacity on the ability of the departments to

safeguard their assets and achieve their objectives. The results of this analysis should then be used to lobby for additional funds from the government.

## **INTRODUCTION**

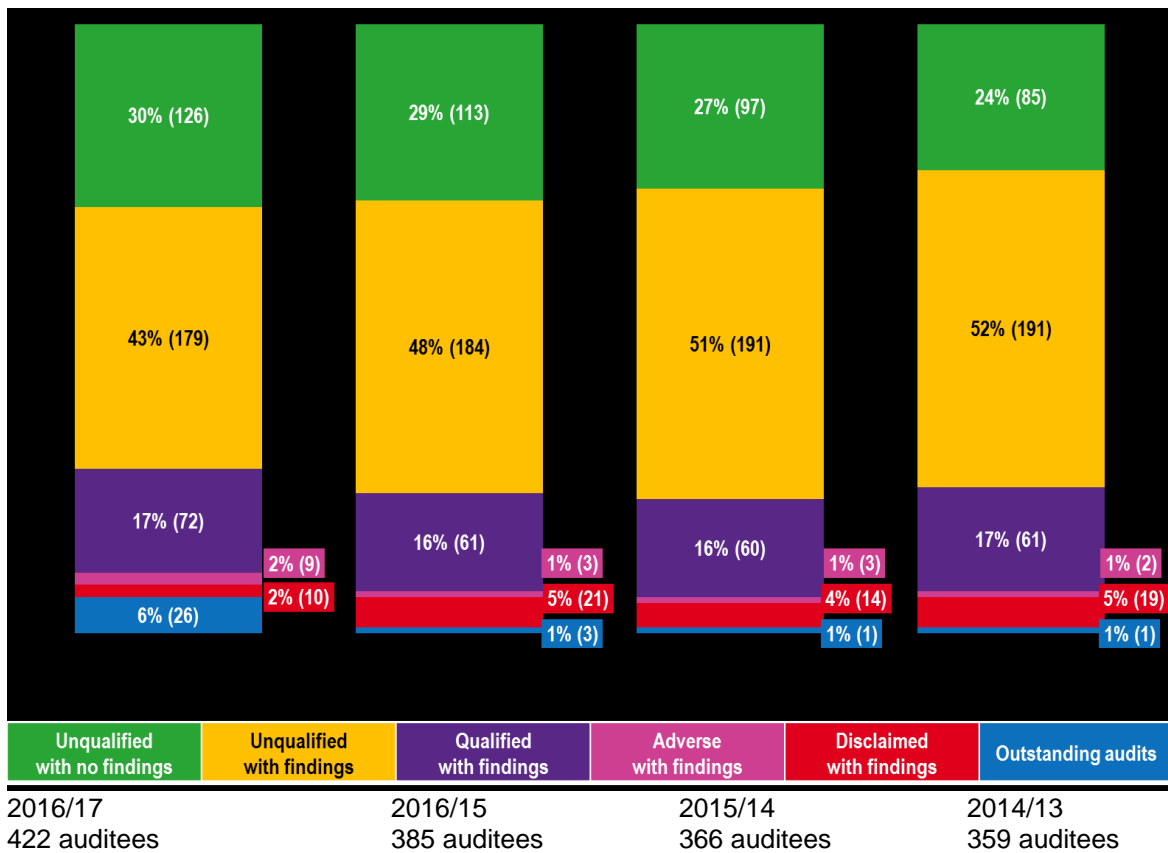
Internal controls play a sacrosanct role in the operations of all government departments in South Africa. The function of internal control serves to guide officials towards complying with the adopted policies and systems of the organisation. Organisations have realised that effective leadership is paramount to strengthen the function of internal controls, thereby achieving effective internal audit, as they are capacitated in terms of manpower, infrastructure, financial resources, and ideas. To coordinate all these scarce resources, internal controls are put into place to make sure that there is alignment towards the realisation of the overall strategic goals and objectives. South African government departments, including public entities and municipalities, were found to have regressed audits, and this seriously affects the operations of these organisations.

This article will focus on South African government departments. Internal controls requires competent leadership, hence it is vital to guide managers and employees about how the tasks should be performed, how procedures and methods should be followed and how to adhere to the established legislation (Ncgobo\_ & Malefane, 2017). The purpose of this article was to explore the influence that leadership may have on the implementation and strengthening of internal controls in South African government departments with the view to enhance internal controls to improve the current situation.

## **BACKGROUND**

This article is prompted by an inadequate commitment towards implementing and strengthening the internal control improvement plans in compliance with key legislation, leadership, governance, and financial performance management. Attributed to this problem is poor fiscal discipline in the organisations. This is supported by the Auditor-General (AG) 2017 report that stated there has been improvement noted in the past four years due to leadership influence. The auditor-general (AG) recognised improvements in

the internal controls through audit outcomes in both the Eastern Cape and Limpopo, and attributed these positive trends to the leadership roles of the provincial treasury and the premier, respectively. In contrast, outcomes in Mpumalanga, the Northern Cape and KwaZulu-Natal were erratic over the past four years, caused by a lack of urgency at leadership level in responding to the causes of the audit outcomes in these provinces (Auditor General, 2017). Figure below presents an illustration of an audit finding by AGSA for the previous four years.



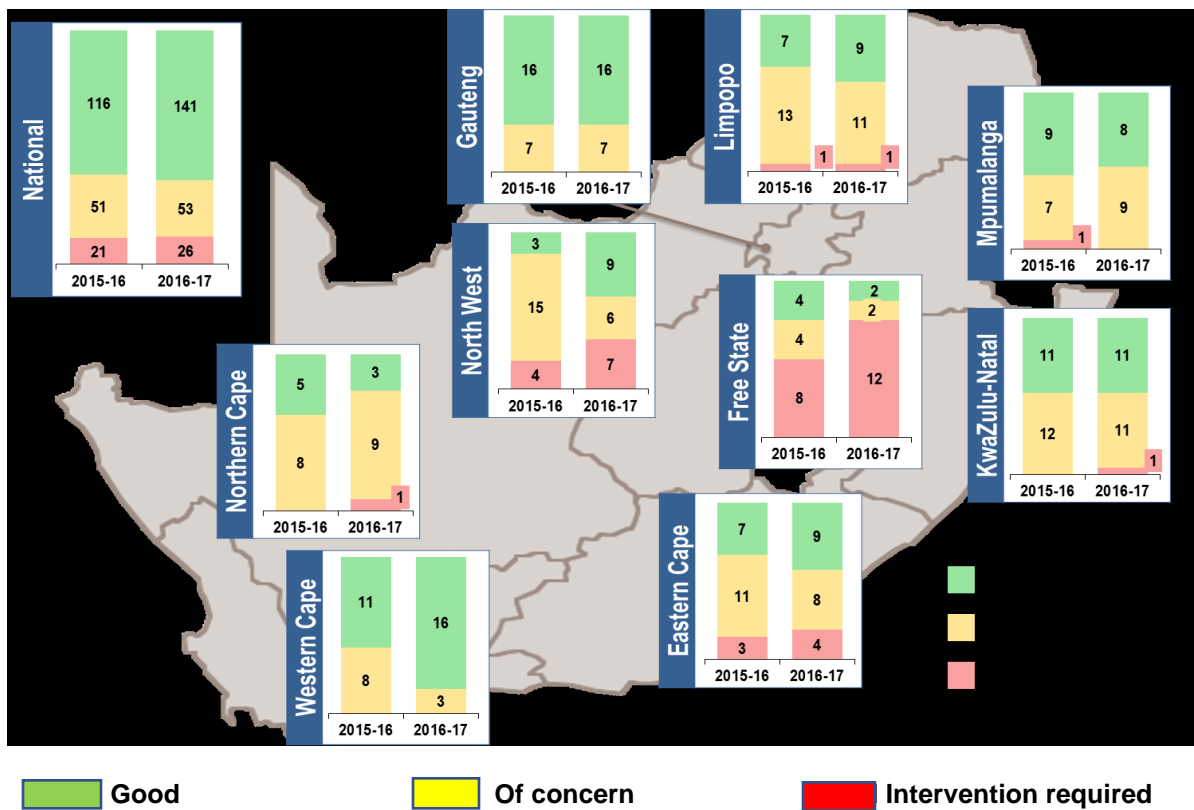
**Figure 1: Overall audit outcomes (all auditees)**

Source: Auditor General South Africa (2017)

Figure 1 shows that leadership in the South African government departments has improved and those that failed could be due to lack of providing effective and efficient governance, lack of accountability and commitment towards clean administration. Because of this background, this article seeks to recognise the influence of leadership on the implementation and strengthening of internal controls in South African government departments.

## PROBLEM STATEMENT

In such a complex operating environment, there is the need to continuously redefine procedures and policies in order to keep up with the challenges arising from continuous change and dynamic. There is a concern about going concern status, which comes against the background of a regression in the overall internal controls of South African government departments. According to the AG overall, there is an emerging trend of departments' leadership failing to manage their internal controls properly (Auditor General, 2017). The graphic representation below provides an overview of auditees per province, including national, with indicators of internal controls risks.



**Figure 2: Overview of auditees with indicators of internal control risks**

Source: Auditor General South Africa (2017)

Figure 2 shows that while the overall audit outcomes showed a noticeable improvement, progress was hampered by factors such as poor compliance with laws and regulations, especially in the areas of supply chain management, inappropriate monitoring of key project deliverables and an inability of leadership in the finances of departments and entities properly.

## **ARTICLE OBJECTIVES**

This study wished to assess the nature of influence that leadership has on the implementation of adequate internal controls.

## **LITERATURE REVIEW**

### **Introduction**

Literature relevant to this article is presented, with a focus on the theoretical background of the concepts of leadership, internal controls, leadership influence on internal controls, and the implementation of adequate internal controls.

### **Leadership defined**

The definition of leadership spans across all social organisations and is the same in private and public enterprises. According to Sentara (2015:34), defining leadership is as complex as the leaders themselves, but all the definitions of leadership evolve around strategy, inspirations, leading and organisational visions. Supported by Holms (2014:34), leadership is the embodiment and combination of character and strategy. Thus, a person who exercises leadership skills has in him or her a special character to lead the rest of the organisation towards the attainment of the corporate strategy.

Chimaro (2013:1332) cited that, 'leadership is the art of serving others by equipping them with training, tools, time, and resources so that the followers can achieve their full potential both personally and professionally'. Thus, leadership is recognising people with diverse gifts, skills, attributes, and the characteristics necessary for the achievement of organisational goals and objectives (Faull, 2012:32).

## **Generic roles of leadership in public-sector organisations**

The success of any organisation solely depends upon the quality of its leadership (Holms, 2014:35). Organisations with leadership that is characterised by failure, poor decision making, and poor resource mobilisation are not expected to be market leaders, while organisations with visionary and transformational leadership guarantee themselves of prolonged operational continuity, decent returns to investments and continuous increase in shareholder value (Cade, 2013:44). Thus, the role and importance of leadership in organisations can never be over-emphasised, as leadership shapes and moulds the organisation, it directs the organisation and it defines what the organisation stands for (Blair, 2014:21; Holms, 2014:78).

Academics and business scholars agree that leadership is as important in organisation as much as raw materials are important in a production plant. According to Adams (2013:45), ability under leadership means the ability of the leader himself or herself to exercise organisational duties within his or her responsibility. Adams (2013:46) further stated that the presence of leadership in an organisation assists the organisation to become adaptive to the different situations and economic environments the organisation operates in. For example, the prevailing economic circumstances in South Africa require effective leadership within public sector organisations, which can adapt and design working solutions to keep an organisation afloat. In the event of a crisis, leadership assists organisations to come up with new strategies that act as shock absorbers, limiting the impact of the effects of the crisis (Sentara, 2015:43; Holms, 2014:32).

Another important role of leadership in an organisation is that it empowers people within an organisation. According to Adams (2013:45), to say that leadership empowers means that a leader inspires confidence and self-esteem in his or her followers. Denver (2014:59) argued that empowerment can be practiced through different forms, such as training, bold talk, soft talk, and other empowering people by their example. According to Denver (2014:10), empowerment is a crucial role of leadership. The author argued that all successful leaders in the business and political world have been successful in through their ability to empower their followers.

## **An overview of internal controls**

According to Chorafas (2000:35), internal controls are methods used by an organisation to promote financial and accounting information's integrity, validity, and reliability. Internal controls are implemented in order to ensure that organisational operational and profitability targets are realised, to manage policies across the organisation and to ensure organisational consistency (Adams, 2013:46). Internal controls refer to measures in place and activities that are undertaken to ensure that predetermined objectives are achieved in an orderly, as well as efficient manner, and that the assets of an organisation are safeguarded against loss or damage. This is possible as internal controls assist in guaranteeing that accounting records are prepared on time, accurately, and that financial information is reported reliably (Ngcobo, 2016:43). 'Internal control' in this article refers to measures in place and activities that are undertaken to ensure that predetermined objectives are achieved in an orderly and efficient manner and that the assets of a firm are safeguarded against loss or damage. It assists to guarantee that accounting records are prepared timely, accurately and that financial information is reported reliably.

## **Influence of leadership and internal controls**

Several professional bodies and organisations, including the Committee and of Sponsoring Organisations (COSO), the American Institute of Institute of Public Accountants (AIPA), the Institute of Internal Auditors (IIA) and the European Central Bank (ECB), elaborated that the success of internal controls within an organisation constitute a proportion of the accountability of senior leadership (Chorafas, 2000). Leadership must have an overall understanding of the institution's strategic objectives, which should be linked to the internal controls (Ngcobo, 2016). This is coherent with the view expressed by Sarbanes-Oxley Act, Section 404 (SOX 404), which obliges organisations to unveil evidence concerning the quality of internal controls, as well as to warrant that external auditors have access to the efficacy thereof (Lin, Wang *et al.*, 2014).

Auditors are required by SOX 404 to assess the integrity of the leadership, as well as report on the strengths and weaknesses in the internal controls of a firm, which are tied with the policies and actions of leaders contributing to an ethical/unethical work environment (Blair, 2014:43). The Sarbanes-Oxley Act (SOX) of 2002 mandate said that

designed internal controls must involve people in the organisation, some of which should be well-trained experts in certain specialised areas of responsibility, which will focus of internal audit function to detect the strength and weakness of internal controls (Lin *et al.*, 2014:43). Lin purported that a vital constituent of internal controls is the control environment which compels leadership to drive issues of competence, ethical values and integrity of employees, including continuous training and development, management's operating style and philosophy, the delegation of responsibility, authority and effective leadership by the executive for the achievement of business goals (PricewaterhouseCoopers and Everson, 2013).

There is evidence that internal controls have a positive relationship with a business organisation's financial performance and strategic objectives, which include personnel management, arithmetical accounting separation of duties, physical authorisation, supervision and performance acknowledgement (Nyakundi, Nyamita & Tinega, 2014:43).

Considering the international viewpoint, according to the standards of the Institute of Internal Auditors (IIA), a vital feature of robust governance is a strong system of internal controls, and monitored internal audit activity that is sufficiently resourced (Meseret, 2015:43). The definitions above have certain things in common, being that internal controls are the organisation's leadership responsibility.

This article determines whether the same situation exists within the public-sector environment. According to Meseret (2015:43), the process of internal control is greatly influenced by the leadership, board of trustees, and other personnel of an organisation, with the intention of providing assurance concerning the attainment of objectives in the categories of:

- Financial reporting accuracy and reliability.
- Operational efficacy.
- Obedience to applicable legislation.
- Safeguarding assets of the organisation.

Although they are distinctive, the objectives of these four categories are interconnected.



## **Strengthening functions of internal controls**

Skaife, Veenman, and Wangerin, (2013:78) acknowledged that financial reporting that is accurate and reliable is a tool that can be used by firms to disseminate credible information to relevant stakeholders, for the purpose of aiding performance evaluation, and the making of decisions concerning the allocation of resources. Internal Control Financial Reporting (ICFR) is a commonly recognised part of successful internal control structures, as it is enforced by SOX 404, which mandates the assessment of an organisation's ICFR by both auditors and management (Feng, Li, McVay & Skaife, 2014:78). Reliability financial reporting is a cornerstone of management exposure, with its execution ability a required proper designed functioning of internal control (Chorafas, 2000).

Financial reporting is in fact at the centre of state leadership's accountability, that managers through clear and effective financial reporting, will be able to answer to the standing committee on public accounts (SCOPA) on the method of delivering services, resources allocation and maintenance (Mohammadi, Ghaffari, Hadavi & Mohammadi, 2014). From the previously discussed, there is evidence showing that effective internal controls, coupled with reliable and accurate financial reporting, are fundamentally a process of knowledge exchange and an aid for resource allocation decision.

Feng, *et al.*, (2014:143) noted that policies and procedures which deter the occurrence of particular events are referred to as preventative internal controls. The aforementioned author also concurred that preventative internal control measures represent the first line of defence for a firm's system of financial accounting and are proactive in nature. In contrast, detective internal control measures refer to the backup policies and procedures designed to safeguard the proper functioning of preventative internal control measures (Skaife *et al.*, 2013:19).

## **METHODOLOGY**

a Qualitative method was more appropriate for this article, since tremendous attention was paid to bring broader insight into issues of if and how. A qualitative method, with

explanatory analytical approach, was used in this article. Therefore, an individual, in-depth, semi-structured interview process was used for data collection. Deliberation was on in-depth interviews using a tape recorder as a data collection instrument to ensure due diligence. Participants were assured that ethical imperatives, referred to as confidentiality, voluntary participation and professionalism, were observed. The aim of this article was to scrutinise the legitimacy of general statements made about certain relationships involving social processes (basic article). An applied article, in contrast, aims to solve specific, as well as real, problems and it is focused on generating new knowledge (Garand, 2013). This article assumes the phenomenological research approach, which, according to Adams, Khan and Raeside (2014), is associated with the research of human actions and behaviour and it is associated with the qualitative method approach.

This article adopted the exploratory research design and the rationale for choosing this design was based on that little is known about the subject matter of this article. It provided a better understanding of issues concerning better decision making on the effectiveness of internal controls, with regards to leadership, internal control, internal audit and governance in South African government departments, taking into consideration that there were few knowledgeable experts with relevant information about the article phenomena.

The action research strategy was selected for this article and this article represents the initial explorative stage of the action research. Literature about this article is scarce, hence this explorative article seeks to deliver an enhanced understanding of the topic of this article. The target population of this article consisted of 18 senior managers, departmental managers, and auditors, within the South African government, who are part of leadership teams, are involved in decision making processes, and have knowledge of the internal control processes within the organisation. From this target population, the article sample was selected. For this article, the non-probabilistic sampling method of purposive sampling was utilised to select 12 study participants out of a study population consisting of 18 individuals, within the South African government departments, considered as experts, or who are highly involved in decision-making on the issues related to the article. The semi-structured interviews, which were administered to collect

primary data, were based on an interview guide, which consisted of four interview questions based on the objectives of the article. All participants were contacted to request participation in the article based on their leadership influence on internal controls. Computer software NVivo 11 qualitative data analysis package was used for data entry and data transformation. The services of a statistician were utilised for data processing and analysing.

## **DATA PRESENTATION, ANALYSIS, AND INTERPRETATION**

As noted in the literature review, previous research has shown that leadership is of great importance in recognising the need for, designing, and implementing, internal controls (Ngcobo, 2016). The following sections present and provide an analysis, as well an interpretation of the findings obtained from the research with respect to leadership and their influence on the implementation, as well as monitoring of internal controls.

From the findings presented it is apparent that leadership has a great influence on the implementation of adequate internal controls. Leadership within the South African government departments is responsible for the failure or success in the implementation of adequate internal controls within the department. This is in line with the findings of Chorafas (2000), who noted that internal leadership is part of the accountability of the board and senior leadership of any business organisation. The designing and implementation of internal controls within the South African government departments is the responsibility of the leadership. This is in line with the article of Sentara (2015) and Ngcobo (2016), who noted that an organisation's leadership is responsible for designing, implementing, and driving effective, as well as adequate, internal controls. Hence, the adequateness and efficiency of internal controls within the South African government departments is highly dependable on the input and effort of management through leadership, in setting up and running the internal controls. The highlights from the research findings, in terms of the nature of influence that leadership has on the implementation of internal control, are as follows:

- The success of internal control is highly hinged upon the input and effort of leadership towards implementation of the controls;

- Leadership plays the role of interpreting and workshopping internal control policies, practice notes and guidelines, to ensure that all the staff within the leaders' sphere of leadership fully understand the role they play in the implementation of internal controls and what is expected of them;
- Leadership is responsible for disseminating and instilling a culture that leans towards compliance towards the effective, efficient, and successful implementation of adequate internal controls;
- Leadership is also not exempt from the requirements of internal control policies and systems. There is the need for leaders to strictly conform to internal control and demands for their subordinates to do the same. The failure to lead by example has dire effects as it leads to resistance to conform from the subordinates of the non-conforming leader; and
- The concept of consequence management cannot be separated from the successful implementation of adequate internal controls. The leaders of the South African government departments should not be immune to consequences of transgressions against the internal control policies and systems.

The effort put towards the implementation of adequate internal controls at the time of the article was at best average. There is absolute consensus among the respondents that the effort and influence of the leaders of the South African government departments is at best moderate and there is much room for improvement. There is considerable and strong negative influence of leadership towards the implementation of adequate internal controls. Most of the respondents identified the failure to lead by example, by some leaders, as one of the major issues contributing to the apparent negative influence the department's management has on the successful implementation of adequate internal controls. Most of the respondents specifically cited poor consequence management in handling offences committed by the leadership.

The above-mentioned findings positively confirm the high significance of influence that leadership possesses in determining the successful or unsuccessful implementation of adequate internal controls within the South African government departments. The primary data presented in this section pointed out to the fact that initiatives to strengthen internal

controls are indeed in the realm of the leadership of the South African government departments and the leadership has much influence in these initiatives. These findings are in line with those of the article by Mohammadi *et al.* (2014) and Feng *et al.* (2014), who stated that the leadership of an organisation plays the role of ensuring that preventative and detective measures of internal controls are present. These measures are put in place by management and it is the responsibility of leadership to ensure that they have the strength to mitigate shortfalls, as well as address prevalent issues that hinder the smooth and successful operation of an organisation.

A noteworthy finding from the primary article is that even though the role that the leaders recognise the subordinates of leaders themselves, the shortage of staff, poor delegation and lack of democracy, within some of the initiatives, has proven to be a deterrent in the efforts of the departments to strengthen its internal controls. As posited by Skaife *et al.* (2013), the setting up of preventative and detective measures alone are not a sufficient guarantee of the successful implementation of internal controls. There is the need for the management of an organisation to delegate tasks to subordinates to meet the requirements of internal control, satisfaction of which is also subject to other resource constraints, including physical access to equipment, cash, inventory, and other assets (Feng *et al.*, 2014 and Skaife *et al.*, 2013).

The influence of leadership in taking on initiatives to strengthen internal controls is viewed as poor and weak by the respondents, and understaffing within the South African government departments is a likely explanation for this predicament. In addition to this understaffing, it is also apparent from the article findings that the preventative measures for internal control within the South African government departments are lacking and there is much room for improvement. Additionally, the article findings also pointed out that there is a lack of ownership of the initiatives meant to strengthen internal controls. Without a 'buy-in' from the employees, the success of these initiatives proves to be a challenge.

It is clear that monitoring of internal controls is the sole responsibility of leadership. This finding is similar to the findings of the article by Santiso (2013), who purported that management oversight plays a key role in the day to day running of any organisation. Mohammadi *et al.* (2014) pointed out that monitoring is an on-going process, however,

there is a debate between the management on what monitoring entails and whose responsibility it is. Some of the respondents, in line with what Vaassen *et al.* (2009) noted, said that monitoring is the responsibility of every leader and they recognised that most leaders are not aware of this. For the respondents who viewed monitoring as on-going, the prevailing state of monitoring within the department is severely dysfunctional and in dire need of improvement. Additionally, most of the respondents viewed monitoring as chiefly the responsibility of other individuals and units besides themselves, for example, the internal auditors, the internal compliance unit, the AG, the ministers of departments and so forth. In the view of this, for respondents, monitoring is a periodical or occasional phenomenon and for these individuals the current state of monitoring within the department is quite okay. This lack of consensus amongst respondents, in how they define monitoring, as well as its prevailing state of effectiveness and success, is a sign that poor monitoring prevails and there is much room for improvement. Poor monitoring is likely another explanation that explains the current unsatisfactory state of South African government departments.

The most prominent shortfall in the monitoring of internal controls is the absence of monitoring on a day-to-day basis. Most of the respondents do not recognise that monitoring is an on-going process that should be executed continuously; most of the respondents recognise monitoring as an occasional phenomenon. Some of the respondents also pointed out that they view monitoring as principally the role of other functional units, like internal auditing, internal compliance, monitoring, as well as monitoring and evaluation, and not chiefly that of the leaders themselves.

The process of monitoring within the South African government departments is also hindered by poor consequence management, especially in handling transgressions, to the requirements of internal controls, which are committed by the leaders themselves. This has a negative ripple effect throughout the departments and efforts to monitor and enforce internal controls becomes fruitless. Consequence management is an inseparable component of effective implementation and monitoring of internal controls.

Another issue is that of role duplication by the management internal auditing and internal compliance units within some South African government departments. From the findings

of the primary research it is apparent that leadership recognise the roles currently being played by these two units as similar and tantamount to resource wasting, role duplication. In contrast, some of the leaders view the roles of these two units as fundamentally different and necessary. This lack of consensus on what exactly these two units do, shows a lack of knowledge among the leadership of what happens in reality within South African government departments.

The issue of understaffing within the departments is also another major issue that is deterring effective monitoring of internal controls. This finding is in line with the findings of the article by Skaife *et al.* (2013), who pointed out that the successful design, implementation, and monitoring of internal controls, is subject to resource constraints, like physical access human resources, cash, inventory, and other assets. Most of the issues of monitoring within the South African government departments arise mostly from the finance and supply chains units of the departments.

The solutions to the above-mentioned problems, as proposed by the respondents, include improved training and induction of leaders; staff recruitment; improved consequence management; the need for leaders to lead by example; improved workshopping of internal control processes and systems; and automation of the systems and processes of the operation of the departments. Most of the problems faced within the South African government departments, in the view of the respondents, stem from poor training of managers within the department. It is recognised that there is a great need for more staff and there is the need for the induction and workshopping of internal controls among the leaders; better management, as well as assessment of risk; continuous monitoring by all managers; automation of systems, as well as processes and consequence management for the whole organisation.

The following figures shows snap shots of common themes of the above findings compiled during primary research in the form of a word cloud, as the frequently mentioned words in response to the question about the nature of influence that leadership has on the implementation of adequate internal controls.



*Figure 3: The nature of leadership influence on implementation of adequate internal controls*

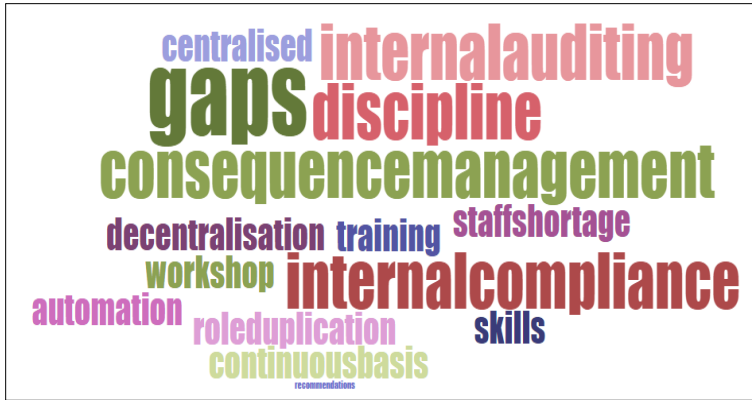


*Figure 4: Leadership influence on initiatives to strengthening internal controls*



*Figure 5: Leadership and monitoring of internal controls*





**Figure 6: Challenges in monitoring internal controls**



**Figure 7: Potential solutions to challenges faced in monitoring internal controls**

## CONCLUSIONS AND RECOMMENDATIONS

### Conclusions

Findings of the article, on the influence that the leadership of South African government departments has on the implementation of adequate internal controls, were meant to address the objective: To assess the nature of influence the leadership has on the implementation of adequate internal controls. The findings revealed that:

- South African government departments' leadership has significant influence on the implementation of adequate internal controls.
- The leadership of South African government departments has the responsibility to lead and facilitate the designing of internal controls.

- It is also the responsibility of South African government departments, leadership to workshop the internal control policies designed, translating, as well as interpreting, them to their subordinates, to make sure that they are implemented in an efficient and effective manner.
- It is also the responsibility of the South African government departments, leadership to lead by example in the implementation of internal controls.
- The leadership of South African government departments influences internal control initiatives through policy reviews, the policy development committee and recommendations made on auditing reports.
- The influence of leadership in the South African government departments on initiatives to strengthen internal controls is weak, as it is subject to resource constraints, and there is much room for improvement.
- Leadership's monitoring of internal controls at South African government departments is not satisfactory and there are several gaps which need to be addressed.
- It is apparent that some of the managers view the monitoring of internal controls as an occasional task executed by an outsourced component of the South African government departments.
- The major causes of this poor monitoring of internal controls are poor consequence management; role duplication by the internal auditing and internal compliance units; staff shortages; and an under-skilled workforce.
- There is much room for improvement of the gaps in leadership's monitoring of internal controls.

## **RECOMMENDATIONS**

This article provided insight into the issues surrounding the matter of leadership's influence on adequate internal controls within the South African government departments and how the internal controls of the departments can be improved. Based on the findings of the article, the following recommendations to address the article problem were deduced with much emphasis on their feasibility:

- Given the significant influence that the leadership of South African government departments has on the implementation of internal control measures, it is of great importance that the management of the departments ensure that leaders play their role fully in the implementation of internal controls, and to lead by example, which is a matter of concern.
- There should also be emphasis placed on breeding a culture of strict compliance to internal controls, and building a culture of 'living' and 'breathing' internal controls within the organisation. This is an initiative that can be successful if backed by the leadership of the South African government departments, as they have sufficient influence to do so.
- Accountability should be enforced on at all levels of the organisation, especially upon the leadership. There is a need to document performance standards based on the roles of leadership, in influencing the implementation of adequate internal controls.
- The management of the organisation should be evaluated on their influence on the implementation and monitoring of internal controls.
- The induction and training process of management should also be improved and emphasis should be placed on the issue of monitoring internal control being every leader's task and an ongoing process.
- The roles of internal auditing and internal compliance should be revisited, and be clearly assigned if necessary, as well as documented and publicised to all individuals within all the departments. This process should involve all officials of the South African government departments so that there is clarity on the roles and functions of these two units.
- The majority of the issues of concern with the internal controls stem from their implementation, and to address this there is a need to conduct a department wide root cause analysis, to identify the particular areas where the implementation is failing. Based on the findings of this article, it would be wise to conduct a skills' audit of the management to determine the level of their competency and from that, training programmes should be initiated to improve those skills.

- The South African government departments are clearly under-resourced and financially constrained, hence the low level of system automation and staff shortages. To address this issue, a cost-benefit analysis should be conducted to clearly show the full scale of the financial implications of the prevailing lack of capacity on the ability of the department to safeguard its assets and achieve its objectives. The results of this analysis should then be used to lobby for additional funds from the government.
- Given that the funds are available the South African government departments, should recruit more staff with the appropriate skills, as well as automate its systems and processes to improve the control and monitoring of internal controls.
- It may be viable to improve efficiency in the use of the resources that are already there, and conduct training, as well as workshops, to improve the skills of the existing employees.

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**A. O. Ogunlesi and K. G. Bokana**

**DYNAMICS OF AGRICULTURAL PRODUCTIVITY IN SUB-SAHARAN  
AFRICA: A P-ARDL MODEL APPROACH**

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**ABSTRACT**

This study empirically examined the long-run and short-run dynamics of agricultural productivity in 37 selected countries in Sub-Saharan Africa (SSA), between 1990 and 2016, by employing the recent Panel Auto Regressive Distributed Lag model. The model estimate revealed a cointegrating, but no short-run significant relationship between agricultural output and the independent variables, showing that the Cobb-Douglass production function supports long-run, but not short-run estimation of agricultural production in SSA during the reviewed period. The findings established that labour and real exchange rate have a positive and significant long-run influence on agricultural productivity, while capital, degree of openness, and per-capita income exhibit a negative, but significant relationship with agricultural productivity. The negative and significant Error Correction Term (ECT) value evidenced that all the variables co-move towards long-run stability at an annual slow speed of adjustment of 29.2%, thus concluding that the influence of the independent variables enhances agricultural productivity in the long-run. In view of the afore-mentioned findings, the study recommended the formulation and implementation of effective macroeconomic policies to stabilize the exchange rate, encourage export, utilize capital optimally, and provide infrastructural amenities, with a view to enhancing agricultural productivity to stimulate economic growth in SSA.

**Keywords:** Agricultural value-added, Co-integration, Panel auto regression, Distributed lag model, Sub-Saharan Africa.

## INTRODUCTION

The agricultural sector remains the oldest and most prominent branch of economic activity in most countries in Sub-Saharan African (SSA), even as its leading role, compared to other sectors, is significant in realizing the regional sustainable development objective (Bond, 1983; Diao, *et al.*, 2010 and Christiaensen, *et al.*, 2011). A key function of the agricultural sector is that it remains a large avenue for labour employment and revenue generation, which aids in financing the industrial sector, which is also an important engine of trade export that helps to stimulate economic growth. It has been discovered that accelerated growth is achieved when there is a simultaneous mix of agricultural and industrial transformation (Lewis, 1954; Jedwab & Vollrath, 2015; Barrett *et al.*, 2017). However, most SSA economies have not exhibited appreciable combination of these in such a way as to experience significant economic growth.

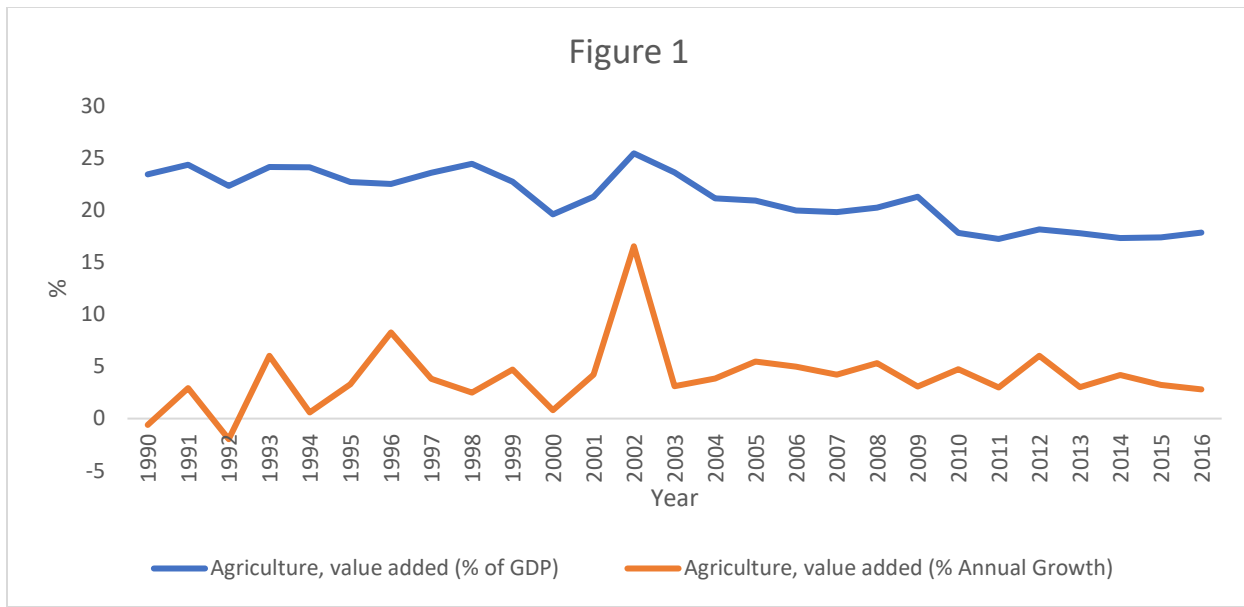
For over two decades, the agricultural sector share of Gross Development Product (GDP) growth rate in SSA has been waning (Collier & Dercon, 2014; Hilson & McQuilken, 2014), as depicted in Figure 1. This phenomenon is partly due to the significant negative effect of the Structural Adjustment Policies (SAP), which heralded crude oil price surge and inflation in the 1980s (Mosley, 1989; Smith, 1989; Kamlongera & Hilson, 2011; Jayne & Rashid, 2013; De Vries *et al.*, 2015), nevertheless, the effect has been slightly smoothed by the unstable, but promising agricultural sector, which accounts for a considerable source of food production and export, thus contributing to reduced commodity prices and increased domestic and foreign income earnings, which are pivotal to the output growth of the manufacturing, industrial and service sectors of the SSA economy. However, the structural policy adopted by most SSA countries had rather been more hurtful than helpful to the nascent growth of such economies, which mostly had just gained independence from colonial rule at that period. The crest of the policy effect was that it exacerbated the vulnerability of these fragile economies to global shocks. The point is, that while the policy was not deficient in its absolute inherent strategy, it was impeded



by a weakening agricultural sector, handicapped in its ability to generate significant capital investment and wages. Consequently, the sector which ought to boost economic growth needs to be supported by a weakening manufacturing sector (Bond, 1983; De Vries, *et al.*, 2015).

As countries in SSA continue to grapple with slow economic growth and rising unemployment (IMF, 2017), the region has begun intensifying efforts to diversify their economies and a major avenue to achieve this is through agriculture. In this regard, a major policy thrust in these countries is boosting agricultural productivity to ensure food availability, reduce poverty and stimulate growth (World Bank, 2007). Despite macroeconomic policies adopted to increase agricultural production, annual growth of agricultural real value added (constant 2010 US\$) in SSA has been steady at about 4% rate, from 1990 to 2013, while its contribution to GDP fell from about 23% in 1990, to almost 18% in 2016, as depicted in Figure 1 (see Barrett *et al.*, 2017). Yu and Nin-Pratt (2011), Fuglie and Rada (2013) and Ssozi *et al.*, (2017) attested to the falling trend of agriculture contribution to GDP growth in SSA, stressing that despite the slight increase in agricultural output growth since 1990, it remains the lowest among the global regions. This occurrence has been attributed more to the different global dynamics in input growth, rather than increased production.

Figure 1 illustrates fluctuating trends in the growth rate of agriculture productivity, both in terms of contribution to GDP, and annual growth in SSA from 1990 to 2016. Figure 1 shows a decline in agricultural productivity, as shares of GDP from 23% in 1990 to 18% in 2016, despite a slight improvement in annual growth rate from less than 1% in 1990, to about 3% in 2016, as portrayed in Figure 1.



