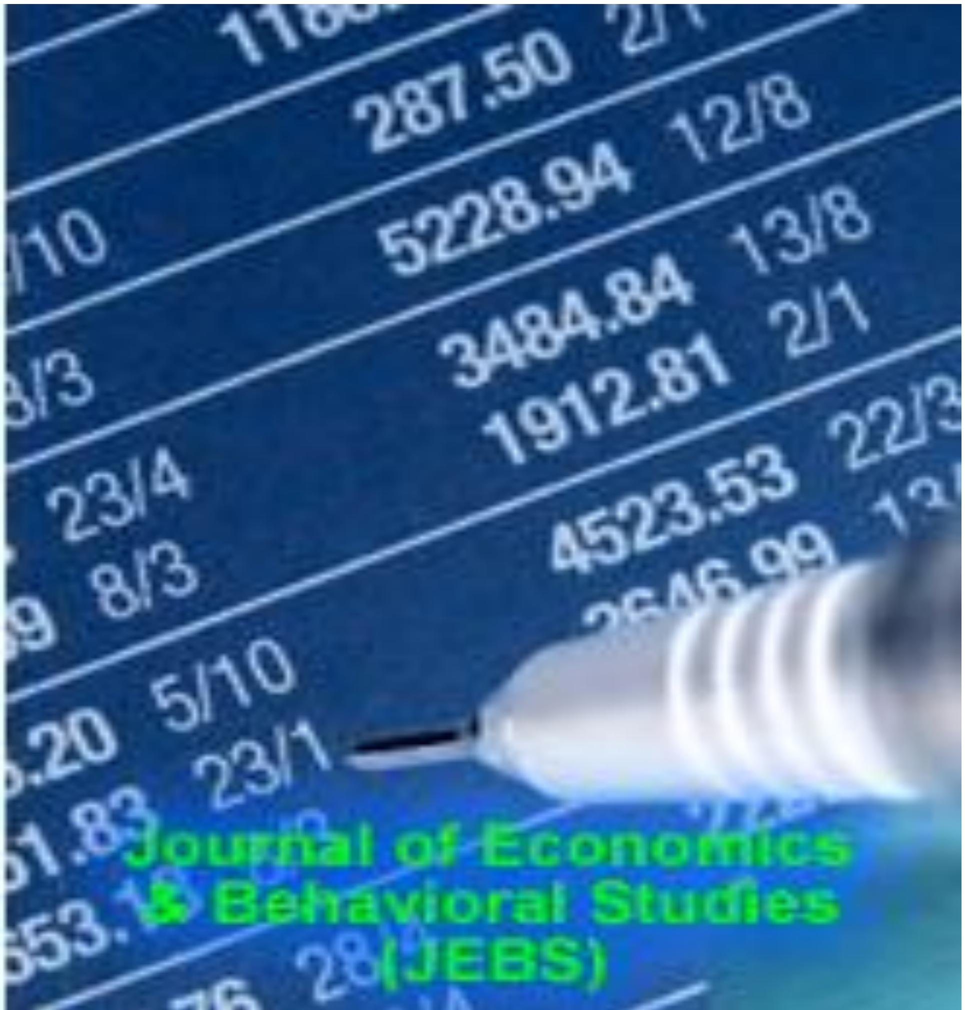

Vol. 9 No. 1 ISSN 2220-6140

Published by

International Foundation for Research and Development
(IFRD)

Editorial

Journal of Econmics and Behavioral Studies (JEBS) provides distinct avenue for quality research in the ever-changing fields of economics & behavioral studies and related disciplines. Research work submitted for publication consideration should not merely limited to conceptualisation of economics and behavioral devlopments but comprise interdisciplinary and multi-facet approaches to economics and behavioral theories and practices as well as general transformations in the fileds. Scope of the JEBS includes: subjects of managerial economics, financial economics, development economics, finance, economics, financial psychology, strategic management, organizational behavior, human behavior, marketing, human resource management and behavioral finance. Author(s) should declare that work submitted to the journal is original, not under consideration for publication by another journal, and that all listed authors approve its submission to JEBS. Author (s) can submit: Research Paper, Conceptual Paper, Case Studies and Book Review. Journal received research submission related to all aspects of major themes and tracks. All submitted papers were first assessed by the editorial team for relevance and originality of the work and blindly peer reviewed by the external reviewers depending on the subject matter of the paper. After the rigorous peer-review process, the submitted papers were selected based on originality, significance, and clarity of the purpose. The current issue of JEBS comprises of papers of scholars from South Africa, Ghana, Nigeria, Zimbabwe, Australia and Oman. Employee retention factors, Nigeria's contributions to the African Union, entrepreneurial barriers, a thematic analysis, stakeholder engagement as a core management function, South Africa's youth unemployment dilemma, influence of brand trust, brand familiarity & brand experience on brand attachment, internal and external factors of future returns in the banking business, nexus of working capital management and firm performance, does financial development lead to poverty reduction, influence of national culture on latent entrepreneurs, behavioural ethics, a review of quality management systems, a robust application of the arbitrage pricing theory, awareness of ecological economics, perceptions on social risk, buying behaviour, effect of psychological capital on entrepreneurial intention, changing the structure of Mpumalanga economy through industrialization, technology-enhanced knowledge management, bank failure prediction model and generation Y-turnover were some of the major practices and concepts examined in these studies. Current issue will therefore be a unique offer, where scholars will be able to appreciate the latest results in their field of expertise, and to acquire additional knowledge in other relevant fields.

Prof. Sisira R N Colombage, Ph. D.
Editor In Chief

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Journal of Economics and Behavioral Studies (JEBS)
Vol. 9, No. 1, February 2017 (ISSN 2220-6140)

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Journal of Economics and Behavioral Studies (JEBS)
Vol. 9, No. 1, February 2017 (ISSN 2220-6140)

Employee Retention Factors: The Case of Hotels in Cape Town, South Africa

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Abstract: High turnover of employees in the hotel sector has been widely reported in academic papers. This high turnover has associated costs, such as financial costs, inconsistency in delivering service quality, and probable loss of customer loyalty. This empirical study investigates hotel employees' responses to statements that relate to work conditions that support employee retention. Selected three, four and five star hotels in Cape Town, South Africa participated in this study. A structured respondent-completed questionnaire was used to collect data that were subjected to descriptive, bivariate and multivariate analyses. Result highlights suggest that hotel employees, dominated by the female population, are mostly not so desperate to leave their employment soon, however not many of them have worked in the hotel for more than five years. There are positive inter-correlations among 'employee retention' factor and other factors that relate to work conditions that support employee retention (compensation, employee development, work engagement, work relations, and working hours). Results also show that 'strict supervision', 'long working hours' and 'perceived unfair salary' are the top major concerns for hotel employees. These findings will enable hotel employers address employee concerns in order to curb the high employee turnover costs. Possible comparative research in other nations and continents will help establish cultural similarities and differences among nations or continents.

Keywords: *Employee retention, employee turnover, Cape Town hotels, hotel sector, sub-Saharan Africa*

1. Introduction

Employee retention in the hotel sector has been a major concern, as several studies have reported high employee turnover in hotels (such as Davidson & Wang, 2011; Mohsin, Lengler & Kumar, 2013; Pearlman & Schaffer, 2013). Researchers (such as AlBattat, Som & Halalat, 2014; Davidson & Wang, 2011; Kuria, Alice & Wanderi, 2012; Mohanty & Mohanty, 2014) attributed the cause of this reported high employee turnover in hotels to be among others: employees' perception of their salaries and benefits being unfair compared with their responsibilities; minimal employee development opportunities; insufficient job involvement or work engagement; poor work relationships between managers and subordinates; and long working hours. High employee turnover has associated costs, such as financial costs (when hotels will have to replace employees), inconsistency in delivering service quality (as the performance of different employees vary), and the likely subsequent loss in customer loyalty (Kuria et al., 2012; Mohanty & Mohanty, 2014; Yam & Raybould, 2011; Yang, Wan & Fu, 2012).In as much as there is much international research on hotel employee retention, the situation in Africa, especially sub-Saharan Africa is not well reported. Mohsin et al. (2013) posit that hotel employee turnover is a global problem, not particular to any given nation. This research explores the relationships between and among employee retention and related work conditions factors that support employee retention in hotels operating in Cape Town, South Africa. It also seeks to explain which variables may support or deter employee retention in the hotel sector, and also check if there are socio-demographic differences among employees regarding how they perceive hotel employment or their willingness to remain in this employment for a long time. South Africa is a highly diverse nation in terms of cultural groups who are South Africans and those who live and work in South Africa. It is usual to classify employees in South Africa, not only as females or males, but also as Black, White, Coloured, Indian and Asian. These cultural groups may also perceive hotel employment and the working conditions differently. The findings of this study will help hotel employers to address employee concerns so as to reduce the high employee turnover costs. It is envisaged that possible comparative research in other nations and continents will help establish cultural similarities and differences among nations or continents. Cape Town is globally renowned as a 'must visit' tourism destination. There are so many hotels of different grades in Cape Town, but this study focuses on three, four and five star hotels, which are relatively larger, have more employees, and likely to employ non-family members in relation to one or two star hotels. The theoretical background of this study is built on literature review of previous academic articles.

2. Literature Review

As stated in the introduction, previous studies pointed at the causes of high employee turnover in hotels to be among others: employees' perception of their salaries and benefits being unfair compared with their responsibilities; minimal employee development opportunities; insufficient job involvement or work engagement; poor work relationships between managers and subordinates; and long working hours (such as AlBattat, Som & Halalat, 2014; Davidson & Wang, 2011; Kuria, Alice & Wanderi, 2012; Mohanty & Mohanty, 2014).

Compensation: Permarupan, Saufi and Mahmud (2013) stated that career is important in life, and employment provides individual with a better sense of purpose, challenges, self-fulfilment and compensation. Nasurdin, Ahmad and Tan (2015) posit compensation as extrinsic rewards which employees receive in exchange for their employment, such as basic salary, incentives or bonuses. Nasurdinet al. (2015) further state that monetary rewards are very relevant to especially frontline service staff working in hotels because these positions are normally associated with low wage and minimal tangible rewards, though working long hours is expected of frontline employees. When employees perceive their salary to be fair, they will make every effort to deliver proper service (Wu, Sturman & Wang, 2013). Fair pay is perceived to improve employee job engagement, and at the same time, decrease job withdrawal (Jung & Yoon, 2015).Till and Karren (2011) therefore stated that pay satisfaction is arguably a function of the difference between perceived pay level and the employees' perception of how much their pay should be. Hence pay satisfaction is determined by fairness of pay and comparison of pay. When employees feel that they are paid fairly, they will be more motivated to deliver higher performance to the organisation than the employees who perceive they are not paid fairly (Ford, Sturman & Heaton, 2012). Employees who feel that promotion opportunities, fair pay and better working hours are lacking in an organisation, are very likely to withdraw their employment (Yang et al., 2012). Wu et al. (2013) posit that where there is no fair compensation system, it is very likely that even a great employee selection system will subsequently fail. Management, therefore, should build reward structures that can attract and retain employees (Mohanty & Mohanty, 2014), especially the talented ones.

Employee Development: Part of management's responsibility is to select, employ, develop and promote their employees, therefore management engage with employees to perform their skills audit and provide development plans, such as coaching, mentoring, and managing individual development programmes (Cloete & Allen-Payne, 2012).Employees expect organizational support and opportunities for growth from their employer institutions, however Kong, Cheung and Song (2012)posit that organizations now expect individual employees to steer their own career development and management. Kong et al. (2012) did not encourage this but admonish organisations to take care of their employees' career management. Human resource managers try to understand the employees' career interest, capabilities and needs (Yang et al.,2012).Baum (2012) relating this to tourism establishments, states that managing and developing employees is a critical function that determines the performance or competitive level of tourism businesses. Nasurdinet al. (2015) argue that employee development in form of training activities does influence employee performance in twofold: (a) the skills and abilities that are relevant to employees' job description and development, leading to greater job performance, and (b) employees' satisfaction and many other positive job-related attitudes, leading to greater show of positive behaviours. Chen and Wallace (2011) have posited that multi-skilling of workers is one of the major ways to increase productivity, so that employees can better fill-in each other's positions when they are unavailable. For employees to benefit from any form of a development program, they should be interested in it and endeavor to participate in it, when given the chance.

Work Engagement: Employees have to be trained first on their jobs, and then be motivated to perform their jobs optimally (Ford et al., 2012). Employees need to be fully involved in their places of work, when possible. Zopiatis, Constanti and Theocharous (2014) discuss employee work involvement as an active participation in employee's job, enabling employees to make work-related decisions. Permarupan et al. (2013) suggest that employees' high work involvement may lead to job satisfaction, increased work outputs and enhanced loyalty to the organisation. Karatepe and Ngeche (2012) did say that engaged employees are known to have high levels of energy, are excited in their job and are mostly absorbed in their work. They (Karatepe & Ngeche) went further to posit that work engagement does lead to excellent performance in the workplace. However Zopiatis et al. (2014) view work involvement as being strongly more related toorganisational commitment than job satisfaction. Chen and Wallace (2011) went further to conclude that employee engagement improves employee productivity and organization's international competitiveness as it does develop the skills and capabilities of workers.

Work relationships: In as much as working with hotel guests can be challenging or difficult, tensions among employees are more evident that tensions that are associated to guests (O'Neill & Davis, 2011). Problems among employees thus have more negative impact on hotel employees' emotion and health than problems with guests(O'Neill and Davis, 2011).High cooperation and related interaction among managers, subordinates, and work colleagues are very important for the hospitality industry (Lee, Teng and Chen, 2015). Solnet, Kralj and Kandampully (2012) advised hospitality managers or owners to constantly enhance the working environment of their workers as this has a direct link to many desirable organisational outcomes, such as customer satisfaction, profitability, and customer loyalty. Working in any organisation requires specific rules to be adhered to (Lam & Chen, 2012). The work culture in hotels involves teamwork, cooperation among team members as well as coaching and mentoring relations that can uproot role ambiguity or role conflict (Kim, Im & Wang, 2015).Employees who have better relationship with the manager may tend to receive preferential treatment, growth opportunities and more intensive support than others who are not (Lee et al., 2015). Favouritism is shunned at in every workplace, as employees constantly demand equity and fairness from managers.

Working hours: Long working hours are said to be among the factors that lead to high employee turnover in hotels. Mohsin et al. (2013) posit that the amount and nature of work expected, scheduled working hours, accompanying job pressures and stress in employee's personal life have impacts on employees' intention to leave the hotel. Stress inhotel employment is often exacerbated by long and irregular working hours, poor job design and role distribution, insufficient training and employee development, excessive workloads, and poor management (McNamara, Bohle & Quinlan, 2011). Also McNamara et al. posit that temporary employees experience lower stress levels than permanent employees. Employee's intention to withdraw his or her employment in a hotel due to long working hours is highly arguable, as working long hours in the hospitality industry is seen as one of the many conditions of the hospitality industry. Long and antisocial working hours are inadvertently among the conditions that are associated with hospitality work environment (Davidson & Wang, 2011). Hwang, Lee, Chang & Kim(2014)concur that some of the common occupational stresses experienced by hotel employees are long working hours and heavy workloads. Davidson and Wang (2011) maintain that hotel sector employees are often not compensated for their long working hours. The next section addresses how the data for this study were collected and analysed.

3. Methodology

The nature of the tourism and hospitality research requires much quantified data to arrive at conclusions (Ezeuduji, 2013; Ezeuduji & de Jager, 2015; Veal, 2011). This study used respondent-completed structured questionnaire survey to obtain data that were analyzed for information on employee retention and related factors. Most of the questions were close-ended and the responses scaled as ordinal variables. Employee retention and related factors' variables were measured along a 5-point Likert Scale (1 to 5; strongly agree to strongly disagree). Other variables are categorical or nominal in nature (employee profile).Questionnaire variables emanated from literature review done. Literature on employee retention or employee turnover identified factors related to employee retention (Jung & Yoon, 2015; Mohsin et al., 2013; Wells &Welty Peachey, 2011); namely employee development(Jung & Yoon, 2015; Kong et al, 2012), compensation (Hong, Hao, Kumar, Ramendran, & Kadiresan, 2012; Jung & Yoon, 2015), work relations (Lee, Teng & Chen, 2015; O'Neill & Davis, 2011), work engagement (Hong et al., 2012; Jung & Yoon, 2015; Karatepe & Ngeche, 2012), and working hours (Davidson & Wang, 2011; Hon, Chan & Lu, 2013; Mohanty & Mohanty, 2014).

A non-probabilistic sampling approach (convenience sampling) was used for this research to recruit respondents from three, four and five star hotels operating in Cape Town. These hotels identified their interest to participate in this research. Within these hotels, 217 employees were randomly surveyed, and from these, 210 returned questionnaires were found usable for data analysis. IBM's statistics software was used for data analysis (IBM Corporation, 2016). First stage of analyses used descriptive analysis (frequencies) for all variables, followed by the second stage of analyses using multivariate analysis (reliability tests) of employee retention variables and related factors' variables. Reliability tests were done to check for internal consistencies among variables used to explain particular factors. The third stage of analyses used correlation test (Spearman's - as all variables were found not normally distributed) to check for relationships among employee retention factor and related factors (compensation, employee development, work engagement, work relations, and working hours). Veal (2011) supported the use of Correlation test to explore relationships between ordinal and/or ranked variables. This study accepted relationships between variables at 99% confidence interval.

Cronbach's Alpha coefficient is used in the reliability tests to predict internal consistency among variables explaining a particular factor (Cortina, 1993; Gliem & Gliem, 2003). The authors Gliem and Gliem (2003) posit that Cronbach Alpha's reliability coefficient does range between 0 to1. The benchmark score to use to determine adequate internal consistency among variables explaining a particular factor has been much debated (authors such as George & Mallery, 2003; Gliem & Gliem, 2003; Nunally, 1978).In as much as George and Mallery (2003) advocated the use of Cronbach's Alpha coefficient of between 0.5 and 0.7 to explain adequate consistency; Tavakol and Dennick (2011) posit that low Cronbach's Alpha scores might result when few variables are being used to explain a factor or when there is a weak interrelation among variables that are being used in the analysis. For this study's reliability analyses, a Cronbach Alpha score of 0.6 or above was accepted owing to the relatively few numbers of variables that were used in each factor (employee retention, compensation, employee development, work engagement, work relations, and working hours). Subsequently, at the fourth stage of analyses, a Pearson Chi-Square test was conducted between employee retention and related variables (recoded into categorical variables) on the one hand and the employees' socio-demographic variables (also categorical), on the other hand (see Veal, 2011). This test was done at 95% confidence interval. The next section discusses the findings of this study.

4. Results and Discussion

Employee Profile: Results from the hotel employee respondents show that females dominate males, and close to 60% of hotel staff is relatively young in age (less than 36 years old). Black and Coloured employees make up more than 71% of the sample, and close to 50% of the employees have no higher than a high school education (Table 1).

Table 1: Profile of the respondents (n = 210)

Variable	Category	Frequency (%)
Gender	Female	63.8
	Male	36.2
Age group	18 – 25 years old	16.7
	26 – 35 years old	41.4
	36 – 45 years old	30.5
	46 – 55 years old	8.6
	56 – 65 years old	2.4
	65 + years old	0.4
Cultural group	Black	35.7
	Coloured	35.2
	Indian	5.2
	Asian	1.4
	White	13.0
	Immigrant	9.5
Highest level of education attained	Matriculation or below	46.7
	College	25.2
	University national diploma or first degree	26.7
	University Master's degree or above	1.4
Number of years working in hotel	1 – 5 years	63.6
	6 – 10 years	19.5

	10 years and above	16.9
Current department	Food & Beverage- food production/food services/room service/convention & catering	20.5
	Rooms- reservations/front office/housekeeping/laundry	45.2
	Personnel- employee relations/recruitment/training	7.6
	Finance / accounting	6.7
	Marketing and sales- sales	4.8
	Maintenance & Security – maintenance / security	9.5
	Other[1]	5.7
Current position	First line staff- reservations/bell service/concierge/valet/waiter/waitress/counter reception	41.0
	Grassroots leader or supervisor	13.7
	Unit chief (deputy manager or manager)	6.7
	Department supervisor	11.0
	General manager	1.4
	Other[2]	26.2

[1] '*Other*' here denotes managerial staff and staff in specialised units such as Spa and games
[2] '*other*' here denotes managerial staff and staff in specialised units such as Human Resource, Spa, Accounts, Kitchen, Maintenance, Housekeeping and Security.

About 64% have not worked in the hotel for more than 5 years, and majority of the employees surveyed are working in the rooms, food and beverage, convention and catering sections.

Employee Retention Factors: From Table 2 results, it can be deduced that hotel employees agreed favourably to most of the employee retention and related factors' statements, however hotel employees raised serious concerns towards 'strict supervision' (about 46%), 'long working hours being a problem' (about 34%) and 'perceived unfair salary in relation to responsibilities' (about 34%) as clear demotivating factors. Good news for hotel managers lie in the results that about 67% of the hotel employees disagreed that 'they cannot wait to leave the hotel', about 63% of them 'feel attached to the hotel', and about 42% 'want to remain in the hotel for a long time'.

Table 2: Employees' level of agreement to employee retention statements (n = 210)

Statements	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1 Employee retention					
1.1 I feel attached to this hotel	24.3	39.0	20.0	10.5	6.2
1.2 It would be difficult for me to leave this hotel	14.8	23.8	32.4	18.6	10.4
1.3 Working in this hotel is a labour of love for me	18.1	36.7	28.6	10.5	6.1
1.4 It would be easy for me to leave this hotel	9.1	22.5	30.1	23.4	14.9
1.5 I want to remain in this hotel for a long time	20.0	22.4	26.7	19.0	11.9
1.6 I cannot wait to leave this hotel	8.2	5.8	18.8	33.6	33.6
Reliability Statistics (employee retention), Cronbach's Alpha =.857, N of Items = 6					
Valid cases = 207(98.6%), Excluded cases = 3(1.4%), Total = 210					
2 Compensation					
2.1 The amount of pay I receive in this hotel is the industry wage for my position	15.2	42.8	21.0	11.0	10.0
2.2 My monthly salary in this hotel is not satisfactory	10.5	19.0	23.8	35.2	11.5

2.3 My salary in this hotel is fair for my responsibilities	7.1	35.2	23.8	20.0	13.9
2.4 Benefits provided as a package in this hotel (e.g. sick leave, maternity & paternity) give me stability	25.2	46.2	19.0	6.2	3.4
2.5 My pay in this hotel is not necessarily subject to organisational performance	10.5	30.5	33.3	19.0	6.7
2.6 Employee initiative in this hotel is always compensated	12.9	29.5	31.0	16.6	10.0
Reliability Statistics (compensation), Cronbach's Alpha =.676, N of Items = 5 (when item 2.5 in the Table – 'pay', is deleted)					
Cronbach's Alpha =.616, N of Items = 6 (when all items in the Table are included)					
Valid cases = 210(100%), Excluded cases = 0(0%), Total = 210					
3 Employee development					
3.1 If I do good work in this hotel, I can count on being promoted	21.9	28.6	19.5	17.6	12.4
3.2 I did not receive extensive customer service trainingin this hotel	7.1	9.5	21.9	39.0	22.5
3.3 Continuous training is provided in this hotel	31.4	42.9	10.0	5.7	10.0
3.4 Support for my long term career development is provided in this hotel	20.0	36.2	20.0	11.9	11.9
3.5 My supervisors in this hotel explain the key success factors on the job	23.8	43.3	15.7	7.6	9.6
3.6 This hotel has opportunities for skills development	32.9	33.3	12.9	10.5	10.4
Reliability Statistics (employee development), Cronbach's Alpha =.829, N of Items = 6					
Valid cases = 210 (100%), Excluded cases = 0(0%), Total = 210					
4 Work engagement					
4.1 In my job in this hotel, I have sufficient opportunities to use my initiative	15.2	48.6	19.0	10.5	6.7
4.2For a large part I determine how I work in this hotel	11.9	39.5	26.2	12.4	10.0
4.3I am not empowered to solve customer problems in this hotel	6.2	13.8	20.0	42.9	17.1
4.4I am not strictly supervised or controlled in this hotel	8.6	23.8	21.9	25.7	20.0
4.5I enjoy meeting and serving customers in this hotel	49.5	37.6	8.1	3.3	1.5
4.6I am afforded an opportunity to decide how to do my work from time to time in this hotel	22.4	41.9	16.7	9.5	9.5
Reliability Statistics (work engagement), Cronbach's Alpha =.639, N of Items = 6					
Valid cases = 210 (100%), Excluded cases = 0(0%), Total = 210					
5 Work relations					
5.1 I have a good working relationship with my supervisors in this hotel	30.0	42.4	11.4	8.1	8.1
5.2 I work very well with everyone in this hotel	43.3	42.9	8.6	3.8	1.4
5.3 I enjoy good communications with my supervisors in this hotel	28.1	41.0	15.7	8.1	7.1
5.4 I enjoy good communications with my colleagues in this hotel	48.1	42.9	8.1	0.5	0.4
5.5 I think of the workplace as my second home and my colleagues as my family in this	29.5	33.3	20.0	10.5	6.7

hotel					
5.6 I have good working relationships with my colleagues in this hotel	41.4	43.8	12.9	1.4	0.5
Reliability Statistics (working relations), Cronbach's Alpha =.803, N of Items = 6					
Valid cases = 210 (100%), Excluded cases = 0(0%), Total = 210					
6 Working hours					
6.1 My working hours are adequate in this hotel	17.1	51.4	17.6	7.6	6.3
6.2 My job schedule in this hotel does not interfere with my family life	11.4	36.2	22.9	18.1	11.4
6.3 In this hotel, I am given enough time to do what is expected of me in my job	19.0	47.6	19.5	6.7	7.2
6.4 Working hours in this hotel infringe on my personal quality time with friends	10.0	21.0	28.6	27.6	12.8
6.5 Long working hours are not a problem to me	11.4	30.0	24.8	21.0	12.8
6.6 The hotel's long working hours are unreasonable	6.2	18.6	22.4	34.3	18.5
Reliability Statistics (working hours), Cronbach's Alpha =.717, N of Items = 6					
Valid cases = 210 (100%), Excluded cases = 0(0%), Total = 210					

These numbers may not be highly satisfactory, however it shows some level of commitment towards the hotels by the respondents and gives hope to the employers that the work conditions in the hotels are not very alarming. Regarding the negative result on 'strict supervision', Cloete and Allen-Payne's (2012) suggested coaching and mentoring would be adequate development plans to be harnessed in hotels over the long-term to develop employees to the level where they will no longer require strict supervision to do their work satisfactorily. Without proper training, employees may not be able to perform their jobs optimally (Ford et al., 2012). Strict supervision can be implemented at the early phase of employment, but not on the long-term, else employees will become demotivated, having someone to 'look over their shoulders' all the time. This study's employees concern on strict supervision can be redirected to employee engagement. Karatepe and Ngeche (2012) advised hotel managers to engage or involve their employees in the hotel operations and decision-making, as engaged employees are known to have high levels of energy, are excited in their job and are mostly absorbed in their work. They posit that work engagement does lead to excellent performance in the workplace.

This study results are similar to Mohsin et al. (2013) finding that long working hours and the accompanying job pressures and stress in hotel employee's personal life have impacts on employees' intention to leave the hotel. The hotel sector is associated with long and antisocial working hours (Davidson & Wang, 2011). Hwang et al. (2014) posit that some of the common occupational stresses experienced by hotel employees are long working hours and heavy workloads. Davidson and Wang (2011) found that hotel sector employees are often not compensated for their long working hours. This study argues that when employees accept a job in a hotel, they are usually advised that they may have to work long hours and over the weekends. When employees need a job desperately, they are likely to accept whatever is on offer, no matter the conditions attached to it. However those with hospitality education and those who truly want to work in hotels know that this condition exists not only in the hotels but in other businesses operating within the hospitality industry. This study therefore posit that fairness in hotel employment can be achieved if the employee remuneration is linked to the employees working hours and be properly communicated to both part-time and full-time staff so that individuals can clearly observe the impact that longer working hours have on their salary. Problems will however continue to exist if this link is perceived to be unfair among employee clusters, and also where employees are paid differently though they have similar qualifications, and do same work at same period of time.

As earlier reported, fair pay is perceived to improve employee job engagement, and at the same time, decrease job withdrawal (Jung & Yoon, 2015). Till and Karren (2011) therefore stated that pay satisfaction is arguably a function of the difference between perceived pay level and the employees' perception of how much their pay should be. Perceptions of unfair compensation are usually encountered whenthe amount of pay that an employee receives is not aligned to the industry wage for the position which the employee is holding, or when the compensation that an employee receives is considered unfair compared to the employee's responsibilities. In certain cases, there could also be unequal pay between male and female employees, between racial groups or between 'able' and 'disabled' employees. It is therefore imperative that management consider and implementstaff compensation that is based on the nature of work, and also uses performance-related-pay to support a work environment that promotes equity, ownership of responsibilities, and creativity among hotel staff.Nasurdin et al. (2015) finding support the implications of these results that monetary rewards are very relevant to hotel employees because these job is normally associated with low wage and minimal tangible rewards. As Yang et al. (2012), put it, employees who feel that promotion opportunities, fair pay and better working hours are lacking in an organisation, are very likely to withdraw their employment. However, Wu et al. (2013) posited that when employees perceive their salary to be fair, they will make every effort to deliver proper service.

Table 3: Non-parametric correlations among factors (n = 210)

	Employee Retention Factor	Employee Development Factor	Work Engagement Factor	Work Relations	Working Hours	Compensation (without 2.5)
Employee Retention Factor	same factors	***	***	***	***	***
Employee Development Factor	***	same factors	***	***	***	***
Work Engagement Factor	***	***	same factors	***	***	***
Work Relations	***	***	***	same factors	***	***
Working Hours	***	***	***	***	same factors	***
Compensation (without 2.5)	***	***	***	***	***	same factors

***Correlation is significant at the 0.01 level (2-tailed). All p-values < 0.001. Spearman's Rank correlation coefficient was used as all variables were not normally distributed.

Results in Table 3 show that there exist positive inter-correlations among 'employee retention' factor and other factors that relate to work conditions that support employee retention (compensation, employee development, work engagement, work relations, and working hours). It means therefore that each factor enhance one another, for example when employees perceive that they are receiving adequate development and engagement in their work, they will likely remain in the hotel employment for a long time. Also employees who feel they are being developed adequately also tend to have better work relationships with their co-employees and managers. This research validates previous findings that all these factors need to be carefully managed to attract and retain talented employees.The results of Chi-Square statistics between employee retention and related variables on the one hand, and the employees' socio-demographic variables, on the other hand, show that:

- Immigrant employees agree less than South African employees that 'their salary in the hotel is fair for their responsibility',
- Female employees disagree more than their male counterparts that 'benefits provided as a package in this hotel give them stability',
- Black and Coloured employees agree less than other cultural groups that 'employee initiative in the hotel is always compensated',

- Coloured employees agree less than other cultural groups that ‘if they do good work in this hotel, they can count on being promoted’, ‘support for their long term career development is provided in hotel’, and ‘the hotel’s long working hours are unreasonable’,
- Black employees agree less than other cultural groups that ‘in their job in the hotel, they have sufficient opportunities to use their initiative’, and
- White employees agree more than other cultural groups that ‘they are not strictly supervised or controlled’.

It is revealed therefore, that significant numbers of immigrants, females, and Black and Coloured employees perceive they are not fairly compensated. Managers need to take note of this and endeavour to create a working environment that fosters equity, creativity and ownership of responsibilities among hotel employees. We conclude this study and address management implications in the next section.

5. Conclusion and Management Implication

The findings of this study are beneficial to hotel employers as they will help them address employee concerns and reduce the high employee turnover costs. A significant number of hotel employees are concerned about strict supervision, long working hours, and unfair salary in hotels, however the majority of the employees have favorable attitude towards hotel employment. More immigrants, females, black and colored employees perceive they are not fairly compensated. This study therefore suggests (a) that employee development plans should focus on coaching and mentorship instead of on strict supervision, (b) that fairness in hotel employment can be achieved if the employee remuneration is linked to the employees working hours and be properly communicated, and (c) that management implement staff compensation that is based on the nature of work, and use performance-related-pay to support a work environment that is non-racial but promotes equity, ownership of responsibilities, and creativity among hotel employees. Further research is encouraged in hotels in other countries of the world to establish cultural comparisons and contrasts among nations or continents, regarding employee retention and its related factors.

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Journal of Economics and Behavioral Studies (JEBS)
Vol. 9, No. 1, February 2017 (ISSN 2220-6140)

Re-examining Nigeria's Contributions to the African Union and the Domestic Socio-Economic Ramifications

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Abstract: While there have been scholarly studies that address Nigeria's diplomacy and contribution to the African Union (AU), many of them have failed to compare and contrast how those have added to the socio-economic development of Nigeria. We encountered a few instances where attempts were made to explain such, yet a fully-fledged analysis lacked in their conclusions. We applied documentary analysis methodology in our review and found that there is a serious misalignment between Nigeria's diplomacy and support for the African Union on one hand and positive socio-economic development in Nigeria on the other. The study also looks at exploring how the general framework of Nigeria's foreign policy goals and strategies in Africa can serve both its national interest and the overall development goals of Africa. We argue that for Nigeria's role in the AU to be meaningful, the country needs to simultaneously revive its internal socio-economic condition.

Keywords: *African Union, Foreign Policy, Nigeria, Socio-Economic Development*

1. Introduction

As an up-grade of the defunct Organization of African Unity (OAU), the African Union (AU) is a continental union made up of 54 independent African states. African leaders unanimously agreed to form AU in July 2001 at the Lusaka Summit but officially launched it on 8 July, 2002 in South Africa (Udombana, 2002; Onuoha, 2005; Gottschalk, 2012; Murithi, 2008). The highest decision making body of the union is the Assembly of the African Union which is made up of all the heads of states or government of member countries of the union. The union has several specialized institutions including especially a representative body, the Pan African Parliament, which is made up of 265 members elected by the national legislatures of the AU member states (see Gottschalk, 2012). However, since inception, AU has adopted some vital new documents establishing codes of conducts and diverse regulations at continental level in order to complement the already existing ones before the transformation of the union from defunct OAU. These include the AU Convention on Preventing and Combating Corruption (2003); the African Charter on Democracy; Elections and Governance (2007), and the New Partnership for Africa's Development (NEPAD) and its associated Declaration on Democracy, Political, Economic and Corporate Governance. Nigeria has been an active member of the union since inception and as such has actively been involved in the formulation, implementation and guidance of the union's policies.

There have been scholarly studies that address Nigeria's diplomacy and contribution to AU albeit many authors have failed to explain how these bode with the socio-economic development of Nigeria. There have been few instances where attempts were made to explain such, yet a fully-fledged analysis lacked in their conclusions. For example, contributors such as Okereke (2012) and Gusau (2013) limited their analysis to only Nigeria and AU but failed to recognize the contradiction of Nigeria's diplomacy and contribution with Nigeria's socio-economic condition. There is no doubt that many more studies are required in this direction so as to beef up the scant literature that currently exists. We are therefore convinced that this paper makes a worthwhile contribution to literature on the subject. This possibility adds some value in enriching the literature on Nigeria and AU with a reflection on how Nigeria under AU platform has reflected on its socio-economic condition. The study also explores the general framework of Nigeria's foreign policy goals and strategies in Africa and how it can serve both its national interest and the overall development goals of Africa. This paper is structured as follows: following this section is a brief description of the methodology adopted in this paper. What follows thereafter are (1) an overview of Nigeria's foreign policy in Africa; (2) Nigeria and the Organization of African Union (OAU); (3) Nigeria's contribution to AU formation; and (4) understanding Nigeria's AU role and its socio-political economy since independence in 1960, and thereafter we drew conclusions. Thus, this study utilised qualitative method of research reliant on documentary analysis to re-assess Nigeria's foreign policy within the umbrella of AU and how it has fared in relation to Nigeria's socio-economic values.

2. Methodology

This paper depended on a desk-top review of secondary data. We are of the view that qualitative research does not necessarily have to establish findings through statistical analysis or by means of quantifying results (see Denzin & Lincoln, 2008; Donalek & Saldawisch, 2004; Marcos, 2010; Silverman, 2013). Thus the purpose of the qualitative approach was to 'contextualize' Nigeria's foreign policy in Africa within AU platform and engaging in the interpretations of events, actions and inactions of actors that occur in this regard including the interpretation of the actors' views. This qualitative interpretivist slant was based on the assumption that knowledge about Nigeria's foreign policy in Africa within AU could provide human interpretations as social phenomena that may have direct relationship with its socio-economic development (see Zijderveld, 1990; Wester, 1995; Pope, Ziebland, & Mays, 2000; Snape & Spencer, 2003; Wissink, 2009). The intention was to ascribe meanings to the phenomena through interpretations including especially the events that took place as well as actors' behaviours. According to Marcos (2010) qualitative research accommodates the subjective nature of interpretivism, through its emphasis on the importance of understanding views and meanings that people attribute to social phenomenon. In fact, interpretivists suggest that the interpretation of the social world in accordance to the subjective frame of reference of those being studied is also essential. Thus the study has engaged extensively in the interpretation of incidents in Nigeria's foreign policy in Africa and relations with AU. Needless to mention that the bias of the researchers may have had some measure of influence on the meanings assigned to events and social environment being studied albeit this was in our opinion reasonably mitigated with extensive literature references in the study and such is one of the advantages of qualitative research.

3. An Overview of Nigeria's Foreign Policy in Africa

Briggs (2005), Ajaebili (2011), Gusau, (2013) and Umezurike and Asuelime (2015) summarily concluded that the main anchors of foreign policy of Nigeria at independence on October 1, 1960 included:

a) The Principle of Non-Alignment: This means refusal to align with any of the power blocs namely Western bloc led by the United States of America and the Communist East spearheaded by the defunct Union of Soviet Socialist Republics (USSR) in the face of cold war that the world experienced. This was of special interest because Nigeria's independence came at the peak of the cold war between the two super powers. Thus the need for neutrality arose in the conduct of Nigeria's foreign policy.
b) Legal Equality of States: This is a foreign policy principle that Nigeria adopted in order to accord respect for the legal sovereignty of all nation-states in the international arena. This principle maintains that the sovereignty and territorial integrity of all states, big or small should be respected and all should have equal playing ground. This is a principle meant to protect both small and newly independent states from the over bearing influence of the developed countries.
c) Non Interference in the Domestic Affairs of Other States: Nigeria upheld the principle of non-interference in the internal affairs of other countries. This principle guarantees the ability of the world order to allow independent countries to determine the course to follow in its national and foreign policy objectives. Nigeria has promoted this principle to a very large extent in the global affairs.
d) The Principle of Multilateralism: This implies the freedom to seek membership of both continental and global multilateral organizations. It is on this basis that Nigeria became a member of several international organizations including the political, economic and social/religious organizations. For example, it was on this basis that Nigeria became a member of United Nations Organization (UNO) and on the same basis it followed up the formation and its membership of OAU/AU till date.
e) Africa as the centrepiece of Nigeria's Foreign Policy: Africa has remained the cornerstone of Nigeria's foreign policy since independence in 1960 and as such Nigeria has laid much emphasis on Africa in its foreign policy. Its line of argument/action follows better Nigeria, better Africa, and better world. This explains Nigeria's roles in the formation of the continental organization, OAU/AU to stand as a platform for realizing African prosperity.

Nevertheless, it is generally accepted that a vibrant foreign policy derives its strength from domestic imperatives, that is, from the needs of the country and the populace. Africa has remained the centrepiece of Nigeria's foreign policy since independence in 1960 (Ajaebili, 2011; Gusau, 2013; Umezurike, 2015). Nigeria committed much resource - human and material - in realization of decolonized Africa. This was an engagement it accepted as one of its major objectives after independence. Nigeria furthered its desire for a free Africa by way of full support for the struggle against the apartheid/racial regimes in Pretoria and Zimbabwe (Okereke, 2012). It aggressively championed the freedom of Africans in various countries such as in Congo, Angola and Mozambique when they were under the yokes of colonialism (Ajaebili, 2011; Umezurike & Asuelime, 2015). Nigeria has played an unmatchable role in restoring peace to conflict-ridden African countries such as Congo, Sudan, Liberia and Sierra Leone (Ajaebili, 2011), to which it always committed huge human and material resources. Nigeria was a frontline state in support of liberation movements in Southern Africa because of its commitment to what it considered a just struggle for freedom in the region and in line with the core principles of its foreign policy. To this end, Nigeria established the big brother project named the Southern African Relief Fund (SARF) (Okereke, 2012; Aremu, 2013; Adebajo, 2015). This was specially funded from compulsory 'significant' deductions from salaries of every Nigerian worker, irrespective of rank, both in the public and private sectors as well as by donations from ordinary Nigerians in all walks of life, including students (Aremu, 2013). This fund was made available to the liberation movements in Southern Africa. Nigeria further provided scholarships for students from South Africa.

Nigerian artists also contributed in this struggle against racism. Nigerian musicians released songs in support of the anti-apartheid struggle in South Africa. A memorable one in this respect was Sonny Okosun's timeless piece, 'Fire in Soweto'. At the international level, Nigeria provided leadership at the United Nations and the Organization of African Unity (now the African Union). Nigeria chaired the UN Special Committee against Apartheid (UNSCAA) for most of its existence (Aremu, 2013; Adebajo, 2015). Nigeria also championed the isolation of apartheid South Africa in the international community until it democratized in 1994. In sport, politics and economics, Nigeria engineered boycotts and the isolation of South Africa because of legal apartheid in the country (Banjo & Omidiran, 2000; Ebegbulem, 2013; Umezurike, 2015). The actual history of Nigeria-South Africa's relations is traceable to the events of the Sharpeville massacre on 21st March, 1960, when the South African police shot and killed 72 blacks and wounded 184 protesters (see Wilmot, 1980; Igwe, 2005; Akinboye, 2013; Ebegbulem, 2013; Chidozie, 2014). The Nigerian Prime Minister, Balewa, cashed in on the incident after Nigeria's independence when he went to the Commonwealth Prime Ministers' Conference in March 1961 in London to champion the move that led to the suspension of South Africa from the Commonwealth (see Aluko, 1982; Ajala, 1992; Ajala, 1993; Ebegbulem, 2013). This move later underlined Nigeria's opposition to legal apartheid in South Africa until 1994 when it ended officially. The moves of Nigeria's foreign policy goal is in line with what Lall (2002) had argued that a country's foreign policy is most often in line with its history. The colonial experience of Nigeria makes any form of domination in Africa irritating to its national interest. For this reason, Nigeria staged untiring opposition to colonialism on the African continent, and the racism that existed in South Africa before 1994 (Sega & Lekaba, 2014; Tétényi, 2014; Adebajo, 2015). The beginning of a new era started in the final days of apartheid in South Africa when President de Klerk visited Nigeria in April 1992 to discuss bilateral issues, mostly trade relations (Wren, 1992). We argue here that Nigeria's foreign policy objectives from independence had obliged it to become an active partaker on all the issues of concern to Africa. It is also in like manner that it has engaged with OAU/AU including through the formation periods. Next section broadly engages Nigeria's active membership of OAU/AU since formation.

Nigeria and the Organization of African Union (OAU): This section critically examines the foreign policy of Nigeria since independence in 1960 especially with regard to OAU/AU. It is particularly important because the foreign policy of Nigeria has structural influence on the principles and objectives that guide its relations with OAU/AU. In other words, we argue here that the foreign policy of Nigeria as crafted by its policy-makers has influence in the behaviour of the Nigerian state towards other actors including non-state actors and international organizations in the global system (see Landsberg, 2012; Chidozie, 2014). A critical review of foreign policy of Nigeria reveals its choice to oppose colonization in support of self-determination and self-rule (independence) as the initial core values and philosophy guiding its foreign relations (see Briggs, 2005; Chidozie, 2014). Thus the best approach in understanding Nigeria's contribution to OAU/AU is to appreciate its adoption of Africa as the centrepiece of its foreign policy (Briggs, 2005; Ajaebili, 2011; Gusau, 2013;

Chidozie, 2014). All the successive regimes in Nigeria including military and civilian have respected and followed this philosophy till date in relations to OAU/AU and in the application of the country's foreign policy in general. One can see that Nigeria has consistently played an unmatchable role in the decolonization of Africa, together with fight against racism in Africa and subsequent formation of OAU and AU. As a matter of fact after the formation of OAU in 1963, it became the platform Nigeria has used to champion African course in many perspectives including politics, economics and socio-religious issues.

Prior to the formation of OAU, three major groups existed in Africa on what continental organization should resemble. The radical Casablanca Group which wanted immediate political union of African states and the idea of putting in place an African High Command with responsibility to execute decolonization in Africa; the Brazzaville Group comprised especially former French colonies with the idea of portraying continued French legacy and influence. Nigeria on the other hand felt that the division was unhealthy for African hope and aspiration for prosperity and pursuit of African unity, it then organized the Monrovia Conference of six African States, considered as moderate, on 8th May 1961 which led to the birth of the Monrovia Group (see Thom-Otuya, 2014; Ashiru & George, 2013; Gusau, 2013). Even though the meeting was boycotted by the radical Casablanca Group, Nigeria did not give up but made another effort in Lagos in January 1962 towards uniting the conflicting Groups (Ashiru & George, 2013; Gusau, 2013). The Lagos meeting however presented the reconciliation forum for these divergent views on the continental unity and soon led to the adoption of the Lagos Charter (Gusau, 2013). Interestingly, it was the Lagos charter that subsequently defined the OAU agenda as the promotion of African unity and solidarity among African states, the removal of all forms of colonialism and the defense of the sovereignty and territorial integrity of member states. The Nigeria's view incorporated in Lagos Charter was subsequently adopted as the OAU Charter in Addis Ababa, Ethiopia, on 25 May, 1963 (Temple, 2009). In effect, Nigeria vastly influenced the agenda for the then young organization (Ashiru & George, 2013). As a matter of fact many have argued that Nigeria still has great influence on AU after transformation from OAU because of its huge commitment in its formation and maintenance. There is also another angle that captures the disconnection between Nigeria's contribution and influence at AU level especially as it fails to produce affluent state that is viable in the international socio-political economy since independence.

Nigeria's Contribution to AU: In 1990s, the OAU began to aggressively condemn unconstitutional change of governments in the continent. The steps included declaring coups in the following countries as unconstitutional: Burundi (1996), Sierra Leone (1997), Central African Republic (2003), Guinea-Bissau (2003), São Tomé and Príncipe (2003), Togo (2005), Mauritania (2005 & 2008), Guinea (2008), Madagascar (2009), and Niger (2010) (Williams, 2011). In order to keep the dream of constitutional democracy in Africa attainable, Nigeria has stood up to unconstitutional change of governments in all the countries it occurred in Africa. These actions were in line with and in protection of Article 4 of the Constitutive Act of the African Union which seeks to put an end to unconstitutional changes of power in African continent. Nigeria is resolute in its protection of AU Declaration which proclaims Africa's commitment to democracy with the idea of consolidating this commitment by formulating common values and principles for desirable democratic governance in African states (Okereke, 2012; Udombana, 2002). Basically, the AU views such unconstitutional change as a contradiction of the continent's commitment to enhancing democratic governance and its necessary conditions for growth in Africa (Udombana, 2002). Nigeria's desires to enhance democracy, good governance and human rights in Africa cannot be over emphasized. A major step included especially Nigeria's ratification of African Charter on Democracy, elections and good governance which it deposited to the instrument of ratification with AU (Okereke, 2012). Nigeria went further by providing material and other support to the democratic and electoral processes in Guinea-Bissau, Mali, Senegal, Liberia, Ghana, Niger and other African countries. Internally, the Nigerian government undertook electoral reforms in 2002, 2006 and 2010 respectively with the aim to restore the integrity of the country's electoral process so as to strengthen its democracy which it hoped will serve African interest. The effort of Nigeria in the direction of democracy and good governance is clearly in solidarity with Article 3(g) of the AU Constitutive Act.

During the outbreak of 'Ebola' disease in Africa in 2015, Nigeria deployed 250 volunteers to the countries affected by the deadly virus. These countries were Guinea, Sierra Leone and Liberia. Nigeria, working collectively with the AU, World Health Organization, African Development Bank, Aliko Dangote Group of Companies and other development partners interested in Africa (FMOH, 2015) trained the health personnel.

The supervising Minister of Health, Dr Khaliru Alhassan in Lagos noted that the 250 workers deployed had acquired practical experience during the outbreak in Nigeria as they were trained by the Nigerian Centre for Disease Control (NCDC). This Nigerian gesture was commended by AU Chairperson Dr. Nkosazana Dlamini-Zuma, who also lauded Nigeria for sending volunteers who worked under the auspices of the African Union Support to Ebola Outbreak in West Africa, ASEOWA (FMOH, 2015). So far, Nigeria remains one of the five major financiers of the AU operating budget. As a major financier, Nigeria has full AU voting rights and has been able to sponsor her nationals for strategic positions requiring AU support in various international organizations. The other major financiers are Algeria, Egypt, Libya and South Africa (Okereke, 2012). These five countries contribute 75% of the organization's operating budget. The remaining African countries in the AU contribute 25%. According to a source published in 2008, each of the 'Big Five' contributed US$14.4 million towards the organization's operating budget. By 2012, these contributions were put at US$16.7million (Okereke, 2012). The position here is inward looking of Africa to finding sound but common ground in resolving African problems. Judging from inception of OAU and subsequent transformation to AU, Nigeria has been one of the largest contributors to the annual budgets of the organization, paying as much as 15 million US dollars to the running costs of the organization in 2012 alone (Ashiru & George, 2013).

Nigeria's top contribution to Africa's agenda of decolonization and anti-racism was mostly enhanced with the formation of OAU. Using the same approach of African solidarity, the African first ever collective peace-making mission in Chad in 1982 was led by Nigeria under OAU platform (see Osimen, Akinwunmi, & Adetula, 2015). This OAU Peace Keeping Force (OAUPKF) was headed by a Nigerian Major General. Nigeria also paid the bill for the peace mission albeit the initial idea was for Nigeria to be reimbursed later but it never happened. The bill finally went along as one of those big brother projects Nigeria has carried out in Africa. In that mission, Nigeria spent an estimated 40 million US dollars in search of peace in that country (Ashiru & George, 2013). Following the ratification of the protocol relating to the Peace and Security Council (PSC) in December 2003, the then incumbent Nigerian President Olusegun Obasanjo served as the first Chairman of the Council (Okereke, 2012; Osimen, Akinwunmi, & Adetula, 2015). As the Chairman of the Council, Obasanjo mediated the Darfur crisis in western Sudan. Also during his tenure as Chairman of both the AU and the PSC, peace talks related to the crisis were held in Abuja, Addis Ababa and Tripoli respectively. The Accra meeting in July 2004 centred basically on Côte d'Ivoire and Sudan with President Obasanjo as AU chairman, Kofi Annan, the UN Secretary General, and other prominent African leaders in attendance. The aim was to discuss peace initiatives in both countries. Obasanjo took further steps by appointing his predecessor, Abdulsalaam Abubakar as his peace envoy to Sudan and Chad (Okereke, 2012; Osimen et al., 2015).

Another major turning point of Nigeria's contribution to AU projects in Africa included the formation of the New Partnership for Africa's Development (NEPAD). Nigeria and South Africa worked together tirelessly with other countries to develop the initiative adopted at the OAU Summit held in Lusaka, Zambia in July 2001. There are some speculations that the adopted name (NEPAD) was suggested by Nigeria. Arguably, the success of this mechanism, NEPAD and added to African Peer Review Mechanism (APRM) provided both vigour and meaningful direction for the adoption of the Peace and Security Commission in the new AU Commission. All these led to the eventual creation of an AU Standby Force to intervene when necessary, in crisis situations in Africa (Kioko, 2013). The NEPAD as an organ of the AU is a strategic policy framework for removing poverty in Africa with idea of putting the continent on the road to sustainable socio-economic growth and development. The aim is to take Africa out of marginalization and exclusion in power configuration in global affairs (Gusau, 2013). According to Gusau (2013), the NEPAD derives its sustenance from the trio of Lagos Plan Action (LPA), the Final Act of Lagos (1980) and the Abuja Treaty (1991). All the 3 continental documents were drafted and finalized in Nigeria using Nigeria's human and material resources. For Nigeria's role during the formative era of the AU, it chaired both the AU and the steering and implementation committee of the NEPAD from 2004-2006 (Gusau, 2013). Indeed, Nigeria was instrumental in the formation of Africa's new development initiative, NEPAD in 2001, and its governance tool; APRM in 2003 (Chidozie, 2014).

Nigeria produced the draft Protocol on Peace and Security, apart from the initial draft Rules of Procedure of the Executive Council, the Permanent Representatives Committee and the Statute of the AU Commission which were finally adopted with minor changes. Nigeria has always been a member of OAU Commissions on Mediation, Reconciliation and Arbitration charged with dealing with other disputes on the African continent (Ashiru & George, 2013). All the contributions are in pursuit of the dreams of the founding fathers of the OAU of the need for Africans to play a major role in resolving conflicts on the continent. Good examples of Nigeria's roles in this direction in Africa include its peace efforts in Liberia through ECOMOG in 1990s, Sierra Leone, Côte d'Ivoire, Sudan, DRC and several others (see Williams, 2011; Okereke, 2012; Tétényi, 2014). These contributions have earned Nigeria the respect of the international community especially considering the financial, material and personnel burden it has borne in this direction. Our argument here is that Nigeria's sacrifices for the peace, security and unity of the continent is often at the detriment of her national interests. Okereke (2012) pointed out that Nigeria has steadily committed itself to Articles 3 and 4 of the AU Constitutive Act which contain the objectives and principles of the organization respectively. Nigeria has engaged with peace and security issues on the continent, including the pursuit of integration and development in Africa (Okereke, 2012). Consequently Nigeria has hosted important AU meetings, including especially the 4th AU summit, in 2005 in Abuja and the 44th session of the African Commission on Human and Peoples Rights (ACHPR) in Abuja in November 2008. In August 2004, the AU PSC headed by Obasanjo held peace talks in Abuja, Nigeria between the government of Sudan and rebels in Darfur in order to prevent UN sanctions on Sudan (Okereke, 2012; Abdulwaheed, 2012; Ebegbulem, 2012). This round of talks which involved Nigeria in several dimensions led to the adoption of the Darfur Peace Agreement (DPA) on 5th May, 2006 (Okereke, 2005). Nigeria has been actively involved in the implementation of Africa's Peace and Security Architecture (APSA). Nigeria takes part in the AU Capacity building exercise for the military, police and civilian components of the African Standby Force (ASF) which is an integral part of APSA (Okereke, 2012; Chergui, & Dewar, 2014). Nigeria's National Defense College, Abuja remains AU's centre of excellence in the training of Peace Support Operations (PSOs) at the strategic level. The exercises and training remain vital in the pursuit of one of AU's objectives particularly peace and security in Africa. In order to legitimise its own effort in African security, Nigeria's claim has been that it is in control of its internal security threats yet it has recently accepted multilateral actions against Boko Haram.

4. Understanding Nigeria's AU Role and Nigeria's Socio-Political Economy

Nigeria's continuous big brother role in Africa especially under AU platform has been contentious because there is agreeable misalignment between the socio-political economy of the country and its Afrocentric foreign policy. Some critics are of the view that Nigeria's unmatchable role under AU platform is a typical pretence of great power status for the country when in reality its domestic socio-economic realities point to a different direction; such syndromes as mass poverty, corruption, political instability and widespread infrastructural decay contradict Nigeria's pivotal role in AU (see Ukeje, 2000). Many on the other hand also argue that Nigeria is an affluent state in Africa and it has the clarion obligation of assisting its neighbours and in turn Nigeria would place itself in a position of strength in order to realize its foreign policy objectives for the service of its national interest (see Okereke, 2012). Notwithstanding, many have argued that Nigeria has not utilized its full potentials since independence from Great Britain on the 1st of October, 1960 to the benefit of the country (see Ogbeidi, 2012; Balkaran, 2011). There is a wide range of problems in the socio-economic system of the country. These include particularly poverty, decay of public infrastructure, military establishment in politics and economics, leadership failure and subsequent corruption prevalent in the country (see Maiangwa, 2012; Ogbeidi, 2012; David, Asuelime & Onapajo, 2015). These factors have plunged Nigerian state into several political crises including especially the three year civil war from 1967 - 1970, tribal riots and counter religious riots. Others include June 12, 2003 presidential election crises, Niger-Delta militancy and Boko Haram terrorism. As a result, Nigeria has continued to be characterized by numerous political violence culture mostly directed at the socio-political system to the extent that the country continues to drift towards the wrong end of the annual Failed State Index produced by Foreign Policy Magazine (see David et al., 2015). In an attempt to explore the socio-economic condition of Nigeria in the wave of security threats by Boko Haram, David et al. (2015) provided the following general framework for analysis and description of its political-economy of Nigeria:- the nature of state economic symbiosis, the oil-centric economy, corruption among the elites, the economic crises in Nigeria, and high poverty level. For clarity on Nigerian socio-political economy, the analysis of this section on Nigerian socio-political economy is divided into two sub-headings; the state and economic symbiosis and oil-centric economy.

a. The state and economic symbiosis: The state is distinguished from all other groups in the society especially because of its ability to monopolize the use of force to prevent anarchy in society particularly in relation to other groups (David et al., 2015). This state monopoly of force and legitimate use of same to provide security in order to maintain cohesion in the society is indeed based on its acceptable level of sovereignty. In the state's exercise of its authority, sovereignty largely depends upon how it manages all the other groups or forces in the society to enhance economic growth and stability. Thus David et al. (p.40) asserted: "On the one hand, the survival of the state in carrying out its responsibilities largely depends on how it effectively manages its economy, that is, the production and consumption of goods and services in a given community. The reasons are not far-fetched; the state requires a strong economy for its continual functioning."

In the case of Nigeria since independence in 1960, it has continued to see the loss of its economic and political leverage that was predicted to have the capacity to catapult African socio-political economy into a new level in the international political economy. Nigerian economy is bedridden with neo-imperialism largely because of its structural asymmetries of Western oriented unequal exchange trade pattern. It is noteworthy that this systematic unequal exchange was already established in Nigeria before its independence from Great Britain. Western multi-national companies determined the structure of the colonial Nigerian economy, a structure largely geared towards maximizing the selfish interest of the British economy at the expense of objective interests of Nigerians (David et al., 2015; Chidozie, 2014). We argue here that one of the major causes of Nigeria's poor economic growth is hanging on neo-imperialism through consolidated unequal exchange between the Nigerian developing economy and the developed capitalist Britain and its Western allies. Thus Nigeria's continuous push for African unity and progress under the umbrella of AU may not deliver much change in Africa because of the structural contradictions in Nigeria's political economy. Effectively Nigeria state has not been a good example in terms of stability including in politics, economics and socio-cultural cohesion.

b. The oil-centric economy: This is a tendency that has reduced Nigerian economy into a mono-cultural economy with serious negative economic disadvantage where other economic sectors are neglected. Prior to the discovery of petroleum in commercial quantity in Nigeria, it was one of the world's leading producers of groundnut, cocoa, rubber, palm tree product, hides/skin, and cotton. In fact, before the emergence of its oil-dependent economy in the 1970s, Nigeria was an agriculture-based economy as agriculture accounted for over 85 % of the nation's total export (David et al., 2015). As the mainstay of the national economy, accounting for almost 60% and over 70% of the nation's GDP and total export earnings respectively, in the 1960s; the agricultural sector not only provided employment for over 75% of the population, but also funded notable national development projects (Ileso, 2000). However, the discovery of oil in commercial quantity in Nigeria led to the neglect of virtually every other economic sector of Nigerian economy including solid minerals. This situation which spans especially from 1970s ultimately led to serious economic crises ranging from the 1980s, and the consequence of its mismanagement is embedded particularly in the macro-economic and macro-social implications of the Structural Adjustment Programs (SAP) (David et al., 2015). This programme was a complete failure in Nigeria both at policy formulation and implementation level. The situation has led to high levels of poverty in Nigeria which seem to have defied all economic measures including especially the SAP. Accordingly, the basis and objectives of post independent Nigerian Foreign Policy makes its participation in global and African regional PSOs inevitable. Thus, it has contributed both personnel and other resources in peace operations especially in Africa. Nigeria's effort in peace building and peacekeeping have been felt at the continental level in Congo, Somalia, Sierra Leone, Liberia, Sudan, and ivory Coast. Beyond African continent, it has participated in peace building in Lebanon, former Yugoslavia and in Kuwait (Sule, 2013). As at 2013, it was recorded that Nigeria had contributed armed military contingents, unarmed military observers, military staff officers, uniformed police units and police advisors as well as civilian experts to more than 40 UN, OAU/AU and ECOWAS missions (Sule, 2013). Nigeria's notable participation in international peacekeeping often earns its praise at both continental and global level. It has incurred human, material and financial pressure on Nigerian socio-political economy (Sule, 2013). Noteworthy is the opinion held by some that Nigeria fails to take advantage of its active participation in the numerous peacekeeping operations around the world by not getting commensurate economic, military and political remuneration for its involvement.

5. Conclusion

Nigeria has been playing an unmatchable role in Africa since its independence in 1960 including especially its role in the eradication of colonialism in Africa and racism in the continent. Nigeria gave support to liberation movements in the continent. The measure of support it provided to freedom fighters in Africa is exemplified in the extra-ordinary role it played in bringing to an end apartheid regime in South Africa. Nigeria provided material support and finance to anti-apartheid movements throughout the struggle. Nigeria's foreign policy revolves around Africa as the centrepiece and it has remained so from regime to regime. For this purpose Nigeria played a crucial role in the formation of the OAU. Nigeria's ability to mediate conflicts in the continent was instrumental to the formation of the group. From formation, Nigeria has continued to play major roles in Africa through the organization including the promotion of peace in the continent. Thus Nigeria's peace role in Africa cannot be over emphasized because it spans even beyond its immediate sub-region including under AU and UN. Nigeria also played vital roles in the successful transformation of OAU to AU. It has also continued to play vital roles in the maintenance of the group; such important role could be seen from its contribution to the formation of both NEPAD and APRM. Nigeria has also been active in the pursuance of AU goals in Africa including the implementation of its charters. For example it has played major roles in the pursuance of democracy in the continent despite its own democracy being fragile. There is a clear disconnect between Nigeria's role under AU and the socio-economic development of Nigeria. For example Nigeria's political system remains fragile while its role under AU presents the state of Nigeria as one with strength and might. Lack of stability in Nigeria's political system could be exemplified in the numerous socio-economic problems in the country; including especially the civil war from 1967-1960, religious riots, Niger-delta militant activities and the current Boko Haram insurgencies and threats in the country. Other socio-economic problems of Nigeria include poverty, corruption and lack of purposeful leadership in the country. Essentially, Nigeria has not been able to transform its role under AU to its national benefit.

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Journal of Economics and Behavioral Studies (JEBS)
Vol. 9, No. 1, February 2017 (ISSN 2220-6140)

Entrepreneurial Barriers that are Confronted by Entrepreneurs Living with Physical Disabilities: A Thematic Analysis

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Abstract: Living with a physical disability can interfere with an individual's ability to participate actively in economic and social life. It is imperative to comprehensively understand the entrepreneurial barriers hindering the development of entrepreneurs living with physical disabilities. In spite of the increasing research on entrepreneurship, there seems to be a paucity of studies that have investigated the entrepreneurial barriers that are faced by entrepreneurs living with physical disabilities in South Africa. This study set out to explore the entrepreneurial barriers that are confronted by entrepreneurs living with physical disabilities. In this study, data were collected within the Sebokeng Township, which is an African township located in the Vaal Triangle, south of Johannesburg in South Africa. A qualitative research approach was used to collect data for the study. The researchers gathered qualitative data by means of semi-structured face-to-face interviews and focus groups. The analysis of the qualitative data was conducted through the use of thematic analysis. The themes that emerged from the findings include lack of equipment and machinery, discrimination, business networking, hardships in obtaining start-up capital, knowledge of support centres for entrepreneurs living with physical disabilities, and lack of education and training. Each theme was discussed individually, followed by substantiating quotes. Most respondents stressed that the barriers they face hinder the survival and growth of their ventures. The paper suggested that in order to help entrepreneurs living with physical disabilities, the South African government must formulate some schemes that are most necessary for their improvement and betterment of their life.

Keywords: *Entrepreneurship, entrepreneurs, physical disabilities, barriers*

1. Introduction

Entrepreneurship has been recognized as one of the tools that drive the economy of a country (Chell et al., 2016; Maziriri & Madinga, 2016; Gree & Thurnik, 2003). In addition, entrepreneurship is viewed as a process of creating something new with value by devoting the necessary time and effort; assuming the accompanying financial, psychic and social risks; and receiving the resulting rewards of monetary satisfaction, personal satisfaction and independence (Chinomona, Maziriri & Moloi, 2014; Stokes, Wilson & Mador, 2010; Hisrich & Peters, 2002). Nchu, Tengeh and Hassan (2015) as well as 'Maziriri and Madinga (2016:1)' indicate that 'entrepreneurship is a significant component of the solution to South Africa's development issues'. 'Given the failure of the formal and public sector 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; Wongnaa & Seyram, 2014; Fatoki, 2014; Fatoki, 2010:87). Maziriri & Madinga (2016:1) as well as Martins & Couchi (2004) points out 'that in order to promote entrepreneurship, it is imperative to understand entrepreneurial barriers that affect entrepreneurs'. Barriers are not the same for all persons in society (Maziriri & Madinga, 2016; Mauch, Mutengezanwa & Damiyano, 2014; Martins & Couchi, 2004). Although some obstacles are common to all people, some groups find specific obstacles, namely women, young people, people with disabilities, ethnic minorities, unemployed and people living in rural or distressed areas (McCann & Ortega-Argiles, 2016; Maziriri & Madinga, 2016; Mauch, Mutengezanwa & Damiyano, 2014; Martins & Couchi, 2004). Renko, Harris and Caldwell (2015) is of the view that entrepreneurship has many benefits for people with disabilities including increased independence, the ability to support themselves financially, the ability to set their own schedule and reduction of transportation problems if they are based at home. Moreover, entrepreneurship has come to be considered an important tool in poverty alleviation and increased empowerment of people with disabilities, but the prejudice they encounter creates barriers (Maziriri & Madinga, 2016; Falch & Hernaes, 2012; Maja, Mann, Sing, Steyn, & Naidoo, 2011). Therefore, this study explores the entrepreneurial barriers that are confronted by entrepreneurs living with physical disabilities.

Sebokeng Township: This study targets to collect data that can be useful in the development of entrepreneurs living with physical disabilities within the Sebokeng Township of South Africa. A geographical map of the Sebokeng Township is presented in Figure 1.

Figure 1: Sebokeng Township

Source: Imagery ©2016, Google, DigitalGlobe, DigiGlobe, Map data ©2016 AfriGIS (Pty) Ltd., viewed 23 July 2016, from https://www.google.co.za/maps/place/Sebokeng/

According to Rueedi (2015:395), 'Sebokeng Township is an African township in the Vaal Triangle south of Johannesburg'. In addition, the Sebokeng Township is a micro-cosmos of the semi-industrialised, urbanized world and the living conditions in this area are almost identical to those of other blacks in other townships in South Africa (Mazibuko, 1993:2). Masitha (senoz tnereffid otni dedivid si gnekobeS taht tuo stniop (2001:23 era senoz emos ,elpmaxe roF .scitsiretcarahc tnereffid ssessop sevlesmeht ni taht occupied by relatively affluent people while others are characteristically poor. Each zone is very big, probably comprising more than 2000 households (Masitha, emoceb ot detpo evah gnekobeS fo stnediser eht fo ynaM .(2001:23 ae fo snaem a sa sruenerpertnerning an income since 1994; before then, entrepreneurship was strongly discouraged by the Apartheid government preferring black men to work in the neighboring suburbs of Vereeniging, Vanderbijlpark and Meyerton as cleaners, garden workers as well as delivery boys (Show me South Africa, 2016). Moreover, the types of businesses run by residents range from formal businesses such as beauty shops, pubs, petrol garages and night clubs to informal, usually home-based businesses such as spaza shops, hair salons and shebeens (Show me South Africa 2016). Therefore, from the author's explanation, this clearly shows that there is entrepreneurial activity within the Sebokeng of South Africa.

Statement of the research problem: Shanimon and Hameedu (2014) state that individuals with disabilities make up an estimated 15% of the population. Recent estimates of the prevalence of disability in South Africa suggest that 13% of the total population are disabled, 5% of whom are severely disabled (Statistics South Africa 2015). Being disabled may turn into a competitive disadvantage when a disabled entrepreneur faces competition from non-disabled entrepreneurs (Maziriri & Madinga, 2016; Mohammed & Jamil, 2015; Mwangi, 2013; Roni & Baines, 2012; Roni, 2009; Mersland, 2005). For example, they need to hire a person to carry merchandise instead of carrying it oneself, which lead to additional transportation costs and slower production (Maziriri & Madinga, 2016; Mwangi, 2013). Similarly, in some cultures, because of prejudice and superstition, being disabled can also result in a marketing disadvantage because customers may not want to contract products or services from disabled entrepreneurs (Yamamoto, Unruh & Bullis, 2015). In addition, disabled people are likely to face specific barriers to entering and sustaining entrepreneurship (Bakara, Mohamada, Abdullaha, Intan, Sulaimana & Hanafiaha, 2016; Kitching, 2014). Dotson et al. (2013:2336) point out that 'the number of people with disabilities is expected to increase'. Kasperova (2011) points out that 'disabled people of the working age are more likely than non-disabled people to become self-employed and they are a 'forgotten minority' in entrepreneurship research'. Renko et al. (2015) and 'Maziriri and Madinga (2016:2)' also reveal that 'one person out of 10 has a disability, yet entrepreneurship literature remains silent on the contributions of this population'.

In South Africa, the barriers that entrepreneurs living with physical disabilities face have not been sufficiently studied and developed. Previous research has examined entrepreneurs in various contexts by focusing on entrepreneurial attributes of undergraduate business students (Farrington et al., 2012), barriers facing female entrepreneurs (Sauer & Wilson, 2016), Obstacles to youth entrepreneurship in South Africa (Fatoki & Chindoga, 2011), Immigrant entrepreneurship in South Africa (Fatoki 2014), What motivates entrepreneurs (Hefer, Cant & Wiid, 2015), Challenges in operating micro-enterprises by African foreign entrepreneurs (Khosa & Kalitanyi, 2014) and 'Challenges facing women entrepreneurs in the Gauteng province of South Africa' (Chinomona & Maziriri, 2015:835). Therefore, this research study aims at investigating the barriers that are confronted by entrepreneurs living with physical disabilities within the Sebokeng Township of South Africa. Moreover, the study will also focus on the possible solutions to overcome the barriers.

Significance of the study: This research is of significance because it is potentially useful in the current hot topic of developing township economies. This is in line with Mdluli (2015:20), who is of the view that very little has been researched within the South African context particularly in township settings. In addition, 'Bongazana (2014:60)' also confirms that 'South African urban townships are playing a significant role in the South African economy'. More precisely, this study focused on Sebokeng Township entrepreneurs living with physical disabilities and these entrepreneurs are capable of growing their businesses through creative and innovative activities, speeding up structural changes in the economy and thereby making an indirect contribution to productivity. However, it is of paramount importance to understand the barriers encumbering the growth and development of entrepreneurs living with physical disabilities. Despite numerous studies that have been undertaken on entrepreneurship, it remains significant to investigate barriers that are confronted by entrepreneurs living with physical disabilities within the Sebokeng Township of South Africa.

Theoretical background: For investigating the entrepreneurial barriers that are confronted by entrepreneurs living with physical disabilities, this study adopts the empowerment theory as its theoretical framework because it offers value frameworks for promoting human empowerment, for example, entrepreneurs living with physical disabilities.

The empowerment theory: 'Budeli (2012:16)' stated that 'the empowerment theory is seen as one of the best in supporting the interests of people with disability'. Robbins, Chatterjee and Canda (1998) highlighted the aims of empowerment to provide conceptualisations of social stratification and oppression, identify the personal and political barriers and dynamics that maintain oppression, offer value frameworks for promoting human empowerment and liberation and identify practical strategies for overcoming oppression and achieving social justice and to build on people's strength, resilience and resources. Additionally, Robbins et al. (1998) wished for people with disability to realise their aspirations and strengths and also to engage themselves in actions that support their personal well-being and social justice. The empowerment theory acts as an agent of change in making communities learn to recognize conditions of inequality and injustice with the aim of taking action to increase the powers of those regarded as powerless (Budeli, 2012:16). From the authors' elucidations, it can be stated that the empowerment theory aims at assisting marginalized people. For example, entrepreneurs living with physical disabilities can take power and act effectively in gaining greater control, efficacy and social justice in changing their lives and their environment. If the empowerment theory is taken into account, it can improve the growth of the entrepreneurship field and stimulate entrepreneurial attitudes and activities of entrepreneurs living with physical disabilities in South Africa. The empowerment theory can assist entrepreneurs living with physical disabilities to be very active in their entrepreneurial ventures, thereby elevating their living standards.

2. Literature Review

In order to present a well-rounded picture in relation to the title of the study, the researchers reviewed the literature on what an entrepreneur is and what physical disability is.

An Entrepreneur: According to Edelman et al. (2016), the word 'entrepreneur' comes from the French *entreprendre,* which translated roughly, means to set about or to undertake. Entrepreneurs are a unique group of people as they assume risk, manage the business' operations, reap the rewards of their success and bear the consequences of their failure (Duvenhage, 2013; Antonites & Govindasamy, 2013:143; Henderson, 2002). The entrepreneur is seen as a person who gets things done and is an economic innovator (Van der Lingen & Van Niekerk, 2015:119). In addition, Tehseen and Ramayah (2015) as well as 'Kitching (2014)' assert that 'an entrepreneur is an individual who develops and grows the businesses through creative and innovative activities by introducing new products or services and by improving the existing methods of production or service'. Dijkhuizen et al. (2016) as well as Maziriri and Madinga (2016) describe the entrepreneur as someone who sees gaps within the market environment and takes the advantage to fill the gap; thus, it is accepted that the entrepreneur takes more risks to increase personal interest to seize available opportunities (Marino et al., 2011; Certo, Moss & Short, 2009). Although opinions vary as to what an entrepreneur is, the word normally carries the meaning of new ideas and creative development in the framework of large organizations (Morales et al., 2016).From the authors' elucidations on what an entrepreneur is it can be noted that an entrepreneur is an individual who sets up a business taking on financial risks in the hope of gaining profits.

Understanding physical disability: A disabled person is defined as a person with a physical, mental or sensory disability, including a visual, hearing or speech functional disability, which gives rise to physical, cultural or social barriers inhibiting him from participating at an equal level with other members of society in activities, undertakings or fields of employment that are open to other members of society (Mandipa, 2013; Viriri & Makurumidze, 2014). In addition, because there are various types of disabilities, in this study the researchers mainly focused on those entrepreneurs who are physically disabled. The Physical Disability Council (2015) elucidates that physical disability is a limitation on a person's functioning, mobility, dexterity or stamina. According to Shuma (2011), people with physical disabilities experience dysfunctions, such as poor muscle control, weakness or fatigue; difficulty in walking, talking, seeing, speaking, sensing or grasping (because of pain or weakness); difficulty in reaching things; and difficulty accomplishing complex or compound manipulations (push and turn). A person may be born with a physical disability or acquire it later in life through accident, injury, illness or side effects of medical treatment (Physical Disability Council, 2015). Moreover, most people with physical disabilities have to rely on devices such as wheelchairs, crutches, canes or artificial limbs to achieve mobility (Shuma, 2011). Drawing from the authors' explanations it can be noted that physical disability is a restriction on a person's physical functioning, mobility, and stamina.

Entrepreneurial barriers that are confronted by entrepreneurs living with disabilities: The literature cites a number of constraints that entrepreneurs living with disabilities face in their daily lives. It is imperative to pinpoint and to understand the constraints faced by entrepreneurs living with disabilities in South Africa. Many disabled individuals face many obstacles that disallow them from participating effectively in the society and in their entrepreneurial businesses. The following are some of the challenges that entrepreneurs living with disabilities face.

Discrimination: Discrimination can be defined as distinguishing unfavourably or the detection of the difference between one thing and another (Maziriri & Madinga, 2016; Chinomona & Maziriri, 2015:840; Madipaka, 2014). According to Marumoagae (2012) 'discrimination against people with disabilities is one of the worst social stigmas that society has not been able to overcome'. Maja et al. (2011) point out that discrimination against people with disabilities is a result of negative attitudes, lack of knowledge and awareness. People with disabilities are regarded as people who cannot contribute to anything and are dependant and always wait to be helped (Uromi & Mazagwa, 2015). Renko et al. (2015) explain that people without disabilities usually have negative impressions about people with disabilities, viewing them as inferior. These impressions can foster discrimination when entrepreneurs living with disabilities run their businesses as people without disabilities will be viewing them as inferior.

Access to start-up capital: Mauchi, Mutengezanwa and Damiyano (2014) state that lack of access to capital, credit schemes and the constraints of financial systems are regarded by potential entrepreneurs as main hindrances to business innovation and success in developing economies. Disabled people often experience difficulties financing new start-ups because of limited personal financial resources (savings, home ownership), which, in turn, is partly because of poor education, lower employment rates and the concentration of disabled employees in low-paid occupations; poor credit rating after long-term benefit receipt; disinterest/discrimination on the part of banks; and lack of accessible information on sources of grants and loans (Foster, 2010). Viriri and Makurumidze (2014) emphasised that access to capital and lack of customers as the two major barriers to self-employment by people with disabilities.

Lack of entrepreneurial education and skills: South Africa does not suffer from a lack of creative spirit, but rather a lack of business education and entrepreneurial skills that can empower individuals in an enabling environment (Maziriri & Madinga, 2016; Steenekamp, Vander-Merwe & Athayde, 2011; Burger, Mahadea & Neill, 2004). Choto, Tengeh and Iwu (2014) as well as Xaba and Rankhumise (2014) elucidate that 'there is a gap in entrepreneurial training, suggesting that the education systems in South Africa do not encourage entrepreneurship as a career; entrepreneurship is seen as something that people can do when they fail to secure a job and when they do not have a profession'. Furthermore, Choto et al. (2014) indicated that 'lack of education and training was a major inhibitor of entrepreneurial growth in the economy'. Disabled people often lack specialist business management, legal and financial expertise because of limited relevant education and employment experience and might feel at a disadvantage (Enabled4Enterprise, 2008).

Ways to address the barriers that hinder entrepreneurs living with physical disabilities: The following are some of the ways that can be initiated in order to overcome the barriers faced by entrepreneurs living with physical disabilities.