**Figure 1: Growth rate agriculture productivity 1990 to 2016**

Source: World Bank Annual Data; Author's computation

The supply, combination and distribution of input factors, such as labour, capital and land in the agricultural production process, are significant in affecting the aggregate output. For example, an optimal combination of these factors would result in the highest possible standard of living, and maximize agricultural output, while an inefficient mix reduces aggregate output, which makes the economy worse-off (see Alvarez-Cuadrado *et al.*, 2017).

A detailed review of existing literature has revealed indications of slight improvement in agricultural output growth in SSA (as shown in Figure 1), but different evaluations of the scale of output growth measurement have been subject to the type of methodology adopted (see Block, 1995; Lusigi and Thirtle, 1997; Fulginiti *et al.*, 2004; Nin Pratt and Yu, 2008; Alene, 2010; Fuglie and Rada, 2013 and Akande *et al.*, 2017). Other works have investigated single country cases, such as Kenya (Owuor, 1999), Nigeria (Imahe & Alabi, 2005; Brownson *et al.*, 2012), Ghana (Enu & Attah-Obeng, 2013), Palestine (Abugamea, 2008) and Australia (Sheng *et al.*, 2017). Most of these studies have concentrated on measurement of the total factor productivity growth (TFP), using inputs such as land, labour and research. Contrastingly, very few studies have empirically assessed the nature and type of relationship existing among the dynamic factors determining agricultural productivity in a cross-country study, such as SSA (for example, Ajao, 2011). This paper contributes in filling this gap by examining the factors that

determine agricultural productivity in SSA, by employing a Panel Auto Regressive Distribution Lag (P-ARDL) model, in 37 selected SSA countries from 1990 to 2016. The study focuses on agriculture and adopts agriculture sector share of GDP in SSA as its indicator, premised on the theory of growth, which supports the argument that the agriculture sector is a significant catalyst for economic growth. In this regard, this study seeks to achieve the following objectives: (i) examine the determinants of agricultural productivity in SSA; (ii) determine the long-run and short-run association between agricultural productivity and selected variables influencing agricultural output in SSA; (iii) analyze the nature of relationship between agricultural output and factors influencing agricultural output in SSA; (iv) investigate if the influence of long-run factors of production enhances agricultural output or not in SSA. The other aspects of the study are segmented with the literature review reviewing existing similar literature on the study. The empirical methodology is examined and empirical results are analyzed and interpreted. Lastly, the study is concluded and recommends policy guidelines based on the outcome of the empirical result. The choice of selected SSA countries and period used in the study is subject to data accessibility.

## **LITERATURE REVIEW**

The agricultural sector remains prevalent in SSA, contributing over 30% of the region's GDP and foreign exchange income. However, the sectoral output growth continues to trail behind other global regions, due to low crop production and high import dependency. In this light, dynamic agricultural output growth would be realized and maintained through enhanced production (Collier and Dercon, 2014). While output growth trends have slightly improved since 2000, except from 2015 when it dropped, very few studies have sought to examine agricultural productivity in SSA and the nature of relationship with the determinants of production.

### **Empirical review**

Alene (2010) conducted a comparative study on agricultural productivity in 47 SSA countries, using both contemporaneous and sequential technology of the Malmquist distance function model. The result revealed yearly mean agriculture growth of 0.3%

under the contemporary method, contrary to 1.8% growth rate under the sequential technology analysis, arguing that technical innovation, climatic conditions and trade had significant impact on agriculture productivity in SSA. Similarly, Yu and Nin-Pratt (2011) adopted the Non-Parametric Malmquist (NPM) index to reveal a significant rebound in agricultural performance in SSA between 1984 and 2006, after a prolonged 45-year period of poor productivity because of improvement in factors of production efficiency and macroeconomic policy formulation. The research advocated aggressive technological improvement as a panacea to downward trends in agriculture growth performance in SSA.

Fuglie and Rada (2013) attributed the defiant poverty and food insecurity situation in SSA to inadequate agricultural development and a major reason why the region continues to trail behind regions, stating that production factors, such as land and labour, are key indicators to increased agricultural output. The study, using a panel data method, investigated the dynamic nature of agricultural sector in SSA and the importance of certain factors affecting its productivity, such as research, macroeconomic policy formulation, labour, human capital, political violence and AIDS prevalence. The analysis found that there had been no significant improvements in aggregate agricultural production from 1961 to 1985, but only a meagre improvement of 1% till 2008, which suggests government expenditure in research and development to boost agricultural productivity in SSA. Akande *et al.* (2017) indicated that export of agricultural goods had a negative effect on agricultural output growth under the stochastic regression analysis conducted between 1981 and 2005 in SSA.

In view of the literatures reviewed above, the era between 1960 and early 1980 was characterized by low productivity trend, while the late 1980s was marked by productivity growth from 0.5% to 2%, largely influenced by policy interventions, technological improvement and increased expenditure in agricultural research and development.

In examining the drivers of agricultural production in Kenya, Owuor (1999) considered the multi-stage probability proportional to size estimate approach for 1500 selected households in 1997. The result indicated a positive relationship between non-farm income and land per crop output in the Western, maize cropping area, and the Central

parts of Kenya. The report revealed the significant role off-farm income plays in boosting agricultural productivity, stressing the need for policy implementation on commercial activities such as textile and sugar to increase household income.

Imahe and Alabi (2005) examined factors affecting agricultural productivity in Nigeria, using agriculture sector contribution to GDP, and output growth, as indicators while land, climatic conditions, imports, capital spending and private credit to agriculture were considered as independent variables. The regression result indicates that all the explanatory factors had a significant effect on agricultural productivity and output growth in all the models used in the study. The authors suggested aggressive irrigation mechanism, easy access to arable farmlands and bank credit, reduction of food import and capital investment in the agricultural sector as measures to improve the sectoral productivity.

Abugamea (2008) modelled the determinants of agricultural production in Palestine using both the Johansen-Granger Cointegration and Error Correction Model (ECM), to predict the long-run and short-run relationship, respectively. The work engages arable land, capital and labour as indicators and submits that labour and capital have a strong significant positive and negative relationship respectively with output. The analysis stresses the need for reduction in factor cost and enhanced labour productivity to improve agricultural production.

Ajao (2011) studied variations in agricultural productivity in SSA using the Data Envelopment Analysis (DEA) between 1961 and 2003 to determine the effect of education, land typology and governance on agricultural productivity. The analysis showed that all the indicators, except government effectiveness, were significant while education and quality of land had a negative relationship with productivity.

Brownson *et al.* (2012) looked at the dynamic relationship between the agricultural sector share of GDP, and certain macro-determinants in Nigeria, using the ECM. Inflation rate, external reserves, export, and debt were found to have a significant but negative association with agricultural output in the economy in both the short-run and long-run while exchange rate and GDP per capita were positively significant. The report recommended policy reforms to drive agricultural investment, diversification of the

economy and promotion of the industrial sector as measures to improve agricultural output in Nigeria.

Enu and Attah-Obeng (2013) researched on macro-determinants of agricultural production in Ghana, adopting the Cobb-Douglas production function and Ordinary Least Squares (OLS) model. The work looked at the effect of inflation, exchange rate, income per capita and labour on agricultural output and discovered that a unit increase in labour reduces agricultural productivity by almost 0.66; a unit rise in inflation expands production by 0.0046; a unit rise in exchange rate boosts production by 0.084, and a unit increase in income decreases output by 1.06. The result shows that income per capita, exchange rate and labour are significant factors influencing agricultural productivity in Ghana, and advises that all efforts should be made to enhance the sector to guarantee food availability in the country.

Sheng *et al.* (2017) adopted the accounting approach to empirically measure the varying contributions of capital and labour to agricultural productivity in Australia from 1949 to 2012. Using the forecasted and actual methods, the report demonstrates that capital has higher returns to agricultural production compared to labour, indicating that varying both input and output efficiencies tend to enhance agricultural productivity in the country.

Lastly, Akande (2017) addressed the nature of relationship between agricultural export and productivity. The analysis shows that export increase affects agricultural output negatively. The report canvasses for policies that promote exports and institutional quality to further boost agricultural productivity.

## **EMPIRICAL METHODOLOGY**

### **Model specification**

The study models agricultural productivity and the factors influencing it in SSA using the standard Average Production Function (APF), which depicts the relationship between agricultural inputs and output. This model is rooted in the Cobb-Douglas production function, based on the Neo-Classical theory. Here, we follow the assumption that agricultural production is a function of a production function, written as follows:

$$Y_t = A_t L_t^\beta K_t^\alpha, \text{ where } 0 < \alpha < 1; 0 < \beta < 1 \quad (1)$$

Where  $Y_t$  is the aggregate output produced at a time  $t$ , measured as the annual real value of production of total goods;  $A_t$  is the Total Factor Productivity (TFP) at time period  $t$ ;  $L_t$  denotes labour factor measured in terms of the aggregate amount of man-hours in a given time period  $t$ ;  $K_t$  denotes capital factor variable in real value of all machinery, equipment, and buildings in a particular period,  $t$ ;  $\beta$  and  $\alpha$  denote the respective output elasticities of labour and capital.  $Y_t, A_t, L_t, K_t$  are all constants and are a function of the prevailing available technology.

The Cobb-Douglas model is subject to constant scale of output on the condition:  $\beta + \alpha = 1$ . This shows that a proportionate increase in the use of capital  $K_t$  and labour  $L_t$  would produce a proportionate increase in output  $Y_t$ . Therefore, if  $\beta + \alpha > 1$ , it depicts an increasing scale of output, while  $\beta + \alpha < 1$  depicts reducing scale of output. Suppose we express equation (1) in a linear logarithm production equation form, this is depicted as:

$$\log(Y_t) = C_0 + \log(A_t) + \beta \log(L_t) + \alpha \log(K_t) \quad (2)$$

where  $Y_t, L_t$  and  $K_t$  represent the respective output, labour and capital variables,  $C_0$  is the constant factor and  $A_t$  is the TFP captured by the control variables. Such factors used in this study are degree of openness, real exchange rate and per-capita income. Here, we follow the assumption that TFP is a function of degree of openness (DOPEN), real exchange rate (REXC) and per-capita income (GDPPC) over a period  $t$  shown below:

$$A_t = f(DOPEN_t, REXC_t, GDPPC_t) \quad (3)$$

By replacing  $A_t$  in equation (3) into equation (2), the Cobb-Douglas production function becomes:

$$Y_t = DOPEN_t^{\beta_1} REXC_t^{\beta_2} GDPPC_t^{\beta_3} L_t^\beta K_t^\alpha \quad (4)$$

Equation (4) depicts the agricultural productivity function model for SSA where  $Y_t$  is the agricultural output that represents the agricultural sector contribution to GDP. In line with Kahsay and Hansen (2016:56), we convert equation (4) to a log form to depict the agricultural production (AGVA) equation in a pooled data system, as shown below:

$$\log(AGVA_{it}) = C_i + \beta_1 \log DOPEN_{it} + \beta_2 \log REXC_{it} + \beta_3 \log GDPPC_{it} + \beta \log L_{it}$$

$$+ a \log K_{it} + \varepsilon_{it} \tag{5}$$

Where  $AGVA_{it}$  (Agricultural output share of GDP) is used as an indicator of  $Y_{it}$ ;  $C_i$  is the constant term; TFP ( $\log A_t$ ) is proxied by  $\beta_1 \log DOPEN_{it} + \beta_2 \log REXC_{it} + \beta_3 \log GDPPC_{it}$ ; labour and capital are respectively represented by  $\beta \log L_{it} + a \log K_{it}$ ;  $i$  denotes a particular country and  $\varepsilon_{it}$  represents the error term. Thus, we denote the P-ARDL model in SSA below:

$$\Delta Y_{it} = \beta_{i0} + \beta_1 \Delta X_{it-1} + \beta_2 \Delta X_{it-2} + \beta_3 \Delta X_{it-3} \dots + \beta_p \Delta X_{it-n} + \alpha_1 y_{it-1} + \alpha_2 y_{it-2} + \alpha_3 y_{it-3} + \dots + \alpha_q y_{it-r} + \varepsilon_{it} \tag{6}$$

Where  $Y_{it}$  is the vector of endogenous factors representing agricultural productivity;  $\beta_{i0}$  is the vector of the constant term;  $i$  denotes the SSA countries;  $\Delta$  represents the I(1) values;  $X_i$  and  $y_i$  are the previous period values of the independent factors, where  $i = 1$ , up till the lagged  $n$ th and  $r$ th period;  $\beta_1 - \beta_p$  depicts the short-run relationship;  $\alpha_1 - \alpha_q$  represent the long-run dynamics;  $\varepsilon_{it}$  is a vector of error terms.

### Definition of variables and data sources

Following Ajao (2011), this study adopts the annual data of 37 selected SSA economies, from 1990 to 2016. The choice of variables employed mirrors those used in some existing literature, based on the Cobb-Dougllass production theory. The dependent variable is the agricultural output represented by contribution of agriculture to GDP (AGVA), measured in %GDP, which is the net sectoral output and comprises forestry, fishing, crop and livestock production in SSA, sourced from the World Bank Indicator (WDI) National Account data. The independent indicators adopted in the study are dynamic factors and control factors.

The factors of production are proxied by labour (LABR) and capital (CAPI) (see Yuan, 2011; Fuglie and Rada, 2013; Bashir, 2015 and Wagle, 2017). Labour (LABR) is defined by the rate of labour force participation, measured in terms of the percentage of total population that is economically active, aged 15 and older, that provide labour in the production of goods and services in SSA, which data are provided by the International Labour Organization, ILOSTAT database. Capital (CAPI), which refers to the Gross Capital Formation at current Purchasing Power Parity (PPP), includes increase in the



fixed assets of a country and net variance in the stock level in SSA, captured in the Penn World Table (Feenstra, *et al.*, 2015). In line with Hart *et al.* (2015), and Almasifard and Khorasani (2017), the trade indicator is proxied by degree of openness (DOPEN), that is, percentage contribution of the ratio of total value of imports and exports of goods and services to GDP, which measures level of openness in the SSA economy. These data are compiled in World Bank Indicator (WDI) National Account data.

The control variables are real exchange rate (REXC) and per-capita income (GDPPC), which is in line with Enu and Attah-Obeng (2013), and Brownson *et al.* (2012). The per-capita income is the annual percentage rate of growth in GDP per capita of the selected countries in SSA in constant 2010 U.S. dollars. It is measured as a ratio of gross domestic product to midyear populace, and it is sourced from the World Bank Indicator (WDI) National Account data. The real exchange rate denotes variations in the value of the currency of a country, at constant prices, measured in terms of the product of the value of a country's domestic currency, and the U.S. CPI, divided by the product of a dollar value, and the CPI of a domestic currency, thus an appreciation of a country's exchange rate is an indication of a strengthening U.S dollar or reduction in the value of the local currency. Also, a depreciation indicates a reduction in the dollar or increase in the value of the local currency. The data are sourced from the International Macroeconomic data set of the United States Department of Agriculture (USDA).

SSA countries are developing countries geographically located in the part of the African continent that lie south of the Sahara. For the sake of our study, we consider 37 SSA countries due to data constraint which are: Angola, Benin, Botswana, Burkina-Faso, Cabo-Verde, Cameroon, Central African Republic, Chad, Côte d'Ivoire, Djibouti, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mozambique, Namibia, Nigeria, Republic of Congo, Rwanda, Senegal, Sierra-Leone, South Africa, Swaziland, Tanzania, Togo, Uganda and Zambia

### **Estimation technique**

This research focuses on agricultural sector productivity in SSA for over two decades. This study seeks to achieve the following objectives: (i) examine the determinants of

agricultural productivity in SSA; (ii) determine the long-run and short-run association between agricultural productivity and selected variables influencing agricultural output in SSA; (iii) analyze the nature of relationship between agricultural output and factors influencing agricultural output in SSA; (iv) investigate if the influence of long-run factors of production enhances agricultural output or not in SSA.

In determining the dynamic relationship, it is first necessary to carry-out unit root tests (stationarity/non-stationarity) and co-integration among the data variables to ascertain the suitable methodology for analysis. In determining which appropriate model is to be applied, we considered the methodology conditions highlighted by Giles (2013), for example, the Ordinary Least Square (OLS) estimation technique is appropriate when the variables are at level  $I(0)$  and have no unit root; the Vector Auto-regression (VAR) and OLS methods are applicable when the variables are all integrated after first difference  $I(1)$  and there is no co-integration among them; the OLS regression model and estimation of the ECM can be employed to ascertain the long-run and short-run dynamics of the association among the variables, when the variables are all integrated of the same order and are cointegrated. However, there are conditions when some of the variables could be stationary at  $I(0)$  and some at  $I(1)$ , and perhaps also fractionally integrated, while some of the variables integrated at  $I(1)$  could also be cointegrated. To determine the long-run and short-run dynamics under the above condition, the ARDL or Bounds Testing modelling technique has been proven to be appropriate (Pesaran & Shin, 1998; Pesaran *et al.*, 2001; Ahmad & Du, 2017). Consequently, as the variables considered in this research fit into the above situation, this study has employed the P-ARDL model recently developed by Chudik and Pesaran (2013).

Following Rafindadi and Zarinah (2013), Faridi and Murtaza (2014), Bashir (2015), Asumadu-Sarkodie and Owusu (2016) and Awan and Yaseen (2017), we employed the Panel Auto-Regressive Distributed Lag (P-ARDL) methodology recently developed by Chudik and Pesaran (2013) to test for the presence of long-run and short-run relationships between agricultural productivity and factors affecting output in SSA countries. We premised our choice of the P-ARDL due to its certain advantages over the traditional co-integration estimating techniques. The benefits include:

1. It can determine both long-run and short-run dynamics as it can estimate both long-run and short-run parameters (Hussain *et al.*, 2017).
2. It accommodates either or both  $I(0)$  and  $I(1)$  series but not at  $I(2)$  (Asumadu-Sarkodie and Owusu, 2016 and Ahmad and Du, 2017).
3. It accepts for different variables to be assigned different lag lengths and can estimate more than six variables (Giles,2013).
4. Its single-equation model set-up allows for easy analysis and interpretation (Giles, 2013).

## **DATA ANALYSIS AND MODEL ESTIMATION**

### **Data tests**

Firstly, we conducted stationary test on our variables, followed by tests for cross-sectional dependence and then lag selection, then, we conducted tests for co-integration to confirm the appropriateness of the use of the P-ARDL model.

### **Panel ARDL unit root test result**

We proceeded to conduct stationary tests using the different robust unit root tests of Levin, Lin and Chu (LLC); Im, Pesaran and Shin (IPS) and the Augmented Dickey Fuller (ADF)-Fisher chi-square. We engage the three tests comparatively to confirm the reliability of our results (see Bildirici, 2014; Ahmad & Du, 2017). The findings in Table 1 below reveals that all the variables become stationary after first difference ( $I(1)$ ), as none of the series is stationary at level ( $I(0)$ ), or after second difference ( $I(2)$ ). Therefore, the unit root test result agrees with Pesaran *et al.* (2001) and thus, justifies our adoption of the P-ARDL model in our research analysis.

**Table 1: Levin, Lin & Chu; Im, Pesaran and Shin and ADF-Fisher chi-square unit root tests**

Variable	Levin, Lin & Chu unit root test (individual intercept)			Levin, Lin & Chu (individual intercept and trend)		
	Order of integration	t* Statistics	P-Value	Order of integration	t* Statistics	P-Value
Agricultural Value Added	I(1)	-18.6904	0.0000***	I(1)	-14.9001	0.0000***
Labour	I(1)	-2.33856	0.0097***	I(1)	-1.84670	0.0324**
Capital	I(1)	-4.97194	0.0000***	I(1)	-18.0400	0.0000***
Degree of Openness	I(1)	-21.0906	0.0000***	I(1)	-11.8305	0.0000***
Real Exchange rate	I(1)	-4.44740	0.0000***	I(1)	-2.33918	0.0097***
GDP per capita	I(1)	-16.0746	0.0000***	I(1)	-11.2805	0.0000***
Variable	Im, Pesaran and Shin unit root test (individual intercept)			Im, Pesaran and Shin unit root test (individual intercept and trend)		
	Order of integration	t* Statistics	P-Value	Order of integration	t* Statistics	P-Value
Agricultural value added	I(1)	-22.7067	0.0000***	I(1)	-19.3102	0.0000***
Labour	I(1)	-5.91527	0.0000***	I(1)	-3.78677	0.0001***
Capital	I(1)	-5.39121	0.0000***	I(1)	-18.7440	0.0000***
Degree of openness	I(1)	-23.5289	0.0000***	I(1)	-17.9218	0.0000***
Real exchange rate	I(1)	-9.34630	0.0000***	I(1)	-7.51436	0.0000***
GDP per capita	I(1)	-17.1425	0.0000***	I(1)	-12.5304	0.0000***
Variable	ADF-Fisher chi-square Unit root test (individual intercept)			ADF-Fisher chi-square Unit root test (individual intercept and trend)		
	Order of integration	t* Statistics	P-Value	Order of integration	t* Statistics	P-Value
Agricultural value added	I(1)	570.314	0.0000***	I(1)	434.041	0.0000***
Labour	I(1)	179.421	0.0000***	I(1)	133.882	0.0000***
Capital	I(1)	136.353	0.0000***	I(1)	426.480	0.0000***
Degree of openness	I(1)	577.798	0.0000***	I(1)	415.563	0.0000***
Real exchange rate	I(1)	288.378	0.0000***	I(1)	253.245	0.0000***
GDP per capita	I(1)	414.772	0.0000***	I(1)	310.275	0.0000***

Source: Authors' computation using E-views 9.5 Statistical Package. "\*\*\*\*" and "\*\*\*" represents 1% and 5% significant level respectively.

### Residual cross-sectional dependence test

The cross-section is normally removed during computation of correlations to mitigate cross-sectional dependency (Pesaran, 2007). Here, we ran the test to confirm that there

was no presence of cross-sectional dependence to further justify the use of the panel data model in SSA. In this regard, the robust Breusch-Pagan LM, Pesaran scaled LM and Pesaran Cross Dependence (CD) tests are engaged to confirm if the residuals are correlated or not. The hypotheses for the cross-sectional dependence are:

*Null Hypothesis:*  $H_0: \theta = 1$ - cross-sectional dependence does not exist among the variables.

*Alternative Hypothesis:*  $H_1: \theta \neq 1$ - cross-sectional dependence exists among the variables.

The guideline is that the null hypothesis is accepted and alternative hypothesis is rejected, when the P-value is below 5% while the alternative hypothesis is accepted and null hypothesis is rejected, when the P-value exceeds 5%.

**Table 2: Cross-sectional dependence test result summary**

Test	Statistic	d.f.	Prob.
Breusch-Pagan LM	843.2241	666	0.0000***
Pesaran scaled LM	4.609311		0.0000***
Pesaran CD	7.174337		0.0000***

Source: Authors' computation using E-views 9.5 Statistical Package. "\*\*\*\*" represents 1% significant level  
 As shown in Table 2, the P-values of the Breusch-Pagan LM, Pesaran scaled LM and Pesaran CD are all significant at 1% level ( $P < 1\%$ ), hence we accept the null hypothesis that there is no cross-sectional dependence among the variables in the model while the alternative hypothesis is rejected that there is cross-sectional dependence (correlation) among the residuals (error term).

**Optimal lag selection**

The optimal number of variable lags to be selected is determined by the robust Akaike Information Criterion (AIC), Schwarz Information Criterion (SIC) and Hannan-Quinn information criterion (HQ) information criteria. The procedure is to select the model with the lowest value of AIC, as this is the best model to be used (see Bahmani-Oskooee & Brooks, 2003; Ahmad & Du, 2017). We therefore selected the least AIC value as the

optimal lag for our analysis, given the criterion that the lowest AIC value is the best model (Lutkepohl, 2006). Out of the 9 estimated models, our findings specified the most appropriate model with ARDL (3, 3, 3, 3, 3, 3), as depicted in Table 3.

**Table 3: Optimal lag selection**

Model	LogL	AIC*	SIC	HQ	Specification
9	1780.872264	-2.521439	1.427397	-1.008913	ARDL(3, 3, 3, 3, 3, 3)
6	1624.068873	-2.239880	1.502591	-0.806399	ARDL(2, 3, 3, 3, 3, 3)
3	1501.156170	-2.037970	1.498135	-0.683533	ARDL(1, 3, 3, 3, 3, 3)
8	1329.647796	-1.895765	1.021243	-0.778461	ARDL(3, 2, 2, 2, 2, 2)
5	1277.802473	-1.860875	0.849767	-0.822616	ARDL(2, 2, 2, 2, 2, 2)
2	1229.180432	-1.833562	0.670715	-0.874347	ARDL(1, 2, 2, 2, 2, 2)
7	1117.118162	-1.831065	0.054114	-1.108984	ARDL(3, 1, 1, 1, 1, 1)
4	1074.669680	-1.818260	-0.139447	-1.175223	ARDL(2, 1, 1, 1, 1, 1)
1	1033.254683	-1.807884	-0.335437	-1.243891	ARDL(1, 1, 1, 1, 1, 1)

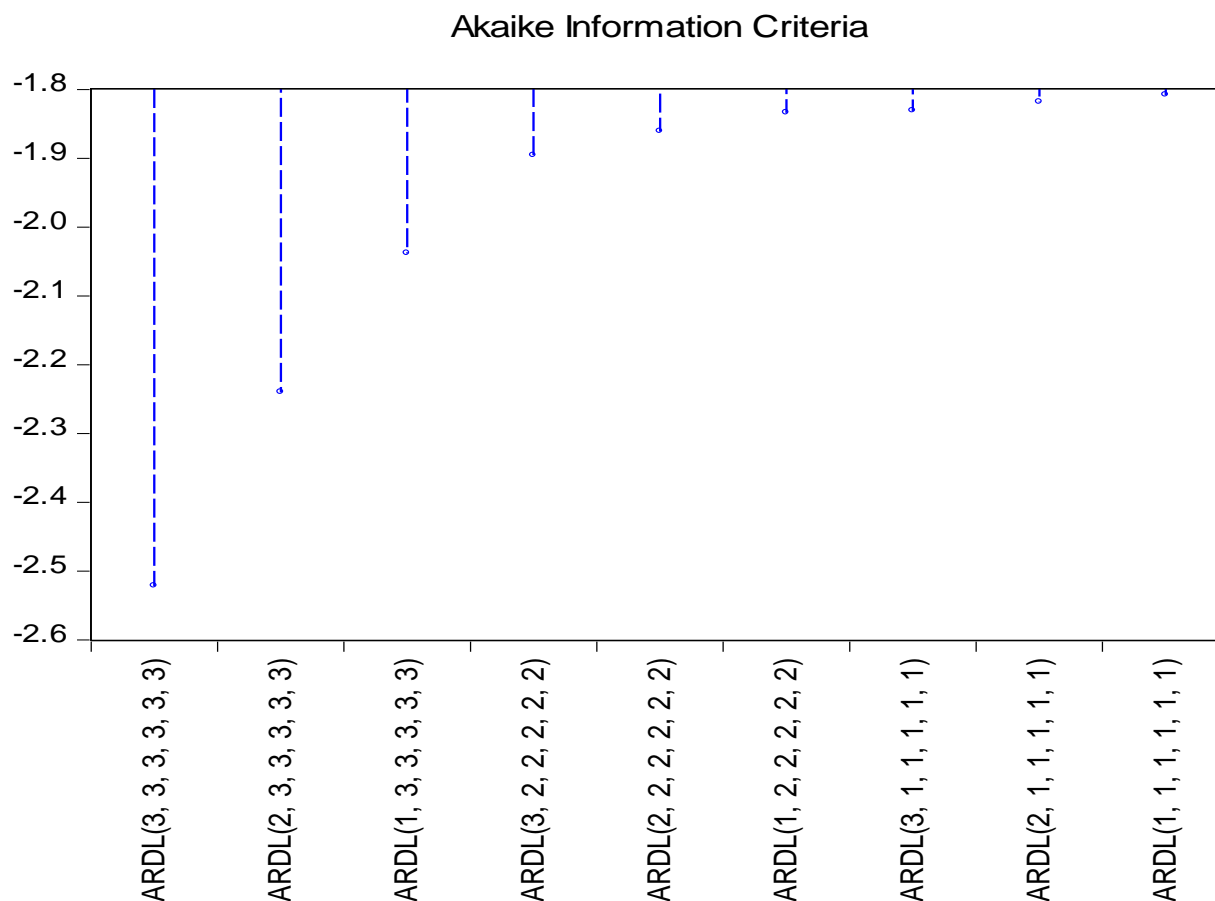
LR: sequential modified LR test statistic (each test at 5% level)

\*depicts lag order selected by the criterion

Source: Authors' computation using E-views 9.5 Statistical Package

### Measuring the strength of the selected model

The graph in Figure 2 serves to verify the regression model selection of the Akaike Information Criterion (AIC) compared to the FPE, SIC and HQ criteria, as revealed in Table 3. The AIC criteria graph illustrates the top nine different P-ARDL models, in view of selecting the most appropriate model which has the least AIC value. Accordingly, the first ARDL (3, 3, 3, 3, 3, 3) model 404 fulfils the criteria of the most appropriate model compared to the other criteria, as it reveals the least value of the AIC at -2.521 This is followed by the second appropriate ARDL (2, 3, 3, 3, 3, 3) model with the value of -2.239.



**Figure 2: The strength of the model selection summary**  
 Source: Authors' computation using E-views 9.5 Statistical Package

### Interpretation of regression results

#### The panel ARDL regression model

The P-ARDL model analysis reveals that all the variables are statistically significant in influencing agricultural output in the long-run ( $P(0.0000) < 1\%$ ), as depicted in Table 4. The result further shows that labour (LABR) and real exchange rate (REXC) have a positive long-run significant impact on agricultural production in SSA. This association further confirms what some empirical findings (see Abugamea, 2008; Yu and Nin-Pratt, 2011; Brownson *et al.*, 2012; Enu and Attah-Obeng, 2013; Hart *et al.*, 2015 and Wagle, 2017) have stated that an increase (decrease) in the two factors would result in corresponding increase (decrease) respectively in agricultural production. However, this analysis disagrees with Muraya and Ruigu (2017), who posited that exchange rate has a negative relationship with agricultural output, although our result agrees with their opinion that labour exerts a positive impact on agricultural production. Also, the estimated result

is inconsistent with the view of Bashir (2015), and Enu and Attah-Obeng (2013), that labour has an inverse relationship with agricultural production even though they agree that real exchange rate has a positive association with agriculture output.

Furthermore, other estimated variables, such as capital (CAPI), degree of openness (DOPEN) and income per capita (GDPPC) have a significant negative relationship with agricultural output in SSA. This relationship follows certain empirical studies (see Abugamea, 2008; Brownson *et al.*, 2012; Enu & Attah-Obeng, 2013; Bashir, 2015; Akande *et al.*, 2017; Almasifard & Khorasani, 2017) that an increase (decrease) in the factors would result in corresponding decrease (increase) respectively in agricultural production. However, this relationship is contrary to the findings of Alene (2010), Hart *et al.*, (2015) and Sheng *et al.* (2017), which concluded that trade, degree of openness and capital have a positive relationship with agricultural production.

However, none of the independent factors is statistically significant in impacting agricultural production in the short-run in SSA, except the second-year lagged value of capital (CAPI(-2)), which is significant at 5% level ( $P(0.0223) < 5\%$ ), and consistent with Chisasa and Makina (2015). This implies that the Cobb-Douglass production function model does not support short-run estimation of agricultural production in SSA during the reviewed period. Hence, the estimated panel ARDL model for our study reveals a long-run dynamic significant effect on agricultural production in SSA, thus evidencing a cointegrating dynamic impact in boosting agricultural productivity in the region. In this regard, the cointegrating factor (COINTEQO1) further validates the appropriateness of the model whose coefficient must be negative and statistically significant as confirmed in Table 4 below at -0.937215 and ( $P(0.0000) < 1\%$ ) respectively. In this regard, further confirmation of the presence of co-integration among the variables can be examined using the Error Correction Mechanism (ECM). The guideline is that the Error Correction Term (ECT) must be negative and significant to denote co-integration among the variables (Engle & Granger, 1987).

As expected, Table 4 shows that a 1% rise in labour (LABR) also raises agricultural output (AGVA) by 280% in the long-run in SSA. The positive relationship is due to the expanding nature of labour productivity and growing rural population in the region as most large and



small households in SSA countries are utilizing more available arable lands for agricultural production purposes. This view is supported by Yu and Nin-Pratt (2011). Also, the positive association between labour and agricultural sector is owing to the reason that the sector sustains almost 80% of the labour populace in the region. Surprisingly, a 1% increase in capital (CAPI) leads to an almost 8% reduction in agricultural productivity in the long-run and 43.6% in the short-run in SSA. The negative relationship corroborates the diminishing marginal productivity theory (DMPT). Owing to capital stock accumulation in most economies in SSA, it has gradually been substituting the labour factor in the agricultural production process. As such, its excessive utilization beyond the optimal point in the long-run results in diminishing agricultural returns. The P-ARDL model short-run estimate substantiates the DMPT as the second-year lagged value of capital (CAPI(-2) of 0.0223 shows a positive significant relationship with agricultural output in the short-run compared to a negative significant relationship in the long-run in SSA. This opinion is consistent with those of Bashir (2015) and Wagle (2017). Contrary to our expectation in Table 4 below, a 1% increase in real exchange rate (REXC) leads to a 7.7% rise in agricultural output in SSA in the period under review. According to economic theory, a currency appreciation or rise in real exchange rate (REXC) leads to trade deficit, thus discouraging exports and encouraging imports. Hence, the declining level of exportation discourages domestic agricultural production while increased importation enhances foreign competition with local production and increases production cost, thus leading to low productivity (see Kutu & Ngalawa, 2016). Similarly, a depreciating currency or real exchange rate reduction against a strengthening US dollar discourages imports, encourages exports, and boosts agricultural production, as international competition with domestic production is reduced. However, the model estimation in our study may be attributed to the fact that the effort of the monetary authorities in formulating monetary policies to stabilize exchange rate in the long-run in most countries in SSA are beginning to gradually yield effective result. This view is similarly shared by Enu and Attah-Obeng (2013). An increase of 1% in the degree to which the SSA economy is opened for trade (DOPEN) reduces agricultural productivity by 14.7% in the long-run. This is because a major share of exports of most SSA countries is in non-agricultural resources, such as oil and other natural resources, resulting in the resource-curse effect, as corroborated by

Brownson *et al.* (2012). This implies that countries in SSA, engaging in increased exports of non-agricultural goods, are eventually abandoning their agricultural sector. Most countries are also dependent on imported agricultural goods, such as rice and other cereals, to supplement waning domestic production, especially in economies experiencing drought and political/economic crisis. Also, a rise in income per capita (GDPPC) by 1% results in the decline in agricultural output by 50.6% in SSA. This is indicative of the unattractive and low-investment-return nature of the agricultural sector in the region, hence a significant increase in producers' income would see them channelling their resources to other high investment-return-friendly areas, rather than ploughing the funds to boost agricultural productivity. This ugly trend is fuelled by poor land tenure system, poor irrigation and technology methods, high cost of seed and storage facilities, high cost of production, poor marketing of agricultural produce and difficulty in accessing credit facilities in the financial sector, thus leading to low agricultural productivity in SSA. This argument agrees with the view of Enu and Attah-Obeng (2013).

**Table 4: Panel ARDL model estimated result**

Dependent variable: D(AGVA)				
Method: ARDL				
Sample: 1990 – 2016				
Model selection method: Akaike info criterion (AIC)				
Dynamic regressors (3 lags, automatic): LABR CAPI REXC DOPEN GDPPC				
Selected Model: ARDL (3, 3, 3, 3, 3, 3)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.*
Long-run Equation				
LABR	2.791415	0.264684	10.54623	0.0000***
CAPI	-0.079338	0.015326	-5.176761	0.0000***
REXC	0.077318	0.011123	6.951167	0.0000***
DOPEN	-0.147267	0.018988	-7.755892	0.0000***
GDPPC	-0.506977	0.035132	-14.43058	0.0000***
Short-run Equation				
COINTEQ01	-0.937215	0.225315	-4.159580	0.0000***
D(AGVA(-1))	0.088678	0.184910	0.479576	0.6319
D(AGVA(-2))	-0.236445	0.213581	-1.107050	0.2693
D(LABR)	-9.056181	10.29492	-0.879674	0.3799
D(LABR(-1))	6.897724	11.86685	0.581260	0.5616
D(LABR(-2))	7.546452	8.928223	0.845236	0.3988
D(CAPI)	-0.436989	0.364921	-1.197490	0.2322
D(CAPI(-1))	-0.553212	0.440287	-1.256482	0.2101
D(CAPI(-2))	0.678344	0.294948	2.299877	0.0223**
D(REXC)	-0.122024	0.080770	-1.510764	0.1321
D(REXC(-1))	0.327910	0.480407	0.682568	0.4955
D(REXC(-2))	0.079321	0.111131	0.713758	0.4760
D(DOPEN)	0.031504	0.128965	0.244280	0.8072
D(DOPEN(-1))	0.195715	0.135883	1.440326	0.1510
D(DOPEN(-2))	-0.009797	0.149298	-0.065622	0.9477
D(GDPPC)	0.206829	0.379186	0.545455	0.5859
D(GDPPC(-1))	0.521395	0.397418	1.311954	0.1907
D(GDPPC(-2))	0.733130	0.458409	1.599294	0.1110
C	0.012682	0.006995	1.813079	0.0710*

Source: Authors' computation using E-views 9.5 Statistical Package. "\*\*\*\*", "\*\*\*" and "\*\*" represents 1%, 5% and 10% significant level

**Panel-ARDL co-integration result**

The existence of co-integration among the variables is determined using the Wald test. As revealed in Table 5, the P-value is 0.0000. This shows that the variables are

statistically significant at 1% significance level. The hypotheses for the Wald co-integration test are given below:

*Null Hypothesis:*  $H_0: C(1)=C(2)=C(3)=C(4)=C(5)=0$ : There is no cointegration among the variables

*Alternative Hypothesis:*  $H_1: C(1)=C(2)=C(3)=C(4)=C(5)\neq 0$ : There is cointegration among the variables

Given that  $P < 1\%$ , the study rejects the null hypothesis of no evidence of co-integration, and accepts the alternative hypothesis corroborating our earlier model estimation of co-integration among labour, capital, real exchange rate, degree of openness and per-capita income in affecting agricultural production in SSA. The F-statistical value indicates evidence of co-integration or not among the variables by comparing it to the Pesaran critical upper bound value at 5% level of significance at Unrestricted trend and No Intercept. The guideline is that if the F-value exceeds the upper bound critical value at 5% significance level, we reject the null hypothesis of no co-integration and accept the alternative hypothesis, thus indicating that all the variables move together in the long-run. As seen in Table 5 below, the F-statistical value at 81.32128 exceeds the upper bound of the Pesaran critical value of 4.85 at 5% level (Pesaran *et al.*, 2001). The F-statistical value is both positive and significant, thus further substantiating the evidence that agricultural production, labour, capital, real exchange rate, degree of openness and per-capita income move together in the long-run using the P-ARDL model.