Education and training: The key to success in establishing a culture of entrepreneurship in South Africa is education (Chimucheka, 2014; Isaacs et al., 2007). Entrepreneurship education is said to be very important in the nurturing of the entrepreneur (Kitching, 2014; Parhankangas & Ehrlich, 2014). Raposo and Do Paço states that "entrepreneurship education seeks to propose people, especially young people, to be responsible, as well as enterprising individuals who became entrepreneurs or entrepreneurial thinkers who contribute to economic development and sustainable communities". Disabled entrepreneurs need training in terms of business plan preparation, strategic planning, decision making, negotiation, pricing, market penetration, organisation and management, management of the workforce and handling of cash flow among other issues (Viriri & Makurumidze, 2014). Literature confirms that skills training and business education have a positive effect on enterprise performance (Morales et al., 2016; Maziriri & Madinga, 2016; Chinomona & Maziriri, 2015:842; Mpofu & Shumba, 2013; Akanji, 2006). It is acknowledged that the exploitation of entrepreneurial opportunity depends on the entrepreneur's level of education, skills or knowledge acquired through work experience, social network and credit (Kitching, 2014; Parker, Caldwell & Renko, 2014). Dawson and Henley (2012) point out that any entrepreneurship training program for people with disabilities should be delivered in partnership between people with different areas of knowledge and expertise, both from the disabled and non-disabled communities. According to Hessels, Gelderen and Thurik (2015), in order for this collaboration to succeed, all parties involved must understand the successful strategies for business planning and business ownership for people with disabilities. Hessels et al. (2015) further argued that this common basis of understanding would facilitate the collaborative efforts of the self-employment program, its human services and economic development partners and the people with disabilities who seek self-employment as their means for employment and economic growth. From the authors' elucidations, it can be pointed out that obtaining the appropriate skills, information about running an entrepreneurial venture and forming partnerships individuals with individuals from different areas of knowledge and expertise can help entrepreneurs living with disabilities to successfully run their business without any hurdles.

Empowerment for entrepreneurs living with disabilities: Moyo and Francis (2010) defines empowerment as 'an ongoing process in which people see themselves as having the capacity and right to act and influence the circumstances they find themselves in'. People with disabilities in actual fact need to be empowered and their life's 'requisites need to be taken care of'. Hence, with the government intervention by providing benefits of equal rights, the disabled would also be able to contribute to the economic growth of a country (Osman et al., 2014). According to Mpofu et al. (2011), people with disabilities and their families need to be empowered and trained to take care of their needs in every sphere of their life. One of the ways for effective economic empowerment for the disabled is by encouraging and supporting them in activities of their communities such as entrepreneurship. Entrepreneurship is significant contributing factor towards economic growth for both developed and developing countries. The involvement of people with disabilities in the entrepreneurial activity will help to improve their quality of life as well as make the Millennium Development goal of most developing countries achievable by reducing 50% of the poverty rate by 2015 (Mpofu & Shumba, 2013; Rahim et al., 2014).

Financial support: Entrepreneurs living with disabilities can gain financial support in various ways. Financial support might take the form of grants, loans, subsidized loans or loan guarantees to credit providers, tax credits and exemption from business registration fees (Wilson, 2016; Maziriri & Madinga, 2016; Greve, 2009). Pergelova & Angulo-Ruiz (2014) explains that government financial support through loans and equity can allow new ventures not only to accumulate assets and to obtain access to critical resources (e.g. technology, licenses and equipment), but also to invest in internal firm processes such as employee training, as well as in activities that would bring market acceptance such as building a brand name. Kitching (2014) is of the view that financing might be tied to purchasing specific equipment, skills training or attendance at events such as trade fairs or exhibitions (e.g. 12 Spain 2012) or to the development and application of assistive technologies. Chinomona and Maziriri (2015:841) point out that 'most applicants do not know what is expected of them when making application to financial institutions for assistance and the Department of Trade and Industry has a business referral and information network website to assist entrepreneurs in this area'. The institutions that have been outsourced to act on behalf of the Department of Trade and Industry are the Khethani Business Finance (Khula RFI), Landelike Onwikkelings Maatskappy, Nations Trust (Khula RFI) and the New Business Finance (Chinomona & Maziriri, 2015:841).

Support from the government: The quote by Albrecht (1997):'The civility of a country is judged by how it treats its children, its persons with disabilities, and its poor and elderly citizens', clearly shows that a country like South Africa can be perfectly considered as a good nation when it gratifies its children, people with disabilities and the poor and elderly citizens. The government of South Africa can take an intervention in various ways to assist entrepreneurs living with disabilities. According to Kitching (2014), policy-makers need to consider methods of delivering advice and support to disabled entrepreneurs. Obaji and Olugu (2014) claim that the government needs to enact policies that would be user-friendly to the entrepreneur. Furthermore, Oni and Daniya (2012) explain that the governments of most countries, especially developing countries, have in the past invested much of their efforts and resources in establishing policies intended to uplift entrepreneurship. For instance, in Nigeria, different administrations at numerous times have geared their efforts towards developing their entrepreneurship efforts and several developmental and financial assistance instruments were employed (Oni & Daniya 2012). According to Salem (2014), the kingdom of Saudi Arabia in 2010 established a 10-year entrepreneurship effort and innovation and the intention was a strategy to put the Kingdom at the equal pedestal with high–economic competitive nations globally. The Brazilian entrepreneurship movement has got established very fast as a result of government policies geared towards developing the low-tech businesses as well as high technological–oriented firms (Nchu et al., 2015). Hence, the South African government can introduce policies and strategies similar to those of Nigeria, the kingdom of Saudi Arabia and Brazil in support of entrepreneurs, especially those living with disabilities in the republic of South Africa.

3. Methodology and Design

Study design: The research design that was adopted for this study was essentially exploratory in nature. The exploratory approach, in this case, was expected to provide the opportunity to unravel the nature of the physically disabled entrepreneurs' experiences and perspectives, of which little is known. The rationale for using exploratory research was to obtain a richer understanding of the experiences relating to the challenges experienced in the pursuance of their businesses. Essentially, and in keeping with the approach stated above, during the interview, participants were given the opportunity to describe their experiences and challenges in terms of factors they perceived to be hindering factors in the operation of their businesses. The researchers adopted a qualitative approach that was descriptive and exploratory in nature. The reason for adopting qualitative methodology was the need to understand the experiences of business owners and how they dealt with their daily business operations to ensure success (Flyvbjerg, 2011). Chinomona et al. (2014) point out that in a qualitative research paradigm, the researcher builds a complex, holistic picture; analyses words; reports detailed views of informants; and conducts the study in a natural setting. In addition, Leedy and

Ormrod (2010) as well as Xaba and Rankhumise (2014:184) explain that 'the qualitative research method is appropriate when the researcher is trying to understand a new phenomenon in a particular situation rather than trying to establish a relationship between two or more variables'.

Research paradigm: According to Sefotho (2015), 'qualitative research is fundamentally phenomenological and is referred to as interpretive phenomenological research'. Hammond, Howarth and Keat (1991:1) refer to phenomenology as the 'description of things as one experiences them, or of one's experiences of things'. The aim of phenomenology is to bring out the 'essences' of experiences or appearances (phenomena), to describe their underlying 'reason' (Pivcevic, 1970). Phenomena are fundamentally important for qualitative researchers (Sale, Lohfeld & Brazil, 2002). They must seek understanding of people's lived experiences as phenomena for inquiry (Sefotho, 2015). Therefore, in this study, the researchers identified phenomenology as the suitable research paradigm for the study as it seeks to bring out the barriers that are encountered by physically disabled entrepreneurs in their daily lives.

Unit of analysis: Antonites and Kliphuis (2011) define a unit of analysis as the main body that is being analysed in a study. In this study, the unit of analysis is the South African entrepreneur living with a physical disability.

Population of the study: In research, population refers to the aggregate of all the units that are eligible to participate in a study (Creswell & Plano, 2007:112; Salkind, 2012:95). In addition, a population is defined by Welman, Kruger and Mitchell (2011:53) as a group of entities with a common set of characteristics. In this study, the population of relevance will consist of all entrepreneurs living with physical disabilities within the Sebokeng Township of South Africa.

Sample size: A sample can be defined as a portion of a larger population (Dube, Roberts-Lombard & Van Tonder, 2015:243). Roets (2013:36) defines sample size as the count of factors involved in the study. A sample size larger than 30 and less than 500 is appropriate for most research studies (Xaba & Rankhumise, 2014; Choto et al., 2014:97). Therefore, this research study utilized 35 participants.

Sampling technique: Dahlberg and Mccaig (2010:175) assert that two methods exeunt for sampling, namely probability and non-probability sampling. As no register of entrepreneurs living with physical disabilities existed in the Sebokeng Town, a snowball sampling strategy was used to identify entrepreneurs living with physical disabilities. Snowballing sampling is a non-probability sampling method in which the researcher approaches one member and the member in turn refers the researcher to another member (Choto et al., 2014:97). Moreover, the snowball sampling method was the most appropriate method for this study as the researchers had few individuals to participate in the study who helped in identifying other participants who best matched the research (Choto et al., 2014:97).

Ethical considerations: Ethical issues are principles and guidelines that clarify the conditions under which the research will be conducted (Oates, Kwiatkowski & Coulthard, 2010). Research respondents may be harmed physically or emotionally during data collection (Maziriri & Madinga, 2016; Balfour, 2007; Strydom, 2005). Since the researchers' target population comprised entrepreneurs who are physically disabled, in this study there was the chance of triggering emotional harm or stress to the participants as the focus of the study is to find out what challenges the participants encounter in their business operations as physically disabled people. Being emotional and a possible cause of sadness may be brought up because of the fact that they are physically disabled. On the other hand, the study may have been experienced by the participants as a stress reliever as it may have given the participants a verbal outlet where they could express their feelings, needs, concerns and wishes with regards to their entrepreneurial businesses as disabled people. The researchers were responsible for making it clear to the respondents that there would be a possibility that the research could bring about change but that there would be no guarantee that change would occur. This research study act in accordance with the ethical standards of academic research, which among other things, is protecting the identities and interest of participants and assuring confidentiality of information provided by the participants. Participants gave their informed consent to this research and were informed beforehand about the reason and the nature of the investigation to ensure that participants were not misled. Despite all the above-mentioned precautions, it was made clear to the participants that the research was only for academic research purpose and their participation in it was absolutely voluntary. No one was forced to participate.

Semi-structured face-to-face interviews: For the purpose of this study, data were collected using semi-structured face-to-face interviews. Interviewing is the predominant mode of data or information collection in qualitative research (Sobuce, 2012; Lord, 2009; Cooke, 2009; Greeff, 2005; Taylor, 2005; Whitley, 2002). Interviews provide an avenue for generating data by talking to people about how they go about their day-by day dealings (Thompson, Bounds, & Goldman, 2012:40). Semi-structured interviews were conducted with entrepreneurs living with physical disabilities. Semi-structured interviews are defined as interviews organized around areas of particular interest, while still allowing considerable flexibility in scope and depth (Ncanywa, 2014; Stofberg, 2009; Greeff, 2005). In addition, Maziriri and Madinga (2015) indicated that such interviews combine particular questions (to get forth the foreknown information) and open-ended questions (to provoke unanticipated types of information). Furthermore, the semi-structured format also permits and encourages the investigator to interject with added questions as appropriate. In this study, data were gathered by interviewing the participants at their respective business premises in the Sebokeng Township and the nature of the businesses for these participants comprised carpentry workshops, fast food outlets, beauty shops, pubs, metal workshops and hair salons. The interviews spanned approximately 20 min – 30 min each. In order to increase the reliability of the answers, all the interviews were recorded, where possible, on a digital voice recording device. Six participants refused to be recorded and only allowed note taking of their challenges as physically disabled entrepreneurs. The answers given by the interviewees were carefully noted on a hard copy; transcriptions were proofread and matched to the audio tapes by the researchers. Finally, a total of 20 interviews were conducted with entrepreneurs who are physically disabled. The researchers felt it was enough but needed to further validate the findings with the data from focus groups.

Focus groups: The study conducted a focus group of 15 entrepreneurs consisting of nine men and six women. Moloi et al. (2010) elucidate that focus group interviews as a research technique are described as a semi-structured group discussion, moderated by a discussion leader, held in an informal setting, with the purpose of obtaining information by means of group interaction on a designated topic. A focus group is an interview conducted by a trained interviewer among a small group of respondents (Chinomona & Maziriri, 2015:843; Chinomona, Maziriri & Moloi, 2014; Cooper & Schindler, 2011). The researchers made use of focus groups because it brings the opportunity to obtain a large amount of data, to observe interaction and to obtain different views or perceptions of a topic in a limited period of time. Group discussions also provide direct evidence about similarities and differences in the participants' opinions and experiences (Babbie & Mouton, 2007).

4. Findings

The discussion in this research paper is presented in line with the themes that arose from the focus group and interview transcripts. Thematic analysis is defined as a meticulous process of identifying, analyzing and reporting themes that emerge from a qualitative study (Muposhi, 2015:168; Muposhi, Dhurup & Surujlal, 2015:230; Retief, 2009:42; Braun & Clarke, 2006:79). Thematic analysis is regarded as the "foundational method for qualitative analysis" and was the chosen to formally commerce the analytical process given its suitability to the exploratory nature if the research (Apolloni, 2010:88). The major advantage of thematic analysis is that it is a logical process that allows the researcher to scrutinize interview transcripts comprehensively and glean all possible themes (Muposhi, 2015:168; Muposhi, Dhurup & Surujlal, 2015:230; Glesne, 2011:187). The following framework indicates the main themes identified in the data sources. Each theme will be discussed individually, followed by substantiating quotes. Interpreted data will be compared with existing literature.

Theme 1-Lack of equipment and machinery: Lack of equipment and machinery emerged as one of the most important themes during interviews. The entrepreneurs living with physical disabilities indicated that lack of equipment and machinery hinders them from succeeding in their entrepreneurial businesses. Examples of entrepreneurial activities in the Sebokeng Township includes households furniture manufacturing that includes timber sawing, carpentry workshops for manufacturing chairs, non-chemical agricultural input activities, clothing and food manufacturing. However, participants (entrepreneurs living with physical disabilities) indicated that most of these entrepreneurial activities were meant for community members in general and were not tailored to meet their disabling conditions. Therefore, there would need proper equipment and machinery to support them in executing their entrepreneurial duties. Here are some of the comments they made:

'It becomes difficult for me to operate my carpentry business without proper equipment such as the wood processing machine, wood cutting machine, wood joining tool, wood planning tool as well as a carpenter's pincer. These tools and machinery make my life easier since I'm physically disabled.' [Jabulani, Male, Carpenter]

'…Since we are physically disabled I believe that the number one limiting factor for some of us is to have proper supporting tools and machinery to lighten the amount of work that needs to be done in our entrepreneurial businesses.' [Matthew, Male, Sculptor]

'…Because I am in a wheelchair,the best thing for me would be to have machinery for my business, so that I get on board with new machines that are designed with the user in mind and ultimately increasing the productivity of my business.' [Vusumuzi, Male, Welder, 26]

These sentiments are in line with works of Ngorora and Mago (2013:4) who investigated the challenges of rural entrepreneurship in South Africa. Their study's results revealed that some entrepreneurs especially those in constructed and welding bemoaned lack of equipment as a factor that is hindering many businesses from starting and even offering effective service.

Theme 2-Discrimination: Another recurring theme that emerged from interviews was that of discrimination. Conceptually, discrimination refers to a negative (push) factor that influences entrepreneurial intentions of the disabled (Johnmark & Munene, 2016:2). In addition, Keene (2011:2) defines 'discrimination as is the denial of equal rights based on prejudices and stereotype'. In this study, most of the entrepreneurs living with physical disabilities expressed that they lack confidence as they experience a lot of discrimination. Here are some of the comments they made:

'I need answers as to why we have to go through such discrimination and humiliation just because we are physically disabled.' [Xolisile, Female, Jewellery designer, 24]

'We are always last in line for everything, we are not treated the same because of this stigma'. [Basetsana, Female, Hair dresser, 30]

'How does society ever expect us to make a living for ourselves, if this is its attitude?' [Dikeledi, Female, Cook, 29]

In addition, these results also refute the study conducted by Uromi and Mazagwa (2015) to 'investigate the challenges facing people with disabilities and possible solutions in Tanzania'. The results indicated that community members have a discriminative, inconsiderate and non-caring attitude towards people with disabilities.

Theme 3-Lack of business networking: Business networking is one of the dominant themes that emerged from interviews. The study's theme encompasses a socioeconomic *business* activity by which business people and entrepreneurs meet to form *business* relationships and to recognize, create, or act upon *business* opportunities, share information and seek potential partners for ventures. However, the majority of the participants acknowledged that they are not actively involved in business networking activities in the studied Sebokeng Township area. Solely because of their disabling condition, they experience negative attitudes from communities who view them as not competent and are unable to make and maintain sound relationships with non-disabled entrepreneurs:

'Most entrepreneurs who are not disabled exclude us from their business networking events just because we are physically challenged; this is because they recognized us as entrepreneurs who are very slow in their business operations.' [Howard, Male, Computer programmer, 24]

'Each time I attend business networking events people see my disfigurement and they wouldn't want to, or don't know how to, approach me.' [Peter, Male, 25]

'I have found business networking events to be a difficult and a daunting prospect because each time I attend a networking event I have seen some negative attitudes towards some of us who are physically disabled entrepreneurs.' [Terrence, Male, 34]

These results are in line with literature. Vlachou (1997) confirms that 'persons with disabilities are excluded from various community activities on the grounds of their condition'. In addition, Viriri and Makurumidze (2014) also points out that 'disabled entrepreneurs are socially excluded, stigmatized and marginalized and consequently their network ties and cohesion in business circles are weak and frail'.

Theme 4-Hardships in obtaining start-up capital: Another theme that emerged from interviews was hardships in obtaining start-up capital. The majority of the participants attested that they experience some hardships in obtaining start-up capital, mostly when they seek help from financial institutions for loans. This reflected by the following statement:

'Commercial banks do not want to offer loans to entrepreneurs living with physical disabilities, for the reason that they are not confident in our competences to run businesses.' [Sandra, Female, 31]

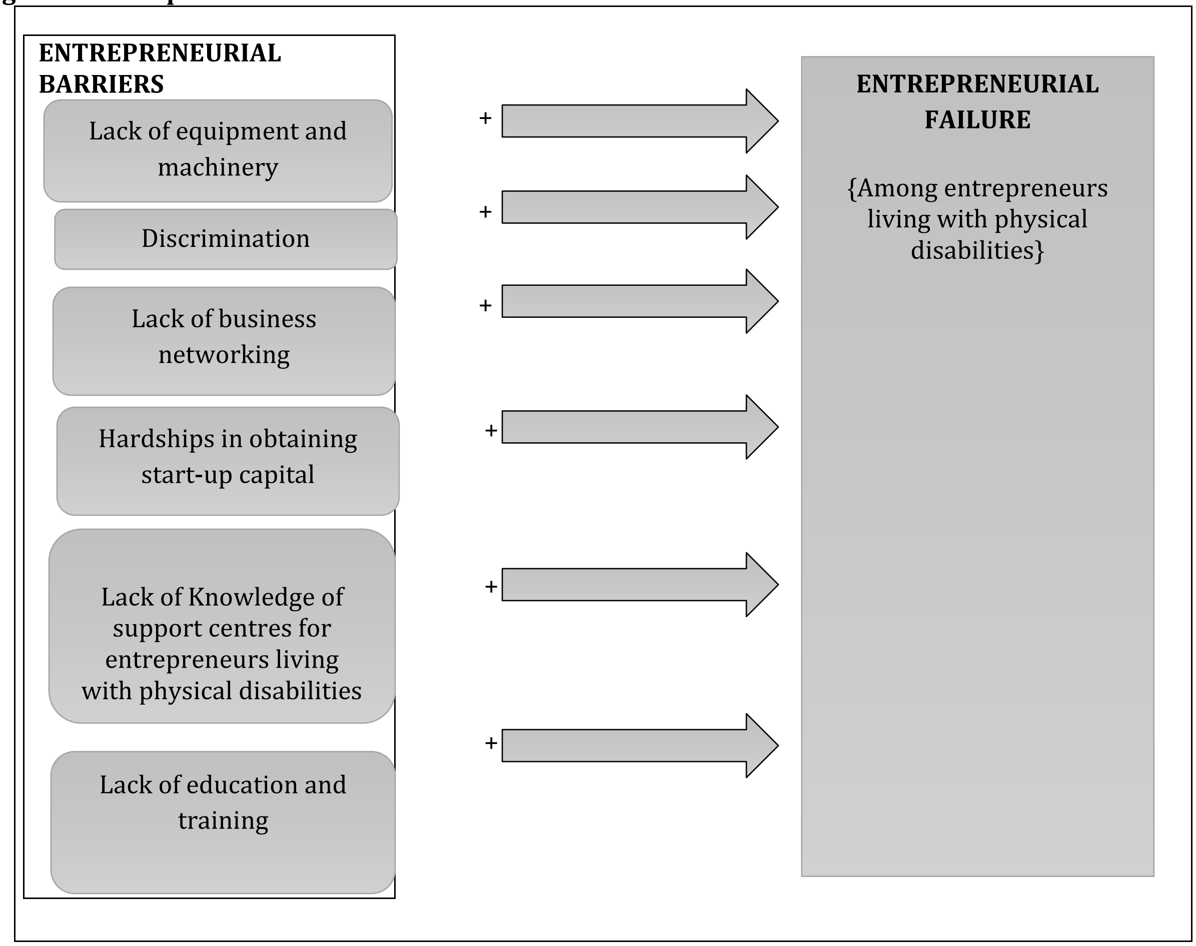
These sentiments are in line with the literature. Mauchi, Mutengezanwa and Damiyano (2014) state that 'lack of access to capital, credit schemes and the constraints of financial systems are regarded by potential entrepreneurs as main hindrances to business innovation and success in developing economies'. Moreover, this finding concurs with that of Mwangi (2013:286) that 'the major problem that the physically challenged entrepreneurs experience is the start-up capital'.

Theme 5-Knowledge of support centres for entrepreneurs living with physical disabilities: Data from the study also reveal that participants were not aware of the government support centres or initiatives of supporting the businesses that are managed and operated by entrepreneurs living with physical disabilities. Only a few indicated that they had once got support from the government and went further to highlight that the government support they received was not enough to sustain them in running their entrepreneurial ventures. This view is aptly encapsulated in the following comments:

'I am not even aware of the available support organisation that may assist me in my business.' [Akhona, Female, 31]
'Ever since I become an entrepreneur the support I have received from the government is insufficient.' [Bongani, Male, 43]

These findings confirm what Chimucheka and Mandipaka (2015) found in their study that 'some small, medium and micro-enterprises are not aware of the government support or initiatives of supporting businesses'. In addition, Viriri and Makurumidze (2014) also found out that 'young people with disabilities were not aware of entrepreneurial policies in their country'.

Figure 1: Conceptual model



Source: Authors own compilation

Theme 6-Lack of education and training: The final theme to emerge from interview transcripts is a lack of education and training. Education and training are expected to improve peoples' ability to take advantage of opportunities that can improve their well-being as individuals and be able to participate more effectively in the community and labor markets (Wairimu 2014). In this study, the participants indicated that lack of education and training is also a barrier hindering the success of their entrepreneurial businesses. This reflected in the following excerpts:
'We do not have adequate knowledge and teaching on how to manage various entrepreneurial businesses.' [John, Male, 33]
'I wish there are support structures in the Sebokeng Township that are willing to educate and train only entrepreneurs who are living with physical disabilities.' [Themba, Male, 35]
This finding accords with that in the literature, which states that education and training system is regarded as the number one limiting factor for entrepreneurship in South Africa (Herrington & Wood 2003). In addition, Fatoki and Garwe (2010) also confirmed that entrepreneurship education is still one of the prime factors limiting the growth of the economy of South Africa. Moreover, the results of this study are in line with the works of Mpofu and Shumba (2013), who found out that that there is no entrepreneurial education designed to meet the needs of available targeting people with disabilities.

Conceptual Model: After thematic analysis of research data, a conceptual model was developed. Below is an illustration of the research conceptual model.

Above is an illustration of the research conceptual model of the current study. After analysis of themes observed in the study, it was found that entrepreneurial barriers (lack of equipment and machinery, discrimination, business networking, hardships in obtaining start-up capital, knowledge of support centres for entrepreneurs living with physical disabilities, and lack of education and training) influences entrepreneurial failure among entrepreneurs living with physical disabilities. Entrepreneurial failure is linked to unrewarding or ceased trading (Makhbul & Hasun, 2011:117).

5. Conclusion

The main objective of this study was to investigate the entrepreneurial barriers that are confronted by entrepreneurs living with physical disabilities in the Sebokeng Township of South Africa. This study has looked at the keywords physical disability, entrepreneur and a disabled person and the objectives of the study have been identified. An extensive literature review has been undertaken to have an overview or to comprehensively understanding what an entrepreneur is and what physical disability is. In addition, the literature review also provided a rich theoretical base by giving an overview of the various entrepreneurial challenges that are confronted by entrepreneurs living with physical challenges as well as the ways to overcome those barriers. A qualitative methodology was used with the use of semi-structured interviews and focus groups. The study analysed the responses of the physically disabled entrepreneurs and identified the specific barriers faced by them in entrepreneurship. Most respondents stressed that the barriers they face hinder the survival and growth of their ventures. Moreover, it was found that entrepreneurs living with physical disabilities face barriers such as lack of equipment and machinery, discrimination, business networking, hardships in obtaining start-up capital, knowledge of support centres for entrepreneurs living with physical disabilities and lack of education and training.

Practical implications: The business world is ever-increasingly becoming competitive and to be a well established entrepreneur is an enormous challenge. The findings of this study are expected to have to provide fruitful implications to both practitioners and academicians. On the academic side, this study makes a significant contribution to the entrepreneurship literature by exploring on the entrepreneurial barriers that are confronted by entrepreneurs who are living with physical disabilities. On the practitioners' side, the key challenges that are confronted by entrepreneurs living with physical disabilities are clearly highlighted. This study therefore submits that entrepreneurs can benefit from the implications of these findings. For example entrepreneurs are ought to pay attention to the empowerment theory of build self confidence or to build engage in networking activities so as to learn from one another.

Recommendations: Based on the findings discussed in this paper, the following recommendations can be put forward to entrepreneurs living with disabilities and the government of South Africa. The key recommendations to the Government of South African include the following: Obaji and Olugu (2014) postulate that 'the government needs to enact policies that would be user friendly to the entrepreneur'. Thus, in order to help entrepreneurs living with physical disabilities, the South African government must formulate some schemes that are most essential for their improvement and betterment of their life. In addition, if entrepreneurs living with physical disabilities are supported by the South African Government with equipment (tools) and machinery, they would be successful in their entrepreneurial ventures. It is also important for the South African government to make every effort to improve the intellectual capacity among entrepreneurs living with physical disabilities and provide entrepreneurship education by expanding and strengthening tertiary education. There is the need for government to help ease the problem of access to start-up capital among entrepreneurs living with physical disabilities, especially those who are still at the introductory stage. In addition, the South African government should come up with a considerable dedicated fund for entrepreneurs living with physical disabilities to support their entrepreneurial activities.

The key recommendations to the entrepreneurs living with physical disabilities include the following:
Entrepreneurs living with physical disabilities have to intensify their confidence and invest in entrepreneurial education, since it aims at giving out knowledge, entrepreneurial skills and inspiration among entrepreneurs. Entrepreneurs living with physical disabilities need to conscious of entrepreneurial support schemes that are planned by the South African government; for example, the Small Enterprise Development Agency. It is recommended that entrepreneurs living with physical disabilities should acquire skills that will help to break the stereotypes and value systems that hinder them from participating in everyday activities with their able-bodied counterparts (Maziriri and Madinga, 2016; Kitching, 2014). It is

imperative for entrepreneurs living with physical disabilities to engage in networking. 'Xesha, Iwu and Slabbert (2014)' are of the opinion that 'collaborative relationships enable the growth of businesses, as participants share information as well as other resources'. Therefore, entrepreneurs living with physical disabilities should form partnerships (business networks) with individuals from different areas of knowledge and expertise in order to learn from one another.

Limitations and future research: Although the findings offer valuable insights into the entrepreneurial barriers are confronted by entrepreneurs living with physical disabilities, this study is not exempted from its own limitations, which may affect future research. To start with, this study, being qualitative, had a limitation on the number of participants. The current study employed a small sample size of 35 participants. This restricts the researchers' ability to generalize the research findings of the study. In addition, this study has its limitation as participants are limited to entrepreneurs living with physical disabilities from only one particular South African Township. Therefore, future research could be done in a group with more respondents to understand the barriers better. Perhaps if data gathering is extended to take account of other regions and provinces of South Africa, this would strength the research findings. Therefore, future studies should consider this recommended research direction because the results of this study were limited as the study was conducted for a specific segment (entrepreneurs living with disabilities within the Sebokeng Township). Furthermore, there is also the problem of common method bias since qualitative research was purely used in this study. According to Maziriri and Madinga (2015), the descriptive nature of qualitative research has a bearing in that the biases, values and judgement of the researcher become stated explicitly in the research report. In other words, the researcher elucidates and interprets the results on the basis of what he or she has observed and uses this information to qualify and elucidate his or her point of view. For the study to be more robust, both qualitative and quantitative techniques had to be used. Moreover, all future research directions of this study will greatly complement new knowledge to the current body of literature.

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Journal of Economics and Behavioral Studies (JEBS)
Vol. 9, No. 1, February 2017 (ISSN 2220-6140)

Stakeholder Engagement as a Core Management Function: Analysing the Business Value of Stakeholder Engagement for Nigerian Business Organizations

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Abstract: This article examines the importance of adopting credible stakeholder engagement (SE) as a core management function, with particular reference to Nigerian business organizations. It used content analysis method to specifically examine the role of SE in business organizations; determine the utility of credible SE as a core management function rather than as an add-on; and trace measurable links between SE and business value (profit) with reference to selected multinational companies operating in Nigeria's Niger Delta region. The article situated its arguments within the Stakeholder Model of Business Value Creation, which it used as a conceptual analytical framework to justify why business organizations in the region should dedicate more attention and resources to quality SE for sustainable profitability. As the findings show, business organizations in the Niger Delta tend to treat SE as an add-on rather than as a core management function. Therefore, given the business value that effective SE adds to an organization, a paradigm shift is required. Business organizations in Nigeria should elevate SE to core management level with the requisite budget to make it fully functional.

Keywords: *Business value, Business organizations, Management, Niger Delta, Stakeholder engagement*

1. Introduction

In today's competitive global business environment, cooperative relationships with stakeholders enable firms to adapt, share risks and embrace innovation(Leadbeater, 2000). Indeed, the adage 'adapt or die' is as true in the business world as it is in the biological world. This is especially true in contemporary organizations characterized by "more diffuse decision making, accelerated informational flows and an emphasis on learning" due to technological advancement and globalization (Svendsen et al., 2001: 2; Castells, 2000). Technological advancement is acknowledged as a significant driver of the contemporary knowledge-based economy. The implications for stakeholder relations in strategically adding value to business are profound. Due to its growing "convergence of digital, mobile and social spheres, technological advancement is greatly shaping the dynamics of stakeholder relationships, connecting customers, employees and partners. It starts with chips and ends with trust" (Svendsen et al., 2001: 2; Castells, 2000). It is also arguably a source of creativity and innovation and, by extension, overall productivity and/or profitability. Against this backdrop, this article examines the importance of adopting credible stakeholder engagement (SE) as a core management function, with particular reference to Nigerian companies. It objectives are to [1] examine the role of SE in business organizations; [2] determine the utility of credible SE as a core management function rather than as an add-on; and [3] trace measurable links between SE and business value (profit) with reference to selected multinational companies operating in Niger Delta region Nigeria. The Stakeholder Model of Business Value Creation is used as a conceptual model.

A stakeholder can be defined as "any group or individual that can affect or is affected by the achievement of a corporation's purpose"(Freeman, 2004: 229). It includes "individuals or groups with which the corporation interacts who have a stake or a vested interest in it, such as employees, consumers, suppliers, and local communities within which corporations operate" (cited in Campbell, 2007: 947). Two categories of stakeholders are identified in the literature, namely primary or internal and secondary or external stakeholders. The primary/internal are those with a direct stake in a company's fortunes. Examples include shareholders and investors, employees, customers, suppliers, and residents of the communities where the company operates. Conversely, secondary stakeholders are those who "have indirect influences on an organization or are less directly affected by its activities," examples of which include "media and pressure groups, and others that inhabit the business and social networks of the organization" (Svendsen et al., 2001). Engaging these groups in a credible manner is increasingly becoming a business asset, rather than an add-on based on legal requirements or even moral obligation. Stakeholders have "'sufficient power' to affect the performance of the enterprise, either favourably or unfavourably", for instance through mobilizing social forces and/or withdrawing labour (Jeffery, 2009: 11).

The *fait accompli* approach to community engagement is becoming counter-productive for business organizations. An 'I know what is best for you' attitude deprives stakeholders of meaningful involvement in issues that affect them as well matters that they have an impact on. Hence, the idea of SE essentially rests on the notion that stakeholders "should be given the opportunity to comment and have input in the development of decisions that affect them" because "if they are not actively sought out, sooner or later they may demand to be consulted" (Jeffery, 2009). An example is Nike and child labour in the 1990s which was a human rights issue(Jeffery, 2009). Accordingly, in today's increasingly globalized world, SE describes "a broader, more inclusive, and continuous process between a company and those potentially impacted that encompasses a range of activities and approaches, and spans the entire life of a project"(International Finance Corporation, 2007: 3). Thus, SE has been defined by the Institute of Social and Ethical Accountability (ISEA)as "the process of seeking stakeholder views on their relationship with an organization in a way that may realistically be expected to elicit them"(ISEA, 1999).Such trust-based collaboration, "underpinned by the principle of accountability" (ISEA, 1999) is largely driven by respect for humanity and the common good of the stakeholders and the organization(Noland and Phillips, 2010: 40).

Stakeholder engagement is distinct from related concepts such as Stakeholder Management (SM), Stakeholder Salience (SS) and Corporate Social Responsibility (CSR). While SE is inclusive, interactive, continuous and yet open to change, SM is defensive, change-averse and hence, temporal(Jeffery, 2009). For its part, SS focuses mainly on identifying and prioritizing various stakeholders considering their divergent interests and impact, while SE is the *actual relating* with the identified stakeholder(Ihugba and Osuji, 2011: 28; Amaeshi, 2007). Similarly, SE is more than the traditional conception of CRS, because the former is a morally neutral concept. However, SE does not necessarily mean that an organization is more morally responsible (Greenwood, 2007). In other words, "although stakeholder engagement has moral elements, it is primarily a morally neutral activity"(Greenwood, 2007: 325).This has implications for the relevance of SE to business productivity because unless business organizations see SE as more than moral compulsion, they will be unable to adopt it as a core business strategy to reap the accompanying benefits. This requires that they embrace the various interactions that constitute the broader spectrum of stakeholder relations, a lack of which could render an organization unable to respond to the uncertainty that defines the business world (See Figure I). As Jeffery (2009) explains, when organizations are not pro-actively engaged with stakeholders, they are forced into a defensive position and have to employ reactive crises-management techniques, which cause long-term reputational damage, especially in relation to trust. Thus, "building a strong reputation helps an organization perform more effectively in the present and builds a reservoir of goodwill to draw upon in future crises" (IPSOS Public Affairs, 2011: 6).

Figure 1: Characteristics of Crisis Management, Stakeholder Management and Stakeholder Engagement

Crisis Management	Stakeholders Management	Stakeholders Engagement
Reactive	Proactive	Interactive
Vulnerable	Anticipate	Encourage
Episodic	Regular	Inclusive
Hostile	Defensive	Prepared to change

Source Jeffery (2009: 14)

While studies have articulated the comparative financial advantages of a stakeholder-oriented business organization – especially through CSR – the non-financial advantages have not received sufficient attention. Yet, "if Corporate Responsibility is about minimizing negative and maximizing positive environmental and social impacts, then stakeholder engagement is one of the core skills and key activities which enables this to happen successfully and effectively. When organizations don't engage stakeholders successfully, they can lose out"(Jeffery, 2009: 3). The three-tier model for CSR outlined by Sethi (1975)entails [1] social obligation, [2] social responsibility and [3] social responsiveness. Viewed through the lens of social responsiveness, CSR takes stakeholder relations beyond mere obligation and/or norms. It recognizes that there are enormous benefits in adopting public relations as a core management technique. Corporate Social Responsibility has remained largely untapped by companies, largely due to the parochial focus on short-term benefits. Some business organizations tend to view and adopt CSR as an add-on, through the narrow prisms of obligation and/or philanthropy. Yet as Sethi's (1975) model suggests, it is not enough for companies to be stuck at the first level which is mere compliance. Rather, they should not only "recognize and internalize societal expectations" but "develop the competence to navigate uncertainty, maximize opportunity and engage effectively with external stakeholders on issues and concerns" (Svendsen et al., 2001: 4).

2. Literature Review

The literature on SE identifies various SE dynamics at global, regional and national levels(Harrison and Wicks, 2013; Beer and Rensburg, 2011; Jeffery, 2009; Greenwood, 2007; Perrini and Tencati, 2006; Svendsen et al., 2001; Hillman and Keim, 2001; Freeman, 2004). These studies show why organizations should take SE seriously in view of its long- and short-term implications for performance and the negative consequences of doing otherwise. For instance, Jeffery (2009) has argued that poor engagement "has the potential to undermine stakeholder relations resulting in mistrust and tension, as well as making the possibilities for future successful relations much more difficult". This is important as business organizations do not exist in a vacuum. Every business entity affects the society within which it exists, and is in turn impacted by the society. This symbiotic relationship is pertinent to the dynamics of a business organization and its ability to create value for the community. In today's business world, organizations can no longer "choose whether they want to engage with stakeholders or not; the only decision they need to take is when and how to engage successfully" (Jeffery, 2009: 13).

Scholars have developed various theories to assess if and why organizations focus on their stakeholders' interests alongside their own(Freeman, 2004; Campbell, 2007). The stakeholder theory defines the relationship between a firm and its stakeholders in terms of appropriate and inappropriate behaviour(Campbell, 2007: 949). Well-managed CSR balances stakeholders' wants and needs (SWANS) with those of the organization (OWANS) (Jeffery, 2009). The sometimes-disparate needs of different parties are efficiently reconciled to optimize long-term benefits, and value creation for the organization as well as the community. In the words of John Mackey, CEO of Whole Foods, "business is fundamentally a community of people working together to create value for not only themselves, but also for other people including their customers, employees, investors, and the greater society… Business owners and entrepreneurs … need to … manage their business more consciously for the well-being of all their major stakeholders while fulfilling their highest business purpose"(Quotedin Jeffery, 2009). The manifestation of SE could lie in commitment and loyalty towards employees as demonstrated by United Parcel Service or Dupont and Dofasco or credible engagement along the supply chain demonstrated by IKEA, Honda and Toyota. Vancity and Scotiabank's strong links with the community are another typical example, as are Shell Canada, Placer Dome and other companies' relationships with non-governmental organizations (NGOs) and communities (Svendsen et al., 2001: 4). The stakeholder theory thus shows how companies factor the protection of stakeholders into their decision making for improved productivity (Ihugba and Osuji, 2011).

Cummings (2001: 45) notes that three factors have been identified that underpin SE, namely managerialist, public interest and value shift orientations. A managerialist orientation is characterized by decision-makers 'quest to understand and pre-empt the views and opinions of stakeholders for the sake of business activities. It seeks to maximize shareholders' interests and resists change that is not geared towards this objective. Thus, even "If customers are unhappy, if accounting rules have been compromised, if product quality is bad, if environmental disaster looms, even if competitive forces threaten, the only interesting questions are whether and how these forces for change affect shareholder value, measured by the price of the stock every day"(Freeman et al., 2007: 4).On the other hand, a public interest orientation is characterized by an organization's pursuit of stakeholder interests, mainly due to legislative requirements and pressure. The driving force is compulsion be it moral, legal or otherwise. Given its fluid, reactionary, power-withholding features, the public interest approach is more reactive than proactive. Although there is some two-way information flow, SE is driven by the need to placate stakeholders(Ihugba and Osuji, 2011). At its best, public interest-driven engagements network with and relay information to stakeholders; however, the process is somewhat arbitrary. Finally, the value shift orientation involves a fundamental cultural shift in terms of what the organization's "role and indeed, their responsibilities to society should be"(Ihugba and Osuji, 2011: 31).This approach is characterized by stakeholder empowerment, giving them adequate information and independence. However, it is susceptible to "minority tyranny"(Ihugba and Osuji, 2011: 30). Here the level of SE is stakeholder control.