**Table 5: Panel-ARDL co-integration result**

Wald Test			
Equation: P-ARDL			
Test Statistic	Value	Df	Probability
F-statistic	81.32128	(5, 254)	0.0000***
Chi-square	406.6064	5	0.0000***

Source: Authors' computation using E-views 9.5 Statistical Package. "\*\*\*\*" represents 1% significant level

### **Panel-ARDL Error Correction Model (ECM)**

The ECM is engaged in achieving the core objective of this study, which is to examine the long-run and short-run dynamics of the P-ARDL model. The ECT coefficient is a

determinant of the rate of speed in which the variables are moving back to equilibrium, which is the speed of adjustment. An appropriate ECM is indicated by a value which must be less than 1, have a negative coefficient and statistically significant. The ECT, as depicted in Table 6, fulfils the conditions of a good model highlighted earlier, as its value of -0.292124 is less than 1; the negative coefficient signals the presence of disequilibrium in the previous short-run period of the P-ARDL system, and a speed of adjustment from the short-run divergence towards long-run equilibrium, at the relatively low speed rate of 29.2% annually of agricultural production contribution to GDP in SSA. This implies that an approximate 29% divergence from long-run equilibrium in the short-run period of factors influencing agricultural production in SSA is corrected annually. Also, the statistically significant value of the ECT at 5% level signifies that the factors affecting agricultural production in SSA can co-move to a long-run equilibrium. This is consistent with Boutabba (2014) and Sebri and Ben-Salha (2014) who also evidenced stable long-run relationship in their studies by a statistically significant and negative ECT.

**Table 6: Error correction term**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ECT(-1)	-0.292124	0.128096	-2.280516	0.0228**

Source: Authors' computation using E-views 9.5 Statistical Package. "\*\*\*" represents 5% significant level

### Short-run causality tests

The short-run causality estimates attempt to determine whether there is a joint causal relationship running from the independent variables to the dependent variable. Hence, employing the Wald test, we test if the two lagged periods of each explanatory factor jointly affect agricultural productivity in the short-run in SSA. The hypotheses are given below:

*Null Hypothesis:*  $H_0$ : There is no short-run causality between lagged independent variables and the dependent variable.

*Alternative Hypothesis:*  $H_1$ : There is short-run causality between lagged independent variables and the dependent variable.

As depicted in Table 7, we tested whether the two lagged periods of labour (LABR(-1) and LABR(-2)) jointly affect agricultural productivity in SSA in equation 1; equation 2 determines whether the two lagged periods of capital (CAPI(-1) and CAPI(-2)) jointly affect agricultural productivity in SSA; equation 3 tests whether the two lagged periods of real exchange rate (REXC(-1) and REXC(-2)) jointly influence agricultural productivity; equation 4 determines whether the two lagged periods of degree of openness (DOPEN(-1) and DOPEN(-2)) explain agricultural productivity; and equation 5 determines whether the two lagged periods of income per capita (GDPPC(-1) and GDPPC(-2)) jointly influence agricultural productivity. The result concludes that none of the variables is statistically significant in the short-run period, except the degree of openness, which is significant with value of 0.0403 at 5% level. Hence, we accept the null hypothesis ( $H_0$ ) in the cases of LABR(-1) and LABR (-2), CAPI(-1) and CAPI (-2), REXC(-1) and REXC(-2) and GDPPC(-1) and GDPPC (-2), that there is no joint short-run causality running from the two lagged periods of the explanatory variables to agricultural productivity in SSA. However, the two lagged periods of degree of openness (DOPEN(-1) and DOPEN(-2)) jointly influence agricultural production significantly in the short-run in SSA.

**Table 7: Short-run causality test**

<b>Wald test</b>			
Equation 1: P-ARDL. $H_0: C(4)=C(5)=0$			
Test statistic	Value	Df	Probability
F-statistic	1.145041	(2, 800)	0.3187
Equation 2: P-ARDL. $H_0: C(6)=C(7)=0$			
F-statistic	1.268800	(2,800)	0.2817
Equation 3: P-ARDL. $H_0: C(8)=C(9)=0$			
F-statistic	0.681717	(2,800)	0.5060
Equation 4: P-ARDL. $H_0: C(10)=C(11)=0$			
F-statistic	3.224321	(2,800)	0.0403**
Equation 5: P-ARDL. $H_0: C(12)=C(13)=0$			
F-statistic	1.113108	(2,800)	0.3290

**Source:** Authors' computation using E-views 9.5 Statistical Package. "\*\*\*" represents 5% significant level

## CONCLUSION AND POLICY RECOMMENDATIONS

This study empirically investigated the long-run and short-run dynamics of agricultural productivity by employing the Panel ARDL modelling technique, with annual data spanning between 1990 and 2016, in examining the determinants of agricultural productivity in SSA. The result analysis discloses the presence of co-integration among the dependent variable, which is agricultural production, and the explanatory variables within the scope of the period being examined in the African region. The association stands on most similar existing empirical findings in single-case country studies (Yu and Nin-Pratt, 2011; Brownson *et al.*, 2012; Enu & Attah-Obeng, 2013; Bashir, 2015; Wagle, 2017). The model estimate depicts that only the explanatory factors of labour (LABR) and real exchange rate (REXC) affect agricultural productivity significantly and positively in the long-run in SSA. However, other factors considered in the study, such as capital (CAPI), degree of openness (DOPEN) and per-capita income (GDPPC), had a negative, but significant relationship with agricultural output (Abugamea, 2008; Akande *et al.*, 2017; Almasifard & Khorasani, 2017). In contrast, all the variables, except the second-year lagged capital value (CAPI(-2)), do not significantly determine agricultural productivity in the short-run in SSA, thus concluding that the P-ARDL Cobb-Douglas production function model does not hold in the short-run, but in the long-run. In line with general economic theory, the model shows that a 1 unit increase in labour (LABR) also increases agricultural output (AGVA) by 280% in the long-run in SSA, however, contrary to *a priori* expectation, a 1% increase in capital (CAPI) leads to 8% and 43.6% reduction in agricultural productivity in the long-run and short-run, respectively, in the region, in line with the diminishing marginal productivity theory (DMPT). In contrast to our expectation, a 1% increase in real exchange rate (REXC) leads to a 7.7% rise in agricultural productivity in SSA in the period under review. In consistence with standard economic theory, an increase of 1% in the degree of openness of the SSA economy (DOPEN) reduces agricultural productivity by 14.7% in the long-run. Likewise, a rise in income per capita (GDPPC) by 1% results in decline in agricultural output by 50.6% in SSA.

In summary, the five independent indicators engaged in the study significantly impact agricultural productivity in the long-run period but not in the short-run period, except the second-year lagged value of gross capital formation (CAPI(-2)). Also, only the first-year

and second-year lagged values of degree of openness (DOPEN(-1) and DOPEN(-2)) jointly explain agricultural productivity significantly in the short-run in SSA, as revealed in the Wald test. Furthermore, the empirical findings reveal a co-movement relationship among the variables from short-run dis-equilibrium to long-run equilibrium of agricultural productivity in SSA as evidenced by the significant ECT value and adjustment speed of 29.2%, thus concluding that the influence of the explanatory variables enhance agricultural output in the long-run and also reveal the possibility of achieving long-run equilibrium among agricultural productivity, labour, capital, real exchange rate, degree of openness and income-per capita in SSA.

In view of the findings above, agricultural sector policies should be effective in attracting and keeping both existing and potential producers and deliver significant returns to investors, thus boosting production, increasing agricultural contribution to GDP growth and stimulating economic growth generally in SSA. There should also be efficient and optimum use of capital-labour ratio with a view to maximizing agriculture output in SSA. An effective mix and implementation of both fiscal and monetary policies by the monitoring authorities is also highly essential in keeping inflation at the lowest rate and stabilizing exchange rates in the short-run and long-run periods to develop the agriculture sector in the African region. The monetary authorities should strongly ensure exchange rate stability of the local currencies to promote domestic exports, discourage imports, hence encouraging and boosting local production. The fiscal authorities should ensure a conducive agricultural environment by formulating policies that improve the land tenure system, build irrigation facilities and affordable technology utilization, ease of access to farm seeds and storage facilities, government-assisted marketing of agricultural produce and easy accessibility to credit facilities provided by the financial sector, thus reducing the cost of production significantly and enhancing agricultural productivity in SSA.

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**ANALYSIS OF THE IMPACTS OF CAPITAL GOODS IMPORT AND  
HUMAN CAPITAL ON THE ECONOMIC GROWTH OF SUB-SAHARA  
AFRICA**

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**ABSTRACT**

The study investigated the impacts of capital goods import and human capital on the economic growth of sub-Saharan Africa (SSA). Thirty countries were used in the panel ARDL analysis, where economic growth is the dependent variable, and capital goods import, human capital, primary export, investment exchange rate, among others, were used as the independent variables. The result from the panel analysis indicates that capital goods import will significantly and positively influence economic growth but human capital fails to have significant positive impact on the economic growth of SSA. Earlier, the trend analysis and the correlation results have shown that there is a weak association between capital goods import and human capital in the SSA. The results offer an expository analysis that reveals that the quality of the human capital is very germane to the effective utilization of capital goods import for purpose of growth in a primary goods export dominated region like the SSA.

**Keywords:** Capital goods import, Economic growth, Human capital, Sub-Saharan Africa.

**INTRODUCTION**

Technological progress has been identified as the main driver of sustained growth in output per capita. This fact has been established both theoretically (Solow, 1956), and empirically (Mankiw, Romer & Weil 1992). In most empirical studies, developed countries have been shown to have very high capital labour ratio and labour augmenting

technological progress. Also, developed countries were considered frontiers in technological progress and this is embedded in their capital goods. The diffusion of technology from the frontiers states to the developing states can then occur through the importation of capital goods. This has been the experience of different countries over the last eight decades: Japan importing capital goods from the United States and Europe in the 1940s and 1950s, Asian Tigers in the 1970s and 1980s, and China in recent times. These economies have thereafter pursued an export-led economic strategy that is based on the technology adopted from the frontier economies.

However, to be able to use this technology efficiently, these economies also invested massively in human capital development with the fastest growth rate of investment in human capital in the world in the last five decades (Raveh & Rashef, 2013). The reason for this massive investment is simple: it is only a well-educated labour force that can respond to the disequilibrium caused by the adoption of technology from abroad. This strategy has led to two things. Firstly, it has increased the output per capita of these emerging economies, closing the income gap between them and the developed economies. Secondly, it has increased both the quantity and the quality of their human capital as they close the gap between them and the technological frontier economies.

However, this has not happened in sub-Saharan Africa. The poorest region in the world is still characterized by both poor human capital development strategy and poor linkage to foreign technology. The growth rate of the SSA region is low compared with those of the developed economies and in particular with the growth rate of the emerging and developing Asian countries, which, less than five decades ago, were not more developed than the economies of SSA. The capital/investment/GDP ratio performances of the SSACs had not been as fantastic as the ratios recorded by the economies of the emerging and developing Asia. For instance, the ratios for SSA and the Emerging and Developing Asia, respectively, for the five year period, 2010 – 2014, had been: 20.313 percent and 41.491 percent in 2010; 19.941 percent and 42.375 percent in 2011; 20.473 percent and 42.031 percent in 2012; 20.268 percent and 41.749 percent in 2013; and 20.643 percent and 41.286 percent in 2014 (WEO, 2016).



SSA's human capital development had not been as robust, since most of the SSACs do not devote enough portions of their GDPs to education and health, which are the ultimate proxies for human capital development. Low levels of human capital development in turn hinders technological transfer, as the workforces of the SSACs are not capable of tapping and improving upon the latent and embodied technology in even the afforded capital imports. The low level of growth rate, as well as the slow pace of growth rate, have been attributed mainly by some group of authors to a lack of effective utilization of capital goods by the domestic producers, while some authors disagreed that the import composition of many SSACs are more of consumables than capital goods thus increasing overreliance on foreign products and reduce the domestic production capacity (Gyimah & Wilson, 2004).

Indeed, it appears that it is the twin problems of low human capital development and low level of capital imports which manifests in the poor performance of the manufacturing sectors and by extension results in SSA's infrastructural deficits. It also manifests as a shortage of highly skilled labour force that tends to slow down the economic growth rate of the Sub-Saharan Africa.

Notwithstanding, evidence abounds in the literature that most sub-Saharan African countries have large volumes of imports, which could aid technological transfer, that can be utilized by the domestic human capital to produce outputs that will promote the overall growth of the economy (Adjasi, 2006; Osabuohelin, 2007; Habiyaemye, 2013). Despite this, the ensuing situation is that the SSA countries are bedevilled with low per capita income, poor standard of living and slow rate of economic growth, which WTO (2015) partly attributed to the lack of the required synergy between human capital and capital goods import that can engender sustainable economic growth in the sub region. Past studies have concentrated on the relationships between capital goods and growth on one side or human capital and growth on the other. But with the aforementioned, it appears that a study that will include both in a single model and assess their linkage, as well as impacts on growth, will suffice enough to provide policy that will aid synergy between the two, in order to engender sustainable growth in the SSACs. More so, most of the past studies are country-based analyses, which might not offer much useful recommendations for sub regional organizations and agencies like Africa Development Banks, AFDB, and

IMF, among others, that rely on outputs of studies that are based on sub-regional levels for policy guidance.

Given the peculiar SSACs' economic scenario as described above, this study becomes quite expedient to enable researchers to establish the interdependency and complementary nature of the two variables, capital goods import and human capital and determine the extent to which both variables trigger economic growth in SSA.

The period covered by this study, which spans 1980-2014, is contingent upon availability of data from reliable sources. While not all the 48 countries that make up sub-Saharan Africa are considered, this study ensures that the four major economic blocs of sub-Saharan Africa are recognized. The economic blocs are: *Communaute Economique de l'Afrique Centrale* (CEMAC), Eastern Africa Community (EAC), Economic Community of West African States (ECOWAS) and Southern Africa Development Economic Council (SADC). These economic blocs align with the geographical sub regions of Central Africa, East Africa, West Africa and Southern Africa respectively. However, countries that have been experiencing economic crisis for more than five years running were avoided, while those suffering from chronic political problems were considered unfit.

In all, thirty countries, which have statistical records in respect of all the variables specified in the research model, were selected. From the CEMAC bloc, we have Cameroun, Chad, Equatorial Guinea, Gabon and Republic of Congo. From EAC, we chose Burundi, Kenya, Rwanda, Tanzania and Uganda. From ECOWAS, we have Benin Republic, Burkina Faso, Cote d'Ivoire, Gambia, Ghana, Guinea Bissau, Liberia, Mali, Niger, Nigeria, Senegal Sierra Leone and Togo, while we have Republic of Congo, Lesotho, Namibia, South Africa and Swaziland from SADC. In this study, a blend of the oil producing and non-oil producing countries is captured by the spectrum of countries representing the different economic blocs.

The rest of the paper is arranged in the following manner: the literature review will discuss empirical studies on the area of focus. and the methodology will define the materials and method that were adopted to achieve the objectives of the study. The next section is the results and discussion which presents, analyses and discusses the empirical results, and lastly, the conclusions will summarize the important findings drawn from the study.

## LITERATURE REVIEW

It has been observed that while studies abound on the linkage between each of the capital goods import or human capital with economic growth, few studies have empirically investigated the linkages among the three variables of focus in this study, namely, capital goods import, human capital and economic growth. However, some of the studies that have investigated capital goods (investment) and economic growth drew conclusions or findings that have implications on human capital. An example is Dulleck and Foster (2008), who studied the effect of equipment investment on the growth of developing countries and the interrelationship between equipment investment and human capital. They found that generally the relationship between equipment investment and growth is lowest and often negative for countries with low levels of human capital, highest for countries within an intermediate range, and somewhat in between for countries with the highest level of human capital. In a similar manner, the study by Mazumdar (2001) established the evidence that supports the position that imported machinery leads to higher growth in developing economies. By employing panel data, this researcher found that when an economy invests in domestic production of equipment, growth rate tends to slow down, whereas investment in imported equipment galvanizes the growth rate provided that there are domestic-technical-know-how that can transform this to output. Other studies in line with this are Herrerias and Orts (2009), and Thangavelu and Rajaguru (2004), among others.

Again, some studies investigated human capital and economic growth but their findings also have implications on the physical capital especially capital goods import. Among these sets of studies is Bakare (2006), who used vector autoregressive error correction mechanism to investigate the growth implication of human capital investment in Nigeria. He established a significant functional and institutional relationship between the investment in human capital and economic growth, and further concluded that investment in capital goods can promote the impact of human capital on growth. In a similar manner, Behbudi *et al* (2010) investigated the relationship between human capital (education) and economic growth of countries that are major petroleum exporters. He came up with a

negative relationship between economic growth and education. His findings reveal that countries that are rich in mineral and oil exhibited the tendency to neglect the development of their human resources, by devoting inadequate attention and expenditure to education and physical capital, with the resultant slow rate of growth compared to those that are not rich. Other studies in this line are Osei (2012), Habiyaremye (2013) and Shaari (2010), among others.

Considering all these empirical studies, it is obvious that more efforts are required to contribute to the existing literature in order to investigate the linkages among the three: human capital, capital goods import and economic growth, especially in SSA where there is a dearth of empirical literature that can provide empirically grounded policy direction for sub regional agencies like the Africa Development Bank, and ECOWAS, among others.

## **MATERIALS AND METHODS**

The endogenous growth model shows that the sustained and persistence increase in output per capita over time is not determined by exogenous technological progress. This model, developed and extended by several authors (Romer 1986; Lucas 1988; Rebelo 1991), has introduced different endogenous factors to the growth process.

The study takes its theoretical framework from the extended endogenous growth model as developed by Lucas (1988). According to Lucas, it is the investment in human capital, and not physical capital, that has spillover effects that increase the level of technology. For firm *i*, the output based on Lucas position will take the form:

$$Y_i = A(K_i). (H_i). H^e \dots\dots\dots [1]$$

Where *A* =technical Coefficient, *K<sub>i</sub>* =physical input, *H<sub>i</sub>*=human capital input, *H*=the economy's average level of Human capital, and *e*=degree of external effects from human capital to each firm's productivity. Constant return to scale is assumed for this model to thrive. In this Lucas model, technology is endogenously provided as a side effect of investment decision by firms. From the point of view of the user, technology is regarded as a public good, thus making it possible to treat the firms as price takers. According to

Dulleck and Foster (2008), physical capital has two important sources, local and international, and can be achieved via technological transfer. The Lucas model predicts easy arrival at equilibrium as the price-taking firms are similar to many other firms under perfect competitive market situation.

**Model specification**

Leveraging on the Lucas model presented in equation 1 and with special reference to the studies of Oseigbe (2015) and Habiyaemye (2013), the model for this study is stated as follows to examine the relationship among capital goods import, human capital and economic growth in SSA.

$$GDPgr_{i,t} = f(ICG_{i,t} INV_{i,t} TOP_{i,t} LBF_{i,t} PER_{i,t} FDI_{i,t} SSE_{i,t} EXR_{i,t}) \dots\dots\dots [2]$$

Where:

GDPgr<sub>i,t</sub> = growth rate of GDP of country i at period t, ICG<sub>i,t</sub> is ICG/GDP = ratio of imported capital goods to GDP of country i at period t, INV<sub>i,t</sub> is INV/GDP = ratio of investment to GDP of country i at period t, TOP<sub>i,t</sub> is TOP/GDP = ratio of trade openness to GDP of country i at period t, LBF<sub>i,t</sub> = Labour Force Participation of country i at period t. PER<sub>i,t</sub> = Primary goods export of country i at period t, FDI<sub>i,t</sub> is FDI/GDP = ratio of foreign direct investment to GDP of country i at period t, SSE<sub>i,t</sub> = Secondary School enrolment of country i at period t, EXR<sub>i,t</sub> = Exchange rate of country i at period t,

**Apriori expectation**

According to economic theories, direct or positive relationships are expected between the growth rate and all the predictors, except exchange rate, which can either be negative or positive depending on structure of the economy.

**Estimating technique: ARDL MODEL**

The choice of this estimation procedure is primarily informed by the fact that it passes the fitness-for-the-purpose-test. For instance, one option available to perform the co-integration test is the Engle-Granger approach, but its weakness lies in the fact that it is only able to use two variables. A multivariate analysis, such as that considered in this study, leads to the use of the Johansen and Joselius co-integration analysis (Johansen

& Juselius, 1990) or ARDL model. The statistical equivalence of the economic theoretical notion of a stable long-run equilibrium is provided by these two models, but the choice will depend on the characteristics of the data. The guide that is followed in this study is that if all variables are stationary,  $I(0)$ , an ordinary least square (OLS) model is appropriate and for all variables integrated of same order, say  $I(1)$ , Johansen's method is very suitable. But when we have fractionally integrated variables, variables at different levels of integration (but not at  $I(2)$  level) or cointegration amongst  $I(1)$  variables, then ARDL is the best model.

This study is unable to use the Johansen procedure (an option) as all the variables used in this study are not completely  $I(1)$ , that is, integration of order one. This assumption is a pre-condition for the validity of the Johansen procedure. Alternatively, the panel-ARDL model is appropriate to run the short-run and long-run relationships (Shin *et al.*, 2014). The choice of panel-ARDL is further informed by the advantages it portends. Firstly, it is not as restrictive in terms of the meeting of integration of the same order (as in Johansen or Pedroni); it is not sensitive to the size of the data, as small sample sizes can also be efficiently accommodated, subject to non-compromise to the optimal lag-length selection, affecting estimation efficiency, owing to the consumption of the degree of freedom, and it also produces unbiased estimates even in the presence of endogenous covariates (Harris & Sollis, 2003).

The study uses panel-ARDL, since not all the variables are  $I(1)$  and there is no  $I(2)$  among them, while the guide that is followed to test for the cointegration is bound test (Pedroni, 2004). Under bound testing, a set of critical values are based on the assumption that variables are  $I(0)$ , while the other set is based on the assumption that variables are  $I(1)$  in the model. The selection criterion is then that  $H_0$  is rejected if the F-statistic is greater than the upper boundary. But we shall fail to reject  $H_0$  if the F-statistic is lower than the lower boundary (Pedroni, 2004). The cointegration test is deemed inconclusive when the F-statistic value falls within the two boundaries.

## RESULTS AND DISCUSSION

This aspect of the research work presents and discusses the results from all the analysis explained in the methodology. According to the methodology, the model to be estimated is mainly on the effect of capital goods import and human capital on the growth of the SSA.

Table 1 shows both the mean and the standard deviation of the data distribution on capital goods import and other variables. The figures in the table, especially the mean value of capital goods import which is 69.71774, indicate that the value is closer to the maximum limit than the minimum. The implication of this is that capital goods imported across SSA has been on the high side on the average during the period under review.

**Table 1: Summary of statistics for capital goods import and other variables**

Variable	Obs	Mean	Std. Dev.	Min	Max
GDPGR	1050	4.06801	8.105272	51.03086	-106.2798
ICGINV	1050	69.71774	11.90154	25.70848	95.73246
EXR	1050	354.1727	515.1023	0	4524.158
INV	1050	21.73084	17.7386	-2.424358	219.0694
TOP	1050	.6727075	.4279152	.1411287	3.12978
IBF	1050	5608.859	7950.844	77.504	56222.81
PER	1050	80.6125	14.36747	21.96843	99.83844
SSE	1050	29.87944	19.77057	1.90106	93.80908
FDI	1050	3.61e+08	1.07e+09	-7.94e+08	9.64e+09

Source: Author's computation

Again, for the variance, the standard deviation value for capital goods import is 11.90154. This value is closer to the minimum limit than the maximum limit. The implication is that there has been no much variance in the figures of capital goods import across SSA during this period. In other words, the trend of capital goods import appears to be following the same pattern across the SSA region. It also means the data on the capital goods import are not widely dispersed.

Another key variable in the table is the GDP growth rate. The mean value shows that the value of 4.06801 is relatively closer to the minimum than maximum but also around the

middle of the distribution. This gives an impression of a relatively low GDP growth rate during the same period. Again, for the variance of 8.105272, the value is around the middle of the distribution, which simply indicates relatively wide dispersed data, hence there exists some degrees of variations in the GDP growth rate value of SSA during the same period. FDI values of mean and variance are closer to the minimum than the maximum limit. This is an indication that on average, FDI value in SSA has not been on the high side.

To investigate these impacts, we employ an estimating technique that will make it possible for us to examine both the short and the long-run impacts of the two on the economic growth of the SSA. The choice of estimating technique to be used here could not be ascertained until the unit root test was performed. Consequently, the first step in examining the impact analysis is the test for stationarity.

### **Panel unit root test for the SSA**

Ascertaining the order of integration of the variables used in the panel model is very germane to the selection of the estimating technique to be used for our analysis. Therefore, the usual practice is to use more than one method of panel unit root test to be able to confirm the level of consistency in the panel unit root test (Madalla, 1998). In this study, the Im Peresan and Shin (2003), IPS, the Levin-Lin-chu (2002), LLC and the Augmented Dickey Fuller (ADF) tests are used for the panel unit root test. The results are presented in Table 2.

The results show that all the variables used in the analysis are an integration of both order one and zero  $I(1)$  and  $I(0)$ . That is, they are either stationary at levels, or at the first difference. The implication of this is that Westerlund panel cointegration technique might not be suitable for the analysis of impacts of capital goods import and human capital on the economic growth of SSA, since its application is based on the fact that all the variables to be used in the model must be integration of order one  $I(1)$  throughout.

Based on the foregoing, panel autoregressive distributed lag (ARDL), which is another estimating technique that permits variables that are stationary at levels to be used in the analysis, is employed. As explained in the methodology, panel ARDL emphasizes that none of the variables should have order of integration greater than one, in other words



both variables that are I(1) and I(0) are acceptable. Again, for better results, it is necessary that the dependent variable be a non-stationary variable. All these conditions have been met by the panel unit root test. Consequently, panel ARDL is used in this study to investigate the impacts of capital goods import and human capital on the economic growth of the SSA region.

**Table 2: Panel unit root test for the SSA**

Variables	IPS unit root test		ADF-Fisher chi-square unit root test		Levin-Lin-Chu unit-root test	
	t* Statistics	Order of integration	t* Statistics	Order of integration	t* Statistics	Order of integration
GDPGR	-4.6106***	I(1)	610.020***	I(1)	-18.4889***	I(1)
ICGINV	-2.0141***	I(0)	112.325***	I(0)	-26.8044***	I(1)
EXR	-4.4913***	I(1)	528.580***	I(1)	-21.3203***	I(0)
INV	-2.1726***	I(0)	116.088***	I(0)	-10.2203***	I(0)
TOP	-5.5286***	I(1)	573.7799**	I(1)	-2.7701**	I(1)
LBF	-2.3175***	I(1)	186.820***	I(1)	-5.6588**	I(1)
PER	-2.3854***	I(0)	149.415***	I(0)	-8.8345***	I(0)
SSE	-5.2259***	I(1)	735.005***	I(1)	-18.4814***	I(1)
FDI	-7.2414***	I(1)	898.8633**	I(1)	-24.8036***	I(1)

Statistical significance at 1%(\*\*\*), 5%(\*\*), 10%(\*)

Source: Authors' computation

Before the panel analysis, we did the covariance analysis of all the variables in the panel model to give us first hand information about the expected relationship among the variables used in the panel analysis. The result is presented in Table 3.

The correlation/covariance matrix of the variables is presented in Table 3. The results show that negative correlation exists between capital goods import and economic growth in the SSA. Though the correlation of -0.0622 is very weak, it still gives us an insight into the relationship that is existing between the two in SSA. The implication of this result is that a rise in capital goods import might lead to a fall in the economic growth of the SSA.

**Table 3: Correlation matrix for SSA**

Variables	GDPGR	ICGINV	EXR	INV	LBF	PER	SSE	TOP	FDI
GDPGR	1.0000								
ICGINV	-0.0622	1.0000							
EXR	0.1232	-0.1126	1.0000						
INV	0.3044	-0.1341	0.0323	1.0000					
LBF	0.0143	0.1295	0.0148	-0.1582	1.0000				
PER	-0.0175	-0.0902	-0.1670	0.1448	0.1765	1.000			
SSE	0.0158	0.2844	-0.1370	0.0131	0.0989	0.6573	1.0000		
TOP	0.0399	0.0983	-0.1863	0.1394	-0.2471	0.1101	0.2320	1.000	
FDI	0.0861	-0.1092	-0.0293	0.0404	-0.0634	-0.151	0.2391	-0.00	1.000

Source: Authors' computation

Human capital is proxied by secondary school enrolment (SSE). The correlation between human capital and economic growth is 0.0158. In the same manner, labour force also shows a positive correlation with the economic growth. The implication of this is that a rise in the human capital and labour force will promote economic growth in SSA. But the case is different with population growth.

### **Panel ARDL for the SSA**

Estimating panel ARDL require two steps: first is the assessment of panel cointegration and the second one is the panel ARDL model estimation.

### **Panel cointegration test**

Unlike the time series ARDL cointegration test that uses bound testing, the panel ARDL cointegration test uses the WALD test (Månsson, Shukur & Sjölander, 2016). However, it is usually a post estimation test for panel data but it important to confirm the existence of cointegration or long-run relationship before the estimating of the long and short-run relationships, The WALD test is one of the coefficient tests necessary to confirm the existence of cointegration in the model. The result is presented in Table 4.

**Table 4: WALD test for SSA panel ARDL model**

<b>T statistics</b>	<b>Value</b>	<b>Df</b>	<b>Probability</b>
F-statistics	79.61437	(2, 293)	0.0000
Chi-square	159.2287	2	0.0000

The result shows that both the F statistics and chi-square are significant at 1%. Consequently, the hypothesis of no co-integration is rejected at 1% and we conclude that both capital goods import, human capital and other variables in the model will jointly influence growth in the long-run.

### **Panel ARDL estimation**

After the confirmation of cointegration and lag length selection the panel autoregressive distributed lag (ARDL) estimation follows. The result shows the relative importance of capital goods import and human capital in determining the economic growth of the SSA. The result is presented in Table 5.

Table 5 explains the impacts of capital goods import and human capital on the economic growth of SSA in both long and short-run periods. The results indicate that capital goods import has significant positive impact on economic growth of the SSA in the long-run. But this is not the case in the short-run.

The long-run coefficient of capital import in the table is 0.132601 and the value is significant at 1%. However, in the short-run the value is negative and also significant. The implication of this result is that importation of capital goods in SSA will initially have adverse effect on growth of the sub region, but as the period progresses to the long-run, the effect turns positive that is it will later begin to promote economic growth in the long-run period. The result here further gives better explanation than what we obtained under the correlation matrix. The results of the correlation matrix on capital goods import only explain the situation in the short-run and not in the long-run period.

For human capital, the long-run coefficient is -0.045093, the value is negative but not statistically significant. The short-run equation also follows the same direction. The implication is that human capital proxy by secondary school enrolment does not have

significant impact on economic growth both in the short long periods. The result is in line with the correlation matrix results where a positive relationship is obtained between capital goods import and economic growth. Notwithstanding, the relationship is not significant, meaning that both transitory and permanent impacts of human capital on economic growth of SSA are not significant.

Other variables that have significant impacts on economic growth in the SSA region are investment and primary good export. Their long-run coefficients are 0.199316 and 0.043500 respectively. The result is also in tandem with the correlation matrix result in terms of relationship. But the panel ARDL has shown that the relationship is only significant in the long-run and not in the short-run. These findings conform to the *a priori* expectation, as well as the theoretical postulations, that both investment and export are growth promoters. The situation is expected in SSA, where their major export is dominated by primary goods.

However, trade openness, FDI and labour force fail to have significant positive impacts on SSA growth, both in the long-run and in the short-run periods. The coefficient of trade openness is -0.152632. Apart from the fact that the coefficient is negative, it is also significant. The implication is that increases in trade openness of the SSA will significantly reduce the economic growth of the sub region. For labour force participation, the coefficient is positive but it is not significant both in the long-run and in the short-run. This simply implies that the rate at which labour participates in economic growth process in SSA is still far from the desired level. This finding appears to be supporting what we obtained on human capital as explained in the previous paragraph, since both labour and human capital are related as inputs in growth model. Again, the lagged value of GDP growth rate, the primary export and investment all have significant impact in the short-run.

**Table 5: Long-run and short-run coefficients, dependent variable: GDPGR**

Variable	Coefficient	Standard Error
LR ICG_INV	0.132601***	0.029663
EXR	0.000800	0.000738
INV	0.199316***	0.018204
LBF	0.000221	0.000136
TOP	-0,152.632**	0.932713
PER	0.043500**	0.014529
SSE	-0.045093	0.018078
FDI	0.005780	0.098345
SR D(GDPGR(-1))	0.185715	0.121193
D(GDPGR(-2))	0.037737	0.057036
D(ICG_INV)	-0.181685	0.116284
D(ICG_INV(-1))	-0.326708**	0.102926
D(ICG_INV(-2))	-0.017644	0.095461
D(EXR)	0.023938	0.359503
D(EXR(-1))	-0.321165	0.421361
D(EXR(-2))	-0.366412	0.268575
D(INV)	0.144589	0.131420
D(INV(-1))	-0.199005	0.169158
D(INV(-2))	-0.116008	0.099046
D(LBF)	0.026844	0.042939
D(LBF(-1))	0.044450	0.073852
D(LBF(-2))	-0.030191	0.077204
D(TOP)	-11.01257	32.14772
D(TOP(-1))	-12.08317	42.67741
D(TOP(-2))	23.28927	21.79035
D(PER)	0.004670	0.084520
D(PER(-1))	0.231451	0.369424
D(PER(-2))	-0.067642	0.119480
D(SSE)	-0.052401	0.274149
D(SSE(-1))	-0.332649	0.657352
D(FDI)	-0.178874	0.189867
D(FDI(-1))	-0.450023	0.780034
	0.900013	0.990076
Constant	-20.02068	3.575762

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ECT(-1)	-1.098959	0.176888	-6.212742	0.000

Statistical significance at 1%(\*\*\*), 5%(\*\*), 10%(\*)

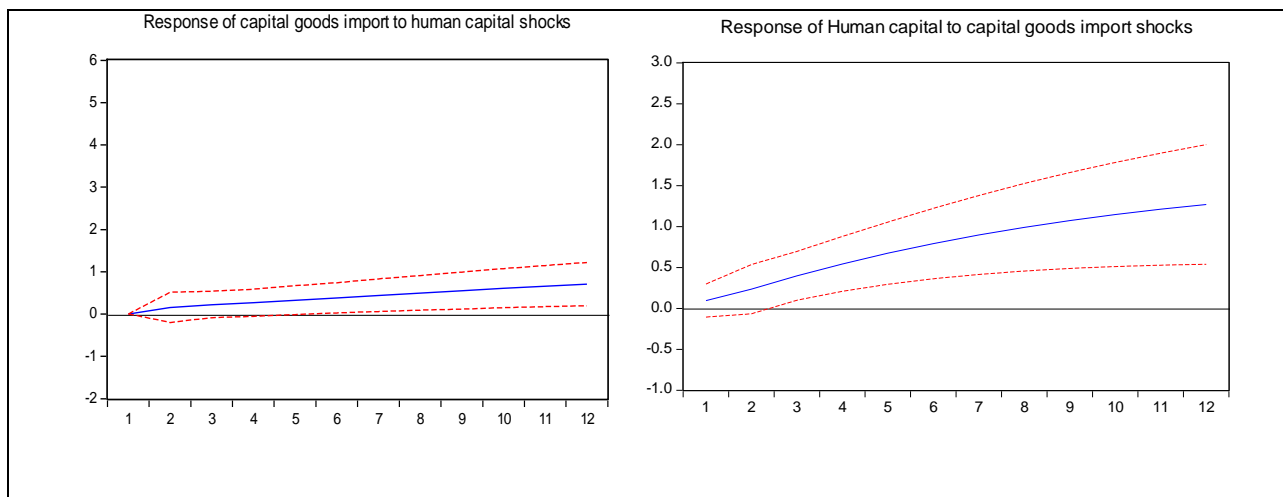
This further underscores the importance of investment and particularly primary goods export, as very germane to the growth of the SSA sub region.

As further shown in Table 5, the error correction model explains the short-run dynamics in the panel ARDL model. The negative coefficient sign of the ECM shows that there was disequilibrium in the past and the adjustment is in the right direction. The ECM value of -1.098959 suggests the relatively high speed of adjustment from the short-run deviation to the long-run equilibrium of economic growth. More precisely, it indicates that about 109% deviation from the long-run GDP growth rate in SSA is corrected in the dynamic model, or that the system is getting adjusted towards long-run equilibrium at the speed of about 109%. In addition, the ECM is statistically significant at 1% level, indicating that long-run equilibrium can be attained. Our results are consistent with Rabbi (2011) and Bannerjee *et al.* (1998), who argued that a highly significant error correction term is a further proof of the existence of stable long-run relationship.

This result further confirms that there will be convergence (steady-state) of the system and the attainment of stable economic growth rate in SSA in the long-run.

### **Vector auto regression analysis of the relationship between capital goods import and human capital**

Part of the objectives of this study was to assess the extent of the linkages between capital goods import and human capital. The unrestricted VAR analysis was explored to support the analysis from the ARDL. Both the impulse response functions and the variance decomposition analyses were done and their results are discussed as follows:



**Figure 1. Impulse response function analysis**

Figure 1 explains the relationship between capital goods import and human capital in the SSA. The results show the responses of capital goods import to human capital shock and vice versa. It is evident from the result that both of them affect themselves significantly. Capital good import responses positively and significantly to human capital shock, while human capital too responds positively and significantly to capital goods import shocks.

**Table 6: Variance decomposition of capital goods import**

Period	FDI	GDPGR	ICG_INV	INV	LBF	EXR	PER	POP	SSE	TOP
3	0.754191	0.017640	98.31907	0.075585	0.013190	0.053501	0.419061	0.057863	0.169905	0.119995
6	2.884779	0.065737	95.19337	0.383630	0.018066	0.067055	0.401772	0.177354	0.554551	0.253683
9	5.818331	0.058687	91.05818	0.775689	0.023167	0.072362	0.326863	0.206620	1.232060	0.428045
12	8.951628	0.050193	86.45069	1.125750	0.030537	0.082751	0.285167	0.178943	2.209741	0.634595

Table 6 describes the contributions of each shocks to the behavior of each of the variables included in the VAR model. The results indicate that the behavior of capital goods import is strongly affected by the human capital shocks. Apart from the own shock and the FDI shock, human capital contributes the largest shocks to the behavior of capital goods import. These further underscore the importance of human capital in dictating the behavior of capital goods import.

## CONCLUSIONS

Firstly, the trend of capital goods import in the SSA regions follows an upward movement between 1980 and 2014, which is the period under review. Both the line trend and the summary of statistics confirmed the result. This is an indication that the AFDB 2013 report that the entire SSA sub region records, increasing capital good import within the last two decades, is empirically correct. This is notwithstanding that there has also been a drastic fall in the trend since 2010. This coincides with the period of drastic fall in the commodity prices. The implication of this is that the fall in commodity price in recent times has reduced the revenue accruing to SSA, and hence limiting their power to import capital goods. This view was also shared by Habiyaemye (2013), and Eaton and Kortum (2001), among others. Generally, these authors conclude from their various researches that capital goods are well traded during the period under review among the SSA countries, and that the trade volume of capital imports has been rising continuously over the years. However, they also agreed that one of the impediments to the riding trend is the fall in commodity prices which has affected many countries in SSA, because the sub region is dominated by primary goods exporters.

Secondly, the trend of human capital fails to show similar pattern with capital goods import. Especially from the summary of statistics, the mean value of secondary school enrolment distribution in SSA is closer to minimum limit than the maximum limit. The implication is that the trend of human capital in the sub region has not been encouraging. This also in line with the findings of Brempong and Wilson (2014), where panel analysis of SSA and OECD shows that human capital contributions to the growth of the SSA regions has been reducing due to the rise in population compared to human capital, and hence high rate of unskilled labour relative to skilled labour.

Thirdly, findings from the analysis have shown that there is a positive correlation between capital goods import and human capital. Though this correlation is also shown to be very weak, the implication is that ordinarily our findings support the fact that human capital promotes capital import in SSA, but this is contrary to the results of Appleton and Teal (2004), where and inverse relationship was discovered to be existing between human capital and capital imports of the OECDs. The reason for the difference might not be



unconnected with the fact that human capital in SSA have little drive and incentives that make them to be useful in production of capital goods domestically, which might reduce their importation of capital goods, unlike OECDs where there is advanced technology and incentives that can aid human capital to increase domestic production of capital goods and this will reduce their capital goods import. According to Appleton and Teal (2004), human capital in less developed countries promote economic growth by leveraging on the available capital goods in their economy to improve domestic outputs, through improvements in primary goods production.

In addition, the impulse response function and the variance decomposition results have shown that there is a strong link between human capital and capital goods import in SSA. The behavior of capital goods import is shown to be influenced by human capital. The implication is that human capital will be needed to promote capital goods imports, as it has been shown that capital goods responds positively and significantly to positive shocks from the human capital. Therefore, to achieve a rise in capital goods import there must be a corresponding rise in the human capital.

From all panel results, it can be concluded that capital goods import has significant positive impacts of the economic growth of the SSA. This is in line with the findings of Munemo (2013), that capital import from China has significant positive impacts on the economic growth of SSA. His study focused on capital goods import from China alone but yet the findings offered immense supportive evidence for our finding that capital goods import has influenced economic growth of the SSA significantly.

On the contrary, human capital failed to show significant impact on SSA economic growth. This further shows that the contributions of human capital to the economic growth of SSA are far below the level that can bring about sustainable economic growth. Fedderke (2005) attributed this to the poor quality of human capital in SSA. According to him, SSA is among the least educated region in the world and this singular reason has seriously hampered the quality of their human capital. However, the results of this study have shown that the reason for the insignificance of human capital in driving the growth of the SSA might not be unconnected with this.

It can also be concluded from the study that primary export is a dominant factor influencing the growth of the SSA. Statistics from the AFDB shows that 85% of the SSA GDP comes from the primary export (AFDB, 2016). Also, investment is shown to be a good driver of economic growth but the current level of FDI in the sub-region is not enough to promote the economic growth of the region significantly. Labour participation rate, which is an indicator of human capital, follows the same pattern of relationship of human capital with economic growth. The overall implication of the results in this study is that the limitation to the effectiveness of capital goods import in promoting the growth of SSA is the low quality of human capital. Since the skill and level of education of human capital is very germane to the utilization of the capital goods for economic growth purposes.

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V. Peach

**CONSERVATISM OF THE SOUTH AFRICAN JUDICIARY: A BARRIER FOR RECOGNISING SUBSTANTIVE LEGITIMATE EXPECTATIONS IN SA ADMINISTRATIVE LAW UNDER THE 1996 CONSTITUTION**

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‘Justice is not a cloistered virtue: she must be allowed to suffer the scrutiny and respectful, even though outspoken, comments of ordinary men’ (Milton, 1970:424).

**ABSTRACT**

Not only has the inherent conservatism of the South African judiciary been a barrier to recognizing substantive legitimate expectations in South African administrative law, but a comprehensive vision of constitutional transformation, focused on fairness in public administration, as a dynamic concept for legal reform, has been largely absent from the theoretical underpinnings of the judiciary's task to develop the South African common law, in accordance with the aims and spirit of the South African Constitution. Up to this point, most arguments in favour of substantive relief for legitimate expectations have been based on *ad hoc* considerations lacking a comprehensive vision of the theoretical basis of constitutional development in the country. However, rather than creating a principle of substantive legitimate expectations, some court decisions seem to have granted substantive benefits under the ‘guise’ of procedural legitimate expectations. In *Premier, Province of Mpumalanga v Executive Committee of the Association of Governing Bodies of State-Aided Schools: Eastern Transvaal* (1999 2 BCLR 151 (CC); 1999 2 SA 91 (CC)), the effect of the order by the court was substantive in nature, viz. that the bursaries had to be paid until the end of the year. In *Minister of Local Government and Land Tenure v Inkosinathi Property Developers (Pty) Ltd* (1992 2 SA 234 (TkA)), the legitimate expectation was based on the following:

- (a) Regular practice.

- (b) The *audi* rule was not complied.
- (c) The decision was found to be invalid.
- (d) The matter was not referred back to the administrator, as there had been an undue delay because of the Minister's failure to consider the matter for about 17 months.
- (e) The Minister's mind was already made up.

This ruling amounted to the granting of substantive relief. Judges are constrained by these theories that seek to limit the value determination they make in constitutional cases. Further to these, judges are not untainted by personal predilections or political predispositions. This study seeks to explore whether judges who lack a comprehensive vision of the theoretical basis of constitutional development in the country, should not be promoted to the higher courts or should they resign.

**Keywords:** Executive, Expectations, Judiciary, Legitimate, Substantive, Transformation.

## **DEFINITION OF A JUDGE**

Professor Wacks (1983:1), in his inaugural lecture as Professor of Law and Head of the Department of Public Law of the University of Natal, delivered on 23 March 1983, began his lecture by giving the definition of a judge as 'the prototypical' (South African Concise Oxford Dictionary, 2006) legal institution. In his robed and exalted independence, the judge is tasked to elevate fairness in his or her adjudication. The social service that he/she renders to the community is, in Lord Devlin's (in Wacks, 1984:266) words, 'the removal of a sense of injustice'. Professor Wacks (1983:1) went on to say that judges belong to a legal system, and this social system requires a judiciary to support it. He posed a question regarding what judges should do, when they find the law morally wrong. He says such a judge must resign. In line with Professor's Wacks sentiments, that judges belong to a legal system, South African judges must follow a new democratic system which has the supremacy of the Constitution as its value. This is the same with current judges who do not have the discretion of how to decide cases but to follow what the Constitution of the Republic of South Africa dictates. This is because a judge is a keeper of the law, protector and repository of justice (Wacks, 1984:266).

Hlophe observed in 1988, in his unpublished doctoral thesis, that the attitude of the South African judiciary was a main obstacle for South African law, particularly administrative law, being relatively outdated (Hlophe, 1988:94-98), even though many scholars and judges elsewhere have long acknowledged that judicial review is a counter-majoritarian force in the legal system (Bickel, 1996:16-17). This force was eloquently described as follows by Davis (1996):

‘When the Supreme Court declares unconstitutional a legislative act ... it thwarts the will of the ... people of the here and now; it exercises control, not on behalf of the prevailing majority, but against it’ (Van Wyk *et al.*, 1996:6).

Hlophe, in his inaugural address, delivered on Monday 17 October 1994, at the University of Transkei, was of the view that the role of judges in the newly democratic South Africa will be controversial. He motivated his assertion by stating that some judges will delay in bringing the necessary changes envisaged by the Constitution. He hoped that the judiciary would do well to learn from its mistakes of the past and under the constitutional state nothing should stand in the way of the judiciary protecting human rights and civil liberties. Whether the judges heeded Hlophe’s call is yet to be seen by South African society in realising their administrative right.

## **THE JUDICIARY UNDER THE NATIONALIST GOVERNMENT**

The judiciary under apartheid was conservative. This is as a result of conservative appointments (Hoexter & Olivier, 2014:64).

## **THE JUDICIARY UNDER THE AFRICAN NATIONAL CONGRESS GOVERNMENT**

Before the coming into effect of the 1993 Constitution, the Supreme Court was composed of provisional and local divisions, which had both original and review jurisdiction with a final appeal to the Appellate Division. This set up changed under the 1993 Constitution (section 98(1)), and later, the final Constitution (section 67).

Section 98(1) of the Interim Constitution changed the judicial system of South Africa completely, in the sense that a new court was established. This court came to be known



as the Constitutional Court of the Republic of South Africa. This was the court of finality over any matter in connection with the interpretation, protection and enforcement of the provisions of the Constitution (Van Wyk *et al.*, 1996:168). Under the Interim Constitution, the Appellate Division was denied jurisdiction in all constitutional matters and was left as the highest court of appeal for all non-constitutional matters. However, this changed under the 1996 Constitution.

After the advent of democracy, Hlophe (1995:22) further argued that a new image of judges would be required. I agree with Hlophe's sentiments, because for the new democracy to be realised, a new mindset from conservatism was required from the institution which was to implement the Constitution.

Under the final Constitution, the courts were established under section 166. Section 165 mandates the independency of the courts. Judicial independence requires judges to act independently of the government of the day and free from external pressure from any source. This section requires the courts to apply the law impartially and without fear or favour or prejudice. Section 167 (3) (a) establishes the Constitutional Court as the highest court of the Republic. Section 173 of the Constitution provides that the Constitutional Court, the Supreme Court of Appeal and the High Court of South Africa has the inherent power to develop the common law, taking into account the interest of justice.

This power invested in the courts requires the judges to develop common law in line with its provisions.

## **LACK OF SAFEGUARDS**

Before the democratic government in South Africa, there were no safeguard in the legal system, in trying capital cases militating against mistake where a man is on trial for his life (Van Niekerk, 1970:72). But now the South African legal system is different. The courts are directed by the values in the Constitution. During apartheid the reasons for mistaken identity in criminal trials were too manifold and too obvious, like in the case of *S v Serumula* (1962 3 SA 962 (W)) Judges are mortals, and the possibility of divergences

of opinion on what factors constitute mitigating circumstances is very real (Van Niekerk, 1970:71).

The pre-democratic judges lacked a meaningful contribution to human rights. This led to the first democratic President of the Republic of South Africa, Mr Nelson Mandela, when he was charged with treason (1994:312-313 in Corder *et al.*, 2014:8-9) during his trial to say:

‘Why is it in this courtroom I am facing a white magistrate, confronted by a white prosecutor, escorted by white orderlies? Can anybody honestly and seriously suggest that [in] this type of atmosphere the scales of justice are evenly balanced? Why is it that no African in the history of the country has ever had the honour of being tried by his own kith and kin? The real purpose of this rigid colour bar is to ensure that justice dispensed by the courts should conform to the policy of the country, however much that policy might be in conflict with the norms of justice accepted in judiciaries throughout the civilised world.’

It is during the apartheid era where administrative law, as well as criminal law, were sources of oppression for the majority of South Africans (Corder *et al.*, 2014:9).

This position articulated by Mandela has since changed, but the role of the judiciary as an unelected institution remains contested and controversial under the new legal system in South Africa. Some judges are still defined by a conservative approach in their decisions.

In *S v Van Niekerk* (1972 3 SA 711 (AD)), the appellant (Van Niekerk, 1970:8), who was a professor of law at the University of Natal, was charged with the two accounts of contempt of court and attempting to defeat or obstruct the course of justice. He was charged by saying the following:

‘In the very first place our lawyers, all our lawyers from judges downwards, can make their voices heard about an institution which they must surely know to be an abdication of decency and justice.’

Professor Van Niekerk (1970:9) continued to say:

‘This is the very understandable retort of our judges to the demand sometimes made upon them into the dust.’

The court found that appellant should have been convicted on count 2 of the indictment, which was of attempting to defeat or obstruct the course of justice. This was the predicament faced by apartheid judges because judges were obliged to apply laws which they knew from their legal education to be contrary to human rights. These judges found refuge for their decisions from positivism which allocated them a passive, declaratory role. This has now changed under the constitutional state under which South African judges operate (Dugard, 1972:285).

What then can be said about judges who adjudicate under the new legal system and circumstance? Are they free to decide cases along the positivist approach? The answer is surely no. This is an age in which the concept of substantive legitimate expectations has acquired a constitutional status which differs profoundly from that which existed in the times when the judges were operating under parliamentary supremacy. In order to better the culture of human rights, humanity must move on, discarding concepts that are outdated and unsuited to the changed environment or to changed ideas (Van Niekerk, 1970:61).

‘A judge is not an automation whose task is limited to applying clear rules of law to clear findings of fact in a purely logical manner. He is called to a higher duty, that of choosing between compelling alternative rules and conflicting factual situations and in exercising this choice he should be guided by accepted legal values’ (Dugard, 1972:277).

## **SAFEGUARDS UNDER DEMOCRACY**

### **Founding principles**

The drafting of the new Constitution was informed by the 34 Constitutional Principles incorporated into schedule 4 of the interim Constitution.

Even though the new Bill of Rights under the 1993 Constitution accorded greater weight of certain rights than to the decisions of parliament, South Africans, both white and black,

bonded themselves to certain values (the most cherished values of the new legal system are rule of law, human dignity, freedom, and equality) which trumped the output of a transient legislature. Courts have shown in this period of democracy scrutiny of the activities of both the legislature (*S v Makwanyane and Another* 1995 3 SA 391 (CC); 1995 6 BCLR 665 (CC)) and the executive, but failed to do so in the field of administrative law.

In *Premier, Mpumalanga v Executive Committee, Association of State-Aided Schools, Eastern Transvaal* (1999 2 SA CC paras 32 and 46), O' Regan J reviewed the development of the doctrine of legitimate expectations in South Africa.

'It is not necessary for us to decide in this case in what circumstances, if any, a legitimate expectation will confer a right to substantive relief beyond contemplated by a duty to act fairly.

In *S v Makwanyane and Another* (1995 3 SA 391 (CC) para 262), Mahomed J, observed as follows:

'The South African Constitution is different [from those which formalises an historical consensus of values]: it retains from the past only what is defensible and represents a decisive break from, and a ringing rejection of, that part of the past which is disgracefully racist, authoritarian, insular, and repressive, and a vigorous identification of and commitment to a democratic, universalistic, caring and inspirationally egalitarian ethos expressly articulated in the Constitution.'

The courts, by rejecting substantive legitimate expectations, retain the past which is not defensible, because the Constitution makes provisions for an appropriate relief which is substantive legitimate expectations.

This is seen in the argument that the courts have failed in their constitutional duty to reform administrative law by not recognising substantive legitimate expectations (*Van Wyk et al.*, 1996:1) under the 1993 Constitution (section 96), while they were empowered to do so by the constitutional theories and values. The Constitutional Court is an institution of transformation, though it has taken some strides in the development of a body of law, it has not done so in fully developing administrative law to reflect the principles underlying the Constitution. The court's power to review and determine the constitutional validity of

legislation and executive conduct is an important part of transformation argued Olivier (2014:70). How can the executive authority be regulated if the courts, especially the Constitutional Court, is reluctant to recognise substantive legitimate expectation? Courts are called upon to look at the theories and values of the Constitution to break with the past of formalism, executive mindness and positiveness.

It was argued that the essence of judicial transformation lies not in 'packing the Courts with black judges' (Ngalwana, 2008). It was further argued that the courts must be composed of judges who are loyal to the Constitution's fundamental values which underpin the Constitution. These values are; the rule of law, human dignity; equality and freedom (Klug, 2010:235). Judges has a significant role in society of the Republic of South Africa. The judges have to transform their legal knowledge because most of the current judges, if not all, have been trained under apartheid education. Therefore, they need to be retrained in order to bring into line their judgement with the new constitutional order and to satisfy its transformative role in society (Mhango, 2014:68).

The non-recognition of substantive legitimate expectations undermined the founding values of human dignity, the development of equality. The introduction of the Bill of Rights has constitutionalised administrative law and both the 1993 and 1996 Constitutions have entrenched the right to just administrative action in terms of section 33. This right was supposed to play an important role in reforming administrative law but problems such as conservatism and positivism still play a role in adjudicating the Bill of Rights by the judiciary.

## **FINDING A COHERENT THEORETICAL BASIS FOR RECOGNIZING SUBSTANTIVE RELIEF FOR LEGITIMATE EXPECTATIONS IN SOUTH AFRICAN ADMINISTRATIVE LAW**

### **The transformative vision of South Africa's constitutional state**

Transformations of legal cultures have become topical issues in contemporary jurisprudence. Although transformatory perspectives are not absent from libertarian jurisprudential theories, postmodern and socialistic theories, together with communitarian

perspectives on justice, have impacted strongly on legal transformation theory. These theoretical points of view contain important perspectives for transforming the legal culture of the South African constitutional state and public law in particular.

The provisions of both the Interim Constitution (200 of 1993) and final Constitution (108 of 1996) emphasize the Constitution's commitment to transformation. It requires a radical move from the past and compels the transformation of the legislature, executive and South African legal culture (Pieterse, 2005:166). The question is therefore whether transformative constitutionalism is a viable paradigm for reforming South African administrative law, with particular reference to recognizing substantive legitimate expectation. Klare (1998) described transformative constitutionalism as a long-term project of constitutional enactment, interpretation and enforcement, in order to transform a country's political and social institutions and power relationships in a democratic, participatory and egalitarian direction (Klare, 1998:151; Langa, 2006:356). In addition, Langa argued that a truly transformative South Africa requires a new approach to legal education, in that it should place 'the Constitutional dream at the very heart of legal education' (Langa, 2006:356). He confronts the inherent conservatism of the South African legal culture, which is based on formal rather than substantive reasoning. In light of this definition, it is the researcher's view that in order to reform South African administrative law, and recognize substantive legitimate expectations, there is a need to achieve transformation by implementing the values and aspirations enacted in the Constitution (Klare, 1998:151) and to change the South African legal culture, in order to meet the standards for reforming administrative law. Although transformation is not the sole responsibility of the court, since it is the task of all three arms of government (Langa, 2006:351, 358), the greatest responsibility lies in the hands of the judiciary. Furthermore, the Constitution (108 of 1996) commits all the branches of government to the promotion of democratic values, human rights and equality.

## **THE DEVELOPMENT OF LEGITIMATE EXPECTATIONS**

The courts are tasked under by section 8(1) of the final Constitution which provides that 'The Bill of Rights applies to all law, and binds the Legislature, the Executive, the Judiciary

and all organs of State'. In *Carmichele v Minister of Safety and Security* (2001 4 SA 938 (CC) para 44), it was held that 'where the common law deviates from the spirit, purport and objects of the Bill of Rights, the courts have an obligation to develop it by removing the deviations.

Ackermann and Goldstone observed that:

'There is a duty imposed on the State and all of its organs not to perform any act that infringes these rights. In some circumstances there would also be a positive component which obliges the State and its organs to provide appropriate protection to everyone through laws and structures designed to afford such protection.

But before and after this decision the Courts deviated and still deviates by failing to develop the common law in line with this decision by not accepting and reform administrative law by recognising substantive legitimate expectation as a new ground of judicial review. This is the duty of upon judges arises in respect administrative law'.

In *Bel Porto School Counselling Body v Premier, Western Cape* )2002 9 BCLR 891 (CC) para 46) devoid of any scientific basis, Judge Chaskalson said that time had not yet arrived for the application of substantive legitimate expectation in South Africa, without saying why he thought that time for substantive legitimate expectation has not arrived yet and when will that time would come. This is, in my view, a judicial error, which existed in the past where there was the death penalty. People in South Africa were wrongly convicted and hanged (Van Niekerk, 1970:87). This is the case with substantive legitimate expectation where the courts finds its unsuitability but corruption is rising day by day in South Africa (Madonsela, 2016). The equation of this with the death penalty is of the result that administrative and criminal law were sources of oppression for the population of South Africans (Corder *et al.*, 2014:9). The majority forgot that the Constitution required both historical redress and building of a new South Africa. This constitutional case failed to advance the spirit, purpose and object of the Constitution.

## CONCLUSION

We must accept that to endow a court consisting of mortal men - not ordinary men but still men who may from time to time err - with the characteristic of infallibility is manifestly unacceptable (Corder *et al.*, 2014:9). It is my view that judges must discard the positivist view point, that the only point is between mechanical applications of the law. Judges must execute their mandate in terms of the Constitution which they mandated to implement. The judiciary must be tested against the issues of transformation. Failure by the judges to obey the Constitution, should result in at least resignation.

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**T. Reddy Jankeeparsad, L.J. Stainbank and A. Algu**  
**THE USE OF CONCEPT TESTS IN A SECOND-YEAR ACCOUNTING**  
**COURSE: AN EXPLORATORY STUDY**

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**ABSTRACT**

The objective of this paper is to report students' perceptions of the usefulness of concept tests in a second-year accounting course using survey research. The study found that students perceived the main benefit of the concept tests to be the feedback from the tutors. There was little support for the concept tests as a tool for learning or increasing knowledge on the topics. While no statistically significant differences were found when the students' responses were analysed on a gender basis, some statistical differences were found when the results were analysed using language. Students whose home language was not English, found the concept tests more useful in four out of the six areas involving learning (keeping up-to-date; understanding; motivation to work harder; and preventing spotting), than students whose home language was English. Furthermore, students whose home language was not English were less likely to guess the answers to the concepts tests and found the concept tests more useful for monitoring their progress. These results may be useful to other accounting lecturers with a mix of language abilities in the classroom and who are looking for active interventions to help students in their learning endeavours.

**Keywords:** Accounting, Concept tests, Formative assessment, Objective tests.

**INTRODUCTION**

In 2012, as an attempt to improve the performance of students in a second-year accounting course (Accounting 200), concept tests were introduced. Since 2012, many

improvements have been made in the delivery of the concept tests. However, anecdotal evidence has been used to judge the effectiveness of these tests. The purpose of this paper is to determine students' perspectives of the usefulness of concept tests using survey research

The idea of the '*concept test*' was developed from a model used at a different South African university where the term '*objective test*' is used. The term concept test is used rather than objective test because in education an objective test focuses on the marking - so objective tests are those which can be scored by assessors without bias or subjective judgment (e.g. multiple choice, true/false tests, etc.). A concept test is not a mini term test or a tutorial question, and therefore does not attempt to 'cover' any aspect of the topic. Rather it involves a written explanation of an underlying principle, a key concept, term, or formula; a calculation with a written explanation; an application of a concept; and/or a journal entry, etc., relating to the relevant lecture topic at hand, with an emphasis on understanding and not on a calculation. It is written under test conditions.

Tutors should set the students up to do well in the test by introducing the test topic clearly and asking some key questions around it to focus their attention. This test allows students to grasp and internalise new concepts while the work is initially being learned, and it allows the students and their tutors to discover early the students' level of understanding, and what needs to be practised further. Educationalists call this 'formative' assessment. When taking in the scripts at the end of the test, some questioning around the answer(s) reinforces understanding. Although it does not count towards the class mark, it is marked by tutors and relevant feedback is provided. As concept tests are administered in the tutorials, they may have the added benefit of increasing tutorial attendance and participation in the course, which are important determinants of student performance (Perera, Nguyen & Watty, 2014).

The concept tests also form the basis for the framework-based teaching that is used in this course. Wells (2011:303) argued that financial statements that conform to the International Financial Reporting Standards (IFRSs) used estimates, judgements and models, rather than exact depictions, and because the Conceptual Framework of the International Financial Standards Board (IASB) established the underlying concepts, the

Conceptual Framework establishes a basis for using judgement to resolve accounting issues. Wells (2011:306) further noted that the 'objective of general purpose financial reporting and the main concepts in the IASB's *Conceptual Framework* that flow from the objective are central to Framework-based teaching of IFRSs'.

While concept (or objective) tests have been used in other South African universities, the effectiveness of these tests has not been reported by South African accounting researchers. This study contributes to the literature by providing a quantitative appraisal, through the use of a questionnaire, as to whether students perceive any benefits from these tests, in a developing country, where there is a diversity of students on a language basis. Furthermore, the study provides information on this intervention which may be useful to other educators who have mixed language abilities in their classroom.

The remainder of this paper is organized as with the next section providing an overview of assessment, a theoretical framework and the literature review. This is followed by the methodology used in the study. A discussion of the results follows. The study then presents the conclusion, limitations and areas for future research.

## **LITERATURE REVIEW**

### **Assessment**

Assessment is usually classified as diagnostic, summative or formative (Perera *et al.*, 2014:426). Identifying abilities prior to instruction is termed diagnostic instruction and is often used in test-teach-test interventions. Summative assessment is the awarding of marks at the end of a learning programme for the purposes of awarding a grade. Formative assessment is when feedback and guidance is provided to students during the learning phase of a course. Carless, Joughin and Mok (2006:396) explained that feedback (which they viewed as 'feedforward') was viewed 'as being a crucial component of learning-orientated assessment. By this we mean that tutor comments should carry clear implications for future tasks or the current task when time is available, rather than merely reviewing and/or justifying the grade for a completed assessment'. Prior studies have indicated that meaningful and appropriate assessment and feedback are integral

for improved student learning (Perera *et al.*, 2014:426). Effective feedback needs to include the following characteristics (Sadler, 1989): students need to be aware of the standard or the expected level of achievement necessary to achieve a particular grade in the subject; students require feedback that provides them with a clear understanding of their current level of student performance; and quality feedback provides students with a road map to follow that bridges the gap between the awareness of the standard/expected level of achievement, and their current level of student performance (Sadler, 1989; Perera *et al.*, 2014:426). Formative assessment also places demands on students to take a more pro-active approach to learning and working harder (Trumbull & Lash, 2013).

In this current study, formative feedback formed as integral part of the concept tests, as each test was followed by detailed feedback. Carless (2007:59) argued that for assessment to promote learning, students should receive appropriate feedback which they use to 'feedforward' into their future work.

### **Theoretical framework – formative feedback**

The Black and Wiliam (2009), in *Framework for Formative Feedback and Assessments*, included five main activities: sharing success criteria with learners; classroom questioning; comment-only marking; peer and self-assessment; and the formative use of summative tests. Black and Wiliam (2009) combined these five activities into a model in order to interpret the formative feedback process. This model consists of three elements (Perera *et al.*, 2014:429):

1. The teacher who is responsible for identifying the needs of the learner and creating activities that best reflect the needs of the learners' development. Perera *et al.* (2014) explained that the teacher uses one of the five main activities noted above to facilitate the formative feedback process. In this study, this activity was the concept test: a test that was administered, marked, and feedback was given immediately after the test was written, and also the following week after the marked scripts had been collected.
2. The student/learner who interacts with the teacher in the classroom through the exchange of ideas through the process of formative feedback. Feedback should

be information that is used (Carless, 2009; Wiliam, 2011), otherwise it does not qualify as feedback. The learner uses the feedback to improve learning outcomes.

3. The classroom was the tutorial class where the tutor provides the feedback on the concept test.

Black and Wiliam (2009) suggested that an adjustment in the students' learning strategy takes place based on the feedback that is given on a weekly basis.

### **Concept tests**

Concept tests are used in other disciplines in other ways. For example, the work of Mazur (1997) and Crouch and Mazur (2001) in physics education, where it became obvious that students who learn definitions etc., actually have problems in understanding concepts, is well established. Crouch and Mazur (2001) explained their use of concept tests, used in peer instruction (PI) as follows: 'A class taught with PI is divided into a series of short presentations, each focused on a central point, and followed by a related conceptual question ... which probes students' understanding of the ideas just presented' (2001:970). Students are required to complete any readings before class, are not graded on their answers, but do receive some credit for consistent participation over the semester. In the scenario described by Crouch and Mazur (2001), students are allowed to discuss their answers with their peers.

There are some differences between the Crouch and Mazur (2001) approach and the approach described in this paper. In the approach used in this Accounting 200 course, writing the concept tests are a duly performed (DP) requirement and they are counted as part of tutorial attendance. Students must make a valid attempt at the concept test for a tutorial credit. The requirement for students to attempt the concept tests is embedded in the Accounting 200 module outline which contains the following:

'Satisfactory attempt at the Concept test: This is a mini written test which students will be required to write during the tutorial periods. Concept tests are written during the first 10 to 15 minutes of the tutorial. Students who are late for their tutorial class will not be given additional time to complete the test'.

Some examples of the concept tests used in the Accounting 200 course are shown in Appendix 1.

Crouch and Mazur (2001) noted that setting appropriate concept tests are essential for success. They elaborated by stating that concept tests,

‘should be designed to give students a chance to explore important concepts, rather than testing cleverness or memory, and to expose common difficulties with the material. For this reason, incorrect answer choices should be plausible, and, where possible, based on typical student misunderstandings’ (2001:974).

They recommended using past years to identify common misunderstandings experienced by the students, or using the literature on student difficulties.

### **Formative assessment in accounting courses**

Formative assessment used in accounting could take the format of objective tests (Sangster, 1996; Bence & Lucas, 1996), quizzes (Braun & Sellers, 2012; Brink, 2013), or other assessments, such as that described by Perera *et al.* (2014). The Sangster (1996) study focused on the adjustment process, when formative objective test-based assessment was introduced into a second level course, and the effect of students’ learning styles. Sangster (1996:133) indicated that using assessment for formative purposes assists ‘students in assessing their progress and pinpointing where they have weaknesses and strengths (and where instructors may have need to alter their approach and even correct some generally held misbelief)’.

Bence and Lucas (1996) focused on issues of quality in objective tests. In their study, the objective tests took place at four points during the year. They noted that it acts ‘as an incentive to students to remain up-to-date with their studies, and provides feedback to the student’ (1996:126).

Formative assessment could also be in the form of quizzes. Liebler (2003) described how to operationalize a five-minute quiz but did not investigate its benefits empirically. Braun and Sellers (2012) reported on the effectiveness of a daily motivational quiz consisting of conceptual questions, which contributed 10% to the final course grade in a first-year



accounting course. Braun and Sellers (2012:276) found that students perceived the quizzes effective in increasing preparation, punctual attendance, and participation, and that it enabled students to actively engage in the learning process. Braun and Sellers (2012) also found a decrease in course failure rates for those sections where quizzes were used. Brink's (2013) study reported the effects of using an online quiz on second year students' examination results. The pre-lecture quizzes reinforced fundamental concepts. Brink (2013) found that using both pre-and post-lecture quizzes improved student preparation, increased student participation in class discussions, improved the effective use of lecture time, and improved students' performance in subsequent examinations.

Perera *et al.* (2014:424) investigated the effectiveness of an assessment design incorporating formative feedback through summative tutorial-based assessments to improve student performance. Their study used a weekly tutorial-based summative assessment as part-input into their regression models. In the Perera *et al.* (2014) study, the students were required to submit a handwritten answer to short essay questions, for a total of 10 weeks. Formative feedback was provided by the tutors on theoretical reasoning and writing skills, together with technical feedback. This included the logical flow of arguments, grammar, and presentation of the work. Perera *et al.* (2014) considered the feedback to be a feed-forward mechanism for improved student learning. The study found a positive significant relationship between the tutorial-based assessment and student performance (2014:439), which was interpreted as resulting from the benefit students derived from the formative feedback process using summative tutorial-based assessments. As a secondary result, the assessment design may have led to improved student attendance and student participation in the class (2014:439).

While the introduction of the concept tests may have had the secondary result of improving student attendance in the studies of Braun and Sellers (2012), Brink (2013) and the Perera *et al.* (2014) study, there are mixed findings as to whether there is a relationship between student attendance and student performance. Some studies have reported a positive relationship between student attendance (Paisey & Paisey, 2004), while others did not find any relationship at all (Schmulian & Coetzee, 2011).

As this study is an exploratory study, it did not attempt to establish a link between the concept tests and the final mark obtained by the student (i.e. student performance). However, the notion of engagement, as advocated by Astin (1984), also underlies the concept tests, as there is an important link between student engagement and performance (Kuh, 2009). Perera and Richardson (2010) found a link between student marks (used as a proxy for unobservable characteristics, such as motivation, capability and effort) and student performance.

Having discussed the notion of formative assessment, the theoretical framework of Black and Wiliam (2009), the use of concept tests and the relevant literature, the paper now discusses the methodology used in this study.

## **METHODOLOGY**

A questionnaire was drawn up to determine students' perspectives on the usefulness of the concept tests in a number of areas, using personal knowledge of the actual contents of the concept tests and how they were operationalised. Using survey research allows for both a quantitative and qualitative approach, through the use of closed and open questions. The questionnaire was pre-tested using second year accounting teaching staff and another staff member who has experience in survey research, and where necessary, further adjustments were made. As this is the first time this questionnaire was being used, its robustness may be subject to further testing in the future, should the research be replicated. The questionnaire consisted of background questions (shown in Table 1), and a number of statements which students were required to answer on a Likert scale of 1 (strongly disagree), to 5 (strongly agree) (shown in Table 3 and Table 4). In addition, students were given the opportunity to add recommendations to improve the concept tests (Table 4). This was an open question enabling students to write in any comments they wanted to make. Students were asked to only answer one of the next two questions: reasons why they thought the concept tests were not an effective learning tool (Table 5), or were an effective learning tool (Table 6). Students were given some reasons they could choose from to help prompt their answers as to why they might not want to write concept tests, and could choose to tick as many as they wanted to, as well as providing other

responses. The rationale for asking students for their reasons as to why the concept tests were an effective learning tool was to try and identify other reasons which may not have been covered by the questionnaire. This was an open question.

The questionnaire was distributed in a paper-based format to all second-year accounting students, in their tutorial classes, towards the end of the academic year. Students were informed that participation was voluntary and as their names or student numbers were not required, they would remain anonymous. At the time the questionnaire was administered, 426 students were enrolled in the course, and 267 students filled in the questionnaire. Thus, the response rate was 62.7%. As the survey was only administered once, it was not possible to examine for non-response bias. The data from the questionnaire were entered onto an Excel spreadsheet and then imported into SPSS version 24. Using SPSS, the following results were obtained and shown in tables.

Table 1 shows the students' background information. The means and standard deviations (SD) for the total sample and on a gender basis (Table 2), and on a language basis (English vs not English) (Table 3) were then calculated. To identify statistically significant differences in the students' opinions on a gender or language basis, the Mann-Whitney U test for independent samples was used. These results are also shown in Table 2 and Table 3 respectively. Students' recommendations for improving the concept tests were summarized into various themes and these are presented in Table 4. Their reasons for why they thought the concept tests were not an effective learning tool are summarized in Table 5, and why they thought the concept tests were an effective learning tool in Table 6.

## **RESULTS AND DISCUSSION**

Table 1 show the gender and language background of the students. Table 1 shows that there were 116 male students and 151 female students who answered the questionnaire. The responses also indicated that most of the students' home language was English, but 65 (24%) students indicated that their home language was not English. These students indicated in a follow-up question that they were mainly isiZulu speaking (74%), 23%

spoke one of the other South African official languages and 3% spoke French or Taiwanese.

**Table 1: Background information**

<b>Gender</b>	Male	Female	Number <sup>1</sup>
	116	151	267
	43%	57%	100%
<b>Home language (mother tongue) English?</b>	Yes	No	Number <sup>1</sup>
	202	65	267
	76%	24%	100%

As this was an exploratory study, the questionnaire was designed to explore students' perceptions of the usefulness of this initiative, and the questions were divided into the themes of learning, feedback, and knowledge. A few general questions were also posed at the end of the questionnaire. This analysis is presented in Table 2 and Table 3 under the headings of the identified themes. Table 2 shows the mean and SD using a gender split of the results, together with the total mean and SD. Table 3 shows the mean and SD using a language split of the results, together with the total mean and SD. Table 2 and Table 3 also show the results of the Mann-Whitney U test for gender and language differences.

**Table 2: Students' perceptions of the usefulness of the concept tests (GENDER)**

	Female n= 151		Male n = 116		Total n = 267		Mann-Whitney U test <sup>1</sup>	
	Mean	SD	Mean	SD	Mean	SD	Z	P
<b>Learning:</b>								
The concept tests forced me to keep up to date	3,56	1,098	3,40	1,172	3,47	1,141	-1,024	0,306
The concept tests helped me understand the topics covered in the lecture	3,41	1,030	3,26	1,094	3,33	1,067	-1,108	0,268
The concept tests motivated me to work harder	3,19	1,134	3,19	1,140	3,19	1,135	-0,079	0,937
The concepts tests made me aware that I needed to cover all the work	3,69	1,099	3,57	1,128	3,62	1,115	-0,918	0,359
The concept tests prevented me from spotting	3,19	1,186	3,08	1,068	3,13	1,120	-0,678	0,498
The concept tests were challenging	3,36	1,160	3,20	1,071	3,27	1,111	-1,369	0,171
<b>Feedback:</b>								
The concept tests provided me with timeous feedback	3,41	1,064	3,34	1,095	3,37	1,080	-0,532	0,595
I found the feedback provided by tutors useful	4,01	0,870	4,02	0,934	4,02	0,905	-0,326	0,744
I did not understand the feedback I received from the tutors	2,06	1,090	1,94	0,889	1,99	0,981	-0,447	0,655
I understood where I lost marks	3,65	1,007	3,72	0,946	3,69	0,972	-0,445	0,656
<b>Knowledge of the topics:</b>								
The concept tests increased my knowledge of the topics covered in the lecture	3,53	1,042	3,33	1,063	3,42	1,056	-1,743	0,081
The concept tests helped me to apply my knowledge and understanding of the topics covered in the lecture	3,41	1,021	3,36	1,073	3,38	1,049	-0,264	0,792
I often guessed the answers to the concept tests	2,84	1,177	3,00	1,183	2,93	1,181	-1,072	0,284
The concept tests helped me identify areas where I am weak	3,38	1,060	3,44	1,126	3,41	1,096	-0,576	0,565
<b>General:</b>								
I wish all modules used concept tests	2,72	1,344	2,65	1,312	2,68	1,324	-0,414	0,679
The concept tests helped me to monitor my progress during the semester	3,03	1,051	3,05	1,091	3,04	1,072	-0,104	0,917
I enjoyed the concept tests	2,76	1,169	2,54	1,094	2,64	1,130	-1,588	0,112
Concept tests should count towards my class mark	2,96	1,639	2,73	1,596	2,83	1,615	-1,030	0,303
<sup>1</sup> The $p$ -value from the Kolmogorov-Smirnov test indicates that none of the distributions are normal. Hence non-parametric tests were used; No $p$ values < 5%; A Likert scale were 1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, and 5 = strongly agree was used.								