The state of Stakeholder Engagement among business organizations in Nigeria's Niger Delta: The various SE practices of business organizations in Nigeria are well documented (Idemudia, 2009; Hoben et al., 2012; Okonta and Douglas, 2001; Lugard, 2014).The common trend is a lack of inclusive and interactive engagement that is open and continuous(Onuoha, 2005; Lebura, 2013; Okonta and Douglas, 2001; Lugard, 2014).For example, in the oil-based economy of the Niger Delta, until the mid-2000s, the dominant multinational oil companies (MNOCs) (Shell, Chevron and NAOC) largely maintained a managerialist orientation, which was geared towards satisfying shareholders' interests. Before 2005 and 2006 when Chevron and Shell respectively adopted the Global Memorandum of Understanding (GMoU) model of community engagement, which gave communities a say in deciding their own development needs and implementing projects, both companies promoted CSR more out of social obligation than social responsiveness. In the heyday of militancy against MNOCs and government from the early 1990s up to themid-2000s, CSR was often practiced in response to global condemnation of their oil exploration activities, which were harmful to the environment, dislocated local economies and further impoverished the region's people (see Uzodike and Isike, 2009). Agitation for self-determination and control of resources in this oil-rich region led to frequent shutdown of their operations, resulting in huge financial losses(Okonta and Douglas, 2001). The companies' failure to adopt meaningful SE has been counter-productive for both the organizations and local communities, and has contributed to the perennial crises in the region.

Indeed, before 2005, MNOCs in the region adopted a managerialist orientation of SE, with a top-down approach to local stakeholders. According to Ihugba and Osuji (2011:30), "the power holders arrogate to themselves the status of tutor and proceed to falsely 'educate', persuade and advise the stakeholders. Such approaches deprive stakeholders of their voice and usually lead to outcomes most probably of no benefit to the stakeholders". The process is essentially non-participatory as stakeholders have no input; they are either not properly consulted or their inputs are inconsequential to the company's decisions. This non-consultative approach to SE results in what Lugard (2014) refers to as emotional inequity and a skewed playing field for framing CSR to achieve meaningful outcomes. This arguably explains the plethora of abandoned community development projects by business organizations in the Niger Delta. In many instances, some of these projects never got off the ground, exacerbating already existing distrust between communities and oil companies. In turn, this affected the company's licence to operate (LTO) and freedom to operate (FTO) in a number of communities with concomitant effects on new opportunities, productivity and profits. This underscores the need for broad support and goodwill from host communities beyond mere acceptance of business activities in their domain. According to Pyagbara (2010: 18), buy-in, support and goodwill are the main ingredients of the social licence and approval "required by any company seeking to conduct its business in a conflict-free environment and ensure the success of its investment". Such approval, which must be distinguished from other legal requirements such as "free, prior, and informed consent" (FPIC)[1] is mainly granted by a host community and is also a function of a company's broader public image (Pyagbara, 2010).

ForIdemudia (2009), relationships between the various companies operating in the region and local communities have gone through three main phases. The first was characterised by the 'pay-as-you-go'

[1]This is a requirement of the United Nation's Declaration of the Rights of Indigenous People, Articles 19 and 32, which has now gained legal status (cited in Pyagbara, 2010:18).

strategy where communities were largely kept at arm's length by the company, with little or no regard for CSR. Reaction in the form of protests and conflict over environmental degradation caused by oil-exploration activities shaped the contours of the second phase, which was characterized by some level of acceptance of the principle of CSR by MNOCs. Even then, the approach was largely devoid of sufficient community participation given its reliance on a few elite community representatives. As Lugard (2014: 169) argues, "this approach of settling some elites or traditional rulers without having to initiate projects or engage stakeholders with a view to collectively addressing the concerns of the major players spells doom for the stakeholders, particularly the IOCs who reportedly spent a whopping $3.7 billion on security in the region in 2008". As a result, it has not only been unsustainable but has also perpetuated inter- and intra-community violence. The third phase was characterised by the idea of partnerships with a view to reduce costs and to improve on the previous phases as exemplified in the use of GMoUs as a model of community development. However, the success of this third phase has also remained questionable since it has not addressed community grievances in a sustainable manner (Idemudia, 2009). Arguably, one of the reasons is that the relationship lacks trust and cooperation based on deep community engagement in the developmental projects funded by companies. As Lugard (2014: 171) rightly observed, a stakeholder approach to CSR "would make the communities consider themselves as having a stake in the sustainability of CSR efforts, knowing full well that CSR programs and plans were designed by them and for them". However, 10 years after the introduction and operation of the GMoU by both Chevron and Shell, which has given communities power to decide on their own development programmes and thus deepened participation and trust, the ideal of real partnership is beginning to emerge (see Isike, 2016).

3. Analytical framework: Stakeholder Model of Business Value Creation

It is becoming evident that business organizations can no longer focus solely on maximizing profit, enhancing shareholder value and neglecting other stakeholders and still expect to remain viable. Evidence abounds of the detrimental effects of such an approach. Shareholder-oriented organizations tend to make narrow decisions which impact negatively on profits(Campbell, 2007). Globally, various events have reinforced, rather than reduced, the need for SE in the last 10 years (2005 to 2016). The economic downturn highlighted the uncertainty of the ever-changing global economic landscape. In the same vein, the information revolution presents a strong case for adequate stakeholder engagement for business organizations, especially multinational corporations whose increasing role in the global economy is widely acknowledged. As Castells, puts it, "the globally networked business model is at the vanguard of the information age just as the Ford Motor Company's assembly line was the icon of the industrial age"(Castells, 2000 cited in Svendsen et al., 2001:7). In the information age, almost everything relating to an organization is readily available to stakeholders and this fundamentally shapes their relationship with the organization in many ways. For example, with the internet becoming more affordable, aiding the circulation of information around the globe through multiple social media platforms, trust becomes a key component of good stakeholder relations. As Kelly aptly farmed it, "the network economy is founded on technology, but it can only be built on relationships" (cited in Svendsen et al., 2001:7).

By implication, the concept of CSR within the SE framework goes beyond the statutory obligations of organizations to comply with legislation as well as their usual approach of volunteerism and charity. Lugard (2014: 158), argues that the SE framework "helps other stakeholders assume emotional attachment or stakes in the sustainability of such corporate entity" and this is important for business success in terms of profits and sustainability.Business organizations that do not recognize this suffer a negative press and mobilization against the company, which affects their bottom-line and growth. The reaction of the Ravensthorpe and Hopetown communities in Western Australia to BHP Billiton's decision to shut down their nickel mine after only eight months of operation and that of the Slovenian public to the news of Renault's plan to close its operations in that country underscore the importance of engaging stakeholders for business survival and success (Jeffery, 2009). Sustaining reputation in an ever-changing business environment is a critical dimension that affects consumer preferences. As the IPSOS Public Affairs (2011: 2)study noted: your company's reputation with stakeholders influences consumers' desire to buy your products and/or services; the efficiency of your marketing spend; the credibility of your communications; employees' pride in working for you; investors' confidence to invest in you; legislators' inclination to help or hinder you; journalists' disposition to report positively or negatively about you; NGOs' propensity to work with or against you and people's willingness to hear your side of the story. All these reputational indicators create business value as they affect freedom and licence to operate.

Quality SE is thus a risk-mitigating tool and is more cost-effective and sustainable than the reactionary approach of crisis management (CM) as far as reputation building and sustenance are concerned. Little wonder then that Peter Drucker believes that proper 'social responsibility' of business "is to tame the dragon, that is, to turn a social problem into economic opportunity and economic benefit, into productive capacity, into human competence, into well paid jobs, and into wealth" (cited in Lugard, 2014: 159).The business value for both parties is noted in the stakeholder concept developed by Edward Freeman, who is regarded as the father of this concept(Fontaine et al., 2006). Freeman notes that, "to be an effective strategist you must deal with those groups that can affect you, and to be responsive (and effective in the long run), you must deal with those groups that you can affect" (Freeman, 2010: 46). His stakeholder theory and its further development by other scholars underscore the importance of moving beyond the traditional market-product strategic framework for efficiency and effectiveness. In his view, various external changes including increased foreign competition; environmental protection legislation; concerned groups with special interests; and the media, among others, have challenged the relevance of the narrow traditional approach. The stakeholder theory has gained traction since the 1980s.

The three dimensions of the stakeholder theory, namely, descriptive, instrumental and normative, are essential to the success of a business organization. From the descriptive point of view, the theory views cooperation as a "constellation of interests, sometimes competitive and sometimes cooperative", and analytically shows how multinational companies can "deal with these divergent interests of stakeholders"(Fontaine et al., 2006: 14). The instrumental perspective takes cognizance of the nexus "between the practice of stakeholder management and the achievement of various corporate governance goals", while the normative dimension identifies the moral guidelines of corporations 'activities and management(Fontaine et al., 2006: 14).The stakeholder is relevant in that, in the era of globalization, multinational companies are becoming more powerful (even more than states in many cases). Given their impact on society, their practices cannot be devoid of values and ethics. For such companies to remain viable, SE is critical since the wealth of the shareholder is dependent on the wealth of all stakeholders(Fontaine et al., 2006). According to Jeffery (2009), SE is characterized by a willingness to be open to change (See Figure 1 above). Jeffery rightly noted that "the ideal stakeholder engagement process should be iterative; allowing engagement to benefit from diligent planning, thorough reporting and the application of learning as a result of appropriate evaluation and monitoring"(Jeffery, 2009: 15). It is also interactive in nature; encouraging holistic and inclusive planning that might not only lead to new market opportunities but also enhance the organization's ability to mitigate risk given its preparedness for change. Hence, it is not merely defensive or risk averse. The notion of risk mitigation is appropriate given the lasting implications of reputational damage in the event of a crisis that undermines credible SE and the cost of image rebuilding for such companies. Consider for instance, the reputational and financial damage suffered by McDonalds, Mitsubishi, Monsanto, Nestlé, Nike, Shell, and Texaco following public awareness campaigns by advocacy stakeholder groups against some of their business practices which could have been avoided through effective SE(cited in Svendsen et al., 2001: 9). With the advancement of technology, it takes only a click of a mouse to disseminate information that can damage the reputation of a company around the globe. The financial and other costs of repairing such damage are enormous including the possible loss of human capital. Re-investing in reputation may involve retrenching and/or employing extra staff; advertising spend and excessive compensation claims. The human rights controversies around Nike's supply chain; and Shell's investment in public relations post-Brent Spar and Nigeria as well as Texaco's handling of the charge of systematic racism in the US are cases in point which underscore the business value of effective SE (Svendsen et al., 2001; Fontaine et al., 2006).

In this way, the notion of reputation capital is now considered as a core business asset in its own right, and an important determinant of business success in the discourse of SE(Svendsen et al., 2001). For instance, Cone and Ropper's study, which focuses on consumer attitudes at national level, found that 76% of consumers were likely to switch to a brand reputed to be for a good cause. Similarly, the value of the stock of a company accused of wrong doing was shown to have a high likelihood of a downturn (cited in Svendsen et al., 2001). Thus, "engaging with stakeholders from the start – as part of your core business strategy – enables a proactive cultivation of relationships that can serve as 'capital' during challenging times"(International

Finance Corporation, 2007: 6).Furthermore, in terms of innovation positive relationships between various stakeholders (i.e., management, employers, and the community) create space for creativity and innovation. Nahaphiets and Ghoshal note that "no matter how knowledgeable employees are, if they believe they are working in a hostile, low-trust environment they will hoard information, avoid collaboration, and display very low levels of creativity"(cited in Svendsen et al., 2001: 10). Given that no individual employee is the sole repository of knowledge, sharing and collaboration among employees, which is usually fostered by an environment of trust, it is essential to facilitate innovation (Nahapiet and Ghoshal, 1998). An innovative work team is largely a function of a positive relationship between both management and employees, and employees themselves (Cooke and Wills, 1999; Svendsen et al., 2001). Jeffery (2009: 3) also noted that, meaningful SE gives employees the requisite skills to negotiate long-term satisfaction and benefits. In summary, a range of benefits is associated with credible SE. John Kotter and James Heskett demonstrated that stakeholder-oriented companies achieved four times more sales growth and eight times more employment growth over an eleven-year period, than their shareholder-focused counterparts (cited in Svendsen et al., 2001:11). The study focused on the interests of a broad mix of stakeholders rather than shareholders as the mark of visionary and successful companies. In the broad sense, four key benefits were found to emanate from credible stakeholder engagement: better shareholder risk management; innovation; new markets and opportunities and reputational focus. With reference to shareholder risk, Monsanto's diminutions of license to operate in certain markets in Europe and Shell's "diminution of suppliers or employer of choice status" following the twin shock of Brent Spar and Nigeria, are cases in point(Svendsen et al., 2001:12). Freeman et al. (2007: 2) have also argued that "the primary responsibility of the executive is to create as much value for stakeholders as possible, and that no stakeholder interest is viable in isolation of the other stakeholders."

4. Measurable links between stakeholder engagement and business value for Nigerian business organizations

A study by the former director of the Clarkson Centre for Business Ethics at the University of Toronto, shows that organizations that focus only on shareholders "lack information from stakeholders and the environment that would allow them to anticipate opportunities and solve problems when they are small and less costly to remedy" (Clarkson cited in Svendsen et al., 2001). The same study revealed that companies that place a premium on socially responsible behaviour made the most money. Indeed, as Sethi observed, credible SE assists in "achieving good levels of customer satisfaction, employee morale, returns to investors and reducing environmental impacts of operations, products and services" (cited in Svendsen et al., 2001). All of these call for the adoption of meaningful, credible SE as a core management strategy given that it confers a comparative advantage on business organizations that take it seriously. Other studies have shown a positive correlation between good stakeholder engagement and financial performance (Roman et al., 1999; Waddock and Graves, 1997; Soana, 2011; Collins and Porras, 2005). How this plays out in the context of Nigeria is the focus of this sub-section.

As noted earlier, Nigerian business organizations' approach to CSR has been predominantly philanthropic and this undergirds how they relate to their stakeholders. It also partly explains the relative failure of some of these business organizations (both local and international) to sustainably address the problems of poverty, degradation and deprivation in the communities where they operate despite their investment in development initiatives. At the core of such failure is the lack of engagement and involvement of stakeholders, especially the host community, which has the power to confer or withhold the social licence for smooth operation of companies. Although Lugard (2014:) argues that "most of such efforts are arguably palliative and tokenistic", the foregoing theoretical discussion suggests that credible SE adds business value to organizations by reducing constraints on the license to operate and freedom to operate. This is relevant for business organizations in Nigeria, especially MNOCs operating in the Niger Delta region. Since the 1990s, the region has been characterized by community agitation and armed conflict, which resurfaced in 2016 (Isike, 2016). It thus presents a practical case to understand the importance of adopting credible SE as a core business strategy. This would not only create a win-win situation for both shareholders and stakeholders, but would help to forestall violence and engender peace as communities begin to regard themselves as real stakeholders in the oil business.

Gaining and sustaining this social licence and approval is mainly possible through credible and quality SE, which Shell and other companies in the region have largely fallen short of but are now beginning to correct through the GMoU model of community engagement. Given the rise in human and environmental rights violations engendered by the weak regulatory framework provided to the oil companies by corrupt political elites, the Ogoni people and others in the region began to perceive Shell as an oppressive alliance with the majority controlled-government. This perception gained credibility with the militarization of the region as Shell called for security officers (then referred to as riot police), fracturing the relationship between the company and the people. The company was also seen as disrespecting community opinions and culture, demonstrated by the arrogance of some of its staff; its operation in sacred shrines and forest although permitted by Nigerian law; and the imposition of its 'civilised values' (Uzodike and Isike, 2009). This clearly violates Freedman's view of stakeholders as "constituent to be consulted rather than spectators to be ignored"(Harting et al., 2006: 43). The highly questionable arrest, trial and hanging of the Ogoni activist, Ken Saro-Wiwa and eight Ogoni compatriots, was a high point in the Niger Delta crises, which did a lot of harm to the public image of the oil companies operating in the region as they did little to avert the situation. In the Niger Delta region, "local communities have not been fully incorporated into deciding on the best initiatives for them and how to effectively frame, design and implement these initiatives to deliver sustainable results"(Lugard, 2014: 171).Multinationals' tokenistic and fragmented CRS efforts are disconnected from their business strategy and have not been able to generate the required emotional equity in the community to support their operations. As Lugard (2014:172) notes, "the crux of the emotional equity proposition is hinged on the inevitability of a shift from performance structured CSR to engagement. When people are engaged in such undertakings, they buy into the business' corporate objectives and the sustainability of same, not because they are shareholders, but because their attainment of their personal and community goals is tied to the existence of such business entities."

5. Conclusion

Focusing on the Niger Delta, we have argued that business organizations in Nigeria, tend to treat SE as an add-on rather than as a core management function. Given the business value that effective SE adds to an organization, a change in mind-set is required. Business organizations in Nigeria should elevate SE to core management level with the requisite budget to make it fully functional. As a tangible risk-mitigating mechanism, quality SE allows business organizations not only to plan for the future but to better understand critics and potentially refute, convince or address criticisms (Jeffery, 2009). Jeffery therefore justifies the need for investment of time and money in SE based on its potential to reassure stakeholders that the organization is on top of the issues. In such a scenario, both the organization and stakeholders protect the interests of the organization. This is crucial in the fast-changing political, economic, social, technological and environmental context of business organizations, where there is a need to simultaneously maximize economic, social, and environmental values (Jeffery, 2009; Svendsen et al., 2001). Well-planned SE maximizes innovation and mitigates both technical and non-technical risks. Therefore, "corporations must proactively engage with local stakeholders to determine their pressing needs, allow them to take part in framing CSR responses to ultimately reflect stakeholders' inputs in the resulting CSR program. This will provide a sense of ownership which is necessary for local communities to support and protect any resulting CSR program thereby reducing the usual scepticism associated with corporate CSR efforts"(Lugard, 2014:171-172).It is for this reason Drucker suggested that the operational challenges and infrastructural needs of community stakeholders be moved from the liability column to asset column through CSR undertakings targeted at meeting some of these needs and not just for window-dressing (Lugard, 2014:173).Thus, rather than being a nice thing to have, 'a good way to manage crises' or a cosmetic add-on, meaningful SE is "an essential and mutually beneficial strategic function that results in better-informed and more effective policies, projects, programs and services"(DCFS, 2013: 1). It is thus, recommended that, business organizations in Nigeria dedicate more time and resources to quality SE for sustainable profitability.

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Journal of Economics and Behavioral Studies (JEBS)
Vol. 9, No. 1, February 2017 (ISSN 2220-6140)

South Africa's Youth Unemployment Dilemma: Whose Baby is it anyway?

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Abstract: Youth unemployment is a major concern to various different countries, including South Africa, which ranked fourth-worst in the global youth unemployment ratings in 2013 and 2014reaching rates of more than 50 percent. Entrepreneurship development and increased employability through appropriate skills development have been considered as possible solutions to this growing problem. The aim of this study is to determine perceptions of students pertaining their entrepreneurial outlook and perceived employability. Validated Entrepreneurship- and Employability Scales were used to determine entrepreneurial outlook and perceived employability perception. A total of 293 students from a South African University participated in this study. Data were analyzed using descriptive statistics, histograms, Pearson correlation, MANOVA and ANOVA. The findingsof this studyshow that student'sperceptions indicated that if they haveamore entrepreneurial outlook, it could strongly increase their employability. They also do not think that after the completion of their degrees that they would be more employable. A significance difference was found between year level of study, race, age, and perception of entrepreneurial outlook and employability variables of the students.They seem to have a realistic view when it comes to the risk of possible unemployment for some time after graduation. Based on these findings, it is suggested that introducing entrepreneurship training and employability programs (skills development) to students during the completion of their higher education career, could assist in the reduction of youth unemployment in South Africa.

Keywords: *Youth unemployment, entrepreneurship, employability, training, students, South Africa*

1. Introduction

"We cannot always build the future for our youth, but we can build our youth for the future." These wise words were expressed by President Franklin D. Roosevelt (Wise-Quote, 2016). In a country, such as South Africa, where more than half of its youth are actively seeking formal employment, it is even more important to invest in their future. Globally, the creation of employment opportunities has been a challenge, and South Africa is experiencing this pressure first-hand. The overall unemployment rate in South Africa is currently at 27.1 percent (Stats SA, 2016), which is more than three times the global average ofeight percent (CIA World Fact Book, 2016). The youth unemployment rate sketches an even more discouraging picture. According to Statistics South Africa (2016), South Africa's youth (aged 15-24) unemployment rate stood at 54.5 percent, as shown in the 2016third quarter labor force data. This is more than double that of the total unemployment rate (27.1%). South Africa's youth unemployment rate is calculated as being almost four times that of the sub-Saharan Africa average (Kane-Berman, 2015). These rates are calculated according to the strict definition of unemployment and include only people who are actively seeking employment but without success. When using the expanded definition of unemployment, including all those desiring employment regardless of whether or not they are actively trying to obtain it, these figures rise significantly (Reserve Bank, 2015). Globally, approximately 73.4 million youths are unemployed according to International Labor Organization (ILO) (ILO, 2016). With approximately 1.38 million youths unemployed, South Africa accounts for 1.9 percent of the global youth unemployment rate, but only 0.77 percent of the world's youth population (Kane-Berman, 2015). At the very least, this is a dismal picture that requires urgent intervention. Businesses that would be able to create a substantial quantity of job opportunities over the next five to ten years are urgently needed. Conversely, large national and multi-national businesses, such as Arcelor Mittal and Sasol Limited, are shedding rather than creating jobs. The government is economically inefficient and ineffective when it comes to job creation (Mmesi, 2015). As small to medium-sized businesses create most jobs in the economic context, entrepreneurship could aid towards alleviating the problem (OECD, 2015). This article focuses on the perceptions of a group of students regarding unemployment and the possibility that entrepreneurship training and employability programs might be a solution to the rising issue of youth unemployment.

2. Literature Review

South Africa's unemployment at a glance: South Africa is currently the tenth worst performer globally regarding unemployment, with a 25.5 percent 2016 predicted unemployment rate (ILO, 2016). According to Statistics South Africa's first quarter, actual figures already exceed this prediction at 27.1 percent (Stats SA, 2016). Table 1 reflects the ten countries with the highest unemployment rates.

Table 1: Global highest unemployment rates (2016 projections)

Ranking	Country	Unemployment Rate (%)
1	Djibouti	53.0
2	Solomon Islands	34.9
3	Mauritania	31.1
4	Reunion	30.0
5	Gambia	29.9
6	Bosnia and Herzegovina	29.4
7	Macedonia, FYR	28.1
8	Lesotho	28.0
9	Guadeloupe	26.4
10	**South Africa**	**25.5**

Source: ILO, 2016

Table 2 indicates a summary of the South African unemployment rates from 1994. This period was chosen as 1994 was the first democratic elections after many years of apartheid. During this period unemployment rates have been as low as 16.9 percent and as high as 27.2 percent.

Table 2: South Africa's unemployment rates: 1994 - 2015

Year	Unemployment Rate (%)	Global Ranking	Year	Unemployment Rate (%)	Global Ranking
2016	25.5	10th	2004	24.7	10th
2015	25.0	8th	2003	27.1	8th
2014	25.1	9th	2002	27.2	7th
2013	24.6	9th	2001	25.4	8th
2012	25.0	7th	2000	26.7	5th
2011	24.7	6th	1999	25.4	9th
2010	24.7	6th	1998	25.0	9th
2009	23.7	8th	1997	22.9	10th
2008	22.7	9th	1996	21.0	14th
2007	22.3	10th	1995	16.9	26th
2006	22.6	12th	1994	20.0	18th
2005	23.8	9th			

Source: Business Tech, 2015

After the record low rate experienced in 1995, the rate rose steadily until 2002, when it began to decrease again. At the current rate of 27.1 percent, South Africa is moving towards its 2002 peak again and urgent recommendations and solutions to stop the further rise in unemployment rates are required. Daniel (2013) lists the causes of unemployment in Africa as a lack of quality education systems and training facilities, along with poor leadership. In addition, Kirk (2010) lists the following causes namely, the mismatch of abundant non-skilled labor, a declining learnership previously known as apprenticeship training which should be enhancing transferable skills, minimum wages and over-protective labor laws, making it risky and unattractive for companies to hire new employees. Other causes can be linked to the legacy of apartheid, changes in the demand and supply of labor, the lingering effects of the 2008/2009 recession, the part trade unions play and a general lack of interest in entrepreneurship (Department of Government Communication and Information Systems, 2015).The youth unemployment picture is even more dismal. The ILO describes this issue as being that of a generation at risk (ILO, 2013), while the Economist refers to the 'lost generation' (Economist, 2013). South Africa currently has a youth unemployment rate of 54.5 percent (aged 15-24). This is the age group of youths between 15and24 years and is most commonly specified in reports by the ILO, the World Bank, and the World Economic Forum. Table 3 indicates South Africa's youth unemployment position in comparison with the ten countries having the highest youth unemployment rates. These figures are based on those for the age group 15 to 24 years.

Table 3: Global highest youth unemployment rates as at 2012, 2013 and 2014 estimates

	2012		**2013**		**2014**	
Rank	**Country**	**Unemployment Rate (%)**	**Country**	**Unemployment Rate (%)**	**Country**	**Unemployment Rate (%)**
1	Bosnia and Herzegovina	62.8	Bosnia and Herzegovina	60.4	Spain	57.9
2	Kosovo	55.3	Greece	58.4	Bosnia and Herzegovina	57.3
3	Macedonia	53.9	Spain	57.3	Greece	53.9
4	Spain	53.2	**South Africa**	**53.6**	**South Africa**	**52.6**
5	**South Africa**	**51.5**	Macedonia	52.2	Macedonia	50.8
6	Serbia	51.1	Croatia	51.5	Serbia	49.5
7	Guyana	46.05*	Libya	51.2	Libya	48.9
8	Croatia	43.1	Serbia	48.9	Mauritania	46.6
9	Tunisia	42.3*	Mauritania	42.9	Croatia	45.9
10	Montenegro	41.1	Swaziland	42.4	Italy	44.1

* 2011 figures
Source: CIA, 2013; World Bank, 2014, World Bank 2015

Table 3shows that South Africa's youth unemployment problem has deteriorated, and has moved down one place globally from fifth worst in 2012 to fourth worst in 2013 and 2014. The reasons for youth unemployment are very similar to those relating to overall unemployment and include issues such as lack of qualifications and geographical unemployment. The latter focuses on youth unemployment in certain areas, such as cities, owing to the high volumes of rural-urban migration, cyclical unemployment caused by falling output during low economic conditions and frictional unemployment (Pettinger, 2012). Other contributing factors are cultural and social considerations, participation in the underground or the black/illegal economy and hysteresis, which refer to the mindset created by extended periods of unemployment. If young people have been unemployed for long periods of time, hysteresis may make them demotivated and uninterested in continuing the search for work opportunities (Webster, 2005). Poverty, corruption, the large population, entry of migrants and the stringent labor laws contribute further to this problem.

Young people, as our current generation, are facing a new set of challenges when it comes to obtaining employment (WEF, 2014). Many researchers, from both macro and micro-perspectives, have over the years pointed out possible causes for this phenomenon (Blanch flower & Freeman, 2000; O'Higgins, 2001; Ryan, 2001, De Jongh et al., 2016). Mlatsheni and Rospabé (2002) state that some of the core macro-economic reasons for elevated levels of youth unemployment could include factors such as the geographic locality of these individuals, employer's requirements for experience and skills and the absence thereof in young people, and an oversupply of young job seekers in the market. Low levels of experience and high wage expectations also further contribute to this problem. Choudhry et al. (2013) refer to a situation called cyclical unemployment; this is when firms decide to rather dismiss young people with less experience during low economic periods and once again, this intensifies the youth unemployment problem. When viewed from a micro-economic perspective, the determinants of youth unemployment can be explained by differentiating between various theories:

- *Mc Call's Job Search Theory* - interprets youth unemployment by investigating the various strategies young people follow to identify jobs based on their preferences and reservations, especially concerning entry level wages (Mc Call, 1970);
- *Job Matching Theory*–investigates the level of how well young workers match the skills required from them by the employer. The bigger the match, the more probable the employment (Mortensen & Pissarides, 1994);

- *The Human Capital Theory*–has reference to the diverse levels of education and training as elements impacting on productivities, with bigger investment the chances of finding a job in these areas increases (Mincer, 1974).

Both micro- and macroeconomic causes contribute significantly to the number of young people finding it difficult to obtain employment in the South African labour market.Some inadequacies present in the South African labour market includes the caution of business owners to hire young people due to their possible lack of skills and level of employability (National Treasury, 2011) and the belief that entry level wages to young employees, in comparison to the risk they pose, are too high (Nattras & Walker, 2005).

Entrepreneurship training and development as a possible solution: Entrepreneurship is considered to be a possibility to increased and sustained economic development and growth. This pertains particularly to developing countries with high poverty and unemployment rates (Kroon, 2002; Sivvam, 2012; Ambrish, 2014; Meyeret al., 2016). Therefore, investment in youth entrepreneurial programs is needed. Unfortunately, in some developing countries, corruption levels and other social issues are considered very high, and this could restrict funds aimed at enabling small business and entrepreneurship development and negatively affect these types of initiatives (Uddin & Uddin, 2013; Odusegun, 2014). Entrepreneurship education both builds and shapes resilient entrepreneurs, and creates values, advances motivation and attitudes. It also supports the participants to acquire the necessary skills they may need for running a business or for work related employability (Bhat & Khan, 2014).The importance of entrepreneurship as a contributing aspect in the growth and development of an economy has frequently been pointed out (Awashti & Sebastian, 1996; Athayde, 2012). Developing countries, such as South Africa, should emphasize entrepreneurship training amongst the youth even more. Entrepreneurship training could offer opportunities for the youth to start small businesses and in turn help them to attain independence in the form of financial freedom (Raguž & Matić, 2011). Ekpoh and Edet (2011) state that a positive relation exists between entrepreneurship education and attitudes. Therefore, entrepreneurship training and education could help students and young people develop a positive attitude and understanding regarding this topic (Bagheri & Pihie, 2011).

Improving employability of youth as a possible solution: Those who do not intend to start a business ultimately would seek employment in the labor market. Therefore, the employability of young people are very important. Employability serves a prime economic purpose that is, achieving full employment (Forrier & Sels, 2003). Employability can be defined as the personal aptitude to convey and complete work related tasks. It is the capability to complete an assortment of functions given by an employer (Forrier & Sels, 2003; De Feyter et al., 2001). Heckman et al. (2006), Urzua (2009) and Ibarraran et al. (2014) state that employers value certain behaviors and attitudes linked to high productivity employees. Developing countries such as Latin America, Caribbean and the Dominican Republic have implemented youth training programs to raise participants' job skills and matching them to employers (Ibarraran et al., 2014). Results from these programs have been favorable. Another method to improve the employability of the youth is by introducing them into internships, learnerships/apprenticeship and skills programs. They can be defined as follow:

- An *internship* is a provisional position created within a business to provide learners or candidates with supervised 'on-the-job' training. Internships are usually for university graduates and students who are seeking some kind of experience in the labour market at an entry level. An intern can be paid and/or partly paid by thebusiness, but there is currently no regulations or rules surrounding this (W&RSETA, 2016).
- A *learnership* can be defined as a structured learning programme in a scarce field of the economy or where there is a skills shortage. They are practical orientated and designed to address skills shortages and contribute towards unemployment (W&RSETA, 2016).
- *Skills programs* are job-focused training interventions and are normally shorter learning programs. They also aid in skills capacity building in certain industries. They have a practical outlook and therefore greatly assist participants in improving their employability (W&RSETA, 2016).
- Another form of technical training is *apprenticeships*. They differ from learnerships in that they are job and not career orientated as they are aimed at a specific trade such as for example, jewellery making (W&RSETA, 2016).

For these programs to be successful, private sector support is required. Rolling out more employability programs in South Africa for the unemployed youth could have a positive impact on youth unemployment. Other factors that contribute to employability include career development, life and work experience, skills, confidence level, location, social class, gender and communication level in foreign languages amongst others (Karli, 2016). Qenani et al. (2014) reported that females found themselves almost 50 percent less employable than males. South Africa is a diverse cultural country with 11 official languages and El Mansour, and Dean (2016) highlight that being able to communicate in a foreign language is considered as an important employability skill.

3. Methodology

Sample: This study comprised a sample of first-, second-, third-year and postgraduate students from a university situated in the Gauteng province in South Africa. A non-probability convenience sample of approximately 350 students was drawn from the campus and 293 completed, and usable questionnaires were received. Questionnaires were completedvoluntarily, and no incentives were offered as encouragement to participate. The participants were assured of confidentiality, and no personal details were required in the questionnaire.

Development of the Research Instrument: A questionnaire instrument was developed in 2014 to test entrepreneurship and employability of students. The research instrument consisted of a biographical questionnaire, entrepreneurship scale and an employability scale. The *biographical* section of the questionnaire consisted of questions pertaining age, gender, race language, province, year of study, environment growing up in and whether one of the student'sparents were self-employed. The *Entrepreneurship Scale* developed by Meyer and Keyser (2017a) initially consisted of 12 items, but via discussion with professionals and co-researchers from Poland and the Netherlands, it was reduced to 7 items. A Cronbach Alpha coefficient of 0.73 was obtained for this scale. The 7 item scale was rated on a 6 point Likert Scale (1=strongly disagree up to 6 strongly agree). The scale consisted of questions such as: *would you consider starting your own business, do you think that becoming an entrepreneur can reduce unemployment; did you get enough entrepreneurship practical and theoretical training during completion of your degree?* The *Employability Scale* (Meyer& Keyser, 2017b) consisted of 4items and was also rated on a 6 point Likert scale (1=strongly disagree up to 6 strongly agree). A Cronbach Alpha coefficient of 0.68 was obtained. The scale included questions such as: *are you enthusiastic about finding the perfect job one day, do you become exited to start your job after completing your degree, do you want to find employment and having a degree will ensure that you easily find a job.*

Statistical method: During the first phase of the data analysis, IBM SPSS version 23 was used to test for the construct validity of the Entrepreneurship- and Employability Scales. Before performing principal factor extraction, principal component extraction was done to determine the estimated number of factors, the presence of outliers and factorability of the matrices. The Eigen values and screen plot were studied to determine the number of factors involved. A principal axis factor analysis with a direct oblimin rotation was conducted to extract the factors (Tabachnick & Fidell, 2001). During the second phase of the data analysis, the *reliability* of the items was determined by utilizing Cronbach Alpha coefficient. According to Nunnally (1967), the Cronbach Alpha coefficient values need to be above 0.6 to be acceptable. Furthermore, the Cronbach Alpha also provides information regarding which items of the instrument are related to each other and if any items need to change or be removed from the questionnaire (Pallant, 2007).

4. Results and Discussion

Biographical information of study population: The following section discusses the biographical information of the sample. Variablesincluding year of study, gender, age, race and province where students are residing were included.

Table 4 indicates that the bulk of the sample was 1st and 2nd-year students (70.9%). Females accounted for 56.2 percent of the sample and males 43.8 percent. South Africa is known for its racial distribution, and this also came about in the sample as 55.1 percent of the sample was African/Black, and 39.4 percent were White.

The sample was not well represented by Indian/Asian and Coloured students. Most students were from the Gauteng Province (68.8%) as this is the province the Universityis situated in. From the sample, 54.1 percent of students were between the age of 18 and 20 years. Other than these general demographic questions two questionspertaining the environment students grew up in were presented to the sample. The first question was where they grew up. There were two options 1) in a rural or informal area 2) in an urban or formal neighbourhood area. This question was asked to determine the context where the students grew up in. In some cases, people from rural areas are not as exposed to entrepreneurship as people from urban areas (Patel & Chavda, 2013). From the sample, 81.5 percent of students grew up in a formal environment assuming that they most probably were exposed to some sort of entrepreneurial activity. Secondly, they were asked whether or not one of their parents were self-employed. More than half responded 'no'. This indicates that 64.7 percent of the sample did not have a parent entrepreneur figure to look up to while growing up. Growing up in an entrepreneurial environment might make someone more prone to start a business (Daley, 2013).

Table 4: Characteristics of participants

Item	Category	Frequency	Percentage
Year level of study	1st year	101	34.6
	2nd year	106	36.3
	3rd year	69	23.6
	Post-graduate	15	5.1
	Missing value	1	0.3
	Total	**293**	**100**
Gender	Male	127	43.8
	Female	164	56.2
	Missing values	1	0.3
	Total	**293**	**100**
Race	Coloured	9	3.1
	Indian/Asian	7	2.4
	White	115	39.4
	African Black	161	55.1
	Missing values	0	0
	Total	**293**	**100**
Province	Gauteng	201	68.8
	Free State	30	10.4
	Northern Cape	18	6.2
	Mpumalanga	16	5.5
	Eastern Cape	7	2.4
	North-West	8	2.7
	Kwazulu Natal	5	1.7
	Limpopo	3	1
	Missing values	4	1.4
	Total	**293**	**100**
Age	18 - 20 years	157	54.1
	21 - 24 year	128	43.9
	25 years and older	6	2
	Missing values	1	0.3
	Total	**293**	**100**
Environment	Rural	52	17.8
	Urban	238	81.5
	Missing values	2	0.7
	Total	**293**	**100**
Self-employed parent	Yes	103	35.3
	No	189	64.7
	Total	**293**	**100**

Statistical Analysis: This section gives an overview of the descriptive statistics compiled from the sample. The mean, standard deviation, skewness, kurtosis and Cronbach Alpha are reported on for the two scales; Entrepreneurship and Employability. Histogramsreporting on the distribution of the two scales' scores as well as Pearson correlation is explained. ANOVA and MONOVA tests were conducted to determine if statistical differences between the groups exist. Table 5 describes the descriptive information for the sample.

Table 5: Descriptive statistics and Cronbach Alpha Coefficient

Scale	Mean	*SD*	Skewness	Kurtosis	α
Entrepreneurship	37.48	6.31	-0.87	1.08	0.73
Employability	23.98	3.86	-1.24	2.45	0.68

The information seen in Table 5 indicates normal negative distribution scores for Entrepreneurship and Employability of students. Employability kurtosis is 2.45 and indicates a normal spread and distribution of the data. Acceptable Cronbach Alpha coefficients of 0.73 (Entrepreneurship Scale) and 0.68 (Employability Scale) were found. Hair et al. (1998) explain that generally the agreed lower limits for the Cronbach Alpha coefficient is 0.70, but in the case of exploratory research, the Cronbach Alpha coefficient may be lowered to 0.60.