Upon examining the responses of students' perceptions towards the usefulness of the concept tests, for the purpose of learning, as shown in Table 2, all the mean responses exceed 3.00, albeit very low, and in most cases tended to be closer to 3.00, indicating that they were mainly neutral in their assessment of the statements. The strongest agreement was in respect of the concept tests, forcing the student to keep up to date ( $m = 3.47$ ) and 'the concept tests made me aware that I needed to cover all the work' ( $m = 3.62$ ). However, on a gender basis, the Mann Whitney U-test showed no significant statistical difference between the scores, even though the means for all the female scores were higher, except for the question on motivation, where the means were identical ( $m = 3.19$ ).

Feedback is considered an important part of assessment (Black & William, 2009). Feedback was given by the tutors and was used to reinforce the concepts and enhance the students' understanding of how their answers could be improved going forward, especially with regards to getting higher marks. Similar to the section on learning, the means in this section tended to be closer to 3.00, indicating that they were mainly neutral in their responses to these statements. The only statement with which the students agreed was in respect of the feedback provided by the tutors to be useful ( $m = 4.02$ ). They were also of the opinion that they understood the feedback provided by the tutors, as there was disagreement with the statement that they did not understand the feedback given by the tutors ( $m = 1.99$ ). On a gender basis, the Mann Whitney U-test showed no statistically significant difference between the scores, although in contrast to the first section on 'knowledge', in this section, two of the male scores were more in agreement with the statements ('finding the feedback provided by the tutors useful' and 'understanding where they had lost marks'). The male students also showed stronger disagreement with the statement 'I often guessed the answers to the concept test'.

While learning and feedback were considered important uses of the concept tests, helping students measure their knowledge of the concepts being covered was an important reason for implementing the tests. Four questions were posed around this theme. The results showed some agreement with the statements, although the mean scores were all below 4. With three of the questions, the mean scores for the females were slightly higher than the mean scores for the male students, the exception being the

statement that the concept tests helped to identify areas of weakness. A positive finding was that the students were not guessing the answers to the concept tests (overall  $m = 2.93$ ). However, when examining the scores split on a gender basis, the Mann Whitney U-test showed no statistically significant difference between the scores.

Some general questions concluded the section of the questionnaire, where students were required to respond using Likert-scale questions. These were: did students want this initiative to be used in other courses; whether the tests were useful for monitoring progress; whether or not they were enjoyable; and finally, whether or not the concept tests should count towards the class mark. The overall results showed that students were not convinced that this initiative should be used in other courses (overall  $m = 2.68$ ), students were neutral with regards to the concept tests' usefulness for monitoring purposes ( $m = 3.04$ ), nor did the students like them (overall  $m = 2.64$ ). The students also did not want the tests to count towards their class mark ( $m = 2.83$ ). On a gender basis, the Mann Whitney U-test showed no statistically significant difference between the scores, even though the means for all the female scores were higher, except for the question on monitoring of progress.

As the Accounting 200 course contains students with a mix of language abilities, the results were also sorted on a language basis. These results are shown in Table 3.

**Table 3: Students' perceptions of the usefulness of the concept tests  
(LANGUAGE)**

	English n = 202		Not English n = 65		Total n = 267		Mann-Whitney U test <sup>1</sup>	
	Mean	SD	Mean	SD	Mean	SD	Z	p
<b>Learning</b>								
The concept tests forced me to keep up to date	3,33	1,134	3,91	1,057	3,47	1,141	-	3,694 0,000*
The concept tests helped me understand the topics covered in the lecture	3,23	1,040	3,63	1,098	3,33	1,067	-	2,768 0,006*
The concept tests motivated me to work harder	3,08	1,165	3,52	0,970	3,19	1,135	-	2,792 0,005*
The concepts tests made me aware that I needed to cover all the work	3,56	1,128	3,82	1,059	3,62	1,115	-	1,597 0,110
The concept tests prevented me from spotting	3,01	1,104	3,51	1,091	3,13	1,120	-	3,134 0,002*
The concept tests were challenging	3,24	1,099	3,37	1,153	3,27	1,111	-	0,828 0,408
Feedback:								
The concept tests provided me with timeous feedback	3,32	1,088	3,52	1,047	3,37	1,080	-	1,283 0,199
I found the feedback provided by tutors useful	4,06	0,844	3,88	1,068	4,02	0,905	-	1,008 0,313
I did not understand the feedback received	1,96	0,984	2,11	0,970	1,99	0,981	-	1,298 0,194
I understood where I lost marks	3,71	0,976	3,62	0,963	3,69	0,972	-	0,921 0,357
Knowledge of the topic:								
The concept tests increased my knowledge of the topics covered in the lecture	3,44	1,083	3,35	0,975	3,42	1,056	-	0,888 0,374
The concept tests helped me to apply my knowledge and understanding of the topics covered in the lecture	3,32	1,084	3,55	0,919	3,38	1,049	-	1,335 0,182
I often guessed the answers to the concept tests	3,05	1,179	2,57	1,118	2,93	1,181	-	2,927 0,003*
The concept tests helped me identify areas where I am weak	3,34	1,121	3,63	0,993	3,41	1,096	-	1,714 0,087
<b>General</b>								
I wish all modules used concept tests	2,63	1,355	2,82	1,223	2,68	1,324	-	1,042 0,298
The concept tests helped me to monitor my progress during the semester	2,95	1,103	3,32	0,920	3,04	1,072	-	2,402 0,016*
I enjoyed the concept tests	2,60	1,138	2,75	1,104	2,64	1,130	-	0,994 0,320
Concept tests should count towards my class mark	2,74	1,659	3,11	1,448	2,83	1,615	-	1,699 0,089

<sup>1</sup> The *p*-value from the Kolmogorov-Smirnov test indicates that none of the distributions are normal. Hence non-parametric tests were used; \* *p* values < 5%; A Likert scale were 1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, and 5 = strongly agree was used.



Table 3 shows that all the questions on learning showed means for the not English group as being higher than the English group, and for four of the statements, there was a statistically significant difference in the means, at the  $p < 5\%$  level for the following statements: I found the concept tests forced me to keep up to date; the concept tests helped me understand the topics covered in the lecture; the concept test motivated me to work harder; and the concept tests prevented me from spotting. The mean for the statement 'The concept tests made me aware that I needed to cover all the work' was close to 4.00 ( $m = 3.82$ ), showing some agreement with the not English students with that statement. Therefore, for learning purposes, the not English students found the concept tests more useful than the English students although their means were all below 4.00 (agree).

With regards to feedback, the means of the two groups of students were similar, with the statement that 'I found the feedback provided by the tutors useful' being the most supported statement with means of 4.06 and 3.88 for the English and not English groups respectively. The lower mean of the not English group may be because the not English students are less fluent in English, affecting any benefit they may derive from feedback.

The questions on the usefulness of the concept tests towards acquiring knowledge by the students had little support with overall means ranging from 3.38 to 3.41. Two of the statements were more supported by the not English group ('The concept tests helped me to apply my knowledge and understanding of the topics covered in the lecture'; and 'The concept tests helped me identify areas where I am weak'). One statement was more supported by the English group – 'The concept tests increased my knowledge of the topics covered'. The only statement in this group of questions which had a statistically significant difference at  $p > 5\%$  was the statement referring to guessing. The English students were more likely to guess the answers to the concept tests.

Finally, with regards to the general questions, there was no support for the idea that all modules should have concept tests, or that they were enjoyable. Support for the ability of the tests to be useful in helping to monitor progress during the semester was weak, with  $m = 3.32$  for the not English students ( $m = 2.95$  for the English students). The Mann-Whitney U test showed a significant statistical difference at  $p < 5\%$  for this statement.

Likewise, the notion that the concept tests should count towards the class mark was perceived neutrally by the not English students ( $m = 3.11$ ), and was not supported by the English students ( $m = 2.74$ ). Other than the significant difference referred to with regards to the monitoring of progress, there were no other significant differences in this section.

This paper set out to report students' perceptions on the usefulness of the concept tests and provide evidence on whether the students found the concept tests useful. Overall, the concept tests' main usefulness seems to lie in the feedback which is provided on a weekly basis by the tutors. However, the concept tests may have had other uses not apparent from the above analysis. For instance, it aligns with the framework-based approach of teaching accounting principles promoted by the IASB (Wells, 2011), and it increased students' engagement with the course as described by Astin (1984) and Kuh (2009). It may have also improved tutorial attendance (by forcing them to keep up-to-date, monitoring their progress) and participation (by interacting with the feedback provided by the tutors) (Braun and Sellers, 2012; Brink, 2013; Perera *et al.* 2014). Perera *et al.* (2014:438) noted in their study that 'due to the nature of formative feedback and the recurring nature of the assessments, it can be argued that there is increased participation on the part of the student in completing the assessment task'. One difference between this current study, and the Braun and Sellers (2012) and Brink (2013) studies, is that the concept tests did not count towards the final overall assessment. This may have led students to approach the tests with less care than they may have done otherwise, leading to the students not perceiving much use from the tests as shown in Table 2 and Table 3.

In relation to gender, Perera *et al.* (2014:438) argued that female students generally perform better than male students in assignments, although in final examinations the opposite occurs. Perera *et al.* (2014) found that in the presence of the tutorial-based assignments, female students seemed to have a higher likelihood of benefiting from such assignments, and therefore performing better than male students in the final examinations. This current study did not attempt to link any aspect of the concept tests to performance, and there were no statistically significant differences in any of the responses on a gender basis. This may indicate that the concept tests provided no

additional benefit to either gender group, and therefore would have had no greater impact on the performance of one group as opposed to the other.

This current study used language for additional analysis as South African students coming from disadvantaged backgrounds (Mdepa & Tshiwula, 2012) may have some difficulties with an accounting course where English is the language of instruction. Some contrast with this study can be made with other studies which use the expression 'international students' to refer to students studying in languages other than their home language. Perera *et al.* (2014:438) found that the improvement in assignment and examination performance was less for international students in their study, and provided a possible explanation that a higher level of ability is required for the assignment, as opposed to the examination, given the theoretical nature of the course. Other South African studies (Winfield & Luyt, 2013) have found that the not English students generally are more supportive on interventions which impact on their learning during the course. These findings, that the not English-speaking students found the concept tests more useful for some aspects of learning and acquiring knowledge, may be useful for other accounting educators seeking additional ways to help students where they have a mix of different languages in the classroom, or international students.

The questionnaire also asked students how they thought the concept tests could be improved. This was an open-ended question. A summary of these results is shown in Table 4.

**Table 4: Students' recommendations to improve the concept tests**

Recommendations	No.	%*	Rank
Make the concept tests more difficult	29	10,86	1
The concept tests should count towards the DP	8	3,00	2
More time should be allowed for the concept tests	7	2,62	3
Write the concept tests at the end of the tutorial	4	0,01	4
Other recommendations	9	-	-
*No. of times for that recommendation/total students (267)			

Approximately 11% of the students wanted the concept tests to be more difficult. There was little support for the idea that they should count for marks or that more time should be allocated for the concept tests. A number of other recommendations were provided by single students. These recommendations were to have less theory and more application-type questions; more theory; more straightforward; longer; more aligned to the tests; more calculations; and should be integrated. Other recommendations included rather doing and marking an additional tutorial question; giving out the solution immediately; and the request that the tutors should explain the section before the test. From the low number of recommendations provided by the students, it does seem that, overall, the students are satisfied with the concept tests in their current format and how they are operationalised in the tutorials.

Students were then given the opportunity for stating why they thought the concept tests were not an effective learning tool. A number of reasons were suggested in the questionnaire. Students could just tick as many as they thought were applicable. Space was also provided so that they could add in their own suggestions. These results are summarized in Table 5.

**Table 5: Students' reasons for thinking concept tests are NOT an effective learning tool**

Reasons	No.	%*	Rank
The concept tests were not aligned closely enough to the lecture material	60	22,47	1
The concept tests simply added to my workload	51	19,10	2
The concept tests should carry more marks	38	14,23	3
The concept tests should be longer	34	12,73	4
No feedback or poor feedback was received	28	10,49	5
I could not complete the concept tests in the prescribed time	19	7,12	6
Other reasons	5	-	-
* No. of times for that reason/total number of students (267)			

The results from asking students for their reasons why the concept tests were not considered an effective tool indicates that students would prefer the concept tests to be

more closely aligned to the lecture material. This reason was the one most chosen by the students. Students also felt that the concept tests were adding to their workload (second most chosen reason). Presumably this related to the workload outside of normal scheduled times, as the concept tests were administered during the tutorial time. Some students wanted the concept tests to carry more marks (third), and some wanted the concept tests to be longer (fourth). The lack of feedback (or quality thereof) was also flagged as being of concern to the students. However, this can be contrasted to Table 2 where the overall mean for the question on whether or not students found the feedback useful was 4.02 (i.e. useful). A number of students complained that they could not complete the concept tests in the prescribed times. The reasons suggested by the students were that the concept tests were not challenging enough (three students); that the material covered gave a misleading conclusion about standards (one student); and that the focus of the concept tests was too narrow (one student). It is evident that for these students, the purpose of the concepts tests needs to be reinforced.

Finally, students were asked for any reasons which had not been covered by the questionnaire for thinking that the concept tests are an effective learning tool. A summary of the reasons provided by the students is shown in Table 6.

**Table 6: Students' reasons for thinking concept tests are an effective learning tool**

Reasons	No.	%*	Rank
It helped me understand the concepts better	30	11,24	1
It helped me to monitor my progress and keep-up-to date	22	8,24	2
It helped me identify my weak areas	7	2,62	3
It made me prepare for the tutorial	5	1,87	4=
It gave me practice as a simulated test	5	1,87	4=
I found the feedback useful	4	1,50	6
Other reasons	5	-	-
*No of times for that reason/total number of students (267)			

From Table 6, it is evident that for 30 students, the concept tests do fulfil their main function of ensuring that the students do understand the concepts (ranked 1<sup>st</sup>). The concept tests were also used as a monitoring tool by the students and a way of helping them to keep-up-date (ranked 2<sup>nd</sup>). Students also mentioned that the concept tests helped them to identify their weak areas (3<sup>rd</sup>), forced them to prepare for the tutorials (joint 4<sup>th</sup>), gave them practice at writing tests (joint 4<sup>th</sup>) and that the feedback was considered useful (6<sup>th</sup>). Other reasons identified by the students were that the concept tests helped them to understand where marks were lost, they were motivated to attend the tutorial, helped them focus on important details, helped them focus more on the lecture, and that they covered all the work. The benefit of the concept tests was best summed up by one student who wrote:

*' ... the concept tests really had a good relation to work taught in lectures and in most cases served as an indication of where I stood with my understanding of the topics. Another student commented: They are a good way of assessing your quick, overall understanding of the material. I quickly went through them when revising for tests to enhance understanding of basic concepts'.*

Other comments by the students, not reflected in Table 6, but were given in response to this question, were that nine students wanted the tests to count towards the D.P., seven students felt that more time should be allocated to the concept tests, and nine students wanted the concept tests to be stopped.

From the tutors' perspective, they found that the concept test was a good introduction to a topic before commencing a tutorial. It helped them gauge the students' understanding upfront. Some tutors found it did make a difference to those students who were genuinely interested, seeing the concept test as an assessment and requesting their results, asking how they could improve, and wanting feedback. The tutors felt that it encouraged the students' pre-reading and preparation for the tutorial. However, some tutors thought it did not make a difference as some students did not collect their concept tests back and were not interested in the feedback. The tutors also found that students were sometimes late for tutorials and thus did not get an opportunity to attempt a concept test.

Some tutors did not enjoy marking the concept tests, as they felt they were not adequately remunerated for marking especially if class sizes were large > 40. At first tutors tried to mark concept tests while the unseen questions were attempted. However, we found tutors were then not able to monitor unseen group work. This was then changed. Tutors then collected the concept tests and marked them subsequently to the tutorial. To ensure consistency in the marking, a batch of 5 scripts per tutorial was given to the lecturers to check that the marking was consistent and fair. The concept tests were then returned at the next tutorial or placed in the Accounting 200 locker in the foyer for collection.

The solution was discussed after the concept tests were collected by the tutor just after the test was written. Individual feedback was provided on the concept test answer sheet. Feedback was discussed at a weekly tutor meeting and the collective feedback was provided the following week to students at the next tutorial.

The lecturer responsible for the course commented:

*'I am not sure if the results have improved as a result of the concept tests. I do believe that by introducing these concept tests students have made an effort to attend tutorials, to be early and has resulted in a good quality tutorial as opposed to the old conventional tutorial. While some concept tests require quantitative answers, others are discussion type questions. I am not sure if this assisted students to improve their discussion technique but I certainly hope so. Students are able to see how marks are allocated and what examiners are looking for'.*

## **CONCLUSION, LIMITATIONS AND FURTHER RESEARCH**

The objective of this exploratory research was to describe the use of concept tests in a second-year accounting course and provide evidence on whether students found these concept tests useful. The results showed that the students were mostly neutral in their responses to the statements on the concept tests but were supportive of some aspects. For example, the results showed that while there were no gender differences with regards to the statements posed around learning, there were statistically significant differences

with regards to the statements on keeping up to date, helping with understanding, motivation to work harder, and the prevention of 'spotting' when the results were analysed on a language basis.

One question posed around feedback received the most support (I found the feedback provided by the tutors useful –  $m = 4.02$ ). The questions posed around knowledge were not strongly supported, but for one statement there was a statistically significant difference in the responses of the English and not English speaking students. This question was on whether or not the students were guessing the answers (not English speakers were less likely to guess the answers). Under the general questions, the concept tests were more useful to the not English speakers for monitoring their progress during the semester, however the support was close to neutral ( $m = 3.32$ ).

In summary, the results did not show that the students found the concept tests useful in most of the aspects probed. Only when the results were analysed on a language basis did statistically significant differences for a number of the statements emerge. Educators are often faced with students with different home languages in the classroom, and the question is often raised on how best to help those students who may be disadvantaged by their language in the classroom. This study thus assists other educators who are looking for additional or different interventions to use in the classroom.

The limitations of the study are that the students were all second-year students on one campus, although the concept tests were also being conducted on a different smaller campus. Therefore, the results cannot be generalised beyond this cohort of students. All the data were self-reported by the students and it was not possible to verify whether the students were honest in their answers. The study also did not attempt to determine any relationship between the concept tests as a formative assessment tool and students' performance, and this would be an avenue for further research.

As this is an exploratory study, the robustness of the questionnaire can be checked in a follow up study, and ascertaining the opinions of the students on the smaller campus may provide useful comparative results.



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## APPENDIX

Some examples of concept tests

### **Tutorial 13 Concept Test: Changes in estimates and correction of errors (9 minutes)**

“My estimate of the useful life of the machinery was too low”. Explain why estimates are used in accounting, and why adjusting an estimate is not the same as correcting an error. (6 marks)

#### **Suggested solution:**

### **Tutorial 13 Concept Test Mark plan: Changes in estimates and correction of errors**

- There are many items that although requiring recognition and/or disclosure, cannot be precisely measured. (✓)
- The accountant (in conjunction with other interested parties) is therefore frequently required to make estimates (0.5)
- For example: useful lives of property, plant and equipment (when estimating depreciation). (✓)
- Making estimates is, therefore, an integral part of the preparation of financial statements and so long as they are reasonable, they will not undermine the reliability of our financial statements.
- It is frequently discovered that previous estimates are overestimated or underestimated. (✓)
- These are not errors, since estimates by their very nature, need to be adjusted as and when the circumstances relating to the original estimate change. (✓)

Communication marks:

- **Clarity of expression, structure, logic**
  - **Clarity of expression (0.5 mark)**
  - **Structure and logic (1 mark)**
  - Explaining the use of estimates in context with financial statements (e.g. Recognition, disclosure, preparation of financial statements).

(✓) = 1 mark

**Total = 6 marks (9 minutes)**

### **Tutorial 14 Concept Test: Changes in accounting policies (9 minutes)**

The general guidance in IAS 8 requires that a change in accounting policy be applied retrospectively, unless it is impracticable to do so. Explain what “retrospective application” entails and the effect this has on annual financial statements. (6 marks)

**Suggested solution:**

**Tutorial 14 Concept Test: Changes in accounting policies**

- The retrospective application of a change in accounting policy entails stating both the current year's figures based on the new policy (✓)
- As well as adjusting all prior years' figures in accordance with the new policy (✓)
- (i.e. as if the "policy had always been applied"). (0.5)
- All prior periods that *are disclosed* as comparatives in an annual report must be restated based on the new policy. (✓)
- All prior periods that *are not given* as comparatives must still be adjusted, but with the cumulative effect on the opening balance of retained earnings disclosed as a single adjustment (i.e. in the statement of changes in equity). (✓)

Communication marks:

- **Clarity of expression, structure, logic**
  - **Clarity of expression (1.0 mark)**
    - The use of appropriate terms (*disclosed, comparatives, prior periods, adjusting, restated, single adjustment*) is important as is the use of clear sentences in the explanation.
  - **Structure and logic (0.5 mark)**
    - Making a clear distinction between current and prior year information by:
      - Use of separate statements/sentences for each, AND/OR
      - Use of signals of comparison (*but, however, etc.*)

(✓) = 1 mark

**Total = 6.0 marks (9 minutes)**

**S.W. Sibiya**

**THE LIGHT AT THE END OF THE TUNNEL: THE STRUGGLE FOR  
MINORITY UNIONS AT THE WORKPLACE - *SACOSWU v POPCRU  
and Others 2017 9 BLLR 905 (LAC)*.**

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**ABSTRACT**

The acquisition of organizational rights by trade unions in the workplace plays a crucial role in collective bargaining because it is through collective bargaining that unions are able to negotiate with employers regarding their terms and conditions of employment. The purpose of this paper is to critically analyse whether a section 18 threshold collective agreement entered into between an employer and a majority union, completely blocks and excludes a minority union which desires to bargain with the employer in its quest to obtain organisational rights at the workplace.

**Keywords:** Labour Relations Act 66 of 1995, Majority unions, Minority unions, Organisational rights.

**INTRODUCTION**

The issue of organisational rights for minority unions has been a predicament since the enactment of the Labour Relations Act 66 of 1995 (LRA), notwithstanding the fact that the Constitution affords every trade union the right to engage in collective bargaining. The acquisition of organizational rights by trade unions plays a crucial role in collective bargaining because it is through collective bargaining that unions are able to negotiate with employers regarding their terms and conditions of employment.

The recent Labour Appeal Court ruling in *SACOSWU v POPCRU and Others* has brought relief for minority unions who seek to obtain organisational rights at the workplace,

irrespective of whether they satisfy a threshold collective agreement between the employer and a majority union determining the acquisition of organisational rights. The effect of the LAC judgement is that a section 18 threshold agreement cannot bar the employer from bargaining collectively with a minority union seeking to acquire any organisational rights.

The purpose of this case note is to critically analyse whether a section 18 threshold collective agreement entered into between an employer and a majority union completely blocks a minority union desiring to bargain with the employer in its quest to obtain organisational rights at the workplace. The Labour Relation Act 55 of 1995 provides that an employer and a registered trade union, whose members are a majority of the employees employed by that employer in a workplace, or the parties to a bargaining council, may conclude a collective agreement, establishing a threshold of representativeness required in respect of one or more of the organisational rights referred to in sections 12, 13 and 15.

## **THE LEGAL NATURE OF A THRESHOLD COLLECTIVE AGREEMENT AT THE WORKPLACE**

Collective agreements are concluded between an employer, or a group of employers, and the representative of a number of employees, and they establish uniform terms and conditions of employment for all employees falling within the scope of the agreement.

The LRA and BCEA define a collective agreement as a written agreement concerning the terms and conditions of employment or any other matter of mutual interest concluded between one or more registered trade union and an employer's organisation, or between a registered trade union and an individual employer.

In *SA Polymer Holdings (Pty) Ltd t/a Mega-Pipe v Liale and Others*, the court accepted that the right of unions to conclude agreements on their members' behalf flowed not only from the doctrine of agency but also from the majoritarian principle that lies at the heart of collective bargaining.

An employer and a registered trade union whose members constitute a majority of the employees in that employer's workplace, or the parties to a bargaining council, may conclude a collective agreement establishing thresholds of representativeness required, in respect of one or more of the organisational rights referred to in sections 12, 13 and 15. From the aforesaid, it follows that the agreed threshold, which may be the subject of a section 18(1) agreement, has the effect of giving meaning to what constitutes sufficiently representative. Such collective agreements do not only set the standard, but also become binding upon minority unions at the workplace. Section 23(1) provides that a collective agreement is binding on the parties to it, a threshold agreed by an employer obliges the employer to confer sections 12, 13 and s15 rights upon a union which had achieved the threshold agreed in the section 18(1) agreement.

According to Brassey, the object of section 18 is to enable the parties to put a numerical figure to the otherwise somewhat indeterminate concept of 'sufficiently representative' for which the stipulated sections 12, 13 and 15 provide. Conversely, the primary object of the section is to promote workplace majoritarianism, that is, the system under which a single union or group of unions may enjoy exclusive rights or representation within a workplace.

By virtue of enjoying majority membership in the workplace, a trade union could conclude a collective agreement that is binding even on employees who are not its own members. Accordingly, it is a benefit enjoyed by the registered trade union which has the majority of employees in a workplace as its members. The will of the majority was confirmed by the Labour Appeal Court, in the case of *Kem-Len Fashions CC v Brunton & Another*, wherein the court stated:

'.....the will of the majority should prevail over that of the minority. This is good for orderly collective bargaining as well as for the democratisation of the workplace and sectors. A situation where the minority dictates to the majority is quite obviously untenable. But also a proliferation of trade unions in one workplace or in a sector should be discouraged'.

However, South African courts have warned against the use of the principle of majoritarianism as an instrument to oppress minority unions. As a result, courts have

stressed that a majoritarian system can operate fairly only in accordance with certain conditions. It must allow minority unions to co-exist with unions who enjoy majority status, to organise members, to represent members in relation to individual grievances, and to seek to challenge majority unions.

## **THE BACKGROUND and FACTS OF *POPCRU* CASE**

This case concerns a dispute about the entitlement to organisational rights between Police and Prisons Civil Rights Union (POPCRU) and South African Correctional Services Workers Union (SACOSWU) in the South African Department of Correctional Services (DCS), as the employer of their respective members. The arbitrator had found that SACOSWU, as a minority union, was entitled to organisational rights in the DCS, as it had concluded a valid and enforceable collective agreement with the department.

On the one hand, POPCRU is an existing trade union recognised in the department and a majority union, with 40 000 members. SACOSWU, in contrast, is not a recognized trade union in the DCS and is a minority union, comprising of only 1 479 members. Both POPCRU and SACOSWU are registered trade unions as contemplated by the LRA.

The process of formal bargaining and dispute resolution takes place mainly in the Departmental Bargaining Chamber (DBC). POPCRU is an admitted member of the DBC, while SACOSWU is not. The entire members of SACOSWU were, however, employees in the Correctional Service Department, resorting under the scope and jurisdiction of the DBC. The functioning of the Departmental Bargaining Council (DBC) is regulated by way of collective agreements, found in resolutions concluded between POPCRU as majority union, the Public Service Association (PSA) as another recognised union, and the DCS.

The first resolution referred to was Resolution 7 of 2001. The purpose of this resolution was to determine the thresholds of representativeness for the admission of trade unions to the DBC. In terms of this resolution, the threshold of admission to the DBC was agreed to be 9 000 members for a union acting individually, or where unions act jointly, each union must at least have 4 500 members.



The next applicable resolution was Resolution 3 of 2006, which provided that the collective agreement concluded in terms of the resolution binds all employees in the Correctional Services Department in the DBC bargaining unit, whether they are union members of POPCRU or not.

SACOSWU, the minority trade union approached the Department of Correctional Services (DCS) seeking basic organisational rights. As SACOSWU had insufficient membership, it wished to acquire such rights by means of a collective agreement.

Remarkably the DCS entered into a collective agreement with SACOSWU, affording the minority union organisational rights based on the contention that there was nothing in law prohibiting such an agreement, as it does not prevent the exercise of statutory organisational rights of representative trade unions.

Dissatisfied with the conclusion of this agreement, in that SACOSWU had not reached the 9000-membership threshold agreed for admission into the DBC, POPCRU referred a dispute concerning 'the interpretation or application of a collective agreement' under section 24(1) to the GPSSBC for arbitration. What follows is an examination of how our labour tribunals have dealt with issue emanating from the aforementioned facts.

## **THE ARBITRATOR'S INTERPRETATION AND APPLICATION OF THE *BADER BOP'S* CASE**

In the *Bader Bop* case, the issue was whether a minority union may acquire the right to elect a shop steward by striking. A divided LAC held that a minority union cannot strike because once the union concedes that it lacked a majority, there would be no dispute over which to strike for. Secondly, such a strike would be ruled by s 65(1)(c), which prohibits strikes over disputes that either party may refer to arbitration.

However, the LAC decision was overturned by the Constitutional Court, which held that a minority union may strike in support of demands for organisational rights to which they are not entitled under the LRA.

The Constitutional Court rejected as inappropriate a narrow reading of section 20 and stressed that section 20 serves as an express confirmation of the internationally

recognised rights of minority unions to seek to gain access to the workplace, the recognition of their shop stewards, as well as other organisational facilities, through the techniques of collective bargaining.

According to the arbitrator, the judgment in *Bader Bop* determined that the LRA should not be interpreted in such a manner so as to preclude minority unions from obtaining organisational rights through collective bargaining. Therefore, the arbitrator came to the conclusion that nothing prevented the Correctional Service Department and SACOSWU from concluding a collective agreement on organisational rights. Furthermore, the arbitrator accepted that such a collective agreement would be a permissible agreement, as contemplated by section 20 of the LRA, and would thus fall outside the ambit of the statutory organisational rights in terms of Part A of Chapter III of the LRA.

## **THE ENDORSEMENT OF MAJORITARIANISM BY THE LABOUR COURT**

In reconfirming the principle that the LRA favours a majoritarian approach to collective bargaining within the workplace, the court had a task to find a balance between freedom of association and collective bargaining, where it comes to the issue of organisational rights of minority trade unions. Accordingly, the right to freedom of association enshrined in section 23 of the Constitution, and the sanctity of collective bargaining, were at loggerheads.

The court made reference to the case of *Equity Aviation Services (Pty) Ltd v SA Transport and Allied Workers Union and Others*, in which Zondo JP stated that collective bargaining is normally expected to result in the conclusion of a collective agreement. The court added that collective agreements have special status and authority because they are a product of collective bargaining. Snyman AJ was of the view that a collective agreement concluded when a majority trade union regulates or even excludes organisational rights of minority trade unions. In that manner, such a collective agreement, concluded with a majority union, must have preference over the organisational rights such minority union. The judge's reasoning was that if organisational were afforded to minority unions that would make organisational rights an end in itself and not a means to an end, which is not what is intended by the LRA.

In this regard, the court stated that a collective agreement between a majority trade union and an employer can competently and lawfully exclude organisational rights of minority trade unions.

Snyman AJ contended that it does not matter if the application of the principle of majoritarianism causes hardship to or prejudice to the rights of minorities. The court made reference to the case of *Ramolesane and Another v Andrew Mentis and Another* in which the court stated:

‘By definition, a majority is, albeit in a benevolent sense, oppressive of a minority. In those circumstances, therefore, there will inevitably be groups of people, perhaps even fairly large groups of people, who will contend, with justification that a settlement was against their interests. Nonetheless, because of the principle of majoritarianism, such decision must be enforceable against them also’.

The court held that the POPCRU collective agreement must have preference over the SACOSWU collective agreement. Insofar as these sets of collective agreements were incompatible, as POPCRU was a majority union, with whom the CSD arrived at a fully bargained and agreed solution on the issue of organizational rights.

## **THE CONFLICT BETWEEN SECTION 18 AND 20: LABOUR APPEAL COURT JUDGMENT**

The conflict between sections 18 and 20 (Labour Relation Act 66 of 1995 provides that nothing in this Part precludes the conclusion of a collective agreement that regulates organisational rights) was dealt with by the Labour Court in *Transnet Soc Ltd v National Transport Movement* where Judge Van Niekerk considered whether or not a strike by a minority union to secure organisational rights was unprotected, in that it sought to compel the employer to perform the ‘unlawful act’ of breaching a pre-existing and binding collective agreement with majority unions. In resolving the conflict between section 18 and 20, the court found that even if section 18 permitted agreements between an employer and two or more minority unions acting jointly, there is no express limitation in sections 64 and 65 which prevents a minority union demanding those rights from seeking

to bargain collectively to acquire them, or from exercising its right to strike should the employer resist the demand.

A similar approach was adopted by Savage AJA in the recent appeal of *SACOSWU v POPCRU* case. The learned judge pointed out that where a union has achieved the threshold agreed to by way of a section 18(1) agreement, sections 12, 13 and 15 rights will then as a matter of right be conferred on the union. The court referred with approval to the *Bader Bop* case, in that there was nothing in Part A of Chapter III which expressly states that unions, which do not meet the required threshold, are prevented from using the ordinary processes of collective bargaining to persuade the employer to grant such rights to the minority union.

The learned judge dealt with the term '*Nothing*' contained in section 20 of the LRA as follows:

'.....on a plain reading of the provision "*nothing*" appears to me to mean nothing in the Part, including a section 18(1) agreement. To find differently would amount to a narrow reading of section 20, which *Bader Bop* found to be "*inappropriate*".

The court concluded that section 18(1) should not be interpreted so as to bar the conclusion of such an agreement under section 20, because such an interpretation would serve to disregard the internationally recognised rights of minority unions to seek to gain access to the workplace, to organise within the workforce, or to canvass support to challenge the hegemony of established unions.

## **THE EFFECT OF SAVAGE AJA JUDGMENT**

Majority unions can no longer rely on section 18 of the LRA to completely shut the door against minority unions in their quest to obtain organisational rights at the workplace. Regardless of the fact that the LRA favours a majoritarian approach to collective bargaining within the workplace, such an approach cannot be used as an implement of oppression for minority unions. In this regard, Savage AJA found as follows:

'... a majoritarian system can operate fairly only in accordance with certain conditions. It must allow minority unions to co-exist, to organise members, to

represent members in relation to individual grievances and to seek to challenge majority unions.'

Trade unions do not start off as majority unions and they gain members through serving the best interests of workers, and not those of the government or the employer. A democratic labour law framework should make it possible for new representation groups to unseat ineffective 'sweetheart' (abnormally favourable) unions. According to Theron J *et al.*, if such a logical flow is not allowed it could lead to frustration amongst workers, who may seek mechanisms outside the legislative framework to gain traction at the workplace. Van Eck noted that a blind following of majoritarianism, combined with the effects of threshold agreements and the extension of collective agreements, could severely impede the rights to freedom of association, and the right to organise, that precede the process of collective bargaining.

## **CONCLUSION**

The broad interpretation of section 20 by Savage AJA which is in line with internationally recognised rights of minority unions affords minority unions some kind of level of bargaining advantage at the workplace. The learned judge stated that section 20 serves as 'express confirmation of the internationally recognised rights of minority unions to seek to gain access to the workplace, the recognition of their shop stewards as well as other organisational facilities through the techniques of collective bargaining'.

The judgment struck a balance between freedom of association and collective bargaining when it comes to the issue of organisational rights of minority unions. In essence, the right of freedom of association, as provided for in section 23 of the Constitution, and the sanctity of collective bargaining, have not been compromised. In a labour context, the recent judgement by Savage AJA brought a sense of relief for minority unions seeking to obtain organisational rights in the workplace, irrespective of whether they satisfy a threshold collective agreement between the employer and a majority union determining the acquisition of organisational rights. It can also be submitted that the *POPCRU* and *Bader Bop* cases have brought about a sense of hope to minority unions in their struggle

to obtain organisational rights at the workplace. The struggle for minority unions continues - *aluta continua* minority unions.

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**S.O. Taiwo, A.O. Ayandibu and M.B. Taiwo**

**EFFECT OF INNOVATIVE TECHNOLOGY ON INTERNAL AUDIT USING  
NIGERIA MUNICIPALITIES AS A CASE STUDY**

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**ABSTRACT**

The world we live in today is technology driven, as evident in technological innovations which have disrupted the traditional approach to getting things done in many spheres. Organizations are beginning to take drastic steps to harness these innovative technologies to strengthen its internal control mechanisms, one of which is the internal audit. This study examined the effect of innovative technology on internal audit of the local governments of Osun State, Nigeria. A sample of 100 auditors was drawn using the purposive sampling technique from 15 local governments out of the 30 local governments that exist in the state. An Innovative Technology in Internal Audit Instrument (ITII) was constructed and validated using factor analysis to ascertain the content validity, while Cronbach's alpha was used to verify the internal consistency of the reliability of ITII, with an index of 0.791. Analysis of variance (ANOVA) was used to analyse the research hypotheses. The result shows that there was a significant effect of innovative technology on the internal audit of the local governments in Osun State. Periodic seminars and workshops on the use of innovative technology in the internal audit for auditors were inter alia recommended.

**Keywords:** Factor analysis, Innovative technology, Internal audit, Local governments Organisations.



## **INTRODUCTION**

It is common knowledge that change is an inevitable factor in life. A phase of human evolution which vividly typifies this is the industrial revolution, which led to the emergence of companies due to widespread mechanization. With the evolution of businesses, the owners of the company, i.e. shareholders, delegated some of their members to act as board of directors, who also served as intermediary between the shareholders and members of staff. In order to ensure the transparency and accountability of the intermediaries, auditing came in to being. Auditing as a profession has evolved over the years into many aspects, prominent among which are external audit and internal audits. An internal audit, as a central internal control mechanism through which the effectiveness of other controls are monitored, has also evolved in the coverage of its work due to changes occurring in the business environment, which redefines the need of the stakeholders of the organization. At the fore-front of the fast-changing business environment is technological innovation, which in most cases disrupts the traditional approach to executing tasks. Research has shown that as technological innovations develop, risks concurrently develops also. Therefore, the internal audit must engage these innovations in order to maintain its relevance in the organization's control system, and for effective discharge of its duty in risk management. It is against this backdrop that this study explores the effect of innovative technologies on internal audit, using Nigerian municipalities as a case study.