Figure 1: Distribution of Employability scores

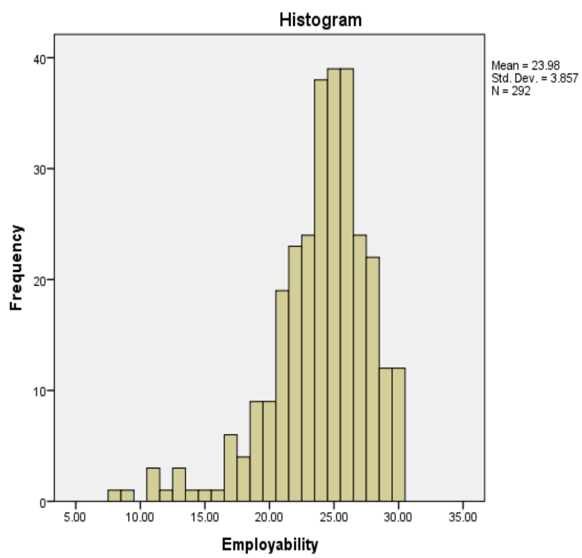

Figure 2: Distribution of Entrepreneurship scores

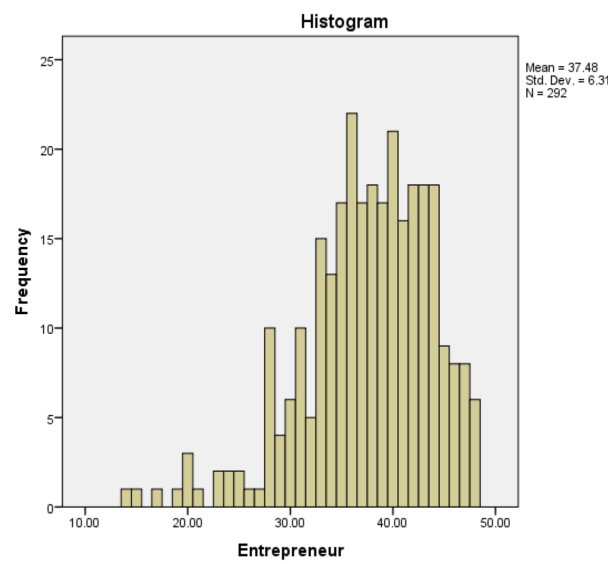

Figure 1 shows the mean scores for the Employability scale. The lowest score indicates that students do not think that after the completion of their degree that they would be employable. This isconcerning, and students clearly see the reality of being unemployed even after obtaining a degree. Graduate unemployment seems to be on the rise together with general unemployment and youth unemployment. Even though graduate unemployment only accounted for 5.9 percent of overall change in unemployment from 1996 to 2012, real unemployment for this group of the population has risen from 5.4 percent in 1995 to seven percent in 2012 (Oluwajoduet al., 2015). Figure 2 shows the mean scores for the Entrepreneurship scale rating given by subject in each of the five conditions, ranging from 1 strongly disagree to 6 strongly agree. The highest score indicates the extent to which the students experience, that if they become an entrepreneur, it will strongly decrease the unemployment rate. In this study, it can be concluded that the entrepreneurship scores seem to be suitable for parametric statistical analysis. Although a student might perceive that starting a business will reduce unemployment, there are many factors that need to be addressed before this maybecome a real solution to youth unemployment. Jones (2013) states that for youth entrepreneurship to really have an impact on youth unemployment levels, the government will have to build a stronger enabling environment for these entrepreneurs. One of the main barriers to successful youth-owned small businesses is South Africa' generally poor education system (Jones, 2013). Furthermore, the 2015/16 Global

Entrepreneurship Monitor (GEM) reports that only 6.3 percent of people between the age of 18 and 24 years were engaged in Early-Stage Entrepreneurial Activity (TEA) during 2015 (Herrington & Kew, 2016). This, combined with the results from the histogram in Figure 2, indicates that although students perceive that they can reduce the unemployment rate through entrepreneurship, the implementation and successfulness of this still needs much attention. Table 6 makes use of Pearson's correlation to determine if any significant correlation exists between certain individual characteristics, entrepreneurship and employability.

As seen from Table 6 a negative statistically significant relationship exists between the year level of study and the environment where students grew up. A practical negative relationship with a medium effect exists between year level of study, and a practical, positive effect exists with the year level of study and the age of the student. A negative statistically significant relationship exists between the race, province, having a self-employed parent and entrepreneurship. In some cases, people from rural areas are not as exposed to entrepreneurship as people from urban areas (Patel & Chavda, 2013). Growing up in an entrepreneurial environment might make someone more prone to also start a business (Daley, 2013).A practical significant relationship exists between the race of the student, and primary language spoken by the student (negative large effect). No relationship could be found between entrepreneurship outlook and employability of students. Multivariate Analysis of Variance (MANOVA) and Analysis of Variance (ANOVA) wasutilized to determine the significance of the difference between the dependent variables: entrepreneurship outlook and employability and the independent demographic variables of the sample.Demographic characteristics were analysed using Wilk's Lambda statistics, and the results are reflected in Table 7.

Table 6: Pearson correlations between Individual Characteristics, Entrepreneurship & Employability

Item	Year level study	Gender	Race	Province	Language	Age	Environment	Parent	Entrepreneurship
Year level of study	-								
Gender	-0.063	-							
Race	-0.427**	-0.069	-						
Province	0.111	0.083	-0.244**	-					
Language	0.389**	0.084	-0.859**	0.310**	-				
Age	0.610**	0.024	-0.349**	0.129*	0.326**	-			
Environment	-0.240**	-0.021	0.330**	-0.153**	-0.364**	0.122*	-		
Parent self-employed status	0.075	-0.015	-0.210**	-0.016	0.185**	0.078	0.137*	-	
Entrepreneurship	0.031	0.028	-0.164**	0.084	0.151**	0.121*	-0.077	0.005	-
. Employability	-0.066	-0.093	0.109	0.049	-0.092	0.086	0.060	0.064	0.081

* Correlation is significant at the 0,05 level (2-tailed)
** Correlation is significant at the 0,01 level (2-tailed)

Table 7: MANOVA's differences in entrepreneurship and employability variables of demographic groups

Variable	Wilks'Lambda	*F*	*Df*	*P*	η^2
Year level of study	0.920	4.040	6.00	0.001*	0.041
Gender	0.990	1.442	2.00	0.238	0.010
Race	0.941	2.976	6.00	0.007*	0.030
Province	0.951	1.015	14.00	0.436	0.025
Language	0.911	1.333	20.00	0.151	0.045
Age	0.913	1.880	14.00	0.026*	0.045
Environment	0.990	1.523	2.00	0.222	0.010
Parent self-employed status	0.996	0.600	2.00	0.550	0.004

$\eta 2 > 0.25$ = large effect
** Statistically significant difference: $p < 0.05$*

Table 8: Differences in Entrepreneurship and Employability based on Year Level of Study

Item	1	2	3	4	*p*	η^2
Entrepreneurship	36.356	38.717	37.681	34.933	0.020*	0.040
Employability	24.792	23.255	23.536	25.533	0.009*	0.034

1= 1st year; 2= 2nd; year; 3= 3rd year; 4= post-graduate $\eta 2 > 0{,}25$ = large effect
* Statistically significant difference: $p < 0{,}05$

From Table 7 it is clear that a significant statistical difference exists between year level of study (F=4.040; p=0.001), race (F=2.976; p=0.007), age (F=1.880; p=0.026), and the two dependent variables (entrepreneurship and employability) within the sample. ANOVA analysis was performed to determine specific differences whenever statistical differences were found. The results of the ANOVA based on year level of study are given in Table 8.As seen from Table 8 it is clear that post-graduate students(M=34.933) experience less differences than under-graduate students (M=36.356; M=38.717; M=37.681) regarding the entrepreneurship dependent variable. This could indicate that they have a lower inclination to start their own business. A study done by Ekpoh and Edet (2011) found a positive relationship between education and entrepreneurial attitudes. This is in agreeance with the under-graduate' year level of study' groups but slightly contradicting to the post-graduate group which reported the lowest levels of entrepreneurial inclination. This could be due to the small sample size of the post-graduate group compared to the under-graduate groups' much larger sample sizes. Post-graduates also experience employability different from under-graduates with the post-graduate group reporting the highest level of employability (M=25.533). This links to a study done by Stiwne and Alves (2010) stating that the employability of students is related to various characteristics of which include higher education levels. Enhancing education and adding entrepreneurship training could help students and young people to develop higher employability levels and increased intention to start a business (Bagheri & Pihie, 2011).

Table 9: Difference in Entrepreneurship and Employability based on Race

Item	1	2	3	4	*P*	η^2
Entrepreneurship	38.391	39.222	32.286	36.383	0.006*	0.042
Employability	23.571	24.667	24.857	24.435	0.257	0.014

1= Colored; 2= Indian/Asian; 3= White; 4= African black $\eta 2 > 0{,}25$ = large effect
* Statistically significant difference: $p < 0{,}05$

From Table 9 it can be seen that Indian/Asian (M=39.222), Coloured (M=38.391) and African(M=36.383) students experience a higher entrepreneurial inclination to start their own business than white students (M=32.286) students. This is in contrast with research findings from a study conducted in the UK, indicating that a typical entrepreneur is white and male (Levine & Rubinstein, 2013) and in this case, the white group of students reported the lowest level of entrepreneurial outlook and intention. Another study done by Herrington and Kew (2016) conducted only in South Africa, corresponds with the results of this study as it reported that Black Africans have higher entrepreneurial activity than White South Africans. A possible reason for this could be due to the South African policy regarding Black Economic Empowerment (BEE). BEE was introduced by the South African government to increase the number of Black Africans who own, manage and control the economy in order to decrease previous wrong-doings of apartheid and decrease inequalities (Department of Trade and Industry, 2011). This could affect white student's intention to start a business and their outlook on entrepreneurship.

Table 10: Difference in Entrepreneurship and Employability based on Age

Item	1	2	3	*P*	η^2
Entrepreneurship	37.064	37.891	40.667	0.253	0.009
Employability	24.573	23.305	23.333	0.020*	0.027

1= 18-20 years; 2= 21-24 years; 3= 25 years and older $\eta 2 > 0{,}25$ = large effect
* Statistically significant difference: $p < 0{,}05$

Table 10 shows that students between the age group 18 and20 years' (M = 24.573) experience slightly higher employability levels than those older than 21 years (M = 23.305; M = 23.333). Previous studies found that self-perceived employability and age are negatively correlated, and this could be due to younger people having high confidence and optimism levels and older people having a sense of accomplishment (Neilsen, 1999; Van der Heijden, 2002). These findings also link to the findings from this study as the youngest age group reported the highest employability levels. Van der Heijden et al. (2009) also found that age reduces the relationship between employability and career success from a supervisor and not a self-perceived point of view. It should be noted that studies by Nielsen (1999),Van der Heijden (2002) and Van der Heijden et al. (2009) focussed on people in larger ranged age groups and considering that the three groups' age difference in this study is only a few years apart having groups with larger age gaps may yield different results. In general, employability should increase with age due to increased education, skills and experience obtained.

5. Conclusion and Recommendations

The findings of this study suggest that students from this sample felt that entrepreneurship is a possible solution to the current youth unemployment issue in South Africa.Procter (2011) found a positive correlation between entrepreneurship skills and employability and although no correration between entrepreneurial outlook and employability was found in this study, these two concepts link well with each outher. The assumption can be made that even if students do not choose to start new businesses after graduation, providing entrepreneurial training may also improve employability as certain 'employer-friendly' traits are formed.Students from this study further felt that they do not have enough attributes that make them employable to existing businesses. Entrepreneurial awareness should be a fundamental topic raised at government level, spilling over to primary, secondary and higher educational levels. It is also important to provide such education for students who might not intend to apply to higher educational institutions or who cannot afford it.Developing and creating an entrepreneurialculturein the early stages of learning will add to the establishment of small businesses and improve employability. Many young people might not be inclined to start a new business, and they need to be employable to businesses. Special attention should be made to skills matching of jobs in demand and university offered degrees. A focus should also be placed on training young people to improve on certain job skills (Ibarraran et al., 2014). Implementing programmes addressing these issues could, in turn and to an extent, reduce the youth unemployment rate. Oladeleet al. (2011) found that unemployment is negatively correlated to entrepreneurial activity, thus meaning that the higher the unemployment rate, the lower the level of entrepreneurial activity. Thus, increasing the entrepreneurial support and activities could decrease the unemployment rate. These findings were also noted by Solomon et al. (2002).

The title of this article: "South Africa's youth unemployment dilemma: Whose baby is it anyway", explicitly poses the question as to who should be responsible for solving this rising problem. The answer is not that simple, however, with coordinated strategies from the government, assistance from the business sector and patience and commitment from the youth, solving or improving this problem is possible. Unemployment is a global phenomenon and problem, but, with suitable planning and intervention, it might be possible to reduce. A wider area of concern, however, is youth unemployment, and urgent interventions to resolve this issue is crucial. It is therefore of importance to address this problem by creating a foundation for young individuals and graduates to become more entrepreneurial and employable.Initiatives should not only be implemented in universities but also in schools as a large percentage of young people do not intend to join a higher education institution. Many internships and learnerships are available, but the availability of information lacks and is not distributed timeously. The following recommendations may assist with this problem if implemented in a positive manner:

- Students should be motivated and supported in developing their own business ideas or business plans while studying for their degrees.
- They must be taught to think "entrepreneurially".
- The content of educational programmes should be re-considered to create an entrepreneurial culture and "job-ready" and thus more employable students.
- Government and larger private corporations should create a supportive environment for entrepreneurs.
- Red-tape processes during the phases of starting a business should be relaxed, as stringent regulations and turnaround times make the task of starting a business very difficult.

- Specially-designed youth development programmes should be implemented to aid in developing more employable young people.
- Local businesses should become involved in, for example, providing practical training workshops.
- Internship programmes could assist in providing valuable knowledge.
- Technical and practical skills should focus on in-training programmes.
- Businesses and other institutions should create mentorship programmes.
- Business incubators should be more active in their creation of young entrepreneurs and assist them with their new businesses.
- "After care" support for small businesses should be continued for a significant period after they start up, as many businesses fail within their first few years of operation.
- The government should initiate incentives for large companies to make use of local entrepreneurs in the supply chain and product sourcing.

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Journal of Economics and Behavioral Studies (JEBS)
Vol. 9, No. 1, February 2017 (ISSN 2220-6140)

The Influence of Brand Trust, Brand Familiarity and Brand Experience on Brand Attachment: A Case of Consumers in the Gauteng Province of South Africa

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Abstract: In today's post-modern era, brands significantly play an important role in consumer behaviour. This paper aimed at examining how brand trust, brand familiarity and brand experience have an influence on brand attachment using a sample of consumers within the Gauteng Province of South Africa. A quantitative method using Smart PLS was employed to test the relationships among the three hypotheses. A structured questionnaire consisting of validated scales for brand trust, brand familiarity, brand experience and brand attachment was administered to a sample of 181 consumers within the Gauteng province of South Africa. The results of this study showed that brand trust, brand familiarity and brand experience positively influences brand attachment in a significant and direct way. The results of this empirical study provided fruitful implications toacademicians, practitioners as well as policy makers from the perspective of academicians.This study makes a significant contribution to the brand management literature by systematically examiningthe influence of brand trust, brand familiarity and brand experience on brand attachment. On the practitioners' side, this study therefore submits thatbrand managers for companies in the Gauteng province ought to concentrate on strategies that enhance brand experience because it is likely to yield the desired brand attachment when compared to other research constructs. The results which have been obtained from this study may also be used to generate new policies and revision of the existing policies. Precisely,policies or strategies which exist in numerous organizationsare there in order to make consumers remain attached to certain brands.Moreover, this study vastly add new knowledge to the present body of brand management literature in Africa - a context that is neglected by some academicians in developing countries.

Keywords: *Interpersonal Attachment Theory, Brand trust, Brand familiarity, Brand experience, Brand attachment*

1. Introduction

Being able to build a relationship with a consumer through the brand is a vital necessity for marketing (Rammile, 2015). Magnoni and Roux (2012) concurs that building and maintaining a strong consumer-brand relationship is of great importance for managers. According to Roustasekehravani and Hamid (2014) having a successful brand will result in more market share and more profitability. In addition, brand plays an extra ordinary role in companies related to services because brands which are strong increase the pace of customer's trust of the purchase that is invisible (Berry, 2000). From the perspective of a firm, building a strong brand is essential for gaining and establishing a competitive advantage over one's business rivals (Chang & Liu, 2009). Firms implement brands, in order to stand out and to develop loyal customers (Keller, 2013). According to Kotler and Armstrong (2010:242) branding allows businesses to sell their products distinctively among competitors. Branding also provides the business with distinctive legal protection, such as patents or trademarks, therefore businesses need to conceptualise their brand meaning for consumers to form a relationship with the overall brand (Sokhela, 2015:10).

According to Laforet (2010:2), individuals today are undoubtedly a generation that consumes brands, from the clothes they wear, to the food they eat and even to the toothpaste they use. To consumers buying is a form of problem solving and it is branding that makes this process significantly easier, as people first search for information, evaluate this information and then only decide to make a purchase decision (De Chernatony, McDonald & Wallace, 2011:61). In addition, Ahmed, Rizwan, Ahmad and Haq (2014) are of the view that loyal customers of specific brand are probably willing to pay any price for the product and this is due to the communication of the brand, trust of the customer as well as better service quality offered by the brand make consumer attractive to use it. The major contribution of the paper is that it suggests a framework which will make a positive input to the body of knowledge and the growing branding literature. Howeverit is not clear in the marketing or branding literature in particular, the extent to which brand trust, brand familiarity and brand experience influences brand attachment.Despite an avalanche of theoretical contributions made by many international scholars on brand attachment literature, it appears that within the South African context, there is dearth in research studies that have shed light on the influence of brand trust, brand familiarity and brand experience on brand attachment. Previous researchers have examined how brands influence consumer behaviour in various contexts by focusing on consumers' preferences for private and national brand food products (Wyma, Van der Merwe, Bosman, Erasmus, Strydom, & Steyn, 2012). Brand service quality, satisfaction, trust and preference as predictors of consumer brand loyalty in the retailing industry (Chinomona, Mahlangu & Pooe, 2013);Brand recognition in television advertising: The influence of brand presence and brand introduction (Gerber, Terblanche-Smit, &Crommelin, 2014); Perceived Brand Personality of Symbolic Brands (Müller, 2014); The impact of packaging, price and brand awareness on brand loyalty (Dhurup, Mafini &Dumasi, 2014); Consumer intentions of purchasing authentic luxury brands versus counterfeits in South Africa (Shunmugam, 2015); An empirical investigation into the effectiveness of consumer generated content on the purchase intention of sports apparel brands (Venter, Chuchu& Pattison, 2016); Celebrity endorsement advertising: brand awareness, brand recall, brand loyalty as antecedence of South African young consumers' purchase behaviour (Ndlela&Chuchu, 2016). Therefore, the findings of this study will contribute a lot as branding techniques or guidelines for marketers as well as brand managers who desire that consumers should always be attached to their brands. In view of this identified research gap, the objectives of this study are centred on investigating the influence of brand trust, brand familiarity and brand experience on brand attachment.

Significance of the Study: This study will be of significance to brand managers of various retail organizations since most of them aim to maximize profitability. Therefore, this study will help brand managers and marketing managers to identify the predictors which enhance brand attachment among consumers within the Gauteng province of South Africa. In addition, this research is of significance domain to the body of knowledge as it extends the knowledge base that currently exists in thefield of brand management. Moreover, it is anticipated that the findings will be of value to future researchers and scholars who may use the research findings of this study to carry out their own studies as well as those academicians who may also find helpful gaps in research that may spur interest in further research.

2. Literature Review

Theoretical grounding: In order to get a clear understanding of the context of this research, this study will be anchored in the framework of the Interpersonal Attachment Theory which is deemed to provide an appropriate theoretical grounding to this study. The conception of brand attachment has its roots in the Interpersonal Attachment Theory, which was pioneered by Bowlby (1979). The attachment theory describes the innate human need to form affectionate bonds (Bowlby, 1980). Additionally, this theory propounds that attachment to figures is an inborn behavioral system (Tsai, 2011). Amin &Malin (2012) points out that according to the theory; a child shows separation anxiety and distress as soon as a parent or significant other no longer is present. In this case, it would be on the attachment to brands, and if the consumer shows feelings of regret and sorrow when the object is no longer available (Amin &Malin, 2012). Conversely, Moussa and Touzani (2013:339) argue that many of attachment theory's premises are transferable to consumer-brand relationship. According to Ismail and Ali (2013:55) the basic underlying premise of attachment theory is "Separation Distress", which refers to the extent to which consumers show their emotions when exposed with real or imagined separation from an object of strong attachment. Applied to the brand attachment paradigm, the theory subjected that customers have an innate propensity to be attached to some brands (Pawle& Cooper, 2006; Parish & Holloway, 2010). Thomson (2006) suggests that the attachment theory can make a contribution to marketing because of the distinctive qualities of an attachment. Therefore, based on the authors' explanations it can be noted that if the attachment theory is taken into consideration it can assist brand managers of various retail organisations in building up consumer to brand relationships.

Brand Trust: Trust can be defined as the extent to which a consumer believes that a certain brand satisfies his or her desire (Chinomona, 2016). Brand trust is an important mediator factor on the customer behaviors before and after the purchase of the product; and it causes long term loyalty as well as strengthens the relations between two parties (Liu, Li, Mizerski, &Soh, 2012). Jin, Line and Merkebu (2015) and Geçti and

Zengin (2013) are of the view that brand trust is the customer's willingness to rely on the ability of a brand to perform its function as expected. Furthermore, brand trust is defined by Chinomona, Mahlangu and Pooe (2013) as a consumer's confident beliefs that he or she can rely on the brand to deliver promised services or products. It can be interpreted that brand trust is created and developed by direct experiences of consumers via brands (Kabadayi & Alan, 2012). According to Cakmak (2016) brand trust is described as a secure feeling which consumer feels that brand in question will meet their personal expectations. Moreover, trust can reduce the consumer's uncertainty, because the consumer not only knows that brand can be worth trusting, but also thinks that dependable, safe and honest consumption scenario is the important link of the brand trust (Soong, Kao & Juang, 2011). Drawing inference from the above descriptions of brand trust, it is arguable to elucidate that when customers have a trust to the brand, repeat purchase behaviour will be created, which leads to commitment to the brand, and the relationship between brand as well as customers can be built up.

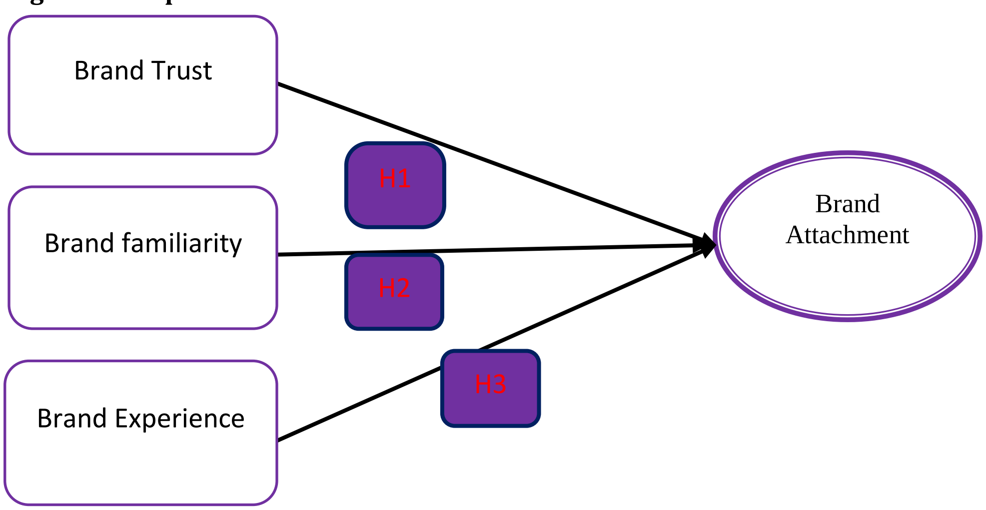
Brand Familiarity: Familiarity is defined by Saini (2015) as the number of product-related experiences that have been accumulated by the consumer. Normally a well-known brand is a source of competitive advantage as familiar brands are highly salient in the minds of consumers, and the brand has the ability to differentiate itself in the clutter of competition (Lee, Conroy, & Motion, 2012). When consumers decide to buy products, they tend to be affected by brand familiarity (Chen, Chen & Wu, 2015). According to Mikhailitchenko, Javalgi, Mikhailitchenko and Laroche (2009) brand familiarity reflects the 'share of mind' of a given consumer attained to the particular brand and the extent of a consumer's direct and indirect experience with a brand. Nguyen and Gizaw (2014) points out that brand familiarity is extent of information available about the brand that makes a consumer confident to buy the product. In addition, brand familiarity deals with a consumer's prior knowledge about the brand (Huang, 2016). According to Yang, Zhang and Zou (2015) brand familiarity is the degree of understanding about the brand accumulated in the consumers' memory after contacting and experience the brand. That is, the more contact with brand, the higher the brand familiarity (Buil, De Chernatony & Martínez, 2013). Furthermore, Mikhailitchenko, Javalgi, Mikhailitchenko&Laroche (2009)argued that brand familiarity is determined by strength of associations that the brand name evokes in consumer memory, and in this way it captures the consumer's brand attitude schemata. Moverover, when consumer choices are not a matter of life or death and consumers do not see large differences among brands, consumers are unmotivated about the choice process and so will use brand familiarity as a cue to make the decision (Keller, 2008:55). Drawing from the above explanations it can be noted that brands with higher levels of familiarity enjoy higher levels of liking among both consumers and retailers.

Brand Experience: Brand experience can be defined as the perception of the consumers, at every moment of contact they have with the brand, whether it is in the brand images projected in advertising, during the first personal contact, or the level of quality concerning the personal treatment they receive (Jouzaryan, Dehbini&Shekar, 2015:71). Brand experiences are defined as sensations, feelings, cognitions, and behavioral responses evoked by brand-related stimuli that are part of a brand's design and identity, packaging, communications, and environments (Evans, 2011). In addition, Akin (2016) harmonises that brand experience includes subjective, internal consumer responses (senses, emotions, and cognitions) and behavioural responses caused by brand-related stimuli that are parts of the brand's design, identity, packaging, brand communication and surroundings. Naidoo (2011:30) elucidates that brand experience deals with an individual audience as it interacts with a brand. Further Naidoo (2011:30) states every time she or he interacts with that brand bring about either a positive, negative or neutral experience. Brakus, Schmitt, and Zhang (2008) stresses that brand experience is a personal source of information that can be utilized to form the basis of future decisions, such as repurchase intention. Brand experience is created when customers use the brand, talk to others about the brand; seek out brand information, promotions, and events, and so on (Nadzri, Musa, Muda, & Hassan, 2016).From the above descriptions, it can be noted that brand experience involves theinvolvements that allow consumers to engage with and experience the true benefits of the brand.

Brand Attachment: Attachment is the emotional and affective bond built by a consumer in respect of a particular brand (Smaoui&Temessek-Behi, 2011:257). Customers tend to personify a favoured brand and thus build a close affiliation with it (Halloran, 2014). Brand attachment is a critical construct in describing the strength of the bond connecting consumers to a brand because it should affect behaviours that foster brand profitability and consumer lifetime value (Gover, 2011:7). Conceptually, brand attachment is similar to possession attachment when considering the brand as a source of emotions, self-identity, and shared personal history values (Smaoui&Temessek-Behi, 2011:257). According to Storm (2015:24) the theory of brand attachment stems from consumer behavior research, where the area of interest is in relation to brand relationships and loyalty. Cristau (2003) describes brand attachment as a strong and long-lasting psychological and emotional brand relationship resulting from concomitant feelings of friendship and dependence towards the brand. Furthermore, Park, MacInnis, Priester, Eisingerich and Lacobucci (2010) define brand attachment as the strength of the bond connecting the brand with the self. In a similar vein, Mala¨r, Krohmer, Hoyer and Nyffenegger (2011:36) view brand attachment as a construct that reflects the bond connecting a consumer with a specific brand and involves positive feelings towards the brand. The bond varies in strength, with some individual exhibiting a weak bond with an attachment object and other exhibiting strong bond (Raut, 2015:29). Brakus, Schmitt and Zarantonello (2009:54) go on further to states as with brand attachment, customer delight is characterized by arousal and positive affect; it can be considered the affective component of satisfaction. In addition, Shestakov (2012:17) mention that brand attachment also possesses marketing value since it helps consumers choose a brand from a set of available brands in a certain market as it is based on emotional bond between the consumers' self and the consumers' perceived representations of brand's personality. This research paper adopts the definition stated by Louis and Lombart (2010:118) which explains brand attachment as an "emotional link between a consumer and a brand".

Conceptual framework and hypothesis development: In order to provide a link between the research constructs under investigation, the authors embarked on a conceptual framework. Jabareen (2009) defines a conceptual framework as a network, or "a plan," of interlinked concepts that together provide a comprehensive understanding of a phenomenon or phenomena. Furthermore, drawing from the literature reviewed, the conceptual model in Figure 1 has been developed. Moreover, Maziriri and Chinomona (2016:130) point out that 'the conceptual model is a representation of the constructs and their relationships with one another'.

Figure 1: Proposed Research framework



The relationship between brand trust and brand attachment: Belaid and Temessek (2011) point out that trust is a perquisite to brand attachment and it plays a main role in enhancing this affective bond. In marketing literature, trust is regarded as a key ingredient for the development of brand attachment and has been recognized as a highly significant tool for enhancing brand performance (Chinomona 2013). Among the studies which support the positive relationship between brand trust and brand attachment is the one conducted bySorayaei and Hasanzadeh (2012) to investigate the impact of brand personality on three major relational consequences which are trust, attachment, and commitment to the brand. Their study' results indicated that trust to the brand has significant effect on attachment to the brand. In another study that was conducted by Fallahi and Nameghi (2013) in order to investigate the effects of brand personality on three Constructs which are brand trust, brand attachment, and brand commitment in Imam Khomeini Port City, using the Structural equation modelling. Their study' results revealed that there is a significant

relationship between customers’ brand trust and customers' brand attachment. Additionally, a study conducted by Asadollahi and Hanzaee (2011) focused on investigating the effects of brand knowledge and brand relationships on purchase behaviour of customers. The empirical results of their study revealed that the effect of brand trust on brand attachment was significant and this effect was also positive. Moreover, previous studies have found a positive relationship between brand trust and attachment (Louis &Lombart, 2010; Chiu, Huang & Yen, 2010; Kim, Chung, & Lee, 2011; Chinomona, 2013). Therefore, inferring from the literature and the empirical evidence above mentioned, the study hypothesizes that:
H1: Brand trust has a positive influence on brand attachment

The relationship between brand familiarity and brand attachment: Taghipourian and Bakhsh (2015) analysed the factors that have an influence on brand attachment and the ones that are influenced by it. Taghipourian and Bakhsh (2015) identified brand familiarity as a factor that influences brand attachment. The literature and research on place attachment suggest that familiarity is one of the predictors of the bonding between people and place (Williams &Vaske, 2003). Several other researchers, developing a measurement for place attachment, considered familiarity as one of the dimensions (Raymond, Brown, & Weber, 2010; Hammitt, Backlund&Bixler, 2006, Hammitt, Backlund&Bixler, 2004).
H2: Brand familiarity has a positive influence on brand attachment

The relationship between brand experience and brand attachment: The experience that is able to touch the consumer emotional side will cause the existence of consumer attachment on the brand or specific product (Ardyan, Kurnianingsih, Rahmawan, Wibisono&Winata, 2016). According to Kang, Manthiou, Sumarjan and Tan (2016) as customer interactions with a brand increase, they develop emotional bonds through their experience; this is known as brand attachment. In addition, Belk (1989) debates to the fact those consumers are more likely to be attached to things that are significant to their past experiences, places and background. Moreover, elucidates that this relationship should exist because the positive experience a consumer has with a particular brand, is a driving factor in a consumer becoming attached to that particular brand (Mkhize, 2010). Therefore, inferring from the literature and the empirical evidence above mentioned, the study hypothesizes that:
H3: Brand experience has a positive influence on brand attachment

3. Methodology

The study utilized a quantitative research design using a structured questionnaire. The design was suitable to solicit the required information relating to brand trust, brand familiarity, brand experience and brand attachment.The approach enables to examine the causal relationships with the constructs utilised in the study.

Sample and procedure: The sample of the study comprised consumers with the Gauteng province of South Africa. A non-probability convenience sampling method was chosen for the purposes of this study since the characteristics of this method have particular appeal to financial and time constraints. Every attempt was made to ensure geographical representation of the sample.

Target population and data collection: In this study; the target population were South African consumerswithin the Gauteng province who purchased any consumer goods. The sampling unit was the individual consumer. Students from the Vaal University of Technology, Vanderbijlpark campus were recruited and trained to serve as data collectors. A total of 200 questionnaires were collected from respondents. A covering letter accompanied the questionnaire stipulating the purpose of the study. In addition, the covering letter ensured respondents anonymity and confidentiality. A total of 181 questionnaires were eventually used for the analysis as 19 were discarded due to incomplete responses on the questionnaire, resulting to 91% of the response rate.

The questionnaire layout and questions format: A five-section questionnaire was designed to collect data from the participants.Section A comprised of multiple choice questions pertaining to the respondents’ demographic factors such as gender; age and marital status.Section B assessed brand trust, section C measured brand familiarity, Section D of the questionnaire comprised questions on brand experience and

Section E assessed brand attachment. All theresearch scales were designed on the basis of previous work. Proper modifications were made in order to fit the current research context and purpose" (Chinomona & Dhurup, 2016:8). Brand trust was measured using four-item scales adapted from Gecti and Zengin (2013). BT 4 was deleted and remained with 3 measurement items because the factor loadings were less than 0.5. Brand familiarity' used a four-item scale measure; all were adapted from Saini (2015). BF 4 was deleted because it did not meet the threshold. Brand experience used a four-item scale measure; all were adapted from Akin (2016). BE 1 was deleted because the factor loadings were below the cutoff point of 0.5. Brand attachment was measured using a five-item scale taken fromGover (2011). BA 4 and BA 5 were deleted because the factor loadings were below the recommended threshold of 0.5 according to Anderson and Gerbing (1988). Responses for SectionB, C, D and E were measured by a five-point Likert scale, 1= strongly disagree, 2 = disagree, 3 = neither disagree nor agree/neutral, 4 = agree and 5 = strongly agree to express the degree of agreement or disagreement.

4. Data Analysis and Results

A Microsoft Excel spread sheet was used to enter all the data and in order to make inferences of the data obtained, the Statistical Packages for Social Sciences (SPSS) and the Smart PLS software for Structural Equation Modelling (SEM) technique was used to code data and to run the statistical analysis. Smart PLS has emerged as a powerful approach to study casual models involving multiple constructs with multiple indicators (Chinomona &Dubihlela, 2014).In addition,Smart PLS supports both exploratory and confirmatory research, is robust to deviations for multivariate normal distributions and is good for small sample size (Hair, Ringle, &Sarstedt, 2013). Since the current study sample size is relatively small (181) Smart PLS was found more appropriate and befitting the purpose of the current study.

Sample description: The study distributed questionnaires to different consumers in the Gauteng province in South Africa. Out of 210 questionnaires which were distributed, 199 were returned and out of these 199 questionnaires, only 181 were usable. This yielded a valid response rate of about 86%. Descriptive statistics in Table 1 show the gender, marital status, and age of consumers that participated in the study. Asindicated in Table 1 below, this study shows that females participated more in the study and constitute 54% of the total target population. Male consumers who participated in the study were 46% of the total population. The most active age group in terms of purchasing brands is that below 30 years which constitute 50% of the total population, followed by those between 31 and 60 years (38%) and last those above 60 years, constituting 12% only. This shows that those who are old and mostly on their pensions do not care about buying brand products maybe because they are old and have no money. Respondents who are married constitute 38% of the total population and the remainder is single which constitute 62% of the total population. The reason might be that those who are single need to attract the opposite sex and have life partners that are why they go for branded products which are very expensive.

Table 1: Sample demographic characteristics

Gender	**Frequency**	**Percentage**
Male	83	46%
Female	98	54%
Total	181	100%
Age	Frequency	Percentage
≦30	90	50%
31-60	70	38%
≧ 60	21	12%
Total	181	100%
Marital status	Frequency	Percentage
Married	68	38%
Single	113	62%
Total	181	100%

Path Modeling Results: Reliability and validity of the measurement instruments proves to be good so the study proceeded to test the proposed hypotheses. In total there are three hypotheses that are tested. In the path model, Brand Trust (BT), Brand Familiarity (BF) and Brand Experience (BE) are the predictor variables. Brand Attachment (BA) is the sole outcome/dependent variable. Figure 1, below offers the proposed hypotheses and the respective path coefficients. The same results of the path coefficients are tabulated in Table 2 depicting the Item to Total correlations, Average variance extracted (AVE), Composite Reliability (CR) and Factor Loadings.

Scale accuracy analysis: As clarified above BT 4, BF 4, BE 1, BA 4 and BA 5 were deleted due to the fact that the factor loadings were below 0.5 which is the recommended threshold according to Anderson and Gerbin (1988). Table 2, above present the research constructs, Cronbach alpha test, Composite reliability (CR), Average variance extracted (AVE) and item loadings. The lowest item to total loading is BT 3 with 0.520 and the highest is BT 1 with 0.938. On Factor loadings the lowest is BT 3 with 0.622 and the highest is 0.942 which is BT 1.This shows that the measurement instruments are valid. The lowest Cronbach alpha is 0.701 and the highest is 0.873 which shows that the constructs are very reliable and are explaining more that 50% of the variance.

Table 2: Measurement Accuracy Assessment and Descriptive Statistics

Research constructs		Descriptive statistics*		Cronbach's test		C.R.	AVE	Measurement Item Loadings
		Mean	SD	Item-total	α Value			
Brand Trust (BT)	BT1	2.50	1.117	0.938	0.873	0.873	0.799	0.942
	BT2			0.864				0.911
	BT3			0.520				0.622
Brand Familiarity (BF)	BF1	2.02	1.079	0.653	0.850	0.850	0.790	0.785
	BF2			0.540				0.632
	BF3			0.541				0.679
Brand Experience (BE)	BE2	3.01	1.027	0.707	0.701	0.700	0.666	0.817
	BE3			0.723				0.856
	BE4	3.07	1.490	0.731				0.835
	BE5			0.700				0.807
Brand Attachment	BA1	3.10	1.300	0.801	0.786	0.786	0.735	0.876
	BA2			0.888				0.911
	BA3			0.716				0.890

BT=Brand Trust; BF= Brand Familiarity; BE=Brand Experience; BA=Brand Attachment

Table 3: Inter-Construct Correlation Matrix

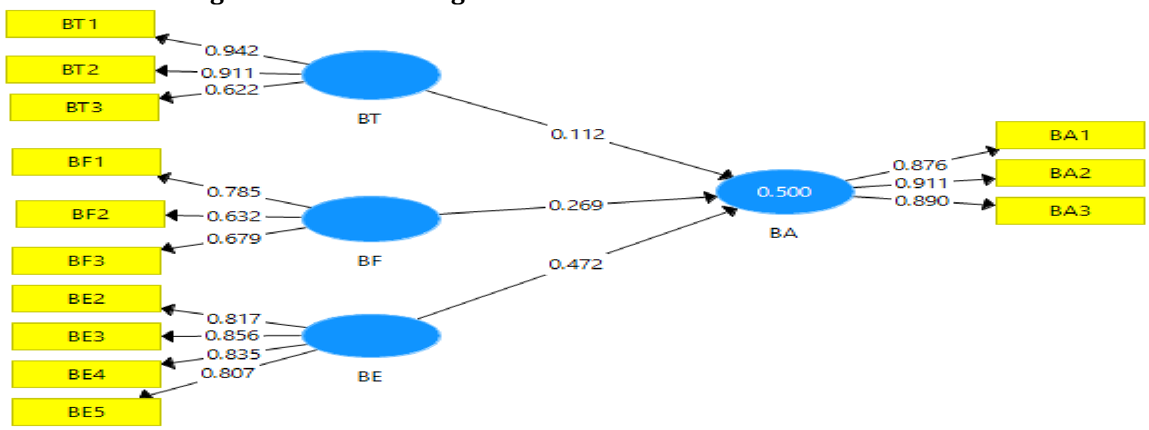
Variables	BA	BE	BF	BT
BA	0.600			
BE	0.545	0.555		
BF	0.539	0.438	0.509	
BT	0.473	0.443	0.565	0.590

BT=Brand Trust; BE= Brand Experience; BF=Brand Familiarity; BA=Brand Attachment

Inter-Construct Correlation Matrix: Nunnally and Bernstein, (1994) proves that one of the methods used to check on the discriminant validity of the research constructs was the evaluation of whether the correlations among latent constructs were less than 0.60. "A correlation value of less than 0.60 is recommended in the empirical literature to confirm the existence of discriminant validity" (Nunnally& Bernstein, 1994:38). As can be seen all the correlations are below the standard level of 0.60 which indicate the existence of discriminant validity. The diagonal values in bold stands for the Shared Variances (SV) for the respective research constructs. The Shared Variance is expected to be greater than the correlation coefficients of the corresponding research constructs. Table 3, above shows that the results further validate the existence of discriminant validity.

Path Model Results and Factor Loadings: Below is Figure 1, showing the path modelling results and as well as the item loadings for the research constructs.

Figure 1: Path Modeling and Factor Loading Results



BT=Brand Trust; BF= Brand Familiarity; BE=Brand Experience; BA=Brand Attachment

Table 4: Results of structural equation model analysis

Path	Hypothesis	Path coefficients (β)	T-Statistics	Decision on Hypotheses
Brand Trust (BT) →Brand Attachment (BA)	H1	0.112[a]	2.330	Accept/ Significant
Brand Familiarity (BF) →Brand Attachment (BA)	H2	0.269[a]	3.570	Accept/ Significant
Brand Experience (BE) →Brand Attachment (BA)	H3	0.473[a]	5.578	Accept/ Significant

[a]Significance Level $p<.10$; [b]Significance Level $p<.05$; [c]Significance Level $p<.01$.
[a]Significance Level $p<.10$;[b]Significance Level $p<.05$;[c]Significance Level $p<.01$.

Table 4, above present the four hypothesized relationships, path coefficients, the t-statistics and the decision criteria. The value of the t-statistic will indicate whether the relationship is significant or not. T-statistics which is above 2 is accepted and shows a significant relationship. Drawing from the results provided in Table 4, four of the hypothesized relationships (H1, H2 & H3) are significant.

Research Findings and Discussions

Hypothesis One (H1): Brand Trust (BT) →Brand Attachment (BA)**:** It can be observed in Figure 1 and Table 4 that H1, Brand Trust (BT) →Brand Attachment (BA) is supported by the hypothesis result (0.112) and is significant at t-statistics 2.330. The strength of the relationship is indicated by a path coefficient of 0.112. This implies that brand trust directly influence brand attachment in a positive significant way. The better the brand trust the higher the level of brand attachment.These results are in line with the works of Oh, Shin and Park (2016)who explored on the relationships among brand trust, brand attachment, and purchase intention.The results of the study reviewed that there is a positive linkage between brand trust and brand attachment.

Hypothesis Two (H2): Brand Familiarity (BF) →Brand Attachment (BA): Figure 1 and Table 4 above, indicate that H2, Brand Familiarity (BF) →Brand Attachment (BA) is supported by the hypothesis finding (0.269) and is significant at t-statistics 3.570. Again, the strength of the association is indicated by a path coefficient of 0.269. This implies that brand familiarity (BF) is positively related to brand attachment (BA) in a significant way. Thus higher levels of brand familiarity will lead to higher levels of brand attachment.These findings are consistent with the works of Taghipourian and Bakhsh (2015) who revealed that brand familiaritypositively influences brand attachment.

Hypothesis Three (H3): Brand Experience (BE) →Brand Attachment (BA): It is depicted in Figure 1 and Table 4 that H3, Brand Experience (BE) →Brand Attachment (BA) is supported significantly. The t-statistics is 5.578. The strength of the relationship is indicated by the path coefficient of 0.473. This finding suggests that brand experiencehas a direct strong positive effect on brand attachment. So the more effective the brand experience, the more brand attachment.Moreover; these findings are in line with a recent study conducted by Kang, Manthiou,Sumarjan, and Tang (2016) which focused on an investigation of brand experience on brand attachment, knowledge, and trust in the lodging industry.The results show the significant, positive relationship between brand experience and brand attachment.

Academic, practical and policy Iimplications for the study: The present study offers implications for academicians. An investigation of the research findings indicate that Brand Experience (BE) →Brand Attachment (BA) has the strongest influence on each other asindicated by a path coefficient of (0.473) when compared to other research constructs. Therefore for academicians in the field of brand management this finding enhances their understanding of the relationship between brand experienceand brand attachments as this is a useful contribution to existing literature on these two variables. On the practitioners 'side, the important influence of brand trust, brand familiarity and brand experience on brand attachment among consumers in the Gauteng province of South Africa. This study therefore submits that marketers can benefit from the implications of these findings. For example, given the robust relationship between brand experience and brand attachment (0.473), brand managers ought to pay attention and theyshould put more emphasis on advertisements and promotions such that the customers experience the brands and therefore become attached to them. Consumers can also spread through word of mouth to families and friends thereby boosting their production and profits. Moreover; drawing from the results, the findings indicate that brand managers for companies in the Gauteng province ought to put more focus on strategies that enhance brand experience because it is likely to yield the desired brand attachment when compared to other research constructs. Moreover; the present studyoffers implications forpolicy makers who have been developing brand strategies to improve the performance of brands. Precisely; policies or strategies which exist in their respective organizations in order to make their consumers remain attached to their brands Thus, the results which have been obtained from this study may be used to generate new policies and revision of the existing policies.

Limitations and Future Research Suggestions: Limitations were observed during this research. First, the study was restricted to four factors only; namely brand trust, brand familiarity, brand experience and brand attachment. Future research could also include factors that influence brand attachment such as brand innovation and brand love. In addition, the results are based on a sample of 181 respondents which is not a bigger sample. This makes it difficult to generalize the results to other contexts in South Africa since South Africa has 9 provinces. Other researchers could make use of large sample sizes in order to get more representative views. This study focused on a purely quantitative research approach, other researchers could also try to use a mixed method approach or qualitative research so that in depth views of consumers in the Gauteng province of South Africa can also be taken into consideration.

5. Conclusion and Managerial Inferences

The study authenticates those factors such as brand trust, brand familiarity and brand experienceare instrumental in stimulating brand attachment in South Africa. In addition, brand experience has a stronger impact on brand attachment when compared to brand trust and brand familiarity. Theoretical and managerial implications are both observed in this study. Theoretically, this study makes a noteworthy progression in marketing management theory and consumer behavior by methodically examining the interplay between brand trust, brand familiarity and brand experience on brand attachment. In this manner, the study is an important contributor to the existing literature on this subject.On the practical front, brand trust, brand familiarity and brand experience were exerted as having a strong positive influence on brand attachment; improvements in each of these three factors could stimulate higher brand attachment to consumers in the Gauteng province of South Africa. Brand trust can be improved by, making sure that the brands are genuine and not fake. In addition, brand familiarity could be improved by making sure that the consumers know that the brand exists and this can be done through promotions. To increase brand experience managers should invest a lot of money on advertisements. Doing these things in a more articulate way could certainly result in strong brand attachment.

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Journal of Economics and Behavioral Studies (JEBS)
Vol. 9, No. 1, February 2017 (ISSN 2220-6140)

Internal and External Factors of Future Returns in the Banking Business: Time Series Analysis of Interrelationship

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Abstract: The paper seeks to find the interrelationship between internal and external factors of future returns in the banking business. A multivariate time series regression models are fitted for the dependent variable: return on equity (ROE) against the lag one independent variables, namely: deposit, size, loan, capital, inflation, gross domestic product (GDP) and stock market capitalization (SMC), for ABSA bank; using secondary data, which span from 1998 to 2014 fiscal years. Logarithm transformation of the absolute value of the de-trended data and first differencing at lag one were the smoothing techniques applied to the data. Multivariate time series regression by the least square approach with special consideration of the stepwise method was used in fitting the models to the data. Results indicated that first, there is a positive linear relationship between ROE and loans, a negative linear relationship between ROE and inflation from the differencing techniques; and equally a negative log-linear relationship between ROE and capital as well as a positive log-linear relationship between ROE and ROA for the logarithm de-trend technique.

Keywords: *Return on Equity; Loan; inflation; market imperfection; multivariate modelling; Return on Assets; lagging*

1. Introduction

The banking sector of South Africa is one of the various sectors in the economy whose core objective is to maximise future returns while controlling expenses under constrained resources and varied kinds of risks. The banking industry is part of the world's economy and it is controlled and affected by several interwoven processes and factors. These factors and processes have either positive or negative impact on the operations of the industry, hence the need to study how these factors affect future returns of the industry. The profit of any bank is controlled by several variables, which can be classified into internal and external factors. Internal factors are those factors that management policies and decisions have effect on, e.g. size, capital, deposits and loans. The external factors are not affected by management policies and decisions but are controlled by market conditions and sometimes, consumer behavior and government decisions. The study attempts to find the relationship between them.

2. Methodology

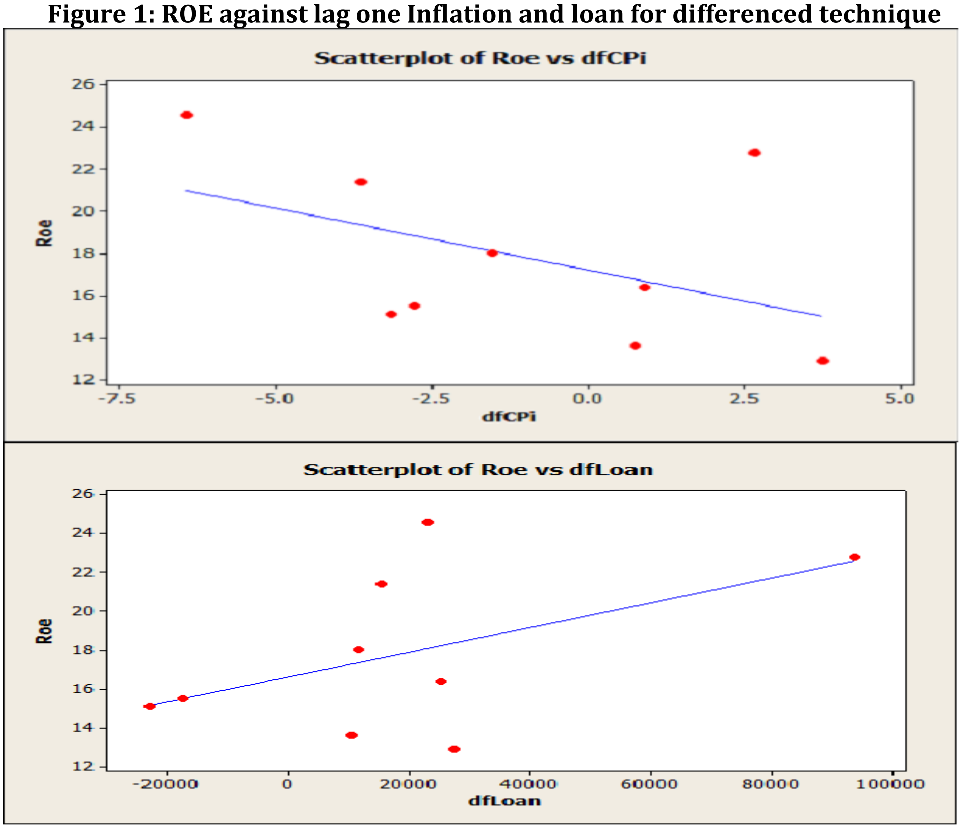
Data: Historical annual data on the internal factors of bank profitability, from 1998 to 2014, was obtained from ABSA and their website. The external factors were also sourced out from South African Reserve Bank and the World Bank's website. All financial data used are nominated in millions of the South African currency (Rand).

Analysis: Multivariate time series regression with lagged independent and dependent variables by the least square approach was used in fitting models unto the data using Minitab, EVIEWS and SPSS Statistical software (IHS Global, 2015). The backward and forward elimination options in linear regression procedure of Minitab were used to select the variables that needed to be included in the model after which the Least Squares (Gauss-Newton/Marquardt steps) estimation procedure of EVIEWS was used to obtain the estimates of the models. Graphical outputs such us Normal probability plots, Correlogram and scatter plots were obtained using Minitab and IBM SPSS packages.

Preliminary Results: Preliminary analysis indicated that the variables exhibited quadratic pattern in time so the data were de-trended by quadratic models (see the scatterplots below). After the de-trending the data, it was still found out that the variability in the de-trended series increases with the average level of the series so it was necessary to further transform the de-trended series by taking logarithm to the base of ten to stabilise this variability (Draper and Smith, 1981; Douglas et al., 2008). Differencing at lag 1 was used as an alternative method to stabilise the data.

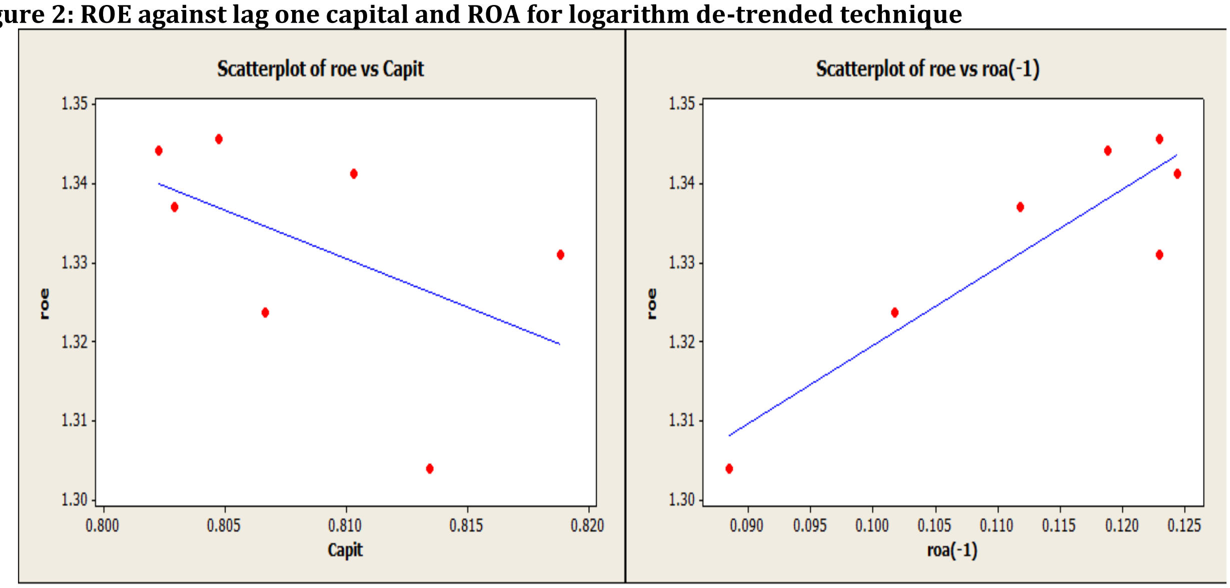
Scatter Plots of ROE against Lag-one inflation, loan Capital and ROA for De-Trended and differenced techniques

Figure 1: ROE against lag one Inflation and loan for differenced technique



2

Figure 2: ROE against lag one capital and ROA for logarithm de-trended technique



The Models Specifications: Empirical evidence from preliminary analysis of the data and a look at the scatter plots in Figures 1 and 2 suggest that the following models were appropriately fitted onto the data:

Differenced Data Models

$$ROE_t = \alpha + \beta(dfCPI_{t-1} - dfCPI_{t-2}) + \gamma(dfLoan_{t-1} - dfLoan_{t-2})_t + \varepsilon_t \quad \text{.....................} 1$$

$dfROE_t$ is differenced return on equity at time t ;

$dfCPI_{t-1}$ and $dfCPI_{t-2}$ are differenced inflation at time lags one and two respectively;

$dfLoan_{t-1}$ and $dfLoan_{t-2}$ are differenced loan at time lags one and two respectively;

α , β and γ are the parameters to be estimated;

ε_t is the random error term and t represents time, where $t = 1998, 1999, 2000\ldots$ (Cochrane, 1997).

This model was chosen because, empirical evidence from preliminary analysis and a look at the scatter plot for ROE, CPI and Loan shows a linear association.

De-Trended Log Data Model: The preliminary analysis of the data and a look at the scatter plots of return of equity suggests a log-linear association between return on equity and capital and return on asset. The model chosen is of the form:

$$\log(dtROE_t - T_{t-1}) = \alpha_2 + \beta_2 \log(dtCAP_{t-1}) + \gamma_2 \log(dtROE_{t-1}) + \varpi_t \qquad 2$$

Equation 2 can be transformed as

$$ROE_t = 10^{\left\{\alpha_2 + \beta_2 \log(dtCAP_{t-1}) + \gamma_2 \log(dtROA_{t-1}) + \varpi_t\right\}} + T_{t-1} \qquad 3$$

T_{t-1} is the trend component, which is given by:

$$T_{t-1} = ROE_{t-1} - \left(\theta_0 + \theta_1\tau_{t-1} + \theta_2\tau_{t-1}{}^2\right) \qquad 4$$

ROE_t is the original data for return on equity at time

ROE_{t-1} is the original data for return on equity at time at time lag one.

$dtCAP_{t-1}$ is the de-trended natural logarithm capital at time lag one.

$dtROA_{t-1}$ is the de-trended natural logarithm return on asset at time lag.

$\alpha_2, \beta_2, \theta_0, \theta_1, \theta_2$ and γ are the parameters to be estimated.

ϖ_t is the random error term; $t = 1998, 1999, 2000\ldots$

T_τ represents the residual of the trend in the original equation and τ represents time with $\tau = 1, 2, 3\ldots$ where 1998 is the base time, (Douglas et al., 2008).

3. Results

The EVIEWS outputs are given in the tables below.

ROE analysis of differenced data

Table 1: Results from differenced data:

Dependent Variable: ROE
Method: Least Squares (Gauss-Newton / Marquardt steps)
Date: 02/04/16 Time: 23:33
Sample: 1999 2012
Included observations: 9
ROE = C(1)+ C(2)*DFCPI + C(3)*DFLOAN

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	14.10322	0.265173	53.18509	0.0000
C(2)	-1.264872	0.072110	-17.54081	0.0000
C(3)	0.000128	7.10E-06	18.04008	0.0000

R-squared	0.985828	Mean dependent var	17.81111
Adjusted R-squared	0.981103	S.D. dependent var	4.189703
S.E. of regression	0.575936	Akaike info criterion	1.995562
Sum squared resid	1.990216	Schwarz criterion	2.061304
Log likelihood	-5.980031	Hannan-Quinn criter.	1.853692
F-statistic	208.6788	Durbin-Watson stat	2.137329
Prob(F-statistic)	0.000003		

ROE

Table 2: Confidence interval for the coefficients

Coefficient Confidence Intervals
Date: 02/16/16 Time: 19:48
Sample: 1999 2012
Included observations: 9

		90% CI		95% CI		99% CI	
Variable	Coefficient	Low	High	Low	High	Low	High
C(1)	14.10322	13.58794	14.61850	13.45437	14.75208	13.12011	15.08633
C(2)	-1.264872	-1.404995	-1.124749	-1.441319	-1.088425	-1.532216	-0.997529
C(3)	0.000128	0.000114	0.000142	0.000111	0.000146	0.000102	0.000154

Table 3: Mean Absolute Percentage Error

Forecast: ROEF
Actual: ROE
Forecast sample: 1999 2012
Included observations: 9

Root Mean Squared Error	0.470250
Mean Absolute Error	0.345759
Mean Absolute Percentage Error	1.957732
Theil Inequality Coefficient	0.012890
Bias Proportion	0.000000
Variance Proportion	0.003568
Covariance Proportion	0.996432

[3]

ROE analysis of logarithm de-trended data

[3]DFCPI and DFLOAN are the differenced lag one variables of inflation and loan respectively. ROE is the original return on equity.

Table 4: Results from logarithm de-trended data

Dependent Variable: ROE
Method: Least Squares (Gauss-Newton / Marquardt steps)
Date: 02/06/16 Time: 12:37
Sample: 2001 2007
Included observations: 7
ROE= C(1)+C(2)*CAPIT + C(3)*ROA__1_

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	2.060579	0.007269	283.4889	0.0000
C(2)	-1.033453	0.008922	-115.8266	0.0000
C(3)	0.949855	0.004035	235.3920	0.0000

R-squared	0.999946	Mean dependent var	1.332426
Adjusted R-squared	0.999919	S.D. dependent var	0.014752
S.E. of regression	0.000133	Akaike info criterion	-14.72124
Sum squared resid	7.03E-08	Schwarz criterion	-14.74442
Log likelihood	54.52434	Hannan-Quinn criter.	-15.00776
F-statistic	37138.22	Durbin-Watson stat	2.255209
Prob(F-statistic)	0.000000		

Table 5: Confidence interval for the Coefficients – log. De-trended

Coefficient Confidence Intervals
Date: 02/06/16 Time: 12:39
Sample: 2001 2007
Included observations: 7

		90% CI		95% CI		99% CI	
Variable	Coefficient	Low	High	Low	High	Low	High
C(1)	2.060579	2.045083	2.076074	2.040398	2.080760	2.027113	2.094044
C(2)	-1.033453	-1.052474	-1.014432	-1.058226	-1.008681	-1.074533	-0.992374
C(3)	0.949855	0.941253	0.958458	0.938652	0.961059	0.931277	0.968434

Table 6: Mean absolute percentage error – log. De-trended

Forecast: ROEF
Actual: ROE
Forecast sample: 2001 2007
Included observations: 7

Root Mean Squared Error	0.000100
Mean Absolute Error	8.34E-05
Mean Absolute Percentage Error	0.006274
Theil Inequality Coefficient	3.76E-05
Bias Proportion	0.000000
Variance Proportion	0.000013
Covariance Proportion	0.999987

[4]

Table 7: Quadratic trend estimates

Parameter	Estimate
θ_0	13.45
θ_1	2.253
θ_2	-0.1454

[4]ROA__1_ and CAPIT are the de-trended log lag one variables of original return on asset and capital respectively. ROE is the de-trended log lag of original return on equity data. θ_0, θ_1 and θ_2 are the quadratic pattern parameters

Results– Differencing techniques: In Table 1, the adjusted R-squared is 0.985828, indicating that about 99% of the total variance in the ROE has been accounted for. This indicates that the model is good fit to the data. The mean absolute percentage error in Table 3 is 1.957732, which is quite small confirming the assertion that the model is adequate. The F-statistic of 208.6788 and Prob. (F-statistic) of 0.000003 indicates that the model is significant at 95% level of confidence. Since the p-values of all the estimated coefficients are less than 5%, alpha level, we fail to reject the null hypothesis that the coefficients are zero (Medenhall & Schaeffer, 1973). We therefore conclude that all the three coefficients of the models for ROE are significant in the estimation of the dependent variables. This is also attested to by the fact that a look at Table 2, indicates that all the coefficients are within the 95% confidence interval. Among the estimated coefficients of the model, the two factors, namely, inflation and loans are very important at 5% significant level. Other factors were found not to be significant in the estimation of ROE, as they were not entered during the stepwise method of linear regression modelling.

Results- De-Trended Logarithm technique: From Table 4, the adjusted R-squared is 0.999946, indicating that about 99.995% of the total variance has been accounted for. This indicates that the model is very good fit onto the data (Kleinbaum et al., 1998; Mazerolle, 2004). In addition, the mean absolute percentage error of 0.006274, from Table 6, for the model is very small. This confirms the assertion that the model is very good. A look at the *p-value* of the F-statistic is zero, indicating that the model is significant at 95% level of confidence. In addition, since the *p-values* of all the coefficients are less than 5% alpha level, we fail to reject the null hypothesis that the coefficients are zero. It can therefore be concluded that all the coefficients in the models are significant in the estimation of the dependent variables. This is also attested to by the fact that a look at Table 5 indicates that all the coefficients are within the 99% confidence interval. All the estimated coefficients are equally important at 5% significance level when using the associated models for forecast since the *p-values* of all of them are zero. All other factors were found to be insignificant at 5% level of significant in the estimation as they were removed during the stepwise method of linear regression modelling (Draper & Smith, 1981).

Discussion

Models of Differenced Data: The relationships between **return on equity** and loans were found to be positive linear and that of return on equity and inflation was negative linear. The result is consistent with previous findings of return on equity, loans by Molyneux & Thornton (1992), Bikker & Hu (2002), and Gul et al. (2011), findings by Duraj & Moci (2015), and Ben & Kandil (2009) on the relationship between inflation and return on asset. However, the same studies by Duraj and Moci (2015) on loans and profitability and by Gul et al. (2011) on inflation and profitability were inconsistent with the result of this study. When loan is increased by two million rand and inflation also increases by 2%, there will be an increase of 0.0022% and a decrease of 21.86% in return on equity respectively. Higher loans are therefore not risky to return on equity component of future returns while higher inflationary rate is very risky to return on equity and aggregate profitability.

Models of De-Trended Logarithm and Inverse Square Root: Negative log-linear relationship exists between return on equity and capital and positive log-linear relationship exist between return on equity and return on asset. In a related study, Havrylchyk & Emilia (2006) findings were contrary to the findings of this study in terms of the direction of association between capital and profits of banks while findings by Yong & Christos (2012), Molyneux & Thornton (1992), Bikker & Hu (2002), and Gul et al. (2011) on capital and profitability were consistent with the findings of this study. It can be deduced from the coefficients of these relationships that simultaneous increasing of return on asset and capital by 2% will deflate return on equity by 1.78% and inflated by 0.45% respectively. Contrary to the deduction that an increase in return on asset will cause a deflation in return on equity, there will be inflation in return on equity by some percentage points instead. The reason is that, return on asset is a component of future returns therefore the higher its positive change, the higher its relative contribution to future returns. For instance if return on asset is increased by 10% and 20% there will be corresponding decreases in return on asset by 0.178% and 0.356%. These decreases in return on asset are comparatively less than their corresponding increases in net interest margin hence the net contributions of a positive change in return on asset is favourable to aggregate future returns. It can therefore be concluded that a positive change in capital and return on asset are not risky to return on equity and aggregate future returns.

Summary of Analysis: The following table (Table 8) gives us a summary of the forecast made from this study.

Table 8: Summary of Forecasting Model

YEAR	ROA%	ROE%	NIM%	SIZE	CAPITAL%	LOANS	GDP	MC	INF	τ
2012	1.09	13.6	3.87	807939	9.009839	572840	2.2	7841303	5.75	15
2013	1.08	13.5	3.64	792635	7.22388	600126	2.2	9752279	5.77	16
2014	1.08	16.9	3.83	814061	7.238524	619860	1.5	10718200	6.13	17

Using the information from Table 8, we calculate the estimates for ABSA models as follows:

$$ROE_t = 10^{\{2.060579 - 1.033453\log(7.22388) + 0.949855\log(1.08)\}} + \{(13.45 + 2.253(16) - 0.1454(16))\}$$
$$= 17.25049$$
$$ROE_t = 14.10322 - 1.264872(6.13 - 5.77) + 0.000128(619860 - 600126)$$
$$= 16.17382$$

Comparing the estimated, ROE values above to the actual 2014 ROE values; there was an error of estimation of about 2.07% for the logarithm de-trended technique and 4.3% error for the differencing technique. This indicates that the use of the estimated ROE models to describe the inter-relationships between the variables of future returns was appropriate.

4. Conclusion

Our results indicated that first; there was a positive linear relationship between ROE and loans, a negative linear relationship between ROE and inflation from the differencing techniques; and equally a negative log-linear relationship between ROE and capital as well as a positive log-linear relationship between ROE and ROA for the logarithm de-trended data. It was further deduced from these relationships that high lag one values of inflation has negative net aggregate effect on future returns. Capital was also found to have negative impact on future returns. High ROA and loans increase future returns. All other variables considered in these models were insignificant for estimating on future returns of ABSA. They were consequently removed from the models during the estimation process.

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Journal of Economics and Behavioral Studies (JEBS)
Vol. 9, No. 1, February 2017 (ISSN 2220-6140)

Nexus of Working Capital Management and Firm Performance in Nigerian Food and Beverages Industries: A Link with Risk-Return Theory

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Abstract: This paper examines the nexus of working capital management and financial performance of selected multinational food and beverages industries in Nigeria for the period between 2006 and 2014 and establishes its linkage with risk-return theory. An explanatory research design is adopted and the secondary data used were gathered from 5 purposively selected quoted food and beverages companies using GLS panel regression analysis. The pooled regression shows that account receivable ratio (ARR) and debt ratio (DER) have negative effect but significant at 1%, working capital (WCA) is also significant at 5% but had positive effect, however, sales growth (SGR) was insignificant. It is also discovered from the Fixed Effect Estimation that working capital management variables such as account receivable ratio (ARR) and debt ratio (DER) have negative effect but significant at 1%, working capital (WCA) is also significant at 5% but has positive effect, while sales growth (SGR) has negative effect but insignificant to the performance of the companies. This signifies reduction in the performances of food and beverages industries which calls for urgent attention since they are posting inverse effect. The unison in both estimations shows that those variables are the major factors influencing the performance of food and beverages industries in Nigeria and thus, it is concluded that the management board of these industries should restructure their working capital management policy as it has the tendency of affecting the dividend policy and firms' liquidity, which invariably affects the maximization of shareholders' wealth. This can only be done when managers reduce account receivable days; ensure proper debt management technique, improve sales strategies to enhance sales growth as well as maintain optimal working capital level to reflect the risk-return theory of firms.

Keywords: *Debt Ratio, Account receivables, optimal working capital, Risk-Return theory, Generalized Least Square*

1. Introduction

Over the years, working capital management has been a strategic management decision on the structuring and maintaining of short term assets and liabilities in such a way that will generate an efficient level of these inputs and ensure availability of adequate cash flow that can meet the firms' short term obligation (Kaur, 2010). The success of any firm depends solely on the financial managers' ability to effectively manage its working capital components. Working capital management is one of the trilogies (capital budgeting and capital structure being the other two) of corporate financial management that has great effect on financial goals in a firm (Wanguu, 2015). Working capital is also a vital issue to be considered in making any financial decision, be it dividend, investing and funding because it has a direct influence on firms' liquidity and performance because it is a constitutional part of the investment, unfortunately, it is always underrated when making financial decisions in the corporate world (Ray, 2012). Most firms view it as something meaningless in firms' decisions because it does not have any contribution to firms' return on equity (Sanger, 2001). According to Eljelly (2004), effective management of working capital requires a balancing wheel between reduction of illiquidity and avoidance of excess asset composition. An optimal working capital in a firm will maximize revenue by increasing the firms' free cash flow (Ganesan, 2007). It is evident that firms often increase their cash level instead of just holding a fraction of their assets. European Monetary Union corporations hold 15% of their total assets as cash or cash equivalents while U.S. industrial firms hold an increasing rate of 129% as their average cash to total asset trend ratio (Ferreira & Vilela, 2004). Mathematically, working capital is the difference between current assets and current liabilities and the major components of working capital are cash and cash equivalents accounts receivable, inventories and accounts payable which no firm can do without. Because working capital can be substituted for cash and changes in working capital affect the viability of the firm, there is the need to constantly review its structure and management and its effects on performance. With the current economic recession in Nigeria and increasing inflation rate, most business organizations are collapsing simply because their working capital is not well managed to be able to absorb losses and stand firm in the turbulent periods. A firm's value can only be maximized if the firm maintains an optimal level of its working capital (Deloof, 2003).

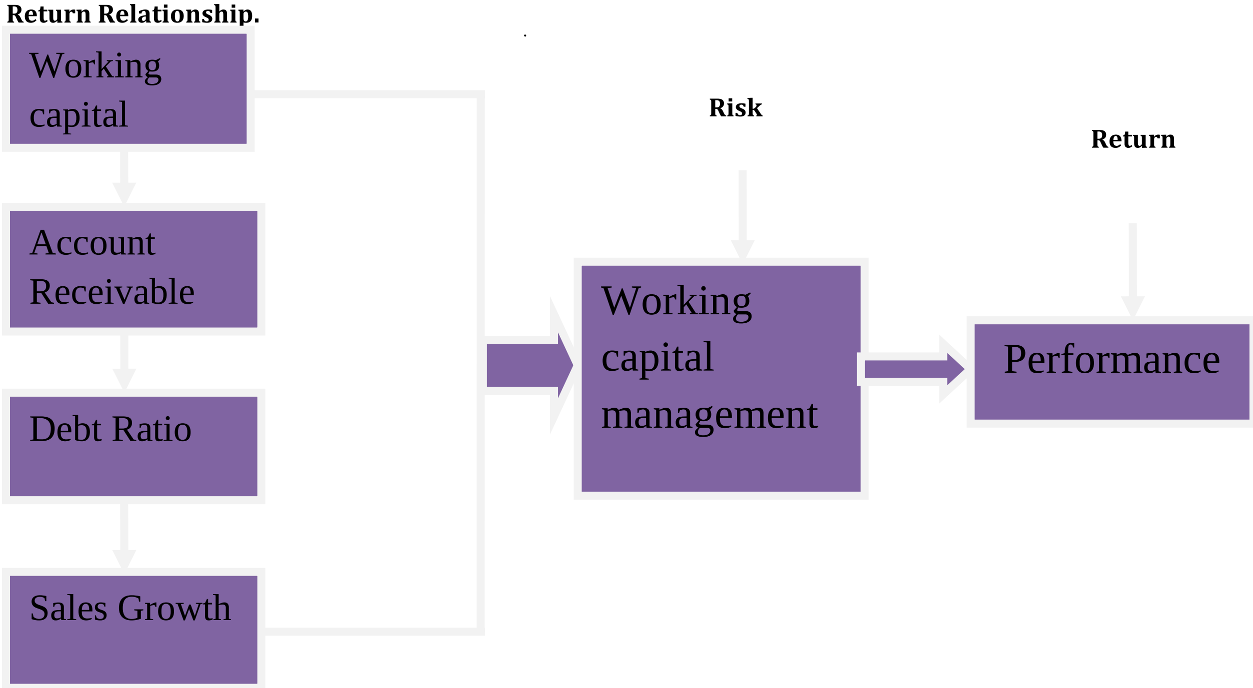
Therefore, firms should note that the main objective of working capital management is to maintain a trade off among its components and ensure that optimal level of working capital is constantly maintained to face any future challenges (Filbeck and Krueger, 2005). Nigerian firms would have escaped financial difficulty and bankruptcy if there has been an effective and efficient working capital because adequate management of working capital brings financial flexibility. Based on the foregoing, this research paper will not only re-examine if there is any relationship between working capital management and financial performance but also establish its linkage with risk-return theory using selected working capital variables in Nigerian context in that they (firms' financial managers) must maintain a balance between maintaining adequate working capital and achieving greater financial performance in order to enhance sustainability of the firms. One objective should not be detrimental to the achievement of the other because both play important roles in ensuring the firm's performance. For a longer time survival, adequate care and consideration must be given to the profit margin. However, to avoid the problem of insolvency or bankruptcy, the state of liquidity must not be neglected, rather, a proper and adequate attention must be paid to it. On this note, this paper will analyze the relationship among Working Capital, Account Receivable Rate, Debt Ratio, Sales Growth and Returns on Asset which is the chosen measure of financial performance of firms. For easy flow of ideas and logical presentation, this paper is structured into 5 sub-sections. The next section reviews the relevant literatures. Section three covers the research design, research method and model specification. Section four focuses on the analysis, interpretation and relevant discussion of the analysis output, and section five concludes the paper.

2. Literature Review

Major Determinants of Firms' Working Capital: Working capital plays a crucial role in the survival of a firm but it is not an end in itself, rather, a means of getting to an end (Chand, 2016). A rational company will always want to hold working capital, no matter how small it may be due to its tendency to minimizing solvency risk. The following are the key factors that determine the working capital of a rational firm; a) Company's dividend policy**;** there is always a balance between working capital and dividend policy of a firm because no firm will stick to a particular dividend policy either payout or re-investment plans without considerations for the availability and future need of cash. A high liquid firm will want to choose payout rather than re-investment and vice versa. b) Circulating capital turnover; the rate at which cash can be easily converted to raw material and raw materials to finished goods is a key predictor of setting an adequate working capital for firms. c) The nature of business; working capital set-up differs for firms according to the nature of business they carry out. If it is a trading firm, it requires huge liquid capital and if it is a manufacturing company, its requirement for working capital depends on what it produces, hence, a firm's working capital depends on what the company sets to carry out. d) Economic instability and inflation; working capital level of firms depend on the stability of the business cycle and the economy they find themselves. A rational firm will always want to take the advantage of buying stocks at lower prices and selling it at a higher price to generate profit, but if they have higher stock and price declines, it affects their working capital and later results into loss and vice versa. e) Frequency of production; a firm that produces frequently will often set working capital to meet each production schedules since each production plan has a required level of liquid capital to consume. f) Operational expenses; the higher the operating cost of a firm, the higher the level of cash required. Working capital is needed to pay staff salaries, office rents, electricity rates, advertising costs etc. As the requirement of cash goes up in the company, the more the company needs working capital. Lastly, unforeseen circumstance and hazard determine the level of working capital in a firm.

Link between Working Capital Management and Profitability Using Risk-Return Theory: This theory shows the relationship between risk and return in a portfolio and it has been reviewed by various researchers in diverse sectors of the economy since every decision on investment is a gauge of the relationship between risk and return derived from the risk (Mukherji, Desai & Wright, 2008). Most investors in organisations are mostly risk averse but their managers are risk seekers who will always take decisions with greater loss probability and with the aim of a higher futuristic gain. However, the link between working capital management and risk-return theory is that one of the main decisions on working capital is the tradeoff between liquidity and profitability. A higher liquidity level is always at the expense of profitability and vice versa. Making these two decisions either increases or decreases the components of working capital in an organization. In terms of cash, when it is in excess, it indicates idleness and low earnings, while when there is its shortage; it causes liquidity crisis and disruptions in firms' operations. In terms of firms' receivables, it indicates probability of default and retrieval cost, while at shortage level, it depicts probability of a low profitability. Also, excess inventory indicates the probability of opportunity and carrying cost of funds which is a signal of low profit, while shortage inventory level tends to lower profit in terms of limited supplies, production interruption and lower sale which will invariably lower their profitability. Moreover, risk-return theory is related to working capital in terms of the inward looking at financial managers' ability to determine their collection of asset since they must relate with their environments as it is impossible for them to own everything they need to carry on the business. Decisions of the mixture of inventory, receivables, stocks and profitability are all under the risk-return postulations (Muneer, 2015; Aminu & Zainudin, 2015).

Figure 1: A Diagrammatic Representation of Working Capital Management and Performance as a Risk-Return Relationship.