## **LITERATURE REVIEW**

### **Effects of innovative technology on the current business environment**

The business environment in the twenty first century is highly turbulent, due to the unpredictability of the rate of change traceable to so many factors, dominant among which is the fast-moving trend of technology. A survey by PricewaterhouseCoopers (PwC), a web of companies in 157 countries having over 223,000 employees dedicated to providing value in assurance, consultative and tax, revealed that that in the past five years, technological innovation has altered the approach to business, as it offered, and continually offers, new prospects for efficiency and effectiveness to public and private

organizations (PwC, 2013:1). PwC (2017:17) conducted a study wherein about 1,400 Chief Executive Officers (CEOs), traversing a collection of industries in 79 countries, were interviewed to explore the trends restructuring the corporate and social world. The study revealed that 74% of US Chief Executive Officers (CEOs) predicted that within the span of five years, technology will have considerably impacted or totally restructured competition in their industries. The state of the internal audit profession study of PwC shows that data privacy and security is one of the main risks identified by senior executives and heads of internal audit (PwC, 2012:2). Kristall, Mack, Torcasi, and Basden, (2017:5) from their survey of about 1,900 executives, of which 58% are internal audit leaders, and interview with 70 stakeholders, spanning across a number of industries, focusing on the prevalent disrupting factors to organizations, disclosed that new guidelines, alterations in business model or approach, cybersecurity and privacy threats, technology developments, and financial challenges are the topmost five disruptions international corporations are battling with in the last 2 years.

Kristall *et al.* (2017:3) concluded that the environment wherein organizations operate globally has become disruptive and uncertain, as disruptive innovation initiates an unfamiliar market, economic unpredictability, and regulatory modifications or even a disastrous occurrence, requiring organizations to expect and respond to every manner of change to subsist and flourish. Potier (2018:9) affirmed that, as the pace of change globally increases, uncertainties for businesses, risks and the source from which they may come is becoming increasingly unpredictable. The risk management processes in most organizations are outdated causing them to be reactive and compliance-driven rather than being proactive and strategically engaging risk to drive result. PwC (2017:1) argued that organizations are taking proactive steps by upgrading their strategic plans and making investments in keeping with the turbulent business environment. PwC (2018:3) averred that as technology advances, organizations throughout industries are plunging into these technological innovations. However, PwC (2017:3) opined that management needs to recognise technologies that are of utmost relevance to their organization and get acquainted with them.

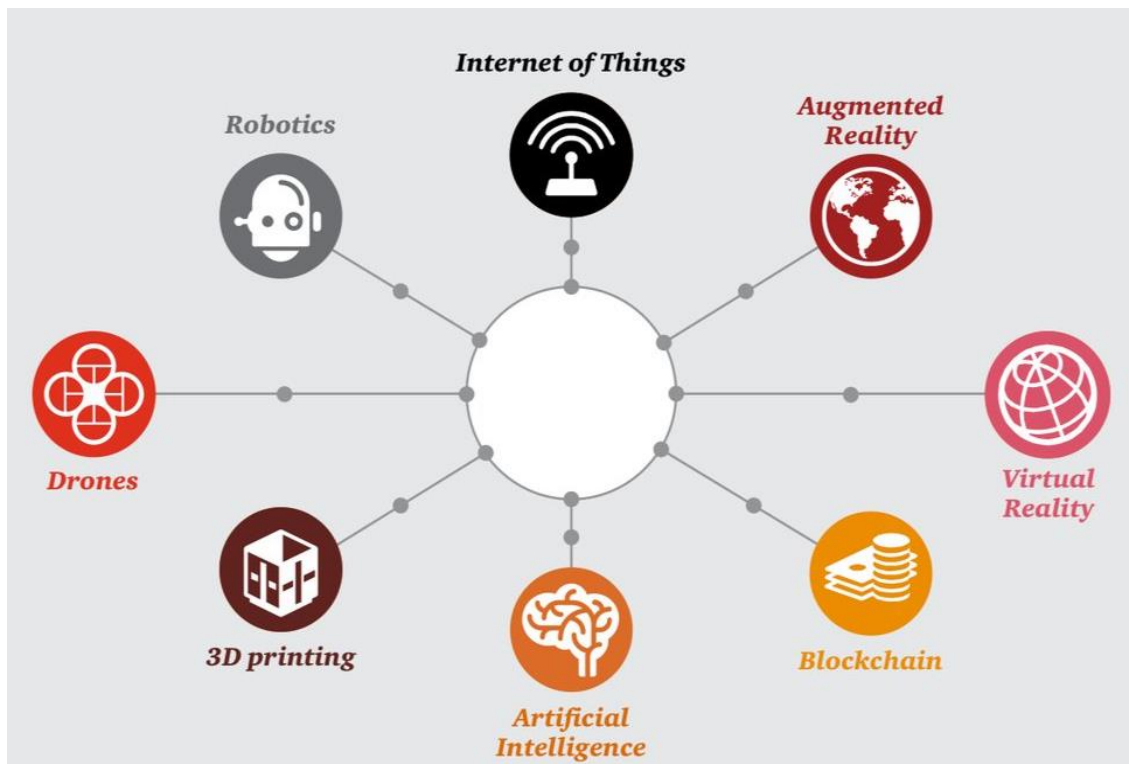
## **Types of innovative technologies**

PwC (2012:2) viewed smart gadgets/ technology, social media, cloud computing, and cyber security as the evolving technologies whose threats and prospects affects business operations. PwC (2018:5) asserted that the internal audit can be considered to have a reasonable adapted enterprise resource planning (ERP), cloud, big data, and analytics but, the internal audit must come to terms with the fast-increasing nature of technological innovation. PwC (2017:3-4) suggested that organizations and boards need to focus on eight technological advancements, which they called 'the essential eight', from the 150 emerging technologies they analysed to maintain competitiveness. The essential eight includes: artificial intelligence (AI), augmented reality (AR), virtual reality (VR), drones, blockchain, internet of things (IoT), 3D printing, and robotics. PwC (2017:3-4) elucidated the essential eight as follows:

- Artificial intelligence (AI) is a broad terminology for technologies that observe and acquire information from their environment and operate on the basis of the information acquired. They *inter alia* include robotic process automation, machine learning, natural language processing, and neural networks. AI differs from general-purpose software majorly because it allows automatic response from machines to global signals beyond the purview and control of programmers.
- Augmented reality (AR) are technologies that permits the observer to notice real-world images, and hear related 'overlaid' digital information. An example is the AR-enabled glasses through which an employee in the storehouse can observe the details of the stocks in a closed crate.
- Virtual reality (VR) refers to technologies through which objects or product designs can be derived in 3-D using spatial data. They include VR headsets and VR-enabled smartphones among others.
- Drones are mini-aircrafts void of a human pilot that are commonly used for deliveries, aerial photography and sensor data collection.
- Blockchain gives a distributed record of every dealings trans-versing a peer-to-peer network. Its usage includes transferral of fund and bird-dogging of online polling, without a bureaucratic endorsing authority like a bank.

- Internet of things (IoT) refers to gadgets with in-built sensors, software and network connectivity used in gathering, interchanging, and acting on data normally without human involvement.
- 3D printing refers to a kind of printing founded on digital models wherein three-dimensional objects are shaped through layering of materials. It has the capacity to transform large enterprise, small business, and living room into a factory.
- Robotics refers to robots with improved sensing, control, and acumen used in supporting, boosting, or dehumanizing human actions. Their use is transcending the factory to customers and employees.

Figure 1 below gives a pictorial overview of the current emerging technology trend called the essential eight.



**Figure 1: The essential eight emerging technologies**

Source: PwC (2017:4) 'How can boards tackle the Essential Eight and other emerging technologies?'

PwC (2018:5) declared that several of the emerging technologies like blockchain, machine learning and artificial intelligence, are beginning to assist or substitute particular decisions instead of simply replacing human exertion identical to prior automations; therefore, a different level of prospect and risk is introduced, revealing the need for

diverse controls. Consequently, the auditing profession needs to engage innovative tools, skills, and approaches in the discharge of its duties.

### **Concept of auditing**

Auditing is generally defined as an orderly method of objectively gathering and assessing proof of claims about financial activities and proceedings, to ensure the agreement between those claims and benchmarks, and disseminate the outcomes to interested groups (Konrath, 2002:5-6; Garrity, O'Donnell, & Sanders 2006:6; Alifah, *et al.* 2014:458). Adeniji (2012) explained that auditing can be categorised based on the kind of work the auditor is undertaking or the method of approach to the audit work. Management audit, system audit, transaction audit and balance sheet audit, among others, are classifications based on method of approach while classification by nature includes statutory audit, private audit, external audit and internal audit (Adeniji, 2012).

### **Concept of internal auditing**

Jurchescu, (2010:129) viewed internal audits as an autonomous and unbiased operative action that gives safety and management counsel, assesses and enhances the efficiency and effectiveness of internal control system, management of risk and management processes in order to ensure adequate management of public revenue and spending, appropriate activities inside public organization, systematic and methodical attainment of objectives. Unegbu and Kida (2011:304) described internal audit as a part of the internal control system set up by the management of an organization to ascertain appropriate adherence to the specified policies and processes, so as to accomplish organizational objectives. The Institute of Internal Audit South Africa (2018) defined internal audit as,

‘an independent, objective assurance and consulting activity designed to add value and improve an organisation's operations. It helps an organisation accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes’.

Al-Matari, Al-Swidi, Fadzil (2014:34-35) explicated that the internal audit's role is so crucial in an organization, so much so that it is referred to as the major component of the

business accounting and corporate governance structure because it archives every business associated with the accounting sector and provides oversight function hand-in-hand with the board of directors, to ascertain credibility in the financial reporting process. The Institute of Internal Auditors South Africa (2018) asserted that the goal of an internal auditor is to assess the procedures in an organisation, which includes operations, management of risk, internal control and corporate governance.

The foregoing shows that the internal audit is an aspect of the of internal control system instituted inside an organization in order to checkmate other aspects of an organization's internal control. Al-Matari *et al.* (2014:34-35) maintained that the internal audit plays a significant part in increasing the reliability of the internal control structure (which fortifies the financial and corporate strategy of an organization), upgrading the risk management process, and ultimately meeting the desires of the internal users. However, auditing as a discipline is at a crucial crossroad, as it cannot meet the needs of its users in the fast developing real time universal economy with its analysis and reports exclusively based on historical data (Lombardi, Bloch & Vasarhelyi, 2014:21-22). Al-Matari *et al.* (2014:34-35) revealed that the productivity of internal audit aids the advancement of the core competence of the organization because the financial reports show the quality internal audit function. Consequently, auditing must engage in a more prompt and pre-emptive auditing approach to give assurances that are significant to real-time users of financial statement by exploiting technological advancements in order to stay significant (Lombardi *et al.*, 2014:21-22).

### **Need for innovation in internal auditing**

PwC (2012:2) divulged that businesses rely on internal audits for assistance on handling the apparently unfamiliar and definite risks posed by emerging technologies. PwC (2013:5) stated that internal audit should provide value to evolving organisations because of the following underlisted arguments:

- The pace of variations in business simulations, varying kind and site of business dealing/controls, and generation of data is constituting an opportunity for internal audit to contribute beneficial insights.

- Stakeholders are willing to embrace different methods of employing insights as they anticipate greater quality of communication from internal audit to assist them in comprehending unfamiliar threats and prospects.
- Internal auditors seek to develop their abilities to perform effectively in this 3-dimensional globe and secure their imminent worth to the establishment.

PwC (2018:18) alluded that internal auditors as risk experts must assist their organizations in designing effective procedures and controls in managing risk profiles, which develops alongside technology, without reducing the speed of innovation. However, the business environment is evolving faster than the audit career (Humphrey *et al.* 2009), therefore, auditors must be equipped and well prepared to manage the recent hurdles related to collection, transformation, and incorporation of different types and enormous sizes of data, which often entails the understanding and use of advanced technologies (Lombardi et al 2014:23). PwC (2009:1) suggested that the internal audit should embrace innovation in order to combat the challenges facing the function, including judicious use of limited resources, reducing the influence of audit on the business though exploiting the insights, simplifying procedures, obtaining and understanding the appropriate resourcing model for the business, effective use of technology, and displaying the value gained among others. PwC (2017:2-3) unveiled that about one fourth of Chief Executive Officers globally highlighted innovation as their highest concern in the subsequent year. Urban (2017) opined that internal auditors must renew their dedication to innovation in internal audit by vigorously increasing its momentum in audit automation, data analytics, and reconsidering the audit procedures and approaches on one side and proceed toward implementing the usage of robotics in auditing on the other, in order to effectively perform their essential part and be level with the advancements within or outside the establishment where the auditor is domiciled. PwC (2018:3) affirmed that Innovation-oriented organizations require innovation-oriented internal audit departments, else, the value of internal audit will decline.

### **Concept of Innovation**

Popa, Preda and Boldea (2009:151) disclosed that innovation as a concept has attracted the interest of researchers and professionals, cutting across diverse industries alike,

because the view of an organization about the concept of innovation determines to large extent the activities that are insourced and outsourced. Popa, Preda and Boldea, (2009:151-152) gave a trend of definitions and descriptions of innovation from several authors, ranging from 1930-2001, as shown in Table 1:

**Table 1: Defining innovation**

<b>Author</b>	<b>Definition</b>
Joseph Schumpeter (1930)	Introducing a new product or modifications brought to an existing product; A new process of innovation in an industry; The discovery of a new market; Developing new sources of supply with raw materials; Other changes in the organization.
Peter Druker (1954)	One of the two basic functions of an organization.
Howard and Sheth (1969)	Any new element brought to the buyer, whether or not new to the organization.
Mohr (1969)	The degree to which specific new changes are implemented in an organization.
Damanpour and Evan (1984)	Broad utility concept defined in various ways to reflect a specific requirement and characteristic of a particular study.
Kenneth Simmonds (1986)	Innovations are new ideas that consist of: new products and services, new use of existing products, new markets for existing products or new marketing methods.
Kenneth Simmonds (1986)	Basic creative process.
Damanpour (1991)	Development and adoption of new ideas by a firm.
Davenport (1991)	Complete a task development in a radically new way.
Evans (1991)	The ability to discover new relationships, of seeing things from new perspectives and to form new combinations from existing concepts.
Covin și Slevin (1991), Lumpkin and Dess (1996), Knox (2002)	Innovation can be defined as a process that provides added value and a degree of novelty to the organization, suppliers and customers, developing new procedures, solutions, products and services and new ways of marketing.
Business Council Australia (1993)	Adoption of new or significantly improved elements to create added value to the organization directly or indirectly for its customers.
Henderson and Lentz (1995)	Implementation of innovative ideas.
Nohria and Gulati (1996)	Any policy, structure, method, process, product or market opportunity that the manager of a working business unit should perceive as new.
Rogers (1998)	Involves both knowledge creation and diffusion of existing knowledge.
The European Commission Green (1999)	Successful production, assimilation and exploitation of novelty in the economic or social environment.
Boer and During (2001)	Creating a new association (combination) product market-technology-organization.

Source: Popa, Preda, and Boldea, (2009:151-152). 'Theoretical Approach of the Concept of Innovation.'

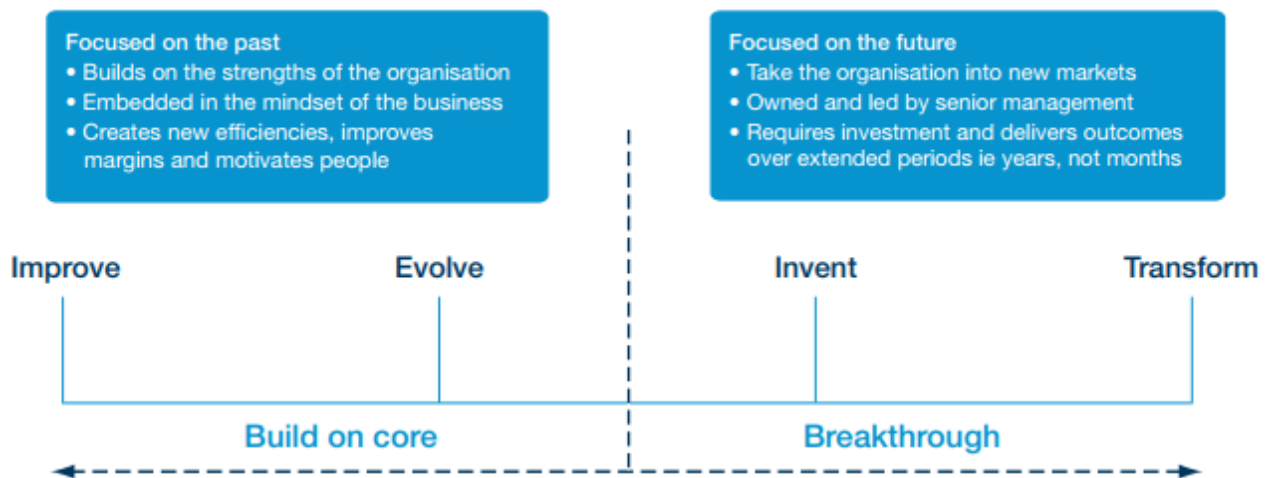
According to PwC (2009:1-2), innovation has no 'one size fit all' definition as it can be viewed from different angles based on the preference of the authors, therefore, instead



of searching for the right definition to innovation, understanding its essence is a better approach in demystifying innovation. Innovation basically involves excerpting value from an idea and insight, irrespective of the size of the idea or the nature of the project for which the idea is generated (PwC 2009:1-2). In broad terms, innovation could either be transformational or incremental:

- Transformational innovation is a product of huge ideas or projects that necessitates lump sum financing and has the latent ability to completely alter the business.
- Incremental innovation is a product of daily improvement and evolving inside a business.

Figure 2 shows the transformational innovation which entails improvement and evolution, and incremental innovation which ranges from invention to transformation across a spectrum.



**Figure 2: Types of innovation across a spectrum**

Source: PwC (2009:2). How can innovation transform internal audit?

### The process of innovation

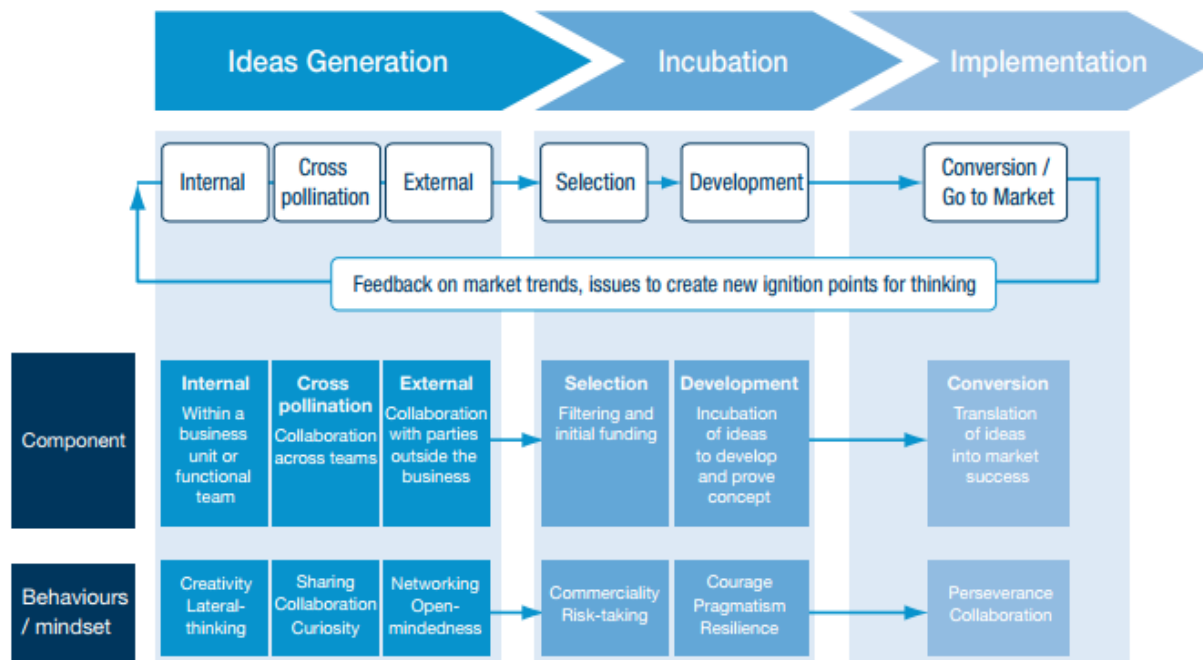
PwC (2009:3-4) elucidated that the innovation process integrates three major components namely: ideas generation, incubation and implementation.

- Ideas generation – This involves the use of intuition and tools to inspire the thought of a group within an organization on the probable courses of action. It strengthens

the significance of collaborating to proffer solutions to business challenges creativity.

- Incubation – This entails the selection and development of ideas generated based on the perceived effect of the idea(s) and the resourcefulness of the organization in executing the idea(s) to ensure the delivery of practicable result.
- Implementation – This is the stage where value is excerpted from the progression of innovation as it involves the transformation of ideas into result. It requires skilfulness in project management.

Figure 3 shows how the three components of innovation are intertwined and the appropriate behaviour for every stage of the innovation process.



**Figure 3: Process of innovation model**

Source: PwC (2009:4). How can innovation transform internal audit?

### Categories of innovative technology adopters in internal audit

PwC (2018:6) grouped the innovative technology adopters into three types: Evolvers, Followers and Observers:

## **Evolvers**

These are internal audit departments that are technology-centred in that they are presently doing the following:

- Guiding on risks and controls over robotic process automation (RPA), the use of artificial intelligence (AI) in their establishments, the supervision of the use of drone.
- Adopting tools for teamwork to raise their heights of organizational positioning and productivity.
- Adopting tools for data mining and robotic process automation to increase the appropriateness and reach of their audits and analytics.
- Artificial intelligence and machine erudition to propose innovative and value-added insights to the organization.

## **Followers**

These are internal audit departments that are sluggishly considering and tracking the technology implementation of the Evolvers.

## **Observers**

These are internal audit departments whose deficiency of technology, internal data quality, capital for investment and cultural orientation causes to spectate in technology adoption.

PwC (2018:6) findings revealed that 14% of internal audit departments are evolvers, 46% are Followers, while 37% are Observers.

## **Benefits of innovative technology in internal audit**

Ridley (2008) summed up the prospects of adopting innovative technology in the internal audit as shown below:

1. Modifications in the mode of communication with other functions and every stakeholder of the organization.
2. In-house reorganization and modifications in the internal audit management.

3. Design of innovative audit services and procedures.
4. Modifications in technology usage.
5. Constant expansion in acquisition of information and expertise amidst the internal audit team.
6. Innovative services against corruption and misconduct.
7. Supports in assessing the performance of the board of the organization.
8. Constant enhancement of customer satisfaction.
9. Modifications in the manner in which internal auditing probes.
10. Boost in the corporate image of the organization.

### **Possible constraints against the use of innovative technology in internal audit**

Although innovative technology has a great impact on internal auditing, it is not without its own concerns in its implementation. The major problem that can be encountered by the internal audit when using innovative technology is an increased risk of information loss; software cost; lack of management support and employee competency for operation. (PwC, 2012:5-6; Adeyemi *et al.*, 2014:95-96).

### **METHODOLOGY**

This study is a survey research thus espousing ex-post facto process to gather data as the independent variables in the study cannot be directly manipulated. Therefore, their indicators are already existent (Kerlinger & Lee, 2000; Krause, Luzzini & Lawson, 2018:45). The procedure gives room for a descriptive explanation made up after an event and then applies this in verification, since the researcher does not have complete control over the data. This implies that the researcher of this study had no control over the data used because they were based on the opinion pool of the respondents that were randomly chosen for the study.

## **Sample and sampling method**

Simple random sampling was used to pick 15 local governments out of the 30 local governments within the 3 senatorial zones in Osun State. Since the randomly selected local governments were not of the same in staff strength, purposive random sampling was employed in selecting a sample size of 100 auditors for the study.

## **Research Instrument**

A questionnaire entitled 'Innovative Technology in Internal Audit' (ITII) was designed and validated by a research analyst and two educationists in the Department of Accounting and Management, Ladoké Akintola University, Ogbomoso, Oyo State, Nigeria, for examination and the necessary corrections were made. Furthermore, the questionnaires were administered to 100 auditors from 10 local governments of Oyo State for trial testing. The questionnaire was administered to auditors (junior and senior in terms of academic qualifications) in the 15 local governments of Osun State and was retrieved immediately after their responses.

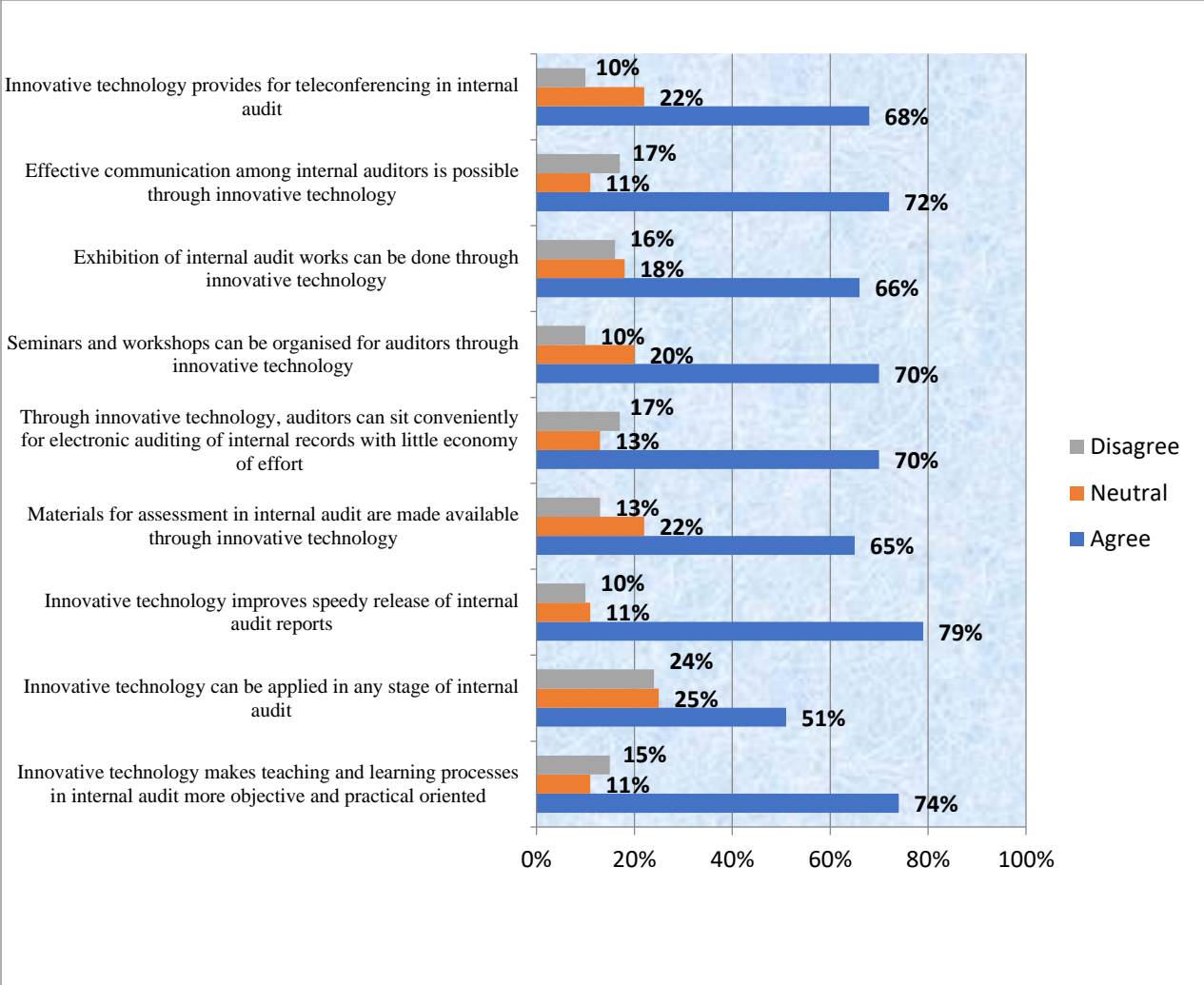
The instrument elicited data about the perception of auditors on the influence of innovative technology on internal audit. It has two main sections. Section A consists of the auditors' profiles for the study, in the form of sex, year of experience and academic attainment, while section B consists of thirty (30) questions that respondents show the extent to which they agree in the form of 5-point rating scale, viz. Strongly Agree (SA), Agree (A), Neutral (N), Disagree (D) and Strongly Disagree (SD).

Frequency and percentage counts were employed in the analysis of the questionnaires.

## RESULTS

**Table 2: Statistics showing the effect of innovative technologies on internal audit of local governments in Osun State, Nigeria**

S/N	STATEMENT	Agree	Neutral	Disagree
1.	Innovative technology makes teaching and learning processes in internal audit more objective and practical oriented	74 74%	11 11%	15 15%
2.	Innovative technology can be applied in any stage of internal audit	51 51%	25 25%	24 24%
3.	Innovative technology improves speedy release of internal audit reports	79 79%	11 11%	10 10%
4.	Materials for assessment in internal audit are made available through innovative technology	65 65%	22 22%	13 13%
5.	Through innovative technology, auditors can sit conveniently for electronic auditing of internal records with little economy of effort	70 70%	13 13%	17 17%
6.	Seminars and workshops can be organised for auditors through innovative technology	70 70%	20 20%	10 10%
7.	Exhibition of internal audit works can be done through innovative technology	66 66%	18 18%	16 16%
8.	Effective communication among internal auditors is possible through innovative technology	72 72%	11 11%	17 17%
9.	Innovative technology provides for teleconferencing in internal audit	68 68%	22 22%	10 10%



**Figure 4: Display of percentages of innovative technologies on internal audit of local governments in Osun State, Nigeria**

Table 2 and Figure 4 depict the perception of respondents for this study on the effect of innovative technology on the internal audit of local governments in Osun State. In the case of whether innovative technology makes teaching and learning processes in internal audit more objective and practical oriented, 74% of the respondents agreed, while 15% disagreed, and 11% were neutral. In the same manner, 51% of the respondents were in support of the assertion that innovative technology can be applied in any stage of internal audit, while 24% disagreed and 25% remained neutral. Of the respondents, 79% agreed with the fact that innovative technology improves speedy release of internal audit reports, while 10% were not in support, and 11% still remained undecided. Those materials for assessment in internal audit are made available through innovative technology were

established by 65% of the respondents, while 13% opposed, and 22% were unbiased. Similarly, 70% concurred that through innovative technology, auditors can sit conveniently for electronic auditing of internal records with little economy of effort, while 17% disagreed, and 13% were in doubt. In response to whether seminars and workshops can be organised for auditors through innovative technology, 70% showed their support, 10% differed, while 20% remained neutral. On the issue of whether exhibition of internal audit works can be done through innovative technology, 66% consented with the assertion, 16% were not in support, while 18% were on the undecided. That effective communication among internal auditors is possible through innovative technology was attested to by 72% of the respondents, while 17% deviated, and 11% were unresolved. Furthermore, 68% of the respondents coincided that innovative technology provides for teleconferencing in internal audit while 10% disapproved, and 22% remain impartial.

Having analysed the results of data for this study, it could be observed that the finding of the effect of innovative technology on the internal audit of local governments in Osun State, Nigeria, depicted positive indication. This finding can be corroborated with the findings of Adegbija, Fakomogbon and Daramola (2012), which stated that the use of technology has made every aspect of education modern, reliable, global and efficient.

## **CONCLUSION**

It is no contradiction to admit the fact that perception is a human phenomenon that allows human beings to utilise their senses to acquire information and at times for making decisions. The perception on the influence of innovative technology on the internal audit of the local governments in Osun State, Nigeria, has prompted the study to examine the effect of innovative technology in the internal audit of local governments in Osun State, Nigeria. Essentially, the influence of innovative technology has shown convergence and divergence opinions based on the sources of information already acquired. The feedback from this study is evidence to conclude that innovative technology has not been adopted in the internal audit of local governments in Osun State, Nigeria.



## RECOMMENDATIONS

The following underlisted are recommended based on the findings of this study:

- (a) Periodic seminars and workshops on the use of innovative technology in the internal audit should be organised for auditors.
- (b) Exhibitions of internal audit works through innovative technology should be done to encourage those who are sceptical about any new development.

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**BUILDING KNOWLEDGE SECTOR: WHAT IS LACKING IN SOUTH AFRICA?**

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**ABSTRACT**

This paper traces the evolution of knowledge as a key determinant of growth and development, and attempts to identify knowledge-led growth economies, while simultaneously evaluating the strategies necessary for building a knowledge economy. The paper also offers policy directions that are useful and applicable, particularly to developing countries (such as South Africa) to enable them undertake the process of acquiring knowledge to accelerate the pace of their development. It thus challenges policy makers to embrace policy strategies and mindsets capable of improving competition, and technological advancement, to improve national economic growth and welfare.

**Keywords:** Economic growth, Economic development human capital, Knowledge economy.

**INTRODUCTION**

In recent years, knowledge has become an important factor in the promotion and sustenance of economic growth. Houghton and Sheehan (2000) defined a knowledge economy as an economy which accords knowledge as the principal resource that drives

growth, an economy in which the production and application of knowledge become the dominant force in the creation of wealth. The activities of a knowledge-led growth do not simply entail an expansion in the frontiers of knowledge, but rather it concerns the more efficient generation and application of all types of knowledge relevant for the production of wealth. Kuznetsov and Dahlman (2008) also defined a knowledge economy as an economy driven by speedy application of new information and communication technologies (ICT), as well as the use of scientific inventions to the various sectors of an economy to produce goods and services.

According to the World Bank (1999), knowledge can take two major forms: (1) technological knowledge or technical know-how and (2) knowledge based on attributes, such as knowledge about products, processes and institutions. The knowledge paradigm has generated substantial prospects for some economies to significantly increase their comparative advantage and to accomplish rapid economic growth. These economies have extensively depended on knowledge and technology, rather than on labour and capital, the traditional drivers of economic growth, to create wealth and growth by eliminating the probability of resource drag. Thus, economies whose growth potentials are attributed to knowledge and technology, have become known as knowledge economies (KE). The creation of new knowledge, innovation and technological change practically determine growth in these economies, generate higher incomes and wages, provide better employment prospects, as well as stimulate their competitiveness within the world economy.

'Knowledge is like light. Weightless and intangible, it can easily travel the world, enlightening the lives of people everywhere. Poor countries differ from rich not only because they have less capital but because they have less knowledge' (World Bank, 1998). The publication of the 'World Development Report: Knowledge for Development in 1999' demonstrated the positive role knowledge plays in transforming economies by placing the production of knowledge firmly at the foundation of economic development. The publication indicated 'Knowledge is vital for development the balance between the application of knowledge and the traditional resources (labour and capital) of development has experienced fundamental shift in favour of the former, indicating

knowledge as the most vital factor that influences the living standards' (World Bank, 1999).

The dissemination and sustainability of prosperity has been attributed to the transmission of knowledge underlying the creation of technology (Sachs, 2005). This is important because knowledge can be applied severally without ever being exhausted, since one person's use of it does not reduce the capability of other people to use it. Knowledge is therefore non-rival in nature and on this basis, every individual or nation can achieve prosperity with its application.

These positive attributes of knowledge economies are driven by new investments in technology, high-technology industries and highly skilled labour. Table 1 illustrates world growth in key information and communication technologies, which have stimulated economic growth in the world economy. According to Olssen and Peters (2005), these drivers are the basic ingredients for the creation of any knowledge economy.

### **KNOWLEDGE ECONOMY: SOME STYLIZED FACTS**

In Africa, the growing challenges of fuelling economic growth, and the need to adequately sustain it, have brought about the recognition of the importance of knowledge, innovation and technology. Thus, higher education institutions, a key determinant in the production of a knowledge economy, are tasked to establish links with industry and business in a series of new venture partnership (Olssen & Peters, 2005).

**Table 1: Determinants of knowledge economies**

Indicator	Year			
	2000	2005	2009	2011
<b>Economic and social context</b>				
GNI per capital World Bank Atlas Method (\$)	5,293	7, 110	8,732	9,514
Gross primary, secondary and tertiary enrollment (%)	62	67	68	70
<b>Sector efficiency and capacity</b>				
Telecommunications revenue (% of GDP)	2.9	3.1	3.1	2.6
Telecommunications investment (% of revenue)	26.7	18.9	18.5	-
<b>Sector performance access</b>				
Fixed-telephone subscriptions (per 100 people)	16.0	19.5	18.0	17.3
Mobile-cellular telephone subscriptions (per 100 people)	12.2	33.9	69.0	85.5
Fixed (wired)-broadband subscriptions (per 100 people)	2.3	3.45	9.1	8.61
Households with a computer (%)	8.0	-	15.3	37.9
Households with internet access at home (%)	6.7	-	27.1	32.8
<b>Usage</b>				
Mobile telephone usage (minutes per user per month)	195	-	298	-
Individual using internet (%)	6.7	15.8	27.1	32.7
<b>Trade</b>				
ICT goods exports (% of total goods exports)	18.0	13.8	13.0	10.1
ICT goods imports (% of total goods imports)	17.7	24.0	13.9	11.4
ICT service exports (% of total service exports)	5.5	28.7	9.1	31.1

Source: World Bank (2011 and 2013)

The mobile phone has achieved an unprecedented milestone of becoming one of the fastest, most adopted technologies in the 21<sup>st</sup> century. While it took approximately 128 years for fixed telephone lines to be accessed by 1 billion subscribers, the mobile phone accomplished this landmark within two decades. By the close of 2011, the mobile phone has been accessed by about 5.6 billion subscribers worldwide. The huge subscriber base

of the mobile phone resulted in momentous penetration. For instance, Table 1 reveals that while fixed-telephone lines were accessed by 18.0 per 100 people in 2009, and this estimate decreased to 17.3 in 2011, in contrast, mobile phones increased from 69 per 100 people in 2009, to 85.5 per 100 people in 2011. Within a short span of two decades, the mobile phone has been transformed from an elitist gadget, that was predominantly reserved for high-income economies, to a household communication tool, penetrating all parts of the globe. In Africa, mobile phone penetration was about 2 percent in 2000 but increased astronomically to 78 percent in 2013, and it is expected to reach 84 percent in 2015 (Harvard Business Review, October, 2013). Other important determinants of knowledge economies such as internet facility and usage, have also equally experienced huge subscription, as the estimate increased from 6.7 percent of household usage in 2000, to 32.8 percent usage in 2011.