Source: Author's Design 2016

Empirical Literatures: There are numerous literatures on working capital management in diverse sectors of the economy due to its key role towards the realization of optimal working capital that is capable of maintaining equality between firms' liquidity and profitability. However, findings from the various studies show that there are mixed and inconclusive results on the nexus of working capital management and performance by the level of disparity in the significant variables. This calls for further empirical researches on the subject matter such as the current study. Deloof (2003), in his study of working capital management in Belgium, found a highly significant relationship among the examined working capital measures and profitability of corporate firms. It was concluded that a firm with an increasing profitability must have its account receivable and inventories days reduced. The findings, therefore, support the proposition of Wang (2002) that reduction in inventories and account receivable days will lead to an increased level of profitability. Conversely, in the study carried out by Lyroudi and Lazaridis (2000) in investigating the relationship among cash conversion cycle, size, firms' profitability, and firms' debt level found a significant and direct relationship among the current ratios of firms, ROA, net profit margin and their cash conversion cycle, but inversely related to their debt to equity ratio, They concluded that the liquidity ratios of both large and small firms are relatively the same. Filbeck and Krueger (2005) examined US listed firms and firms listed on Athens Stock Exchange using a sample of 131 companies covering 2001 to 2004, and they found that there is a significant direct relationship between gross operating profit and cash conversion cycle of the firms examined. They concluded that firms tend to maximize shareholders' value by proper handling of their cash conversion cycle to be at an optimum level. In the study of Karachi listed companies, Raheman and Nasr (2007) examined 94 firms between 1999-2004 and found that working capital management variables have strong inverse relationship with corporate profitability while sales growth that was used to proxy size had positive relationship with profitability. Contrarily, Sharma and Kumar (2011) found in Indian companies that a number of inventory days and account payable days are inversely correlated with their profitability, whereas the accounts receivable days and cash conversion days are positively correlated to profitability. An empirical study by Yeboah and Agyei (2012) on Ghanaian banks from 1999-2008 using panel data technique found that debtors' collection period had positive relationship with profitability while creditors' payment period had significant negative relationship with profitability. The study added that effective management of credit and exchange risk of banks significantly increases their profitability. They conclude the study by recommending improvement on cash conversion cycle to banks since the interest income generated by banks is a function of the availability of credit for lending.

In the same vein, several empirical studies have also been conducted in Nigerian context and their findings have also been mixed and inconclusive. For instance, in a study conducted by Falope and Ajilore, (2009), firms' profitability is reduced by increasing the length of account receivable days, inventory days and accounts payable days. Specifically, they conclude the study by declaring that a shorter cash conversion cycle improves Nigerian firms' profitability. Also, Akinlo (2012) investigated the working capital determinants of 66 selected firms in Nigeria using panel data approach from 1997-2007. The study reveals that economic activities, growth in sales, operating cycle, size and a stable working capital are firm-specific factors that positively influence working capital policy in a firm. Leverage, however, was found to be inversely related to working capital requirements and the study concludes that sales growth, inventory period, cash conversion cycle, and account receivable days affect firms positively, while account payable period and leverage affect firms' profitability inversely. Owolabi and Alu (2012) conversely found that all the working capital management variables are insignificant to spur profitability in Nigerian Manufacturing firms. On the other hand, Uremadu et al. (2012) examine both working capital management and liquidity effect on profitability of listed firms in the Nigerian productive sector just for 2005-2006 using ordinary least square (OLS) method. They discover a negative relationship among cash conversion cycle, creditors' payment period and profitability and a positive relationship among inventory conversion period, debtors collection days and profitability. It is also discovered that cash conversion cycle remains the most significant precision variable which predicts corporate profitability in Nigeria.

Also, Imeokparia (2015) found a positive relationship among management efficiency level, improved accurate cost, profit information and working capital. He also found out that working capital management is positively related to the profitability of food and beverages industries. He concludes that working capital management affects organizations' performance in terms of their liquidity and efficiency and does not determine their profitability. A critical examination of various research works and literatures reveal that several studies had been carried out on the subject matter in both developed and developing economy, Nigeria inclusive. These researchers have used different approaches and methodologies ranging from descriptive, explanatory survey and regression techniques to investigate the subject matter, however, their various findings and conclusions have been largely inconclusive. This paper wishes to contribute to knowledge and fill the gap in the existing literature on working capital management and financial performances in terms of the newly adopted technique of analysis in Nigerian context. To this end, the work will make use of generalized least square fixed panel model to examine five purposively selected multinational food and beverages industries with branches in Nigeria.

3. Methodology

This descriptive and correlation research work falls under the positivist paradigm being a pure quantitative research. The paper tends to obtain consistent estimate of GLS Pooled and fixed effect models for panel data regression applied to data from five (5) multinational food and beverages industries in Nigeria between 2006 and 2014 based on the available information on the financial variables or working capital management components considered for this paper. These companies are Flour Mills Nigeria Plc, Cadbury Nigeria Plc, Nestle Plc, Nigerian Bottling Company Plc and 7-Up Nigeria Plc. The secondary data used were obtained from the annual reports and accounts of these selected companies. These 5 purposively selected companies serve as cross-section units and the years involved as time periods.

Specification of Model

Panel GLS Models: In general, linear models for panel data, the intercept and slope coefficients vary over both cross-sections and time:

$$Y_{it} = a_{ti} + \beta_{it} X^{'}_{it} + u_{it} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (i)$$
$$i = 1\ldots\ldots, N, t = 1\ldots\ldots\ldots, T.$$

Where Y_{it} is a scalar regress and, X_{it} is a k x1 vector of the regressors, u_{it} is a scalar stochastic white noise error term, i indexes individual companies and t indexes the time period. The model (i) is too general and not estimable as there are more parameters to be included in the estimation. Hence, there is a further restrictions on the extent to which the intercept a_{it} and coefficient β_{it} vary with i across t, and over the behavior of u_{it}.

GLS Fixed Effects Model: The GLS fixed effects model specify that:

$$Y_{it} = a_{i} + \beta_{i} X^{'}_{it} + u_{it} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (ii)$$
$$i = 1,\ldots\ldots\ldots, N, t = 1,\ldots\ldots\ldots, T$$

Note that the individual-specific effects $a_1, a_2, \ldots\ldots\ldots\ldots\ldots\ldots\ldots a_N$ measure the unobserved heterogeneity that might be correlated with the explanatory variable X_{it}. β_i are k x1 vectors of estimated coefficient, and the errors term u_{it} are $iid \approx N(0, \sigma^2)$.
Increase in N individual-specific effects pose a major challenge for estimation as the N tends to become large. This paper is only interested in the slope parameter β_i. The N parameters $a_1, a_2 \ldots\ldots\ldots\ldots\ldots a_N$ are incidental parameters that have no intrinsic interest and value in this paper.
The GLS fixed effect model used for this analysis is thus expressed as:

$$Y_{it} = a_{i} + \beta_{i} X^{'}_{it} + u_{it} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (iii)$$
$$i = 1,\ldots\ldots\ldots,5, j = 1,\ldots\ldots\ldots,4, t = 1,\ldots\ldots\ldots,9$$

Equation (iii) above is expressed as:

$$Y_{it} = a_{i} + \beta_{i} X^{'}_{it} + u_{it} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (iv)$$

In order to avoid the problem of outliers, there is need for linear transformation of the variables. That is:

$$\log Y_{it} = a_{i} + \beta_{i} \log X_{ijt} + u_{it} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (v)$$

Let $\log Y_{it} = Y^{*}_{it}$ and $\log X_{ijt} = X^{*}_{ijt}$

Now the equation (v) becomes:

$$Y^{*}_{it} = a_{i} + \beta_{i} X^{*}_{ijt} + u_{it} \ldots\ldots\ldots\ldots\ldots\ldots\ldots (vi)$$

$i = 1,\ldots.5, t = 1,\ldots\ldots.9, \beta_i = \beta_1 - \beta_4$ where $a_1 = a_2 = a_3 = 0$

Where;

X_{ijk} is a k x j vector of regressors and $\beta_i = (\beta_1 - \beta_4)$

$$X^{'}_{it} = (WCA, ARR, DER, SGR)_{it}$$

Explicitly,

$$ROA_{it} = a_{i} + \beta_1 WCA_{it} + \beta_2 ARR_{it} + \beta_3 DER_{it} + \beta_4 SGR_{it} + u_{it} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (vi)$$

Therefore,

$Y_{it} = ROA, X_1 = WCA, X_2 = ARR, X_3 = DER, X_4 = SGR$

u_{it} is the white noise error term showing the percentage of unexplainable ROA by the WCA, ARR, DER and SGR.

Variables Description: The variables used in this research are selected multinational food and beverages company performance captured by the return on assets (ROA) and the proxies of working capital management are working capital (WCA), account receivable (ARR), debt ratio (DER) and sales growth (SGR). These variables are used as components of working capital management that influence or determine the performance of the industries under investigation.

VARIABLES	DESCRIPTION	EXPECTATION
ROA	$\frac{Profitaftertax_{it}}{TotalAsset_{it}} * 100$	
WCA	$\frac{Currentasset}{Currentliabilities} * 100$	Positive
ARR	$\frac{Accountreceivables}{Totalcreditsales} * 365days$	Positive/Negative
DER	$\frac{TotalLiabilities_{it}}{TotalAssets_{it}} * 100$	Negative
SGR	$\frac{Sales_{it} - Sales_{i(t-1)}}{Sales_{i(t-1)}} * 100$	Positive

4. Analysis and Discussion of Results

This section deals with the analysis of descriptive analysis, panel GLS regression (common and fixed or cross sectional effect) model of WCM and the performance of the selected Nigerian multinational food and beverages industries.

Table 1: Pooled Generalized Least Square Panel Regression Result

Variables	Coefficients	S. Error	t-Stat	Prob.
C	0.125630	0.011086	11.33276	0.0000
ARR?	-0.113399	0.024795	-4.573529	0.0000
DER?	-0.123099	0.023464	-5.246332	0.0000
SGR?	-1.21E-07	1.29E-06	-0.093794	0.9256
WCA?	1.37E-09	5.80E-10	2.360288	0.0218

R-Squared = 0.45 Adj. R-Squared = 0.41 F-Stat. = 11.354 Prob. (F-Stat.) = 0.000
Source: Researcher's Computation 2016

Table 1 shows the result of the pooled generalized least square panel regression output. It is discovered from the result that the relationship between working capital management and the performance of food and beverages industries in Nigeria is linear. It is found that there is an inverse linear relationship between the following pairs of variable: account receivable rate and return on assets; debt ratio and the return on assets and sales growth and the return on assets of the industry while working capital and the return on assets of the industry show a positive linear relationship. This is contrary to Akinlo (2012) who found out that account receivable ratio, sales growth, cash conversion cycle and inventory period have positive effects on firms in Nigeria. The result further reveals that the account receivable rate, debt ratio and sales growth reduce the performance of food and beverages industries measured by return on assets by 11.3, 12.3 and $1.21*10^{-7}$ percent respectively. However, the influence of working capital towards improvement in the performance of any organization cannot be overemphasized as indicated in the performance of the food and beverages industries in Nigeria by $1.37*10^{-9}$ due to the impact of working capital. Thus, the result shows that firms place more emphasis on working capital so as to enhance their profitability, viability and sustainability. The probability values of 0.000, 0.000 and 0.022 reveal that the estimated working capital management parameters; debt ratio, account receivable ratio and working capital from the model are statistically significant in assessing and determining the performance of food and beverages industries in Nigeria. The 41% adjusted R^2 which depicts the proportion of variations or improvement in the performance of food and beverages industries in Nigeria captured by the level of return on assets can be explained by the working capital management. Thus, it signifies the important role which working capital management plays in enhancing industrial performance, growth and sustainability in Nigeria. Above all, the probability of the F-statistics 0.000 shows that the pooled generalized least square panel regression fitted is valid, reliable, appropriate and acceptable for determining the nexus of working capital management and performance of food and beverage industries in Nigerian context.

Table 2: Generalized Least Square Fixed Panel Regression Model Result

Variables	Coefficients	S. Error	t-Statistics	Prob. Values
C	0.176305	0.012382	14.23885	0.0000
ARR?	-0.120208	0.036440	-3.298767	0.0018
DER?	-0.122280	0.020376	-6.001068	0.0000
SGR?	-1.13E-06	2.52E-06	-0.449456	0.6550
WCA?	1.18E-09	5.42E-10	2.179323	0.0340
Fixed Effects (Cross-section)				
CNP--C	-0.075364			
FMP--C	-0.059565			
NNP--C	0.193945			
NBC--C	-0.018709			
_7UP_--C	-0.040306			

R-Squared = 0.67 Adj. R-Squared = 0.62 F-Stat. = 12.974 Prob.(F-Stat.) = 0.000
Source: Researcher's Computation 2016

In Table 2, the result of the fixed effect generalized least square panel regression model is presented and it is revealed that an inverse linear relationship exists among debt ratio, account receivable rate, sales growth and the return on assets which is the measure of performance in this paper but conversely, the result shows that only working capital has a positive linear relationship with return on assets. The result further indicates that the adopted components of variables depicting working capital management (account receivable rate, debt ratio and sales strategy) cause reduction in return on assets of the food and beverages industries in Nigeria by 12.0, 12.2 and $1.13*10^{-6}$ percent respectively. The improvement in the performance of food and beverages industries is as a result of the positive and undeniable working capital effect by increasing return on assets with $1.18*10^{-9}$ percent. The test for the statistical significance of these estimated parameters using the standard error test and the probability value reveal that working capital, account receivable and debt ratio of the food and beverages industries in Nigeria have contributed greatly to improve the level of return on assets and thereby, enhance the performance of the industries in Nigeria. A thorough examination of the result based on individual industry shows that working capital management or components under investigation improved the performance of the Nestle Nigeria plc by 19.4 percent. On the other hand, the performance of Cadbury Plc, Flour Mill Plc, Nigeria Bottling Company and 7up Plc are hampered as their performances are reduced by 7.54, 5.96, 1.87 and 4.03 percent respectively. This result affirms the opinion of Owolabi and Alu (2012) both of whom have worked on this subject matter in Nigeria for a period of 5 years and discover that each component of working capital significantly affects a firm's profitability at varying rates. Uremadu et al. (2012) also discover an inverse relationship between profitability and creditors' payment period. The proportion of variation and improvement in the performance of food and beverages industries in Nigeria which can be explained by the working capital management employed by these industries is 62%. The probability of F-statistics and the F-statistics value reveal that generalized least square fixed effect panel regression model is statistically significant and thus valid, reliable, appropriate and acceptable for this study. In comparing the pooled generalized least square panel regression model with the generalized least square fixed effect panel regression model used for this research based on evidence from the model with the highest value of F-statistics, it is discovered that generalized least square panel regression model is more efficient, consistent, sufficient and unbiased for determining the impact of effective management of working capital on the performance of food and beverages industries in Nigeria taking cognizance of the firms' debt ratio.

5. Conclusion and Suggestions for Further Research

Having done a thorough evaluation of the impact of effective management of working capital on the performance of food and beverages industries in Nigeria, it is discovered from the analysis carried out using generalized least square panel regression model and all other diagnostics evaluation that working capital combination has much influence on the performance of food and beverages industries. The result shows a negative linear relationship between the following pairs of variable: return on asset and account receivable ratio; return on assets and debt ratio; return on assets and sales growth of the industry while a positive linear relation is discovered between return on assets and working capital of the industry. The result further reveals that the account receivable rate, debt ratio and sales growth reduce the industries' return on assets. However, the influence of working capital towards an improved performance of any organization cannot be overemphasized as the performance of the food and beverages industries in Nigeria increased due to the impact of working capital. Thus, the result shows the importance and the reasons why more emphasis must be placed on efficient management of working capital in order to enhance the profitability, viability, liquidity and sustainability of any industry. The probability values and the standard error values reveal that the estimated working capital management parameters such as account receivable ratio, debt ratio and working capital are statistically significant in assessing and determining the performance of food and beverages industries in Nigeria. Therefore, efficient working capital management tends towards strengthening strong cash flow, increases profitability, stabilizes budgeting and forecasting process and predicts risk visibility per time (Scherr, 1989).

The findings of this current paper agree with the above. The generalized least square panel fixed effect model shows that 62 percent variation or improvement in the performance of the food and beverages industries in Nigeria as witnessed in the level of return on assets can be explained by the working capital management. This definitely exhibits the important role which working capital management plays in enhancing industrial performance, growth and sustainability in Nigeria. Therefore, it can be recommended for managers of firms in Nigeria that they should formulate prudent working capital management policies and treat every decision on working capital as a risk return analysis so as to overcome liquidity crisis caused by high bad debt and maintain a balance between liquidity and firm profitability. Current assets and current liabilities should be kept by firms at an optimum level, that is, not to be in excess or in shortage form. Also, managers should restructure their accounts receivable days and debt ratio, improve on their sales strategy in order to enhance sales growth and also work towards keeping an efficient working capital level since all these have greater influence on firms' performance.

Suggestion for further Research: Would-be scholars can examine the nexus of dividend policy and working capital management as the availability of cash at times determine if the firm will choose dividend payout or dividend re-invest plans (DRIPs).

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Journal of Economics and Behavioral Studies (JEBS)
Vol. 9, No. 1, February 2017 (ISSN 2220-6140)

Does Financial Development Lead to Poverty Reduction in China? Time Series Evidence

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Abstract: The impact of financial development on poverty reduction has received attention in the literature recently. While the connection between financial development and poverty may appear straight forward in theory, in empirics it may be much complicated. This study attempted at empirically assessing the causal links between financial development and poverty reduction in China for the period 1985–2014. The study used the Toda-Yamamoto causality test to avoid pretesting bias that has featured majority of the existing studies. The study utilized two standard proxies for financial development, namely: the domestic private credit by banks as percentage of GDP, and money supply (M2) as percentage of GDP; and a standard proxy for poverty reduction namely: the household final consumption expenditure per capita growth (annual percentage). The study found a bidirectional causal flow between financial development and poverty reduction, implying that the causal flow between these important variables is independent of the proxy for financial development. This means that financial sector reforms and poverty reduction programs are more of "win-win" strategies in the case of China. Therefore policymakers in China should continue to implement robust financial sector reforms and poverty reduction strategies.

Keywords: *Financial Development; Poverty Reduction; Toda-Yamamoto Test; China*

1. Introduction

Poverty has remained the world greatest challenge. While poverty is found everywhere, it is more prevalent in developing countries. Poverty, as can be found in some of the influential definitions, is the lack of economic resources that is associated with negative social implications (see Mood and Jonsson, 2016). Being poor leaves a person vulnerable to diseases, dangerous social groups, and unfulfilled personal aspirations. Poor people are often socially excluded thereby living stigmatized lives (see Sen, 1983). The economic hardships that come with poverty imply that the poor are not able to have standard lives, participate in leisure activities, or have nutritionally approved consumption patterns (see Galbraith, 1958; Mack and Lansley, 1985; Callan et al., 1993). It is therefore not a surprise that policymakers and powerful international organizations including the World Bank and the United Nations have preoccupied themselves with fighting poverty. The World Bank, in particular, has reiterated that its major priority is to fight poverty (see Birdsall and Londono, 1997). One way policymakers find as a means to fight poverty is through financial inclusion. Economists have long held the view that improvement in financial institutions and intermediaries, as well as their products and services will enhance the inclusion of the poor in financial activities, thereby enhancing their abilities to save and invest properly (see Stiglitz, 1998; Jalilian and Kirkpatrick, 2002). Even if a well-functioning financial system does not directly enhance poverty reduction, economists have argued that it does by promoting economic growth, which in turn opens up avenues for the poor to earn income. This is in line with the trickle-down theory, which argues that financial development can lead to economic growth thereby lifting the masses from poverty due to the wide avenues created by growth. The trickle-down theory has received overwhelming support in the literature (see, for example, World Bank, 1995; Ravallion and Datt, 2002; Dollar and Kraay, 2002).

China is a country that has achieved tremendous poverty reduction in the past three decades. This happened alongside rapid financial sector growth and expansion. It therefore appears that financial development has played a critical role in reducing poverty in China. A quick glance at some important poverty and financial statistics will put this argument in a proper perspective. The real monetary balance, measured by M2 as a percentage of GDP, has increased from 54% in 1985 to 193% in 2014 [World Development Indicators (WDI), 2016]. At the same time, the growth of the banking sector, as measured by domestic credit to private sector by banks to GDP, has increased from 66% in 1985 to 142% in 2014 (WDI, 2016). At the turn of the 1980s, the incidence of rural poverty in China was very high. During the early 1980s, absolute poverty in the rural areas accounted for 28% of the population, while it was only 0.3% in the urban areas (Wang et al., 2004). However, the extensive financial and economic reforms which led to the rapid growth and expansion of the financial sector have pushed down the phenomenon of rural poverty from 30.7% to 1.6% during the period of 1978 to 2007[5] [United Nations Development Programme (UNDP), 2008]. These statistics show clearly that financial development has been crucial for poverty reduction in China. Formal assessment of the importance of financial development in the reduction of poverty in China has been surprisingly scant in the literature. The few studies that have tried to investigate the links between poverty reduction and financial development in China include Ho and Odhiambo (2011), Ding et al. (2011), Wen et al. (2005), and Park et al. (2004). This is clearly a gap in the literature which is worth addressing. Also, most of the previous studies on China and the rest of the world have employed causality techniques that are vulnerable to pretesting bias. Pretesting bias results when a causality technique requires that we test for stationarity and cointegration. The popular Engle-Granger, Johansen, and ARDL bounds testing approaches entail testing for stationarity and cointegration. Hence, due to the fact that most of the diagnostic tests for non-stationarity and cointegration have low power against the alternative hypotheses, wrong decisions on stationarity and cointegration could lead to biased causality results. Against this backdrop, we re-assess the causal links between poverty reduction and financial development in China using the Toda-Yamamoto causality test. This technique is not prone to pretesting bias, thereby allowing us to report efficient causal estimates (see Takumah and Iyke, 2017; He and Maekawa, 1999).

The study utilized two standard proxies for financial development, namely: the ratio of domestic private sector credit by banks to GDP, and the ratio of money supply (M2) to GDP; and a standard proxy for poverty reduction namely: the household final consumption expenditure per capita growth (annual percentage). The study found a bidirectional causal flow between poverty reduction and financial development, implying that the causal flow between these two is independent of the indicator of financial development. Hence, financial development has played an important role in the reduction of poverty in China; and at some point, the tremendous poverty reduction has led to further growth and expansion of China's financial sector. This means that financial sector reforms and poverty reduction programs are more of "win-win" strategies in the case of China. Therefore, policymakers in China should continue to implement robust financial sector reforms and poverty reduction strategies. The remaining sections of this study are organized as follows. Section 2 presents an overview of financial development and poverty reduction in China. Section 3 reviews the related literature. Section 4 outlines the methodology and the data. Section 5 reports and discusses the results, while Section 6 concludes the study.

Overview of Financial Development and Poverty Reduction in China

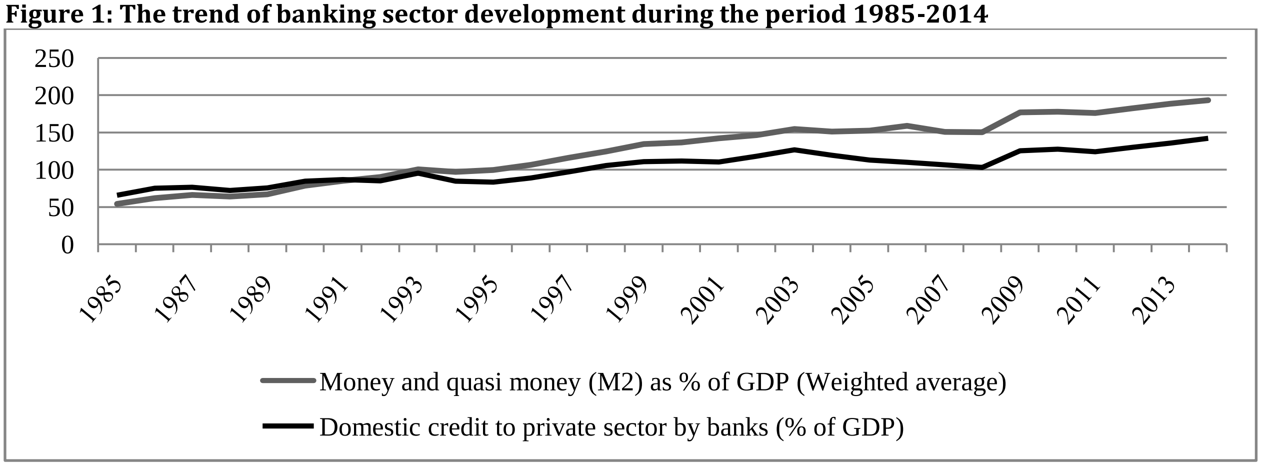
Financial Development in China: In the late 1970s, China started liberalizing her economy by pursuing various structural, institutional, financial and economic reforms. In terms of financial reforms, China has achieved remarkable improvement in the past decades. Before the financial reforms, China was under the mono-bank system, with the People's Bank of China (PBOC) performing the role of central bank and commercial bank. After all these reforms, the mono-bank system was reformed and diversified into a fully-fledged financial system (see Allen et al., 2005; Hao, 2006; Zhang et al., 2012; Lin et al., 2015). Currently, the financial sector consists of the central bank (namely the PBOC), commercial banks, policy banks, insurance companies, non-bank financial institutions, stock market, and bond market, among others. The banking sector is largely dominated by the five largest commercial banks. These banks are the Agricultural Bank of China, the Bank of China, the Bank of Communications, the Industrial and Commercial Bank of China, and the China Construction Bank (see Lin et al., 2015; Turner et al., 2012). In the 1980s, China pursued a number of financial reforms, including the expansion of the financial sector and monetization of the economy, which were mainly to revitalize the banking institutions (see Lin et al., 2015). As a result of these extensive financial reforms, the financial system experienced a rapid growth of financial intermediaries beyond the scope of the state-owned commercial banks. During this period, regional banks were setup along the coastal areas in the Special Economic Zones. Also, a network of urban credit cooperatives and rural credit cooperatives were established in the rural areas. In addition, the trust and investment corporations, which were categorized as non-bank financial institutions, were formed. These trust and investment corporations performed selected

[5] Note that very recent data is not available to us from reliable sources. Hence post-2007 figures have been left out.

banking and non-banking services, with some restrictions on loan making and sources of deposits (see Allen et al., 2005).

In addition to these early reforms, China undertook a series of banking reforms from 1994 onwards (see Hasan and Zhou, 2006, Zhang et al., 2012; Lin et al., 2015). First of all, three policy banks, namely, the Export-Import Bank of China, the Agricultural Development Bank, and the State Development Bank, were set up in 1994 to relieve the policy lending activities of the state-owned commercial banks. Second, the number of commercial banks was increased by transforming the urban credit cooperatives into city commercial banks, and granting licenses to other non-state commercial banks as well as to some foreign banks. Third, the State control on credit allocation was largely reduced after the abolishment of the credit quota system in 1998. Lastly, the period also witnessed the gradual liberalization of the interest rates. The banking sector has been crucial to China's remarkable economic growth in the past decades. The early 1980s witnessed a phenomenal financial deepening in China, with the growth of the real monetary balance being faster than the real sector of the economy. The real monetary balance, measured by M2 to GDP, rose from 54% in 1985 to 193% in 2014 (WDI, 2016). This remarkable deepening in the financial sector could be primarily attributed to: (i) the monetization of China's economy, and (ii) the accumulation of savings of the household. For instance, 77.9% of quasi-money in 2001 was contributed by household deposits. It also accounted for 47.2% of M2 (Hao, 2006). This impressive financial deepening makes China one of the most developed economies. In addition, the growth of the banking sector, as measured by domestic private sector credit by banks to GDP, also showed similar upward trend during the study period. It increased from 66% in 1985 to 142% in 2014 (WDI, 2016). Figure 1 shows the trend of banking sector development during the period 1985-2014.

Figure 1: The trend of banking sector development during the period 1985-2014



Source: World Development Indicators, 2016

Poverty in China: The pace of poverty reduction in China over the last three decades has been remarkable when measured by various indicators. The rural poverty headcount ratio reduced rapidly from 18.5% to 2.8%, during the period of 1981 to 2004.[6] When measured in absolute terms, the number of the rural poverty headcounts declined from 152 million to 26 million during the same period (World Bank, 2009). The figure is even more striking if we use the new international poverty standard of US$1.25 per person per day [2011 purchasing power parity (PPP) for China]. The poverty headcount ratio declined tremendously from 88% to 11%, during the period of 1981 to 2010 (see WDI, 2016). In addition, improvement in other social indicators has been remarkable since the implementation of various economic and social reforms in China. For instance, the average life expectancy at birth improved from 67.3% in 1981 to 75.4% in 2013 (WDI, 2016). Infant mortality rate reduced from 48% in 1980 to 9.2% in 2015 (WDI, 2016). The adult literacy rate improved significantly from 65.5% in 1982 to 95% in 2010[7] (WDI, 2016). Indeed, poverty in the country is mainly a phenomenon in the rural areas owing to the large disparity in per person income between populations in the urban and rural areas. China has faced a very high incidence of rural poverty in the past. In the early 1980s,

[6] These changes are based on China's official poverty standard of 300 Chinese Yuan per person per year at 1990 prices.
[7] The data is available up to year 2010 according to WDI (2016).

the absolute poverty in the rural population was 28%, while it was only 0.3% in the urban population (Wang et al., 2004).However, the extensive economic and social reforms have caused the rural poverty incidence to drop from 30.7% to 1.6% during the period of 1978 to 2007 [United Nations Development Programme (UNDP), 2008]. The China Human Development Report (2008) classifies the country's poverty reduction policies into four phases.

(i) Phase One: Rural Reform, 1978-1985

This period marked an era of institutional reforms in agricultural activities, procurement prices, and distribution systems. The major institutional reform in the rural areas was the transformation of the collective farming system to the household responsibility system. It significantly incentivized agricultural activities. As a result, the agricultural outputs increased tremendously in China (Lin, 1992). The increase in agricultural output led to the annual growth of per capita net income in rural areas at 16.5% during 1978 to 1985. In addition, the rural poverty headcounts declined rapidly from 250 million to125 million during this period, which witnessed the era of the most significant poverty reduction in the country (UNDP, 2008).

(ii) Phase Two: National Targeted Poverty Reduction Programmes, 1986-1993

During this phase, the government set up task teams and distributed funding for programmes to fight against poverty in the rural areas. As a result of these programmes, the population of the rural poverty head counts declined from 125 million in 1985 to 80 million in 1994 (Wang et al., 2004; UNDP, 2008).

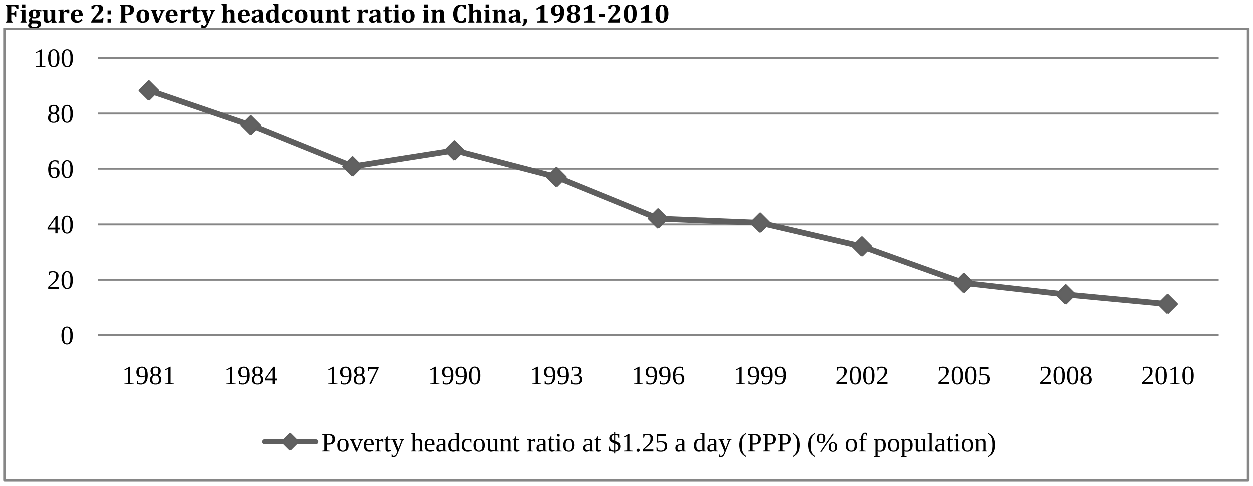
(iii) Phase Three: The Eight-Seven Plan, 1994-2000

The Eight-Seven Plan was introduced by the government in the third phase of poverty reduction programme. The Eight-Seven Plan meant to lift most of the remaining 80 million poor above the official poverty line during the seven-year period of 1994 to 2000. It showed that the poverty reduction programme was expanded to the national level with greater poverty reduction efforts and determination. Due to these efforts, the rural poverty declined from 80 to 32 million during this period (Wang et al., 2004; UNDP, 2008).

(iv) Phase Four: New Century Rural Poverty Alleviation Plan, 2001-2010

During this phase, authorities emphasized the need to re-balance the development gains made across various regions, especially between rural and urban areas. To achieve this aim, China's Rural Poverty Reduction and Development Compendium (2001–2010) were established in 2001. Its objective was to pursue a balanced poverty reduction strategy in the country, with the focus on developing the central and western regions, and developing the new countryside. As a result, the population of the rural poor fell from 30 to 15 million during the period of 2001 to 2007 (see UNDP, 2008). Figure 2 shows the poverty headcount ratio in China from 1981 to 2010.[8]

Figure 2: Poverty headcount ratio in China, 1981-2010



Source: World Development Indicators, 2016

[8] Data on this indicator is only available from 1981 to 2010 (see WDI, 2016).

2. Literature Review

Does financial development improve poverty reduction? The literature argues that it does in various ways. First, financial development improves economic and financial avenues for the poor to participate in formal financial activities. This is because financial development addresses the causes of financial market failure including information asymmetry and the high fixed cost of small-scale lending (see, among others, Jalilian and Kirkpatrick, 2002; Stiglitz, 1998). Second, financial development ensures that poor people have access to finance including credit services, which empower their productive assets, and enhance their productivity. Hence, through financial development, poor people are able to have a sustainable livelihood (see Jalilian and Kirkpatrick, 2002; World Bank, 2001). Third, financial development can lead to poverty reduction by promoting economic growth, which is consistent with the trickle-down theory. The trickle-down theory contends that financial development can spur growth thereby lifting the masses from poverty due to the wide avenues created by economic growth. This theory has received overwhelming support in the literature (Dollar and Kraay, 2002; Ravallion and Datt, 2002; World Bank, 1995). Given the theoretical implications of financial development in enhancing poverty reduction, a significant number of studies have been devoted to examining the linkages between the two variables. The available studies can be group into country-specific and panel studies.

Country-specific Studies: The country-specific studies attempting to investigate the linkages between financial development and poverty reduction include but not limited to Abosedra et al. (2016), Sehrawat and Giri(2016a), Uddin et al. (2014), Inoue and Hamori (2012), Ding et al. (2011), Ho and Odhiambo(2011), Geda et al. (2006), Quartey (2005), Wen et al. (2005), Husain (2004), Park et al.(2004), and Burgess and Pande (2003), among others. For example, Sehrawat and Giri (2016a), while examining the link between financial sector development and poverty reduction in India during 1970 to 2012, find financial sector development and economic growth to reduce poverty both in the short and long run. They find a positive and unidirectional causality running from financial development to poverty reduction. Similarly, Abosedra et al. (2016) explore the relationships between financial development and poverty reduction in Egypt by making use of a data set that covers the period 1975Q1 to 2011Q4. They find financial development to reduce poverty. Uddin et al. (2014), while investigating the causal links between financial development, economic growth and poverty reduction in Bangladesh during 1975 to 2011, find a long-run relationship between them. They also find financial development to reduce poverty in nonlinear fashion. Similarly, Inoue and Hamori (2012), while analyzing the importance of financial development in reducing poverty in India, find financial deepening to significantly reduce poverty. Ding et al. (2011) examine the effect of rural financial development on poverty reduction in China using panel data of China's provinces of 2000 to 2008. Their results indicate that rural financial development has both direct and indirect effect on poverty reduction in China. In addition, their results show that the indirect effect was significantly higher than the direct effect. Ho and Odhiambo (2011) find that, in the long run, poverty reduction spurs financial development in China. Also, they find feedback causality between financial development and poverty reduction in the short run in China.

Fairly recent studies have also documented a connection between finance and poverty. For example, Geda et al. (2006), while investigating the relationship between financial development and poverty reduction in Ethiopia from 1994 to 2000, show that access to finance is vital in smoothing consumption and reducing poverty. Quartey (2005) finds financial development to induce poverty reduction in Ghana. Wen et al. (2005) aim at identifying the linkage between the financial development and growth of farmers' income in China from 1952 to 2003. Their results show that financial development adversely affects the growth of farmers' income in China. Husain (2004) finds that the reforms implemented in the financial sector during the late 1990s led to pro-poor growth in Pakistan by enabling the poor to access credit from formal institutions. Park et al. (2004) arrive at inconclusive results, while evaluating the effect of micro-finance on poverty reduction in China. Finally, Burgess and Pande (2003), while examining the impact of rural bank branch expansion programme on poverty and output in India during 1977 to 1990, find the programme to have significantly reduced rural poverty, and raised non-agricultural output.

Panel Studies: In addition to the country-specific studies that we have outlined above, there are some panel and cross-country studies that have tried to investigate the linkages between poverty reduction and financial development. Some of them are Sehrawat and Giri (2016b), Jeanneney and Kpodar (2008), Beck et al. (2007), Claessens and Feijen (2006), Jalilian and Kirkpatrick (2005; 2002), Honohan (2004), among others. In a very recent study, Sehrawat and Giri (2016b) investigate the importance of financial development in poverty reduction in the case of eleven South Asian developing countries using panel data set over the period of 1990 to 2012. Their empirical results confirm that financial development and poverty reduction are associated in the long run. They find a strong and positive relationship between financial development, trade openness, inflation and poverty reduction. In addition, they find a unidirectional causality running from financial development to poverty reduction. Jeanneney and Kpodar (2008) explore the role of financial development in promoting poverty reduction, and find that the poor benefits from the banking system's ability to provide savings opportunities and to facilitate transactions – though the poor fails, to some extent, in reaping the benefits made available through the large pool of credit. Their findings suggest that financial development may be linked with financial instability, which may excessively affect the poor negatively. However, they find the benefits associated with financial development to outweigh the costs.

In fairly recent studies, there has been evidence of links between financial development and poverty reduction. Beck et al. (2007), using data on 52 countries from 1960 to 1999, find that on the average income of the lowest quintile increases faster than the average per capita GDP, while income inequality decline more rapidly. Claessens and Feijen (2006) find financial development and improved access to finance to promote economic growth, reduce poverty and undernourishment, and better health, education and gender equality. Jalilian and Kirkpatrick (2005) investigate the impact of financial development on poverty reduction in a group of 42 countries. By employing a pooled panel data approach, they find financial development to contribute to poverty reduction. In an earlier study, Jalilian and Kirkpatrick (2002) investigate the contribution of financial development to poverty reduction in a group of 26 countries. By using a pooled panel data approach, they find a percentage increase in financial development to raise the income growth of the poor in developing countries by nearly 0.4%. Finally, Honohan (2004) investigates the linkage between financial depth and poverty for more than 70 developing countries. He finds that financial depth and poverty are negatively related.

3. Methodology and Data

Data Sources: The data is annual and covers the period 1985 to 2014. The period covered is solely based on data availability. The data is sourced from the World Development Indicators (WDI) database (2016) compiled by the World Bank. This is the most reliable and easily accessible data source, to the best of our knowledge.

Definitions of Variables

(i) Poverty Reduction (POV): The poverty reduction proxy (POV) captures the size of poverty in a given year. If we compare the current value of POV to its previous values, POV tells us whether poverty has increased or reduced. There are various proxies for POV in the literature. However, the current study uses household final consumption expenditure per capita growth (annual %). This is because the consumption expenditure of poor people is reliably documented and quite stable, when compared with their income (Quartey, 2005; Datt and Ravallion, 1992). The proxy is consistent with the definition of poverty by the World Bank as "the inability to attain a minimal standard of living" gauged relative to their basic consumption needs (see World Bank, 1990). Besides, Quartey (2005), Ho and Odhiambo (2011), Uddin et al. (2014), Sehrawat and Giri (2016a, b), among others, have also used this proxy in their studies.