The huge penetration of the indicators of knowledge development has impacted positively on the activities of the world economy. For instance, the cheap and easy access to new digital technologies, such as the broadband, internet and mobile phones, has hastened the spread of best practiced technologies, and transformed the internal and external research and development (R&D) of both business and academic institutions (Hollanders & Soete, 2010). Furthermore, countries have rapidly been catching up regarding economic growth and knowledge investment, in the form of investment in tertiary education and R&D. This is evident in the growing numbers of science and engineering graduates. For example, India planned to establish 30 new universities to increase enrolment from a relatively less than 15 million students to about 21 million students, by the close of 2012. Other emerging economies, such as Brazil, South Africa, Mexico and China, have also increased their expenditure on R&D.

The evolution and accumulation of knowledge explains why countries experience divergences in long-term growth rates, total factor productivity (TFP), which measures factors rather than physical and human capital, and determines the disparities in economic growth, and poverty eradication programmes that are successful in those regions where knowledge drives growth.



## **KNOWLEDGE AND THE CHANNELS OF IMPACT**

Knowledge as a key driver of economic growth has relevant channels through which it can reshape economies of the world. These channels are discussed as follows.

### **Knowledge as a determinant of competitiveness and productivity**

A key distinguishing attribute of knowledge is that it is a nonrival but excludable commodity (Barro & Sala-I-Martin, 2004). This implies several producers can use the same methodology at the same time to produce a given output. However, it is difficult to acquire knowledge, either through invention or purchase, and this represents an entry barrier to growth, such as assisting in generating rent received from the invention or purchase of knowledge (World Bank, 2007). According to the World Bank (2007) there many types of knowledge rent such as technology (this rent is accrued when a country controls scarce process, human resources, organizational and marketing and design. Thus, economies that are innovative and possess entrepreneurial drive, or are capable of purchasing knowledge, will produce more, at relatively lower costs, than those countries that are not innovative or are unable to purchase the invention. Knowledge economies therefore accomplish a competitive advantage through economies of scale which reduces production costs.

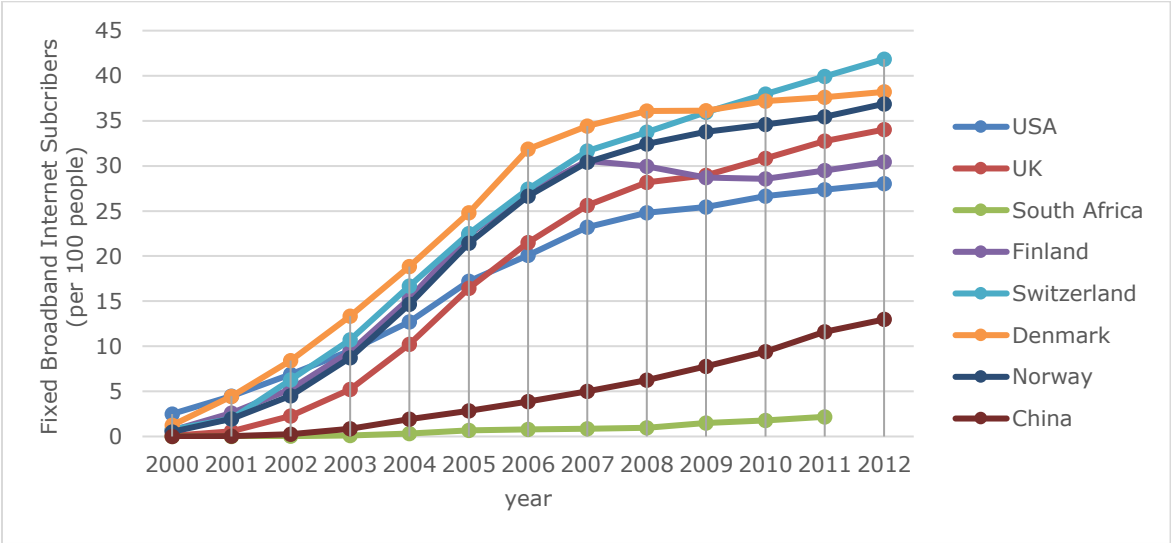
The traditional factor of production, namely labour and capital, are incapable of generating goods and services in the absence of *knowledge and technology* that illustrates to them how to do it. Sagoff (1997) stated,

‘It is simply wrong to believe that nature sets physical limits to economic growth - that is to prosperity and the production and consumption of goods and services on which it is based. Although raw materials will always be necessary, knowledge has become the essential factor in the production of goods and services’.

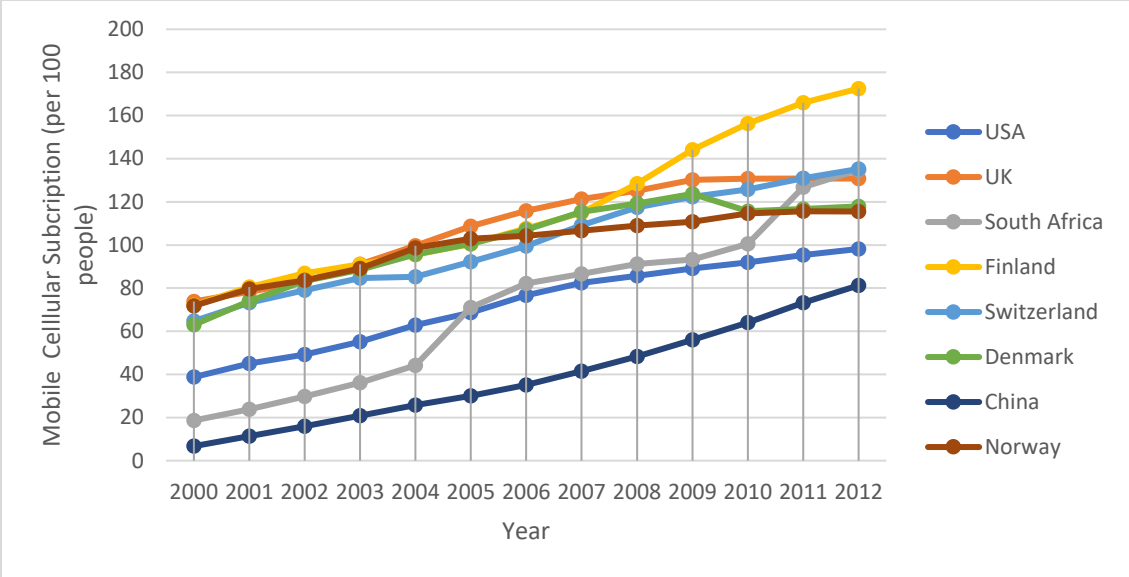
Knowledge and technology, therefore, drive high productivity because they can improve over time. For instance, the same quantity of labour and capital produced a larger amount of goods and services in 2013 than in the 2000 due to the superiority of the knowledge and technology applied in 2013.

Figures 1 to 4 show the indicators of a knowledge-driven economy and they clearly demonstrated that the countries which possess either the most competitive economies, or are on the threshold of becoming such economies, are characterized by high level usage of the indicators. For instance, the USA, UK, Finland, Switzerland, Denmark Norway and China are characterized by high-level usage and application of fixed broadband internet, mobile cellular phones, internet and telephones for the acceleration of economic activities. The application of these knowledge ingredients has generated competitive advantages for these countries through value-addition and reduction in transaction cost of production, to meet the demand for new and improved products and services. The knowledge-intensive activities of these economies generate employment opportunities and increase the demand for very skilled labour.

In contrast, South Africa, lies very low in investment and application of the ingredients of a knowledge-driven economy. The country scored very low points on all the listed indicators of knowledge economy as shown by figures 1 to 4. Therefore, to become a knowledge economy, South Africa needs to make strides to acquire these ingredients through R&D, for the accumulation of long-term potential for accelerated growth and the provision of employment opportunities.

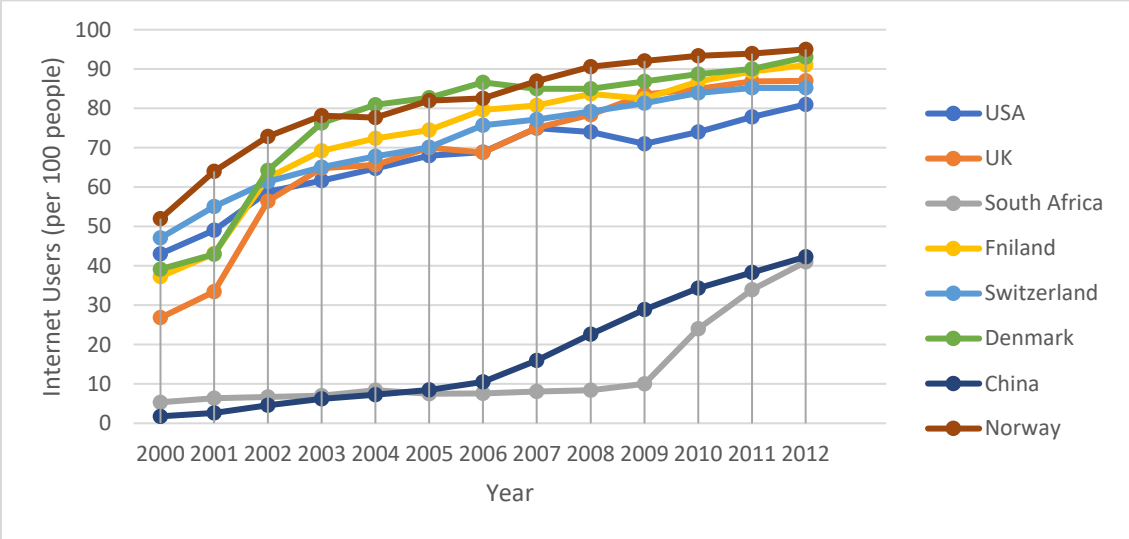


**Figure 1: Number of fixed broadband internet subscribers**  
 Data source: World Bank (2013)



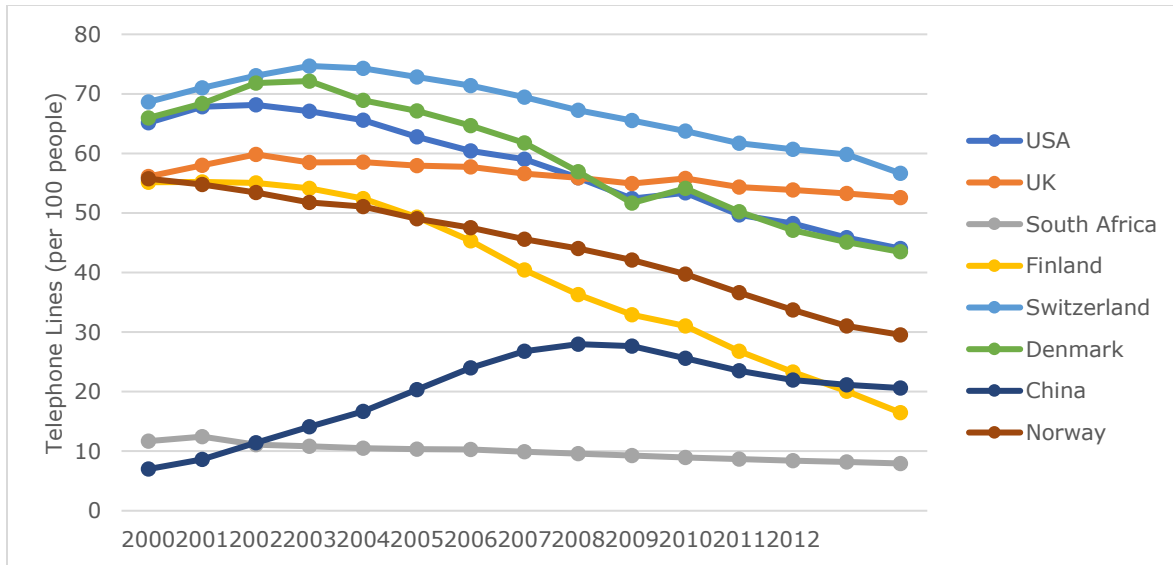
**Figure 2: Mobile cellular subscription per 100 people**

Data source: World Bank (2013)



**Figure 3: Number of internet users per 100 people**

Data source: World Bank (2013)



**Figure 4: Number of telephone lines per 100 people**

Data source: World Bank (2013)

### Knowledge as an enabler of institutions and governance

Investments in education generate several important benefits, both economic and noneconomic. Knowledge, a key product of education, is relevant in the fight against crime, ensures good parenting, resolves public health problems, and encourages community participation and social cohesion (OECD, 1998). The World Bank (2007) stated that there is a relationship between the level of education and the incidences of conflict and wars. This is because education preaches and imbues into the individual a virtue of tolerance, which is relevant in the prevention of conflict and wars. It also preaches reconciliation and advocates rebuilding after wars and conflicts. It is believed that education played a crucial role in rebuilding South Africa, Liberia, Mozambique, Sierra Leon, la Cote d'Ivoire, and many other countries, after the devastating effects of wars and conflicts. Institutions of good governance are created through ideas obtained through education.

Knowledge is also very important in the development and implementation of policy. Policy-making processes involve the identification and diffusion of information to the relevant public institutions. The knowledge to undertake these activities is acquired through academic activities, experiments, conferences, and symposia. Knowledge contributes to good governance both directly and indirectly (Hood, 2006). In the direct

form, knowledge serves as a resource, and an input of governance, and in the indirect way, through the influence in choices and decision-making.

### **Integrating knowledge into economic growth models**

The first important contribution of a long-term economic model, which incorporated knowledge or technology, was suggested by Robert Solow (1956) and Swan (1956). This model applies the neoclassical form of production function. The key characteristics of this form of production function are that it assumes constant returns to scale, diminishing returns to the various factors, and positive elasticity of substitution between the factors (Barro & Sala-i-Martin, 2004). The Solow-Swan model emphasized that labour and capital are barely productive without the support of technology, thus the effectiveness of these factors is largely attributed to knowledge or technological progress. Essentially, knowledge, rather than capital and labour, is the most important determinant in the revolution of productivity in recent years, compared to a decade ago.

However, the Solow-Swan model exhibited two key weaknesses. Firstly, this model hypothesized conditional convergence. This implies that countries which start at lower levels of capital, compared to the steady-state position, will grow faster to catch up with countries with higher levels of capital, which will experience lower growth rates. However, the world economy is yet to experience conditional convergence and one doubts the possibility of it occurring because of the continual wide-disparities of per capita income between developing and the developed economies. Secondly, the Solow-Swan model assumed technological progress to be exogenous, which implies per capita income growth will gradually come to an end with the lack of improvement in technology over time (Romer, 1986).

These deficiencies compelled economists to develop models which are capable of endogenizing technological progress. Notable among them are Frankel (1962), Griliche (1979), Romer (1986) and Lucas (1988). These models did not only incorporate technology as endogenous variable in their growth equations, but indicated the importance of spillover effects. According to Barro and Sala-i-Martin (2004), the Romer model has become prominent among the others mainly due to its timing. Romer (1986) departed from the assumption of diminishing returns to capital accumulation by theorizing

the creation of knowledge as a by-product of investment. Thus, Romer (1986) provided a different perspective on long-run economic growth. In a competitive equilibrium, an economy can grow monotonically over time when the creation of knowledge is considered a positive externality (Romer, 1986). In other words, knowledge is characterized by increasing marginal product. As a result, both the rate of investment and returns on capital may increase, instead of decrease, when the capital stock increases. Therefore, the growth level of different countries may never converge, implying growth could be slower in developing countries, or may not occur at all. On this basis, increases in physical capital of a firm provides for innovation, resulting in efficient productivity. This positive contribution of knowledge on productivity is termed “learning by investing” or “learning by doing”.

Given a neoclassical production function, which incorporates labour-augmenting technology for a given firm  $i$ , the Romer model may be expressed as:

$$Y_i = F(K_i, A_i L_i) \dots \dots \dots (3-1)$$

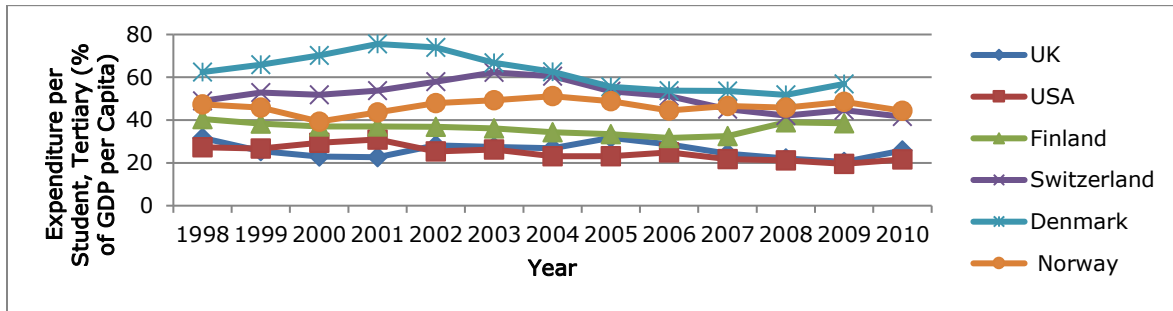
where  $K_i$  and  $L_i$  denote capital and labour inputs respectively, and  $A_i$  represents the index of knowledge acquired by the firm. Arrow (1962) and Romer (1986) deduced two main assumptions in (3-1). Firstly, learning by doing materializes via a firm’s net investment. This implies that a rise in the capital stock of a firm, leads to a direct increase in the stock of knowledge it possesses ( $A_i$ ). Secondly, knowledge which accrues to a firm has the characteristic of public good. In other words, the creation of a piece of knowledge by any one firm spills over immediately onto the production capabilities of other firms at zero marginal cost. This is because knowledge may not be completely patented (Romer, 1986), and thus it is capable of spilling over across the world economy. This suggests that variations in each firm’s technology index ( $\dot{A}_i$ ), is directly related to the economy’s general learning, which corresponds to the variations in the total capital stock ( $\dot{K}$ ). Therefore, in the Romer model spillover effects, increasing returns to the marginal product of knowledge and decreasing returning to the creation of new knowledge, are combined to specify a competitive equilibrium model of growth.

Lucas's (1988) model on economic growth indicated that knowledge is created and passed on to others via human capital development. In the theory of human capital, Lucas (1988) believed that if an individual apports his resources over current activities, his future level of productivity will be affected. Given (3-1) the  $K_i$  represents the amount of human capital employed by a firm, while  $K$  denotes the total level of human capital in an economy. By this specification, positive externality occurs through interactions between skilled workers and their competent colleagues. Thus, investment in human capital and knowledge are important in spurring growth, and are largely responsible for the disparities in income per capita across countries and regions.

According to Barro and Sala-I-Martin (2004), the externality assumption espoused by both Romer (1986) and Lucas (1988) is natural, since knowledge is nonrival in nature. However, in contrast, firms may keep secret their inventions and they may be protected through patents to prevent other firms or persons from accessing them. Thus, knowledge regarding improvements in productivity will only be disclosed steadily and inventors would maintain a competitive advantage over others for some time. Griliche (1979) suggested that the need to maintain such a competitive advantage will spur firms to undertake investment in research and development (R&D), particularly meant for the invention of new ideas.

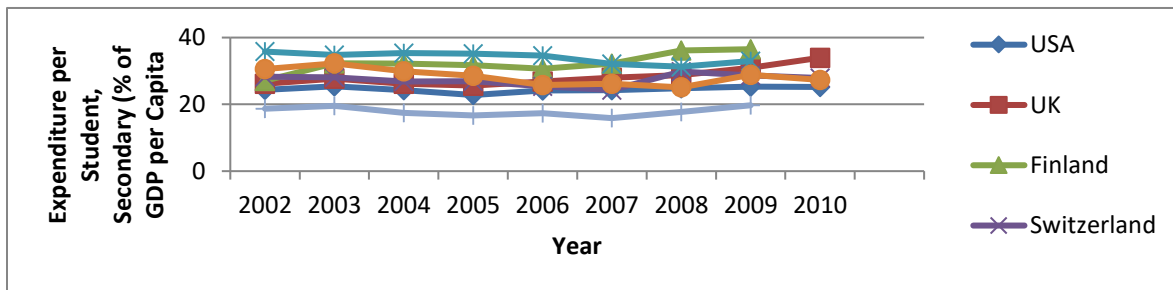
Barro's (1990) model presented a relatively different viewpoint on growth by suggesting a strong linkage between government expenditure on education, knowledge and economic growth. The knowledge index ( $A_t$ ) in (3-1) is determined by the changes in public policies on the provision of infrastructure, the enforcement of property rights, rule of law and national rate of tax (Barro & Sala-I-Martin, 1995). Investing in human capital via education contributes positively to the efficiency of labour, which has a positive effect on growth. Furthermore, R&D increases knowledge and raise capital accumulation. Barro (1990), thus, underscored the important role that R&D and the accumulation of capital play in interpreting the differences among countries in terms of GDP and income per capita. On this basis, the Lisbon Strategy (2005) of the European Union advised member states to consider investing heavily to develop human capital and R&D. Figure 5 and Figure 6 show expenditure per tertiary student (% of GDP per capita) and expenditure

per secondary student (% of GDP per capita), respectively, of selected countries. Once again, among the selected countries, South Africa spends less per student in education. Education, which is considered one of the pillars of a knowledge-driven economy, attracts very low public expenditure and thus prevents the country from producing large numbers of highly skilled people to assist in the creation, dissemination and application of knowledge for innovation and generating economic value.



**Figure 5: Expenditure per tertiary student (% of GDP per capita)**

Data Source: World Bank (2013)



**Figure 6: Expenditure per secondary students (% of GDP per capita)**

Data Source: World Bank (2013)

The role and trend of knowledge in the growth of OECD economies have inspired economists to revise economic theories and models to incorporate and emphasize the fundamental contribution of knowledge in determining the improvement in the welfare of countries.

### Analytical framework and benchmarking elements of knowledge sector

The policymaker must endeavour to identify the strengths and weaknesses of their countries and formulate suitable policies and direct their investment into strategic sectors of their economies to accelerate growth. According to the World Bank (2007), a knowledge economy is built and evaluated based on four pillars: (1) the education and



training systems of a country; (2) information and telecommunication infrastructure; (3) innovation systems; and (4) the economic incentives and institutional regime. The following subsections elucidate these pillars of knowledge economy.

### **Education and training systems**

A knowledge economy is built on the availability of an educated and skilled labour force, which is adaptable to training, and constantly upgrades their skills for the creation of knowledge. At a basic level, education is meant to train people to decode and encode information. In contrast, secondary and tertiary education aims at training people to develop technology and innovation systems and lifelong learning (Chen & Dahlman, 2005). The creation of new knowledge and its adaptability is usually accomplished through research and development at a higher level. A country with a highly educated population possesses the capacity to develop a great predilection for technology and other sophisticated goods. This taste, if turned into effective demand, can, in turn, stimulate innovation among local firms for the production for the technologically complex consumer. The Knowledge Economy Framework suggests that the amount of an educated population of a country is a key determinant of the production of knowledge. Thus, investing in education will promote the growth in the quality and quantity of knowledge required for building a knowledge economy.

### **Information and telecommunication system infrastructure**

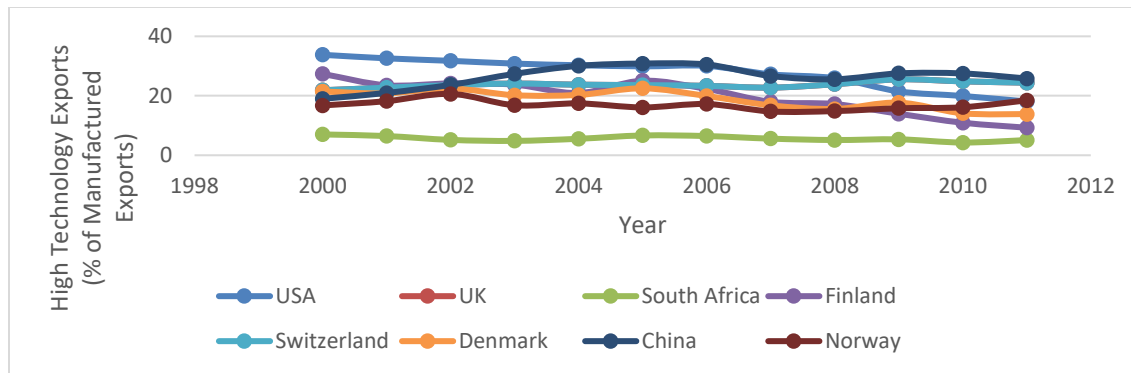
The establishment of modern information and telecommunication infrastructure enhances effective communication, propagation and processing of information and knowledge (World Bank, 2007). Information and telecommunication technologies, such as the internet, mobile phone, television, and radio network, are key infrastructures for the creation of knowledge. These infrastructures aid in reducing transaction costs and accelerate the pace of information gathering and dissemination. Again, the investment in ICT production tends to result in capital deepening, which raises the efficiency of labour, and thus increases its productivity. Apart from reducing transaction costs and capital deepening, ICT has the capability to surmount international borders. Thus, suppliers and demanders are able to exchange information, decrease the degree of uncertainty, and

transaction costs, and aid in raising competitive advantage, which promote global market efficiency.

### **Innovation systems**

The World Bank (2007) defined an effective innovative system as one which consists of firms, research institutions, higher learning institutions, consultative bodies and other organizations, which produce new knowledge, harness the available knowledge, and absorb and acclimatize it to the local environment. An effective innovative system is relevant for promoting technical progress which is a major determinant of growth. Based on its relevance, national policy makers in developed economies have invested heavily to support innovation, science and technology. For instance, the Pentagon's Defence Advanced Research Project Agency (DARPA) has an annual budget of about US\$ 3 billion to conduct approximately 200 innovative programmes at any time (Harvard Business Review, October 2013). As a result, it has, over the past 50 years, produced incomparable amount of innovations, such as the internet, Reduced Instruction Set Computing (RISC) and global positioning satellites.

Figure 7 shows the percentage of high technology exports as a percentage of manufactured goods. Unlike South Africa, with a very low percentage of exports of high technological goods, the rest of the selected countries have experienced a high growth of the service sector through the exports of manufactured high technological goods. Exports of manufactured goods constitute, on average, about 50 percent of total exports, thus enabling these economies to trade with the rest world of the world in knowledge-drive products, and have the capability of creating value. The manufacturing and export of high-tech goods also attract FDI. However, increasing exports of high-tech exports may not automatically translate into high value-addition, high wages and salaries, and rising rates of innovation and competitiveness (World Bank, 2007). For instance, if a country exports computers by assembling component components, it will not generate high wages and value-addition, even though computers are high-tech goods



**Figure 7: Exports of high technological goods**

Data source: World Bank (2013)

### Knowledge evaluation techniques

The formulation of techniques to assess the effect of knowledge resources for economic growth has been a challenge. Even though technological progress has advanced, access to information, and knowledge resources have not incorporated self-assessment measures to methodologically evaluate their effect on economic growth. Therefore, there is the need to identify the various methods of assessing knowledge resources of a country, as a means to determine knowledge contribution to growth. Generally, there are three major methods of assessing knowledge resources such as: (1) Knowledge Assessment Methodology (KAM); (2) Growth Competitiveness Index (GCI); and (3) factor analysis.

### Knowledge assessment methodology (KAM)

In 1999, Knowledge for Development (K4D), a subsidiary of the World Bank Institute, introduced a database and a set of indices to examine the progress of various countries on the four pillars of knowledge economy, and this became known as Knowledge Assessment Methodology (KAM). KAM is a web-based instrument which provides a total examination of the various key determinants of knowledge economy, and gives a rudimentary analysis of the countries and their preparedness to become knowledge economies. By applying the four-pillar framework, KAM assists countries to identify and evaluate their strengths and weaknesses by conducting a trend of their economic performance and cross-country comparisons. KAM aims at creating awareness among policy makers on the importance of knowledge in promoting growth and development,

and advises them to harness knowledge to acquire comparative advantage (World Bank, 2008).

KAM utilizes 80 structural and qualitative variables, which are denoted as surrogates for the aforementioned four KE pillars, for making comparison across countries. Since the variables used possess various measurements, time periods, frequencies and scales, K4D usually normalizes them on an ordered scale from 0 (representing weakest) to 10 (representing strongest). By the close of 2010, KAM had increased its coverage to 128 countries and 9 regional groupings. Charts and figures are the major means for illustrating the results of countries evaluated and compared.

KAM evaluates a picture performance of countries or regions on the four KE by using a 'fundamental scorecard'. The scorecard comprises of 14 standard variables: 2 performance variables for measuring GDP growth, and the Human Development Index of a country; and 12 knowledge resource variables. These variables are utilized due to their availability on time series basis, and most of the countries involved are capable of providing regular updates on them (World Bank, 2008). In addition, KAM includes three economic and institutional variables which represent openness, government efficiency and the quality of the rule of law. Furthermore, the education variable is represented by the number of students who graduate from the various levels. The diffusion of communication tools, such as telephones, computers, and internet, represent ICT variables. Finally, the innovation variable is measured using R&D. Table 2 shows KAM scorecard variables.

**Table 2: KAM basic scorecard variables**

Performance	Average annual GDP growth (%)
	Human Development Index
Economic incentive and institutional regime	Tariff and nontariff barriers
	Regulatory quality
	Rule of law
Education and human resources	Adult literacy rate (% age 15 and above)
	Secondary enrollment
	Tertiary enrollment
Innovation system	Researchers in R&D, per million population
	Patent applications granted by the USPTO, per million population
	Scientific and technical journal articles, per million population
Information infrastructure	Telephones per 1,000 persons (telephone mainlines + mobile phones)
	Computers per 1,000 persons
	Internet users per 10,000 persons

Source: KAM version 2006

Table 3 presents the knowledge economy index (KEI) 2012 ranking for the top ten economies and South Africa. Sweden is ranked first as the most advanced knowledge economy of the world, with a 2012 KEI of about 9.43. Sweden's position is attributed to its strength in innovation and ICT, in which it ranked as second in both pillars. It obtained a great competitive edge in ICT due to an increase in the number of internet users. Sweden is equally most competitive in all the innovative indicators, such as royalty payments and receipts, science and engineering journal articles, as well as patents. However, in the education sector, Sweden fell from the third place in 2000 to the sixth position in 2012, attributed to a minimal decline in secondary and tertiary enrolment rates. South Africa declined in its performance mainly due to deterioration in its ICT and education pillars, low royalty payments and receipts, and a decline in scientific and engineering journal articles. For instance, the number of scientific and engineering journal articles published per thousand people declined from 2, 915.5 to 2 863.6 between 2011

and 2012 (World Bank, 2013). South Africa also registered low scores on the economic incentive regime attributed to the diversion of public funds, huge waste in expenditure, reduction in public trust in public office holders, continual increase in crime and high rates of tensions that exist in labour-employer relations (World Economic Forum [WEF], 2014).

**Table 3: KAM3 2012 Knowledge Indexes Top 10 economies and South Africa**

Country	KEI Rank	KEI	EIR Rank	Economic Incentive Regime Index	Innovation Rank	Innovation Index	Education Rank	Education Index	ICT Rank	ICT Index
Sweden	1	9.43	4	9.58	2	9.74	6	8.92	2	9.49
Finland	2	9.33	2	9.65	3	9.66	11	8.77	6	9.22
Denmark	3	9.16	3	9.63	5	9.49	15	8.63	13	8.88
Netherlands	4	9.11	19	8.79	7	9.46	12	8.75	5	9.45
Norway	5	9.11	8	9.47	17	9.01	3	9.43	17	8.53
New Zealand	6	8.97	14	9.09	22	8.66	1	9.81	23	8.3
Canada	7	8.92	7	9.52	10	9.32	16	8.61	24	8.23
Germany	8	8.9	13	9.1	12	9.11	23	8.2	8	9.17
Australia	9	8.88	23	8.56	19	8.92	2	9.71	22	8.32
Switzerland	10	8.87	6	9.54	1	9.86	41	6.9	7	9.2
South Africa	65	5.21	64	5.49	44	6.89	81	7.47	98	7.36

Source: KAM 2012. Reconstructed from the KAM's "KEI and KI indexes" mode ([www.worldbank.org/kam](http://www.worldbank.org/kam))

## THE PROCESS OF BUILDING A KNOWLEDGE SECTOR

Many economies have grown rapidly from universal poverty, to varying degrees of prosperity, which may be attributed to their ability to access knowledge. To understand

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<sup>3</sup> The World Bank's Knowledge Assessment Methodology (KAM) is an online interactive apparatus which generates Knowledge Economy Index (KEI). The KEI is a cumulative index denoting a country's or region's total readiness to take part in the Knowledge Economy (KE). The KEI is computed based on the average of the four pillars of the knowledge economy.

the process through which knowledge drives prosperity, it is important to evaluate countries which have been successful in transforming their economies through knowledge. There is evidence of case studies emanating from advanced countries to the transitional and developing countries.

With respect to the advanced economies, Finland has been accorded the most competitive country of the world, followed closely by Canada and Australia. In addition, the Republic of Korea and Ireland have made strides in establishing policies on KE which have transformed their economies in the recent decades.

At the middle-income economy level, countries such as Chile, Costa Rica, Malaysia, Tunisia, Mauritius and Botswana have introduced varied policies and reforms on knowledge acquisition by attracting foreign investment and creating environment conducive for the spread of ideas. China and India are regarded as the emerging giants of the world economy, whose economic might is determined by the selective application of KE approach.

The transitional economies, Estonia particularly, have introduced economic reforms and knowledge-based policies to transform their economy. Furthermore, low-income countries, such as Vietnam, Mozambique, Uganda and Rwanda, have embraced globalization, undertaken economic reforms and instituted policies conducive for knowledge dissemination, which has brought transformation to their economies. The vast experiences amassed by these countries provide good solutions to questions such as *what to do to build a knowledge economy and how it should be done*.

## **CASE STUDIES OF KNOWLEDGE ECONOMIES**

### **Case 1: Finland**

Within a decade, in the 1980s to 1990s, Finland has transformed itself from an investment-driven economy to a knowledge economy. Based on this, the Global Competitive Report of the World Economic Forum (WEF) has ranked Finland the number one most competitive country since 2001. Finland is also ranked among the top economies applying the indicators of knowledge economies. Finland's competitiveness,

and as a knowledge economy, was driven largely by factors such as education, technology, efficient and incorruptible public institutions, liberalization of the economy, including the adoption of a flexible exchange rate, and integration into the European Union.

The current status of Finland was not accomplished by chance. The country has undergone three stages of industrial and economic development: the resource-driven, investment-driven, and knowledge-driven stages (World Bank Institute, 2006). The resource-driven stage for the Finnish spanned from the mid-1800 to 1930. At this stage, the principal drivers of competitive advantage were based on the basic factors of production, such as timber resources, minerals, hydropower, and rivers for transportation. Since the Finnish's economy was agrarian based, a huge percentage of its exports were primary in nature, and was thus highly susceptible to fluctuations in commodity prices in the world market.

The investment-driven stage of the Finnish's economy occurred between the early 1950s to the late 1980s. During this period, firms acquired competitive advantage through aggressive investment in very modern and effective production methods and infrastructure. The drive to be recognized as the most efficient firms made them acquire the most efficient technologies available. By this drive, the firms did not only import foreign technologies, but improved and modified them to suit their demands. Most of the investment expenditures covered manufacturing of paper-making machinery, energy technology, and establishment of industries of engineering nature to enhance economies of scale and energy efficiency (World Bank Institute, 2006).

The knowledge-driven stage of the Finnish's economy started in the late 1980s and was connected to the evolution of ICT. Finnish ICT was strongly connected to the wood and metal industries. The overall industrial and economic policies focused on four fundamental issues which included: (1) development of domestic knowledge; (2) investing in indigenous innovation; (3) relying on domestic R&D technologies and (4) manufacturing products completely meant for new markets. The primary aim of policy makers was to move from the market intervention into upgrading and making innovative products, as well as maintaining a conducive business environment. The outcome of



these policies was the establishment of Linux and Nokia, as global communication giants. By the close of the 1990s, Finland emerged from being one of the least, to becoming one of the most advanced countries in ICT.

### **Case 2: South Korea**

By the close of the World War II, South Korea's GDP was as low as those of African countries and other parts of Asia. Its only fundamental asset was the high basic school enrolment highly sponsored by government. However, in early 2006, its GDP per capita had become almost equal to some countries of the European Union, and 20 times higher than any African country.

Just like Finland, South Korea, had to go through some fundamental structural and economic policy changes in order to accomplish its current status. Firstly, South Korea built an export-oriented industry through the manufacturing and exporting of light industrial goods, such as textile and bicycles, in the 1960s (World Bank Institute, 2006). Secondly, South Korea established a self-reliance growth base, by venturing into heavy industrial activities, such as ship building, automobiles, chemicals and electronics, in the 1970s. To accomplish this, it had to acquire the required technology by means of licensing and manufacturing of genuine equipment by contracts. Most of the businesses were owned by private family entrepreneurs known as *chaebol*. These businesses were highly supported by policy makers through both tariff and non-tariff barriers, such as import tariffs, industrial regulation, technology upgrades, training, preferential credits, export subsidies and import restriction. In the third phase of its economic development, which took place in the 1980s, South Korea undertook an expansion of technology-intensive industries.

The examples of Finland and South Korea indicate that the quest for a knowledge-driven economy can be accomplished through the implementation of major policy issues to improve variables, such as human capital development and education, transforming innovation and enterprise upgrading system, infrastructure and telecommunication technologies development, conducive investment climate, economic and institutional reforms and adjusting policy actions to development levels.

The following subsections highlight and explain how developing countries, such as African, can adopt such strategies to attain the status of knowledge-based economies.

### **Human capital development and education**

Human capital development, knowledge and innovation are strongly correlated with higher education. Higher education augments the stock of human capital and enhances the efficiency of a labour force, leading to increased productivity. Most growth studies capture education as a key driver in the differences in productivity across countries. Higher education develops human capital through numerous media, such as increasing literacy, training and increasing the number of engineering graduates, developing semiskilled capacity, changing the mindset of people needed for KE strategies, increasing research productivity, developing highly skilled labour in strategic fields, such as Information technology, developing lifelong learning systems and improving the general attitudes that should inspire KE strategies (World Bank, 2008).

### **Transforming innovation and enterprise upgrading system**

According to Kuznetsov and Dahlman (2008), an innovative system comprises a linkage of organizations, regulations, and processes that influence the techniques of acquisition, production, the dissemination and application of knowledge by a country. Organizations relevant in the production of knowledge include universities, research institutions and policy 'think tanks'. The private sector is a key determinant of knowledge and innovation. Thus, the effective mass production of knowledge is influenced by the networking and interactions between private organizations and institutions. The development of essential knowledge activities, such as biotechnology, ICT, expenditure on R&D, patenting activity and the number of researchers per 10, 000 population, which are termed as the basic indicators of a country's ability to produce new knowledge, should be upgraded and transformed. To be applicable to most firms, innovation and enterprising upgrading system should be undertaken in an all-encompassing way to motivate firm-level learning and productivity. Table 4 indicates appropriate policy interventions which correlate with the abilities of four types of firms.

**Table 4: Tools to assist innovation by type of firm**

Type of firm	Policy objectives	Instruments and interventions
<b>Survivor-oriented enterprise</b>	To design primary competitive abilities of firms via the creation of the level and relevance of innovation	Provide business support and advisory Expedite firm access to cheap finance Effective management and the development of basic skills
<b>Minimum technology firms agenda</b>	To nature competition through the application of elementary innovative capabilities and stimulate the acceptance and usage of new technologies	Provide assistance for the expansion of businesses Provide avenues for diversifying customer base Diversification of production and improving quality of products Adopt cluster-base technique to enhance innovation Provide internet-based information service Create awareness for the application of internet technology Expand and market technological products
<b>Technologically competent enterprises</b>	To assist the development of new markets and provide access into global value chains by promoting strategic pacts and in-house innovative abilities	Provide export subsidies and new market development support Market internet services Ensure transfer of technology Provide connection between academia and industry Provide technical assistance and consultancy in areas such as intellectual property rights, patents and licensing Supply chain management Provision of business core competencies and leveraging
<b>Advanced firm</b>	To improve the global value chains by promoting in-house innovation abilities and planned agreement  To disseminate activities of ground innovation breakers as role models for the people of a country	Provide financial assistance to firms to participate in international R&D networks and technological fairs Technological adoption and usage of byproducts Support for the commercialization of research and other technological break-through Intensify university-industry collaboration Provide incentives for innovative leaders to take advisory role strategic nation agencies, technological debate and fairs

Source: Adopted from Kuznetsov and Dahlman (2008)

## **Infrastructure and telecommunication technologies development**

The development of a formidable information and communication technology (ICT) infrastructure is relevant for the effective trading of information in the world economy. ICT provides new opportunities to tackle basic knowledge gaps which typify the low growth rates and increasing rates of poverty in many developing countries. The development of variant technologies in the past few decades have influenced wide-ranging socio-economics activities, such as manufacturing, agriculture and services. To effectively set up ICT infrastructure certain basic requirements are needed and this include a strong legal and regulatory system, an active participation of the private sector, strong and dynamic leadership from government, a reliable pilot programme, formidable institutional capacity and effective coordination among state agencies on ICT (World Bank, 2007).

## **Conducive investment climate**

The required conducive investment climate to stimulate the flow of foreign direct investment (FDI) into the ICT sector is determined by the existence of political stability, respect for the rule of law, transparent governance structures and an incorruptible legal system. According to the World Bank (2007), about 80 percent of less developed countries sold part, or the whole, of their telecommunication network system to raise the required FDI to invest in their ICT sector. For instance, Mauritania maintained a conducive climate which attracted the inflow of FDI amounting closely to \$100 million for the development of the telecommunication sector from 1998 to 2001. This generated more than 20-fold telephone line access, and the 6,000 new jobs in the telecommunication sector became a model example (World Bank, 2007). Above all, the industry expanded the number of people with critical skills needed for national development. Again, a conducive investment climate supported the South Korean government to successfully borrow hugely from international capital markets to develop selected industries, such as the ICT sector.

## **Economic and institutional reforms**

To build a knowledge-economy, a nation must possess an excellent economic and institutional regime capable of attracting investment related to the knowledge pillars. Institutional regimes, such as a regulatory agency, support the functioning of fair

competition, which removes excessive barriers to market entry, enforces rules and contract, provide guarantees and dispute-resolution strategies to both domestic and foreign investors, as well as protect consumers. The regulatory body needs to be independent and transparent, and should be tailored to support the penetration of ICT. It should be able to accelerate the pace of distributing the most suitable and cost-effective robust technologies. Independent regulatory institutions have been successfully established in the most advanced and knowledge-driven economies, even through a series of cumbersome processes.

Therefore, to build knowledge economies, developing countries are equally required to go through these difficult processes to effectively establish independent regulatory agencies to drive the agenda of knowledge-led growth. The difficult process of setting up these agencies has slowed down their establishment. For instance, by the close of 2003, 10 out of 47 countries in Sub-Saharan Africa, did not possess independent regulatory agencies (World Bank, 2007). Those regulatory bodies that had been set up were characterized by weak capacity, political interferences and ill-defined mandates, which has made them ineffective.

The case of Botswana is an excellent example of a country which had a smooth transition from colonization to modernity through good governance and economic and institutional reforms. The government instituted a long-term development plan which assisted in channelling proceeds from the sale of minerals into viable investment ventures. The introduction of a trade liberalization policy opened up the country to foreign competition, and assisted the country to access non-mineral markets (World Bank, 2000). The exchange rate flexibility policy adopted by the country further provided stability in international trade, and thus prevented the situation of an overvalued currency. Above all, the government ensure prudent public spending which brought significant fiscal policy discipline (World Bank, 2000).

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**COMPETENCIES NEEDED TO STRENGTHEN THE CAPACITY FOR  
SUSTAINABLE LOCAL ECONOMIC DEVELOPMENT**

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**ABSTRACT**

The 1996 Constitution of South Africa assigns a dynamic role to local government, as an important sphere in its own right, to overcome the serious development challenges facing the South African nation and to establish the foundations for a developmental state. This role includes providing democratic and accountable government at the local level; ensuring the provision of services to local communities in a sustainable manner; promoting social and local economic development; providing a safe and healthy environment; encouraging the active involvement of communities in local structures of governance; and promoting access to the rights enshrined in the Bill of Rights. Despite evidence of progress, there is an overwhelming consensus that local government remains in a troubled state, with many municipalities unable to meet the most basic service delivery needs of their poorest and most disadvantaged communities, resulting, in turn, to the growing incidences of service delivery protests. In response to these concerns, the Department of Trade and Industry (DTI) initiated a capacity strengthening programme, in partnership with the Centre for Local Economic Development (CENLED). Participatory action research (PAR) was used to determine how to redefine the careers of persons working in local economic development (LED) sphere.

**Keywords:** Activity theory, Knowledge transfer; Lifelong learning, Local government, Participatory action research, Sustainable local economic development.

## **INTRODUCTION**

This paper originates from participatory action research (PAR) undertaken in the sphere of local economic development (LED). During 2010, the Department of Trade and Industry (DTI) approached the Centre for Local Economic Development (CENLED) to partner. CENLED is a centre in the School of Economics (SE) within the College of Business and Economics (CBE) at the University of Johannesburg (UJ). CENLED was established in 2008, primarily to build and strengthen capacity at African municipalities, focussing on LED. CENLED also houses the Africa node of the PASCAL Observatory, an international Observatory of Place Management, Social Capital and Learning Regions, hereinafter 'PASCAL'. PASCAL was founded in 2002 to extend the path-finding work on learning regions and cities inaugurated by the Organization for Economic Cooperation and Development (OECD), and were instrumental in arranging preparatory meetings, to establish collaborative partnerships, that developed draft versions of the Beijing Declaration, and the Key Features Framework on learning cities, in 2013. The aim of the CENLED/ DTI partnership was firstly, to develop short learning programmes (SLPs) and qualifications to kick-start a paradigm shift in the thinking of persons working in LED, to prioritise service delivery to communities; secondly, to develop the competence of participants in promoting LED in their work environments in order to benefit local communities through the development of their knowledge and skills in learning areas that are critical to effective LED practice; thirdly to provide a structured mentoring programme to assist participants to transfer learning to the work environment; fourthly to promote the professionalisation of the LED occupation through the registration as LED 'professionals' with a recognised professional body and, fifthly and lastly, to create a body of LED knowledge (Venter, 2012: vii).

In the next section, the theoretical perspectives, in respect of enhancing capacity, will be discussed.

### **Theoretical perspectives to develop and enhance LED capacity**

Section 152 and 153 of the 1996 Constitution of the Republic of South Africa (RSA), legislatively compels local municipalities to effectively promote economic growth and development in local communities (Venter, 2014:722).

Canzanelli (2001:23) described LED as, 'a participatory process that encourages and facilitates partnerships between local stakeholders, enabling the joint design and implementation of strategies, mainly based on the competitive use of the local resources, with the final aim of creating decent jobs and sustainable economic activities'.

Currently, the second National Framework for Local Economic Development (NFLED) 2013-2018 (RSA, 2013) guides the implementation of LED projects in South Africa. Lifelong learning, as an LED driver, flows from this framework and it cuts across all four pillars of the NFLED 2013-2018 (2013:31). The four pillars are: building a diverse economic base; developing learning and skilful local economies; developing inclusive economies, and economic governance. The objectives of the NFLED 2013-2018 are aligned with the objectives of the New Growth Path (NGP, 2010), the National Development Plan (NDP, 2011) and the Industrial Policy Action Plan (IPAP) of South Africa (2013).

Managing and implementing LED is not a traditional role of local government, but out of necessity it has become an increasingly important function (Phutiagae, 2018:159). Local government primarily focused on traditional service delivery functions, such as infrastructure, roads, water, electricity and waste management, but embraced the function of promoting LED and the enabling factors. According to Rogerson (2010:441), partnerships have been propounded as a vehicle for helping local communities in the quest for LED.

LED prospects are influenced by the spatial locations where they operate and the varying capacities in each location (Sacco, Ferilli, Blessi & Nuccio, 2013: 555). Natural endowments and histories of human activities influence choices which are crucial to either enhance practices and prospects, or lead to stagnation (Maskell & Malmberg, 2007:603). Due consideration of the particular special location is thus vital as municipalities respond to the LED imperative. Much criticism has been levelled towards LED, in general, and on the role of municipalities in LED, in particular (Lawson, 2012). According to Venter (2014:722), municipalities are seen as the 'foot-soldiers' of local economic development (LED). However, Hadingham (2013:1) contended that LED practices in municipalities in South Africa (SA) have been operating 'without horns'. This

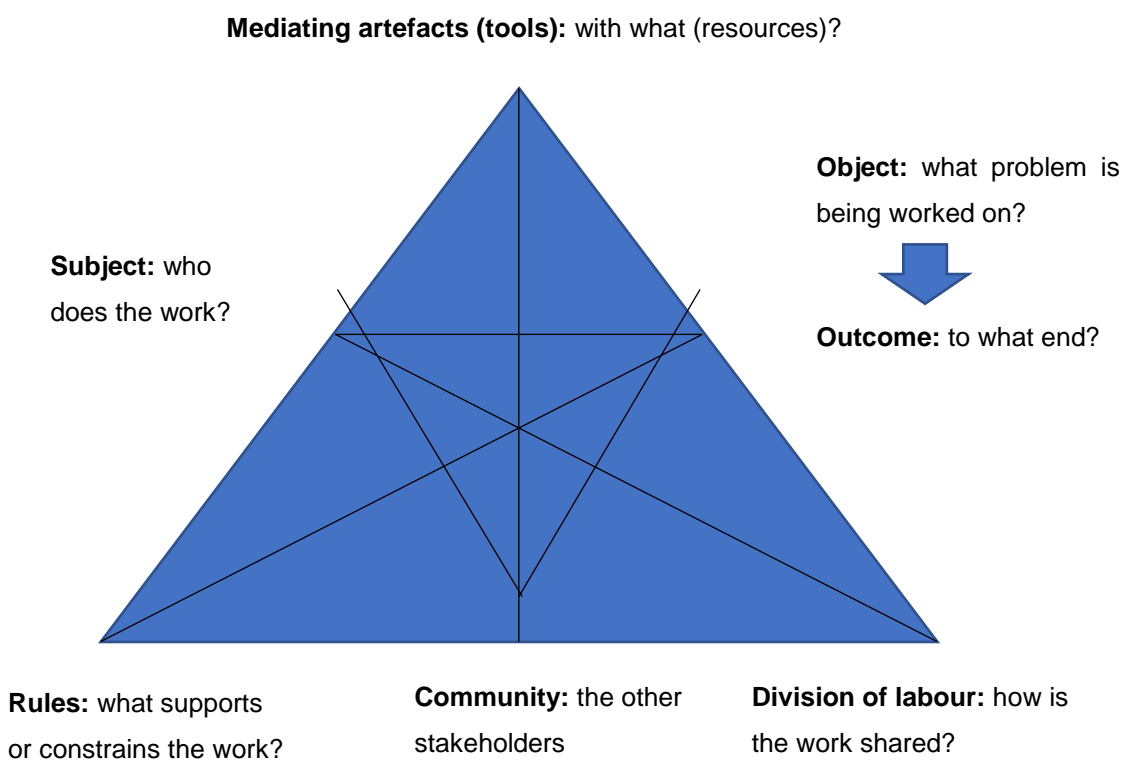
lack of efficiency may be due to what Maskell and Malmberg (2007:606) referred to as lock-in or bureaucratic inertia and resistance to new ideas.

New ideas or innovations have been identified as essential to the improvement of public services and the ability to meet social and economic challenges in the UK (Brown, 2010:1212). Ways to break this inertia may indeed need to be facilitated. In order to achieve this, LED practitioners need to become LED professionals (Venter, 2013: v), to address the capacity challenges for driving LED in municipalities in SA.

Rogerson (2010:455) stated that it is imperative to nurture improved levels of mutual understanding and trust between partners for successful LED partnerships.

As capacity enhancement through lifelong learning is a micro-level response, within complex systems on multiple levels, it may be helpful to have a closer look at the knowledge transfer which may occur through such a developmental process. Development is always a process, and this process may not take place linearly, (Xuza, 2007:117). According to Maskell and Malmberg (2007:609), institutions (municipalities) can sometimes become locked into existing patterns of operation, even in spite of new ideas and external opportunities provided. Exploring these socio-cultural processes of learning and knowledge transfer could provide useful insights when external providers engage with localised learning. Carlile (2004:555) referred to not only sharing knowledge but also assessing domain-specific knowledge. Capacity enhancement implies a dedicated development process from a current state to a desired outcome. According to Engeström (2010:137), theories of learning focus on 'processes where a subject (traditionally an individual, more recently possibly also an organization) acquires some identifiable knowledge or skills in such a way that a corresponding, relatively lasting change in the behaviour of the subject may be observed'. Sabourin (2013:313), however, found in his study that too often relationships are governed by dependency. Even when training takes place, symmetrical relations could be reinforced. Rogerson (2010:442) concurred and noted the contested benefits of partnerships by citing examples where partnerships have not worked effectively. Focusing on principles for enhancing sustainable change may make a contribution for improved efficiency of LED delivery in municipalities.

In trying to break the inertia or lock-in situation in which municipalities may be operating, it may be useful to identify factors influencing the development process. In this paper the activity theory (Engeström 2010) is taken as a point of departure. Activity theory has at its base the notion that learning takes place between diverse actors at individual and systemic levels in complex systems, and in this process, there is potential to reshape organisations (Engeström, 2010:134-135). Worthen (2004:25) contended that it is a generative and technically specific theory which is dynamic in the midst of transformation. Activity theory is illustrated in Figure 1.



**Figure 1: Activity theory**

**Source:** Human activity system (adapted from Edwards, 2014 based on Engeström, 1978:78)

The interacting elements in an activity system include the subject - the subgroup who acts on the object; the tools - which could be material or conceptual; the community of subgroups who share or have a vested interest in the object; the division of labour - the task between people involved in the activity; the rules - the explicit or implicit regulations; norms or conventions that constrain the interaction or action; and the object, which is the

space where the problem is found, at which the activity is directed, which is transformed into the outcome.

Organisations (municipalities) operate as systems and are oriented towards 'what matters' - the object of activity or goal directed activity (Edwards, 2010; Engeström, 2001). In the context of LED, the object of activity would thus be local development. In any complex system, the problem is that the object of activity is spatially located within a historic context, and the tools for addressing the problem may be outdated. In such a case, something is needed to break the log-jam or inertia. Carlile (2004:557) stated that when increased effort is required, the more complex the system. Cognitive constraints tend to make individuals search for limited solutions within their existing frame of reference (Maskell & Malmberg 2007:614). The process of opening individuals in communities to innovative new ideas may require mediation or the facilitation of learning. Engeström (2001:134) pointed to the learning theory of Vygotsky (1978), who spoke of this process of learning as taking place between the subject and object, via a mediated act. McMillan (2009:50) referred to the facilitation of new learning by agents, who help participants make new connections within and across activity systems. A set of meta-tools that allows people to question how the system is functioning is necessary (Edwards, 2011), to find a way for the members of the communities to find a division of labour, which is acceptable to all, in working towards reaching a desired outcome.

In working for capacity enhancement in LED, it may be useful to explore how knowledge development takes place during innovation. Engeström's (2001) work on analysing cycles of knowledge creation in work teams is important to note. Carlile (2004:556) studied managing knowledge across boundaries. He argued that there are different types of knowledge and responsibilities when creating a complex product or service. The three stages (transferring, translating and transforming) in his framework are aligned to other learning theories. At the first level, transferring knowledge, the learning is about technical know-how. This is the least complex level, which only becomes problematic when levels of novelty are required. The second level is that of translating knowledge, which is needed when there is a level of ambiguity, which often arises when others are present. Thus, there is a contested nature of knowledge and this may be resolved by communicative action. The value of critical debate is noted by Guile (2001). There is value in developing

common meaning and negotiating interests in this stage. The final level is that of transforming. This stage results as actors' different interests need to be resolved at a cost to each role-player, which negatively impacts on the willingness of actors to make changes. In this space, Carlile noted the importance of teams, and the role that shared artefacts and methods play in providing the capacity to negotiate interests and transform knowledge (2004:559).

Transforming knowledge is a challenging process, and there is a need for autonomy during education and learning for novelty for this change to be sustainable. This autonomy needs to tie up with development literature, which highlights participation for ownership, as well as the need of empowerment (Sabourin, 2013: 309). The definition of education implies asymmetry in that to educate is 'to give knowledge, to transmit rules and values, to share know-hows' (Sabourin, 2013:301). Sabourin thus highlighted the importance of cooperation for reciprocal learning to achieve objects of material and instrumental value, as well as those of symbolic and ethical value. There is therefore a need for a coexistence and dialectic between the two economic and social principles of exchange and reciprocity. The principle of exchange is mainly motivated by material and instrumental interests, and the principle of reciprocity by the creation and maintenance of social ties, however, always being mediated by the logic of balance (Sabourin, 2013:305). He further noted that symmetrical relations of reciprocity may produce respect, responsibility and autonomy, whereas asymmetrical reciprocity may generate obedience, submission and dependence. Clearly these outcomes will not foster sustainable development.

Both parties need to recognise each role players' distinctive expertise when professionals work together in collaborative work settings. The type of expertise may vary across settings and contexts (Edwards, 2013:33). These partners bring, together with their individual expertise, their relational expertise, which enriches and enhances responses in an intervention. There is, however, bound to be conflict inherent in any educational intervention based on reciprocity. Sabourin (2013:301) contended that cognitive conflicts are important for the development of learning, if it is done in the spirit of a joint search for knowledge. An example of this may be found at Carlile's level of transition and transformation (2004: 556). Relational agency is the capacity to work with others to



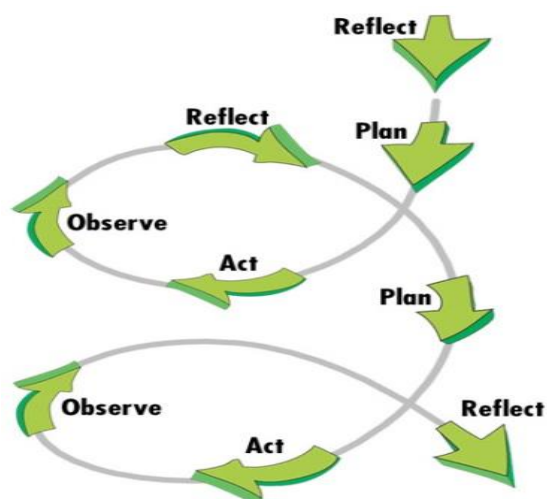
'strengthen purposeful responses to complex problems' (Edwards, 2011:34). Sabourin (2013:313) proposed a focus on instrumental outcomes (training and education) but with a strong emphasis of reciprocity outcomes and of shared values. Balance and respect are therefore needed.

It may thus be helpful to understand the 'dynamic contradictoriness', the nature of the collective relationships, and the customs and rules (Worthen, 2004:27), within which an activity occurs in a system such as a municipality. Knowledge of these elements may help those engaging in capacity enhancement programmes to work more effectively towards sustainability.

In conclusion, the literature accentuates that in order to strengthen the capacity of 'LED practitioners' to become 'LED professionals', lifelong learning and mentoring might be desirable to bring about the much-needed mind shifts in the thinking of persons working in LED.

### **The methodology used in the development of the LED capacity strengthening (enhancement) programme**

The conclusions from the literature motivated the participative action research (PAR) approach. Albertyn, Bester, Botha and van der Merwe (2007:10) described that Swanepoel (1997:153) was of the opinion that participative action research (PAR) has a twofold objective, namely to produce knowledge and action directly beneficial to a community, and to empower people through the process of constructing and using their own knowledge. Figure 2 depicts the PAR stages.



**Figure 2: The PAR phases**

**Source:** Kember, D. and M. Kelly. (2000-2014). "Action Research"; *The Overview of Action Research*.

A summary of the results of phase one and two of the PAR phases are discussed in this section. Structured interviews were conducted with a hundred (100) LED heads of municipal LED units, as well as with representatives of major LED stakeholders, including the South African Local Government Association (SALGA), the Department of Co-operative Governance (CoGTA), the Local Government Sector Education and Training Authority (LGSETA), the Development Bank of Southern Africa (DBSA), the Industrial Development Corporation (IDC) and the South African LED Network. The persons working in LED were randomly selected from 280 municipalities. The interviews were conducted confidentially. During the interviews, the following guidelines evolved as indicators of good LED practice: local municipalities are the key LED implementation agencies of government, with the following responsibilities:

- to ensure that social and economic development is prioritised within the municipal Integrated Development Plans (IDPs);
- conduct local economic regeneration studies as part of the IDPs;
- establish capacity within the municipality to promote interdepartmental collaboration;
- establish an LED Forum within the community to mobilise the efforts and resources of local stakeholders around a common vision;
- build and maintain an economic database to inform decisions and act as an 'early warning system' for the municipality;
- identify and market new economic opportunities; create an enabling environment for local businesses through efficient and effective service and infrastructure delivery;

- improve the quality of life of and facilitate economic opportunities for people living within the municipality by addressing infrastructure and service delivery backlogs;
- develop an understanding and communicate the complex local economic relations, limitations and advantages to key role players;
- network with key sectors and role players to create partnerships and projects;
- motivate and support individuals, community groups to initiate and sustain economic initiatives;
- mobilise civil society to participate in LED and encourage public participation; and
- establish sector linkages and clustering of economic activity.

The following capabilities were identified of a person working in LED:

- strong analytical ability;
- ability to analyse and interpret economic data;
- critical thinking;
- ability to work under pressure;
- ability to demonstrate high levels of innovation;
- ability to organise and prioritise own work within the project timetable/timelines;
- effective team work;
- ability to compile reports;
- collate information for the submission of monthly performance reports;
- ability to collect; analyse and interpret critical community data and information;
- ability to manage project budgets;
- office and computer skills (for example: MS Word, Excel and PowerPoint);
- ability to identify local, regional, national or international problems and opportunities;
- conceptualisation, implementation, monitoring and evaluation of projects;
- communication skills for example: written skills to do emails, letters, reports, presentations and case studies;
- ethics framework;
- undertaking strategic planning;
- facilitating local events for example; meetings and workshops;
- stakeholder engagement;
- collaboration;
- self-reflection;
- leadership;
- team-building;
- assessing of cultural and community assets;
- technology awareness;
- cost-benefit and value chain analysis;
- enterprise development;
- conflict resolution; and
- municipal capacity assessments.

The following proposed job functions outlined in Table 1 were identified from the interviews:

**Table 1: Proposed job functions**

<p><b>Strategic leadership function</b></p> <p>Develop an economic development policy and/or strategy and an implementation plan in accordance with the NFLED aligned with national and provincial strategies and policies</p> <p>Develop an annual plan for the operations of an LED unit</p> <p>Make written submissions to national, provincial or regional agencies in respect of strategic, policy or regulatory documents that have an impact on LED</p> <p>Establish forums for promoting LED (for example for business organisations or informal traders) and oversee the forum so that they promote LED programmes and projects</p> <p>Conduct research that will inform LED strategies and implementation plans</p> <p>Develop and/or drive the implementation of the LED policy</p> <p>Take actions to promote the strategic positioning of the LED unit in relation to the broader organisation or external entities.</p>
<p><b>Organisational management functions in a LED unit (or organisation)</b></p> <p>Serve as the Manager/HOD of the LED unit responsible for managing the operations and staff</p> <p>Perform the core management functions of planning, organising, leading and control</p> <p>Compile a resource plan for the LED unit, which includes human, financial and other resources required to the achieve the unit's objectives</p> <p>Establish (or revise and improve) and manage and control the implementation of systems and process for ensuring the effective and efficient management of the unit, which cover inter alia administration, communication, record keeping and reporting</p> <p>Take actions to promote the LED unit on local, regional or national level</p> <p>Take actions to promote ethical practices in the unit and/or take actions against unethical practices/conduct</p> <p>Identify and contract external service providers that are required to assist the LED unit in achieving its objectives and monitor, evaluate and report on the contribution of external service providers to the unit and take corrective action, where necessary</p> <p>Take actions to manage change in the LED unit to promote a smooth and non-disruptive change process.</p>
<p><b>Financial management functions</b></p> <p>Compile a budget for the LED unit</p> <p>Compile a budget for LED programmes and/or projects</p> <p>Establish (or revise and improve) and implement systems/processes for ensuring effective financial management in the LED unit</p> <p>Compile reports on expenditures</p> <p>Prepare and implement a plan for the efficient use of financial resources, and/or report on the success/lack of success in implementing the LED plan</p> <p>Control the operational and capital budgets of a LED unit.</p>
<p><b>Marketing and investment promotion</b></p> <p>Identify and analyse potential areas for economic growth, business opportunities and investment promotion, record and disseminate the findings, and record the feedback on the findings from decision makers and/or stakeholders</p> <p>Develop and implement a plan for promoting a conducive environment for economic activities and investment promotion, and monitor and report on the success of the implementation of the plan</p> <p>Initiate and implement actions to market/promote LED programmes/projects in order to gain financial and/or other support</p>

Develop a plan and take actions to attract investment
<p><b>Reporting functions</b></p> <p>Monitor and control the accurate recording and reporting of data and other information relevant to the functioning of the LED unit</p> <p>Compile regular, quarterly and annual reports on the LED programmes/projects and overall performance of the LED unit</p> <p>Compile reports on a feasibility studies conducted that records the findings and motivates the benefits and feasibility of the programme/project to the beneficiaries</p> <p>Compile monitoring and evaluation reports or quality control of an LED programme/project</p> <p>Compile a report on the actions taken to implement specific laws, policies or regulatory requirements, indicating the successes achieved in relation to the objectives through implementing the actions</p> <p>Take actions to promote effective communication within the LED unit and between the LED unit and external entities</p> <p>Evaluate the reports/submissions compiled by staff in the LED unit and take corrective actions, where necessary.</p>
<p><b>Staff management functions</b></p> <p>Manage the staff of the LED unit, including participating in developing job requirements and the recruitment and selection of staff</p> <p>Manage the development of staff in the LED unit, including conducting performance appraisals, identifying training and development needs and supporting staff in performance improvement interventions</p> <p>Manage incidents of staff underperformance or incidents that require disciplinary action</p> <p>Manage existing or potential conflict within the LED unit and between staff in the LED unit and external persons</p> <p>Perform other functions related to the management of the staff of the LED unit.</p>
<p><b>Programme/Project management functions</b></p> <p>Conduct feasibility studies/research to determine the potential LED programmes and/or projects</p> <p>Compile reports on feasibility studies or research conducted, with recommendations on the proposed programme/project, which include a motivation for the most viable option, realistic outcomes, estimated benefits and financial calculations, as well as potential risks and mitigating factors</p> <p>Compile plans for LED programmes/projects, which include the objectives, outcomes, targets, activities, responsibilities, timelines and performance criteria</p> <p>Manage the implementation of LED programmes and/or projects, including allocating staff responsibilities and resources, as well as monitoring and evaluating of the LED programmes/projects against the objectives, deliverables and time frames</p> <p>Supervise processes for tracking LED project progress against time frames and take corrective action where projects are not progressing as planned</p> <p>Write proposals to external entities that motivate requests for financial and/or other support for an LED programme/project and document the response to the proposals</p> <p>Compile specifications for a LED programme/project that are required for accessing financial and other resources</p> <p>Compile reports on LED programmes/projects for submission to managers/clients/stakeholders that include quantitative and qualitative information.</p>

**Source:** Interviews conducted during 2011

In response to the data collected, CENLED brought together South African universities, with expertise in LED-related learning areas, to develop the LED SLPs and qualifications. A consortium partnership was entered into with the Cape Peninsula University of

Technology (CPUT), Free State University (UOFS), Tshwane University of Technology (TUT), University of KwaZulu-Natal (UKZN), University of Limpopo (UL), University of Pretoria (UP), University of Stellenbosch Business School (USB-ED), and the University of the Western Cape (UWC).

Using the job functions, the skills and competencies as outcomes, twenty (20) short learning programmes were conceptualised and developed. The SLPs were also internationally accredited by the International Economic Development Council (IEDC).

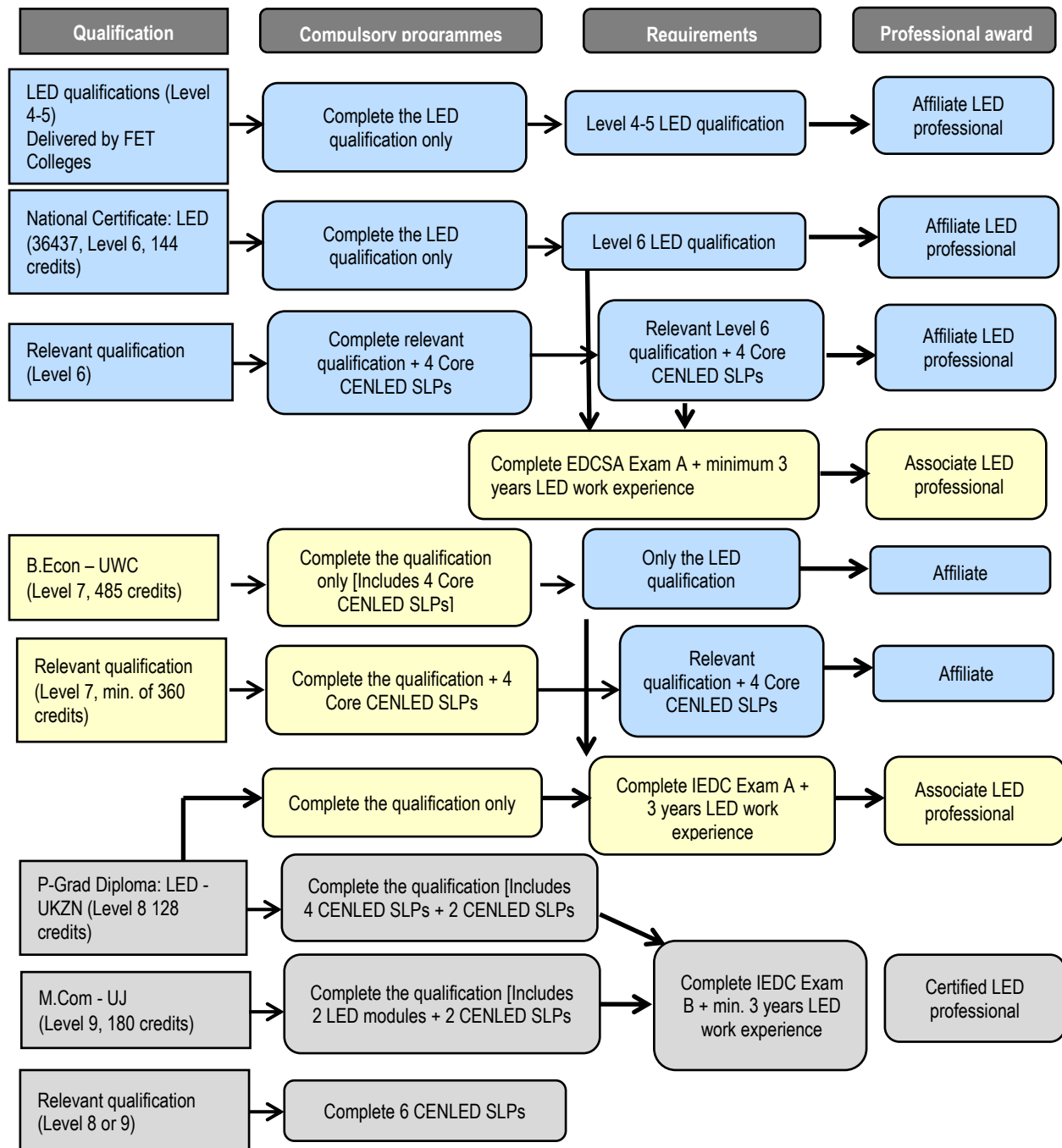
Table 2 below gives an outline of the LED career path that was developed to become an LED 'professional'.

**Table 2: Professional registration and LED programmes & qualifications – NQF Levels 4-9**

CENLED Short Learning Programmes	UWC - B ECON (LEVEL 8)	UKZN: Post-Graduate Diploma in LED (LEVEL 8)	UJ: Professional Master's in LED (LEVEL 9)
<p><b>4 CORE SLPs for Associate status</b></p> <ul style="list-style-type: none"> <li>• Introduction to LED (Level 5)</li> <li>• LED Quantitative Analysis – Compiling a local development profile (Level 6)</li> <li>• LED Quantitative Analysis – Strategies from Statistics (Level 6)</li> <li>• Enabling Mechanisms for LED (Level 7)</li> </ul>	<p><b>YEAR 1: Level 5</b></p> <ul style="list-style-type: none"> <li>• Introduction to LED</li> </ul>	<ul style="list-style-type: none"> <li>• Accounting and Finance for LED</li> <li>• Economics for LED Practitioners</li> <li>• Marketing Management for LED</li> <li>• Interactive LED Research Project</li> <li>• LED and Developmental Government</li> <li>• Strategic and Project Management</li> <li>• Supply Chain Management for LED</li> <li>• Sustainability in LED</li> <li>• LED and Developmental Government</li> <li>• Strategic and Project Management</li> <li>• Sustainability in LED</li> </ul>	<ul style="list-style-type: none"> <li>• Leadership in sustainability</li> <li>• Microeconomic Issues in LED</li> <li>• Macroeconomic Issues in LED</li> <li>• Research Methodology</li> <li>• Research Project in LED topic</li> <li>• Trade and Industrial Policy</li> <li>• Poverty and Inequality</li> <li>• Strategic Planning</li> <li>• Systems Thinking</li> </ul>
<p><b>ELECTIVE PROGRAMMES</b> (Level 8 except where indicated)</p> <ul style="list-style-type: none"> <li>• Applied Trade and Industrial Policy for LED (Level 7)</li> <li>• Managing Economic Development Organisations</li> <li>• Investment promotion for Economic Development</li> <li>• Applied Project Management for LED</li> <li>• South African Business Retention and Expansion</li> <li>• Applied Public-Private-Partnerships</li> <li>• Promoting Local Economic Development through Entrepreneurship and SMMEs</li> <li>• Leadership for Sustainable Economic Development</li> <li>• Applied Strategic Planning for Local Economic Development</li> <li>• Applied Trade and Industrial Policy for LED</li> <li>• Mentor guide for LED</li> <li>• Workforce Development for LED</li> </ul>	<p><b>YEAR 2: Level 6</b></p> <ul style="list-style-type: none"> <li>• Economic profiling and quantitative analysis (Year 2, Level 6) [<i>combining: LED Quantitative Analysis – Compiling a local development profile &amp; LED Quantitative Analysis – Strategies from Statistics</i>]</li> </ul>		
	<p><b>YEAR 3: Level 7</b></p> <ul style="list-style-type: none"> <li>• LED – Regional development and clustering</li> <li>• Industrial Policy [<i>CENLED title: Applied Trade and Industrial Policy for LED</i>]</li> <li>• Enabling Mechanisms for LED</li> </ul>		
	<p><b>ELECTIVES: Year 4, Level 8</b></p> <ul style="list-style-type: none"> <li>• Managing Economic Development Organisations</li> <li>• Investment promotion for Economic Development</li> <li>• Applied Project Management for LED</li> <li>• South African Business Retention and Expansion</li> <li>• Applied Public-Private-Partnerships</li> </ul>		

Source: CENLED, 2013

Figure 3 provides a summary of the professional body's levels to register as an LED 'professional' or Certified Economic Developer.



**Figure 3: Requirements for professional registration**

Source: EDCSA Handbook, 2017: 17-20

The Economic Development Council of South Africa (EDCSA), launched in 2017, recognised all the SLPs and qualifications as part of their continuous professional development (CPD) programme. The impact of the SLPs and the qualifications will be observed and measured in phase 3 of the PAR, as the participants complete the SLPs and qualifications, they will be monitored and mentored to determine the impact.



To conclude, in LED work, the LED professional is confronted with real life issues on a daily basis. These issues can mostly only be solved by facilitating actions to be taken or changes that should be implemented. In order to accomplish this, a cycle of continuous learning, continuous action, continuous reflection, continuous participation, and continuous improvement is needed.

## **CONCLUSION**

This paper endeavoured to show that municipalities have a constitutional mandate to promote and do LED. The SA government has prioritised LED as a key strategy to counter the legacy of inequalities in the country. The aim of the LED programme within government is to support all municipalities in SA in implementing sustainable LED strategies, and to make municipalities attractive places to live, work and play. Local stakeholders, such as business, labour and civil society organisations, should work together in order to enhance LED. LED involves identifying and using local resources to create opportunities for economic growth and employment. Successful LED depends on local partnerships, as well as on national and regional structures to promote and support local initiatives. Lastly, this paper discussed the interventions that were developed to strengthen the capacity of persons working in LED, to increase service delivery in LED to communities.

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