(ii) Financial Development (M2 and DC): Financial development is a multifaceted concept which captures financial depth, access, efficiency, and stability (see World Bank, 2014). What therefore measures financial development has been a matter of debate in the literature. In this study we choose two proxies that frequently appear in the empirical literature to measure financial development. These are the domestic private sector credit by banks to GDP and money supply (M2) to GDP (weighted average), denoted respectively as DC and M2. The DC measures the relative contribution of the financial system to the economy. Several studies, including Levine et al. (2000), Boyd et al. (2001), Honohan (2004), Levine (2004), Jalilian and Kirkpatrick (2005), Beck et al. (2007), Ho and Odhiambo (2011), Hamori and Hashiguchi (2012), and Sehrawat and Giri (2016a, b) have also used this variable. The M2 measures the size of the financial sector relative to the economy. The variable has also been used by studies such as Siddiki (2002), Calderón and Liu (2003), Honohan (2004), Seetanah (2008), Ho and Odhiambo (2011), Hamori and Hashiguchi (2012), and Hsueh et al. (2013).

Empirical Specification

This section outlines the econometric tests employed in the paper, and the empirical specifications for the causal estimation of the relationship between poverty reduction and financial development in China. We employ the Augmented Dickey-Fuller (ADF) and the Dickey-Fuller generalized least squares (DF-GLS) tests to analyze the stationarity properties of the variables. Then, we analyze the causal relations between the variables by utilizing the Toda-Yamamoto test.

Testing for Stationarity: The ADF and DF-GLS tests are used to explore the stationarity properties of poverty reduction and financial development. The DF-GLS test, as developed by Elliot et al. (1996), caters for the shortcomings of the ADF test. Schwert (1986), and Caner and Killian (2001) have observed that the ADF test over-rejects the null hypothesis of non-stationarity in situations when the moving average (MA) component of a variable is large and negative. According to Elliot et al. (1996), the DF-GLS test is capable of surmounting the shortcomings of the ADF test. Choosing appropriate lags is very important in unit root testing. In this study, we decide the appropriate lags for both tests based on the Modified Akaike Information Criterion (MAIC). These tests have been explained in many studies. Therefore, we do not focus on them in order to save space.

Testing for Causality: Traditionally, in order to examine Granger causality among variables, the researcher must first establish the integration properties of the variables under consideration (see Granger, 1969). Even so, in cases where the variables are integrated, the researcher must test for cointegrating relationships, before undertaking the causality test. A problem arises using the traditional approach. It is generally accepted that most of the diagnostic tests for non-stationarity and cointegration are weaker against the alternative hypotheses of stationarity and cointegration. In fact, Toda and Yamamoto (1995) point out that the standard approach for causality testing– which entails testing for stationarity and cointegration –is vulnerable to pretesting bias. He and Maekawa (1999) back this view by contending that spurious causality may result when one or both variables have unit roots. Toda and Yamamoto (1995) propose a causal framework for surmounting the associated problems of the traditional causality tests. This framework entails fitting an augmented vector autoregression (VAR) model designed such that the highest order of integration of the variables is added to the optimal lag of the original VAR model. This ensures that the test statistics associated with the causality test follows a standard asymptotic distribution. Following Yamada (1998), the augmented VAR model, $VAR(n+q_{max})$, which may be used to test for Granger causality is of the form

$$y_t = \gamma_0 + \sum_{i=1}^{n} \gamma_{1i} y_{t-i} + \sum_{i=n+1}^{n+q_{max}} \gamma_{2i} y_{t-i} + \sum_{i=1}^{n} \varphi_{1i} z_{t-i} + \sum_{i=n+1}^{n+q_{max}} \varphi_{2i} z_{t-i} + \mu_{1t} \quad (1)$$

$$z_t = \Theta_0 + \sum_{i=1}^{n} \Theta_{1i} z_{t-i} + \sum_{i=n+1}^{n+q_{max}} \Theta_{2i} z_{t-i} + \sum_{i=1}^{n} \delta_{1i} y_{t-i} + \sum_{i=n+1}^{n+q_{max}} \delta_{2i} y_{t-i} + \mu_{2t} \quad (2)$$

where y_t and z_t are the variables in the model; δ, γ, Θ and φ are the coefficients to be estimated; μ_1 and μ_2 are the *iid* error terms in the model. q_{max} is the highest order of integration of y_t and z_t.

From *Eq.* (1), z_t causes y_t if $\varphi_{1i} \neq 0, \forall\, i = 1, 2, \dots, n$. Similarly, in *Eq.* (2), y_t causes z_t if $\delta_{1i} \neq 0, \forall\, i = 1, 2, \dots, n$. The test statistics under these hypotheses are *chi-squared* distributed. For example, suppose that $\delta_{1i} = 0, \forall\, i = 1, 2, \dots, n$, and $\delta = vec(\delta_1, \delta_2, \dots, \delta_n)$ is a vector of $nVAR$ coefficients. According to Toda and Yamamoto (1995), for a suitably chosen X, the modified *Wald*-statistic underlying this hypothesis can be stated as

$$W = T(\hat{\delta}' X' (X \hat{\Sigma}_u' X')^{-1} X \hat{\delta}) \quad (3)$$

where $\hat{\delta}$ is the OLS estimate of δ; $\hat{\Sigma}_u$ is a consistent estimate of the variance-covariance matrix of $\sqrt{T}(\hat{\delta} - \delta)$; T is the sample size. The test statistic, W, will be *chi-squared* distributed with n degrees of freedom.

4. Empirical Results

Descriptive Statistics: This section reports the descriptive statistics of poverty reduction and financial development. These statistics are the mean, median, minimum, maximum, standard deviation, kurtosis, skewness, sum, sum squared deviation and number of observations. Table 1 shows these statistics. From Table 1, we can observe that all the variables have positive average values (i.e. mean and median). This is normal considering the variables involved. In addition, the variables have minimal deviations from their means. The variables are negatively skewed as per the skewness statistics. The variables are, however, normally distributed. This shows that the skewness in the variables may not be significant. The minimum and maximum poverty recorded during the study period are -0.709% and 7.228%, respectively. Recall that POV is the household final consumption expenditure per capita growth, which means that China's per capita household consumption has seen periods of decline (i.e. between 1988 and 1990). Interestingly, the financial sector has experienced positive growth during this period, albeit slow.

Table 1: Descriptive Statistics

Statistics	POV	M2	DC
Mean	6.860088	125.8842	102.9702
Median	7.227705	135.2382	106.0196
Maximum	13.76674	193.0003	141.9227
Minimum	-0.708477	53.92648	65.75736
Standard Deviation	3.147367	42.6758	20.95743
Skewness	-0.370152	-0.155172	-0.008258
Kurtosis	3.492261	1.774067	1.894942
Jarque-Bera	0.987965	1.999031	1.526784
Probability	0.610192	0.368058	0.466083
Sum	205.8027	3776.527	3089.107
Sum of Squared Deviation	287.2716	52815.5	12737.21
Observations	30	30	30

Results of Stationarity Tests: To assess the causal link between poverty and financial development in China, we test the stationarity properties of the variables. This step is crucial in order to establish the additional lag(s) (i.e. q_{max}) to include in the augmented VAR model – which will be used to test for causality following Toda and Yamamoto (1995). Accordingly, we perform the stationarity tests using the ADF and DF-GLS tests. The results of the stationarity tests on the variables in their levels and first differences are reported in Table 2. Poverty reduction (lnPOV) is stationary at 1% and 5% levels of significance, while the measures of financial development (i.e. lnDC and lnM2) are stationarity after first difference at 1% level of significance. This means that the additional lag(s) to be included in the augmented VAR model is 1 (i.e. $q_{max} = 1$).

Table 2: Results of Stationarity Tests

Variable	No Trend	Trend
Levels – ADF Test		
*ln*POV	-3.651**	-4.201**
*ln*DC	-1.376	-2.927
*ln*M2	-2.326	-1.904
Levels – DF-GLS Test		
*ln*POV	-3.356***	-4.583***
*ln*DC	-0.339	-2.806
*ln*M2	-0.010	-1.655
First Difference – ADF Test		
Δ*ln*POV	NA	NA
Δ*ln*DC	-5.507***	-5.365***
Δ*ln*M2	-5.169***	-5.772***
First Difference – DF-GLS Test		
Δ*ln*POV	-4.116***	-4.153***
Δ*ln*DC	-4.390***	-5.209***
Δ*ln*M2	-4.222***	-5.388***

Notes:
1) ** and *** denote, respectively, 5% and 1% levels of significance.
2) Critical values for Dickey-Fuller GLS test are based on Elliot, Rothenberg, and Stock (1996, Table 1).
3) Δ denotes first difference operator.
4) *ln*POV = natural log of household final consumption expenditure per capita growth (annual %), *ln*DC = natural log of domestic private sector credit by banks (% of GDP), and *ln*M2 = natural log of money supply (M2) as % of GDP.
5) NA denotes non-applicable.

Lag Selection, Model Diagnostics, and the Results for Causality Testing: The next step in the Toda-Yamamoto causality testing is to choose the appropriate lag length. In this study, we choose the lag length based on the AIC, the Schwartz information criterion (SIC), the Hannan-Quinn criterion (HQC), and the Final prediction error (FPE). The optimal lag selected in our analysis is 2 (see Tables 3 and 4). Hence, our *VAR* model contains2 lags. Apart from choosing the appropriate lags, the best model must be free of serial correlation and be structurally stable. To this end, we test for structural stability and serial correlation. These results are presented in Tables 3 and 4. The inverses of the roots of the characteristic equations are higher than one in all the cases (see Tables 3 and 4), indicating that our model is structurally stable. Also, the cumulative sum of recursive residual plots shown in Figures A.1 and A.2 in the appendix supports this evidence. Moreover, our model has no serial correlation problems. This evidence is shown by the *chi-squared statistic* of 35.783 with a *p-value* of 0.984 for the *ln*POV and *ln*M2 *VAR (2)* specification; and 31.076 and 0.997 for the *ln*POV and *ln*DC *VAR (2)* specification, respectively.

Table 3: Results for the Causality Test – VAR (2) Model with *ln*M2

	Wald-statistic [p-value]				Inverse Roots
Main Results					
	*ln*POV		*ln*M2		
*ln*POV	NA		9.200[0.018]		1.148
*ln*M2	8.105[0.023]		NA		1.776
Lag Selection	AIC = 5	HQC = 2	SBC = 2	FPE = 2	
Serial Correlation	Chi-squared	35.783	[0.984]		

Note: NA denotes non-applicable.

Table 4: Results for the Causality Test – VAR (2) Model with *ln*DC

	Wald-statistic [p-value]				Inverse Roots
Main Results					
	*ln*POV		*ln*DC		
*ln*POV	NA		12.152[0.002]		1.761
*ln*DC	11.890[0.008]		NA		1.761
Lag Selection	AIC = 3	HQC = 2	SBC = 2	FPE = 2	
Serial Correlation	Chi-squared	31.076	[0.997]		

Note: NA denotes non-applicable.

As a final step, we fit a $VAR(3)$ for all the models (i.e. $n = 2$ and $q_{max} = 1$) and perform the causality tests between poverty and financial development. The results are reported in Tables 3 and 4. The results suggest that bidirectional causality exists between *ln*POV and *ln*M2 at 5% level of significance, as evidence by the *chi-squared statistics* of 9.200 and 8.105, with corresponding *p-values* of 0.018 and 0.023, respectively, for the *ln*POV and *ln*M2 specifications. Similarly, the results suggest that bidirectional causality exists between *ln*POV and *ln*DC at 1% level of significance, as shown by the *chi-squared statistics* of 12.152 and 11.890, with corresponding *p-values* of 0.002 and 0.008, for the *ln*POV and *ln*DC specifications. From these results, we can conclude that financial development may enhance poverty reduction, while the reverse is equally possible in the case of China. Ho and Odhiambo (2011) find partial support for this conclusion. Unlike Ho and Odhiambo (2011), our conclusion is independent of the proxy for financial development. Studies such as those of Abosedra et al. (2016), Sehrawat and Giri (2016a), Uddin et al. (2014), Inoue and Hamori (2012) have found evidence in favor of this conclusion as well. Essentially, the results documented in this study imply that financial development oriented policies may improve poverty reduction in China. The results also imply that policies designed to reduce poverty in China may end up stimulating financial development. Therefore, the various financial development and poverty reduction strategies that have been introduced in China over the past three decades were crucial to her financial development and poverty reduction as we see today.

5. Conclusion

The study assessed the causal links between poverty reduction and financial development in China for the period 1985–2014. The study used the Toda-Yamamoto causality test to overcome the consequences of pretesting bias that have featured majority of the existing studies. To measure financial development, the study employed two standard proxies, namely: the domestic private sector credit by banks to GDP, and money supply (M2) to GDP. For poverty reduction, the study employed a proxy that has been utilized in some of the existing studies, namely: the household final consumption expenditure per capita growth (annual percentage). The study finds bidirectional causality between financial development and poverty reduction, implying that the causality between these important variables is independent of the indicator of financial development. The findings of this study carry important policy implications. First, it implies that the poverty reduction policies and programmes implemented in China, may have led to further financial development in the country. Second, it also implies that the tremendous rate of poverty reduction in China may have been the consequence of the extensive financial sector reforms that have been carried out over the past decades. This means that financial sector reforms and poverty reduction programmes are more of "win-win" strategies in the case of China. Therefore policymakers in China should continue to implement robust financial sector reforms and poverty reduction strategies. The limitation of our study is that it employed a bivariate model to assess the causal links between poverty reduction and financial development. It is possible that other variables may connect the two variables. Therefore, future studies should identify the variables that may connect financial development to poverty reduction. That way, the evidence may come out clearer and enhance our understanding regarding the finance-poverty nexus.

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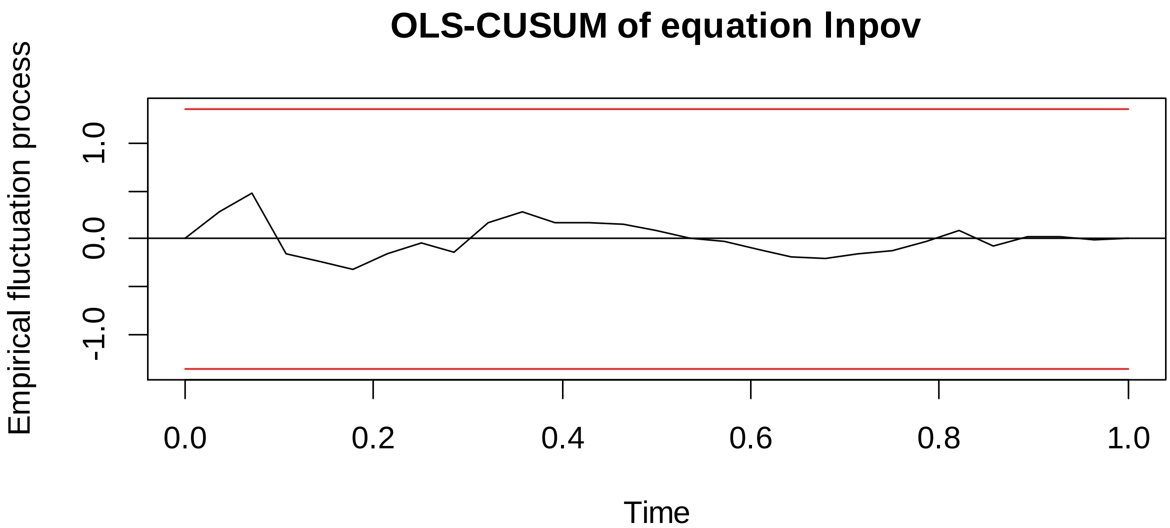
APPENDIX

Figure A.1: The cumulative sum of recursive residual plots of lnPOV and lnM2



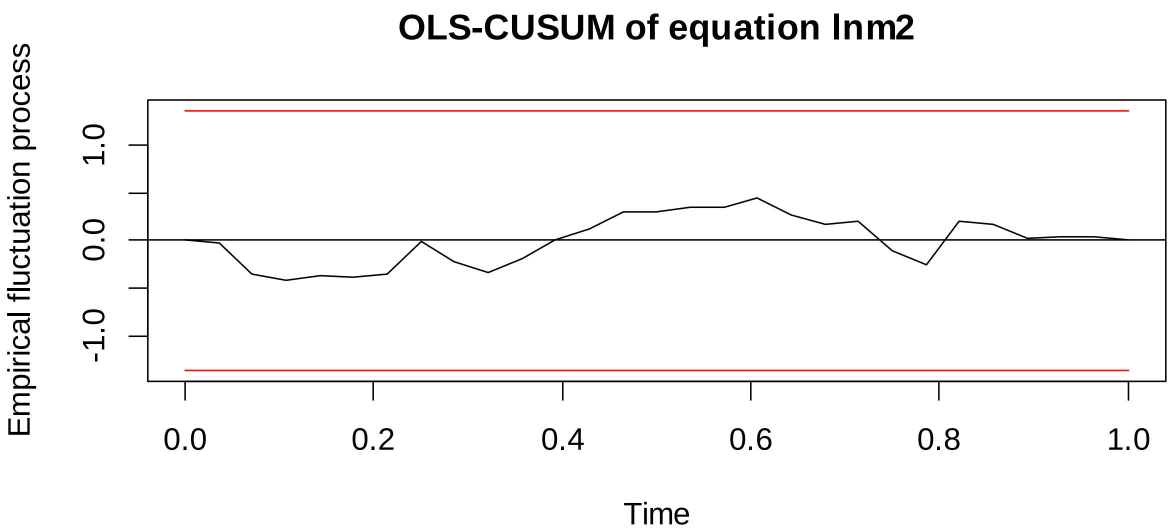
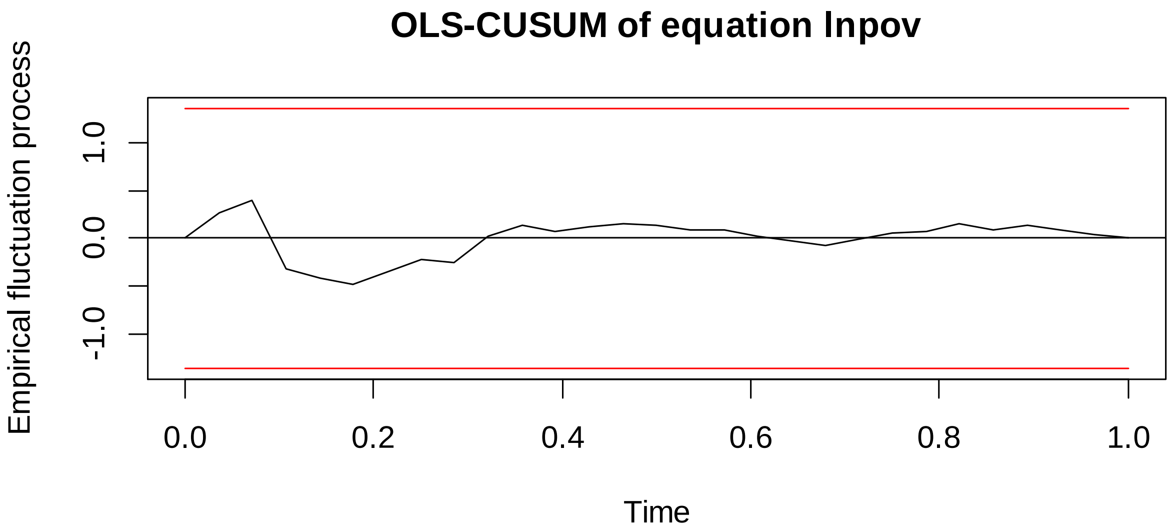
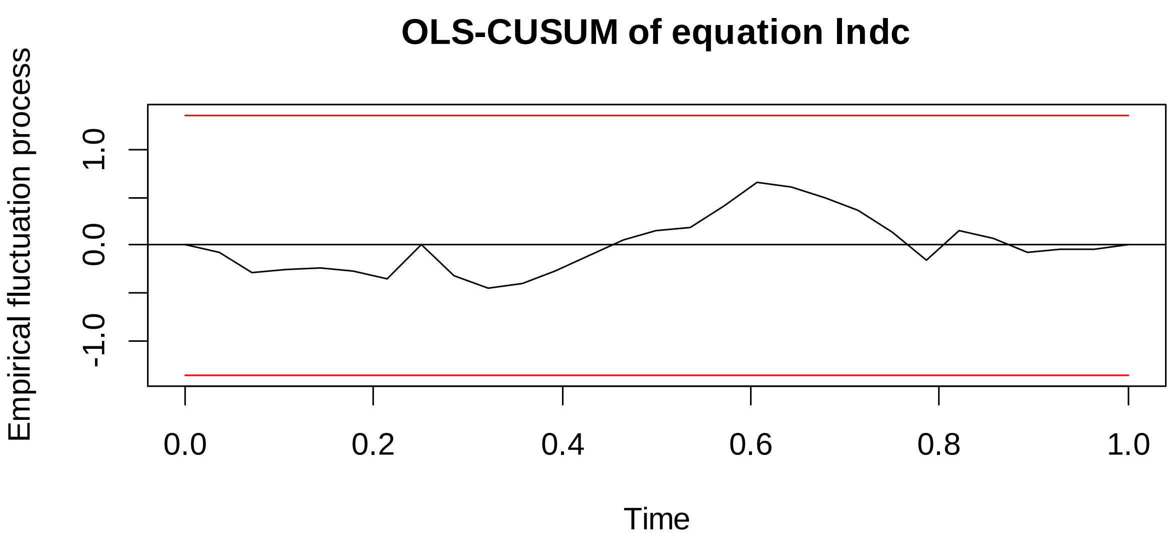


Figure A.2: The cumulative sum of recursive residual plots of lnPOV and lnDC





Journal of Economics and Behavioral Studies (JEBS)
Vol. 9, No. 1, February 2017 (ISSN 2220-6140)

The influence of Ghana's national culture on latent entrepreneurs: An application of Social Rule System Theory

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Abstract: The impact of Ghana's national culture on its latent entrepreneurial activities are in frequently studied on - as compare to social, economic and financial influences. The current studyexamined the impact of Ghana's national culture on its latent entrepreneurs amongSmall and Medium Sized Enterprises (SMEs) from the view point of Social Rule System theory. The study employeda simple random sampling technique ineliciting251 respondents from the Business city of Kumasi in Ghana.It employedStructural Equation Modelling statistical technique (SEM) using Amos software version 22 in analysing the data. The results showed that, masculine and high power distance cultures in Ghana have significant positive effects on peoples' intention to become entrepreneurs. High uncertainty avoidance and collective cultures had positive and insignificant effects on latent entrepreneurs. Thestudy presents significant contribution to the existing academic literature on national culture and latent entrepreneurial activities. Italso brings additional step towards a fundamental means of empowering people into SMEs in any developing country. Recommendationsare also providedfor useful suggestionstogovernment and policy makers in Africa towards the improvement of Small and Medium Sized Enterprises.

Keywords: *Latent Entrepreneur, Culture, Small and Medium Sized Enterprises (SMEs)*

1. Introduction

The growth of small and medium enterprises has become an importantcircumstance in supportingeconomic development in Africa. Entrepreneurship has become a feasible substitute to formal employment in the sub-Saharan African region. According to Ryan (2003), ILO (2006),Owusu-Ansah & Poku (2012) entrepreneurship has become an indispensable means in creating jobs towards the improvement of livelihoods. Acs et al. (2008) posited that, the recognition of entrepreneurship towards the development of nations has been broadly acknowledged from an economic perspective in the various empirical literature.Research continues to encourage the study of entrepreneurshipprimarily in small enterprises (Klotz, Hmieleski, Bradley & Busenitz, 2014). Sathiabama (2010) observed that, entrepreneurship was becoming an activitytowards the creation ofjobs in countries.Previous studies have investigated the influence of national culture on entrepreneurial activities: Luthans, Stajkovic & Ibrayeva (2000), Thomas & Mueller (2000), Mueller & Thomas (2001), Hayton, George, & Zahra (2002), Uhlaner & Thurik (2007), Linán & Chen (2009), Stephan & Uhlaner (2010). Cultural distinctions between countries have become significanton nations' level of economic and entrepreneurial growth (GEM, 2004).According to Kreiser et al. (2010) and Fatoki & Chigonda (2011) cultural attitudes have significant impact on the entrepreneurial activities of a population, a country, a region or an ethnic group. Entrepreneurial activities have strong link with countries' specific cultural tendencies (Lee & Peterson, 2001). The national culture of one's country impacts its economic outcome - which has a greater effect on national savings rate and income (Guiso et al., 2006).Understanding one's culture is likely to afford responses to meet problems of contemporary business (Naoret al., 2010, Klimas, 2016).OECD (1998) opined that, a cultural environment in which entrepreneurship is highlyvaluedmakes business failure to beseen as a constructive learning experience rather than a basis of embarrassment. Cultural differentiation has been studied on and had proven to have had a significant control on both latent and actual entrepreneurship (Blanchflower & Oswald, 2000; Audretsch et al., 2007).

Extensive work has been done in the Ghanaian context towards entrepreneurship: Aryeetey & Ahene (2005) investigated on the varying of policies on business environment for small-medium size enterprises; Boohene et al. (2008) studied on gender, personal values, strategies and small business performance; Abor and Quartey (2010) researched on comparative study on SME development in Ghana and South Africa; Dzisi (2010) studied on women and entrepreneurship; Buame (2010) studied on entrepreneurship education; Owusu-Ansah & Poku (2012) examined entrepreneurship education as a panacea to graduate unemployment; Ahomka (2014) studied on entrepreneurship and culture; Esson (2015) analysed on the escape to victory, youth development, youth entrepreneurship and the migration of Ghanaian footballers whileFalco & Haywood (2016) examined entrepreneurship versus joblessness - explaining the rise in self-employment.

Conversely, an examination of the extantliterature on entrepreneurial activities in Ghana seemed to show that, the concentration was normally on actual entrepreneurswith limited studies on latent entrepreneurship. According to researchers like: Souitaris et al. (2007) and Van de Zwan et al.(2009), studies on latent entrepreneurship was in early stage which have not been extensively research on in the empirical literature. Again, there was limited relationship with most of the studies with the national culture which according to Hofstede (1980: 9) defined culture as "the collective programming of the mind that distinguishes the members of one group or category of people from the other groups."It then explains that, one's culture serves as a basis for business idea after which education, training as well as motivation from external sources could help improve those business idea. Owusu-Ansah & Poku (2012) observed a paucity of data onentrepreneurship development in Ghana. Stevenson and Lundström (2001) revealed how entrepreneurial culture was one of the limited strategic areas of entrepreneurial growth.Brooks (2008) also posited that, there wasinadequate number of studies on cultural environments within the context of SMEs in general.The current study seeks to cram the void in the extant literature by examiningthe influence of national culture on latent entrepreneurs' willingness to start small and medium enterprises in developing countries - with specific reference to Ghana.This study consists of sections which includes: literature review; research methodology; data collection procedure; construct operationalisation and measurement; data analysis and discussions; implications of the findings; conclusions; limitations of the study as well as suggestions for future research.

2. Literature Review

Literature was reviewed on the social rule system theory as well as each of the variables in the conceptual model.

Social Rule System theory: Social rule system theory (SRST) is a theory with strong root in sociology. Burns & Deitz (1992) observed that, human social behaviouris well thought-out and synchronized by socially created and replicated systems of regulations in societies. Such rules are grounded on norms, taboos, codes of conduct as well as community customs - which havereal subsistence in social institutions such as family, community and business enterprises (Flam & Carson, 2008). According to Burns & Flam (1987), social rules in a system powerfullymanipulatebehaviour and relationsamongmembers within a particular environment or institution. In order to guide and regulateinterface, social rules provide behavior with a decipherable, distinctive patterns and make such patterns comprehensible and momentousfor those who share in the rulingknowledge (Flam & Carson, 2008). According to Yau, Lee, Chow, Sin & Tse (2000), systems in societies help reduce uncertainty while increasing predictability and vice versa. Mutual ruleshave essential underpinning for well-informedpeople to derive, create and contrast situational prospects (Wang, Siu & Barnes, 2008). In grounding the social rule system theory to the current study,it is said that,peoples' ideas and behaviour are normally influenced by the cultural environment they find themselves. People who find themselves in an environment where entrepreneurial activities are part of that society are likely to end up as future entrepreneurs and vice versa.

Small and Medium Enterprises in Ghana: The definition of small and medium enterprise in Ghana has been defined differently by many authors and researchers. Currently, the most widely criterion used - is the number of employees to determine whether a business is small or medium. According to Osei, Baah-Nuakoh & Sowa (1993), there are variations even in the required number. The Ghana Statistical Service (GSS) classified firms with 10 employees or less as small scale enterprise whilst employees greater than 10 were seen as medium and large-sized enterprises. Conversely, the National Board for Small Scale Industries (NBSSI) in Ghana associated both fixed asset and employees' numbers as part of their criteria. NBSSI defined a Small Scale Enterprise as one whoseemployees were less than 9, with plant and machinery not beyond one thousand Ghana cedis (US$ 667, subject to the 2011 exchange rate). SMEs in Ghana are speckled transverselyin city centers and rural areas (Boohene, Sheridan & Kotey, 2008), where many are owned and controlled by Ghanaians with few by foreigners (Quartey, 2003).In the current study,small and medium sized enterprisesare classified asshops and business entities that are found in many market centres across the various regions in Ghana.

Latent and Actual Entrepreneurs: Entrepreneurs could be actual or latent. According to a research that was conducted by Pihie (2009), entrepreneurship is classified into actual entrepreneurship, which talks aboutpersons that have alreadyestablishedtheir business and are in operation while the latent entrepreneurship is about people that intend or are willing to start their own business. Vesalainen & Pihkala (2000) defined latent entrepreneurs as people with alert state of mind that direct attention toward a definitegoal to accomplishit. Latent entrepreneurs are craving to be self-employed in the future and have the prospect to realise self-employment. The first category of entrepreneurship which was the actual entrepreneurship - talks about people that have already established their enterprises or industries.The focal point of the study is on latent entrepreneurs or people who are willing to start their own businesses in the country.

National culture: According to López-Duartea, González-Loureirob, Vidal-Suáreza & González-Díaza (2016) an increasing body of the existing literature has revealed that, national culture has a greater effect on decision and strategy. National culture is determined by an idea that, each country has people with common history and understanding which are considered a country of consistent culture (Bhaskaran & Gligorovska, 2009). According toRobock & Simmonds (1989), national culture explains a set of social models and reactions that tend to clause a population's behavior. Chui, Kwok and Zhou (2016) also observed that, national culture forms part of institutions such as - customs, norms, traditions as well as religion.Culture is the set of system and behavior blueprint that a group of people learns but does not inherit at birth.Hofstede (1980) distinguished between organizational culture and national culture. He assumed that "distinctive" value is specific to national culture while, the organizational culture is identified by "mutual" value within the organization. In the current study, national culture will be termed as norms and values that characterise a group of people living in a particular society or country.

Masculinity Vs Femininity: Masculinityexplains how social gender roles are undoubtedlyseparated.In masculine cultures, male are supposed to be assertive, tough and focused on material success whereas women are supposed to be more modest, tender and are concerned with the quality of life. Femininity dwells on societies in which social gender roles tend to overlap (Hofstede, 1980).In the current study, the definition of Butler (1990) was used. He posited that, countries with high masculine cultures tend to stress on success and status while men dominate in such societies as in the case of the Ghanaian business and trading cultures (Ansah, 2015).

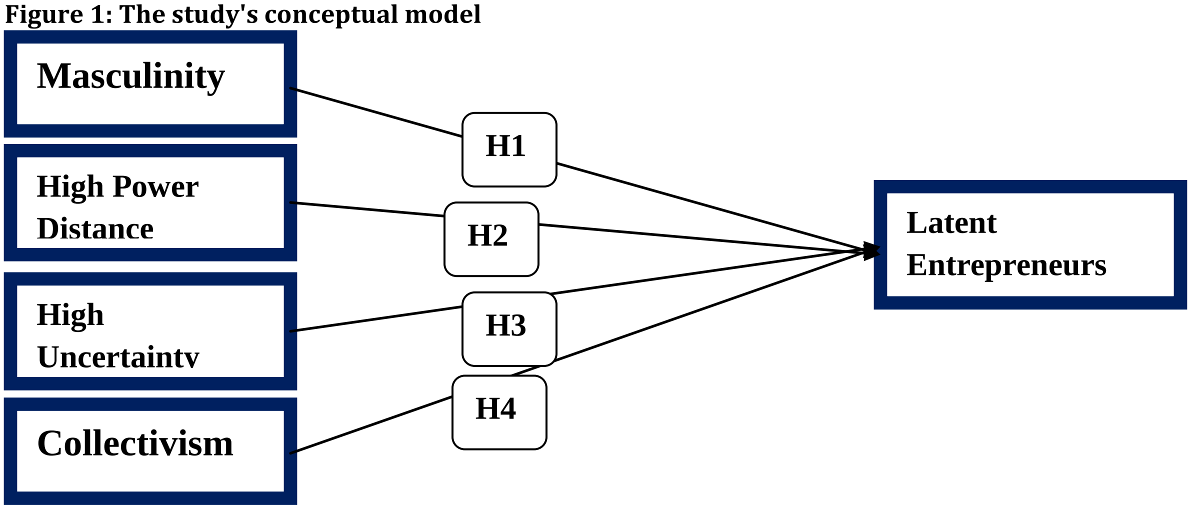
High and Low Power Distance: The degree at which the less influential members of an organisation within a country imagine and acknowledge that power is distributedunevenly (Hofstede, 1991).Power is unstable and it tends to change where people are - for instance a man is expected to be a superior at work place and also a father in a family unit (Hofstede, 2001). High power distance culture show signs ofthe following characteristics: subordinates are always liable when things gowrong; superiors overtlyshow their ranks; the relationship between employers and employees is not moderately close while common divisions are accepted. On the other hand, a low power distance culture is where responsibility is often shared by managers and employees. Subordinates are sometimes assigned important tasks and are treated with respect and trust by their superiors. This study postulates Ghana's culture as one with a very high power distance as revealed by Ansah (2015) on Hofstede cultural dimension.

High and Low Uncertainty Avoidance: It explains the extent at which members feel endangered by doubtful situations. (Hofstede, 1991:113). In a culture that has high uncertainty avoidance,individuals try to stay away from improbability and doubt, seek for conformity and believe in unconditional truths - such people are seen to be of a higher level of nervousness and anxietyin such a society.Written set of laws, formal procedureand ceremonytend to add structure to life. Conversely, a low uncertainty avoidance culture makesit easier to acknowledge the uncertainty and take risks in life and they are less apprehensive and more relaxed(Hofstede, 2001).The current study positions Ghana's culture as one with high uncertainty avoidance where people are afraid to venture into enterprise, they are not familiar with (Ansah, 2015).

Individualism Vs Collectivism: Individualismgives explanations to societies in which the bond between individuals are loose: each individual is liable to look after himself or herself as well as his or her immediate family. Collectivismrefers to the social order in which individuals from birth onwards are included into an interconnected groups (Hofstede, 1991:51).The cultural distinctiveness of collectivism captures the importance people to the wellbeing of a larger group as opposed to individual welfare (Wagner & Moch, 1986).The study puts Ghana's society as a society that is highly collectivists - where group initiatives are highly cherished than individual initiatives (Ansah, 2015).

Conceptual Model and Hypothesis Development: Figure 1Shows the conceptual model illustrating five variables. Masculinity, Power Distance, Uncertainty Avoidance, Collectivism are the independent variables while Latent Entrepreneurs is the dependent variable.

Figure 1: The study's conceptual model



Hypothesis Development: The relationships between the research constructs are discussed in the succeeding pages:

Masculinity and Latent Entrepreneur: Previousstudies have revealed that, entrepreneurship is associated with high levels of individualism (McGrath, MacMillan & Scheinberg, 1992; Busenitz& Lau, 1996). According to Roxana (2012), countries with high level of masculinity culture index are likely to take more risk. Dzisi (2014) also posited in her study that, the existence of socio-cultural constraints have effectson thecontribution rate of young women into entrepreneurship. It then suggests that, Ghana's culture is that of masculinity. Chigunta (2002) observed from the developing countries that,involvement of youths into entrepreneurship favours young men who were more likely to be self-employed than young women. It is thus hypothesised in this study that:
H1: A masculine cultural environment has a significant positive effect on peoples'intention to become entrepreneurs.

Power distance and Latent Entrepreneur: Rousseau & Venter (2002); Neighbors, Lostutter, Cronce & Larimer, (2007)all observed that, a review ofthe existing of literature seemed to identify that, risk taking behaviour is part of the developmental make-up of the human race. A high Power distance index means that elites in different countries clutchreasonablyto authoritarian views and that influence is based on institutions rather than on secular influence. Highly stratified cultures value traditional values more than autonomy (Roxana, 2012). In high power distance cultures, individuals are expected to be entrepreneurs while in low power distance cultures, people are less likely to be entrepreneurs (Hofstede, 1980). Consequently, depicting from the above deliberations, it can be hypothesised that:
H2: High power distance has a significant positive effect on peoples' intention tobecome entrepreneurs.

Uncertainty Avoidance and Latent Entrepreneur: A multiplicity of studies has led to the conclusion that, cultural values control entrepreneurial behavior. According to Hofstede (1980), national culture replicates

the fundamental scheme of ideals, philosophy and inclination of a nation. It explains that, the national culture of one's country has a greater influence on his or her make-up.Individuals with low altitude of uncertainty avoidance are likely to be entrepreneurs while persons with high altitude of uncertainty avoidance are less probable to be entrepreneurs (Hofstede, 1980).Researchers like: Shane (1993) andTaylor & Wilson (2012) also posited that, low level of uncertainty avoidance is associated with entrepreneurship. Corporate risk-taking is higher in societies with low uncertainty avoidance than countries with high uncertainty avoidance (Roxana, 2012). The supposition is verified by the modeling work of Giordani & Zamparelli (2011), who posited that, the lower the ambiguity aversion, the higher the Research & Development efforts and vice versa. Correspondingly, it is expected that, high uncertainty avoidancecultures are less likely tobe latententrepreneurs. Itis therefore posited that:
H3: High uncertainty avoidance has a negative influence on peoples' intention to become entrepreneurs.

Collectivism andLatent Entrepreneur: According to Licht et al. (2005) individualistic cultures lay emphasis onself-centredness, contest, freedom and entrenched individual liberty and commitment. It is predicted that, individualism is correlated with overconfidence and hopefulness, which tend to have a momentous positive consequence on risk-taking and vice versa (Roxana, 2012).Individualistic persons are more probable to be entrepreneurs while collectivist persons are less likely to be entrepreneurs (Hofstede,1980). Breuer et al. (2011) posited that, individualism is relatedtosuperiority and over optimism and both have constructive effects on individual risk-taking activity while collectivist culture do not promote risk-taking. It is hypothesised that:
H4: Collectivist cultural environment has a negativeeffect on peoples' intention to become entrepreneurs.

3. Methodology

The procedures that were used in collecting the data to its eventual analysis of the data are discussed in the succeedingpages:

Sample and data collection: The population for the study was peopleor inhabitants from the business city of Kumasi. The study area (Kumasi) is a cosmopolitan city in Ghana characterised with its trading activities. It is also the capital of Ashanti Region which currently has the largest population in Ghana exceeding the Greater Accra Region (Ghana Statistical Service, PHC 2010). Five undergraduate students from the Kwame Nkrumah University of Science and Technology were recruited and trained as research assistants to give out and collect the questionnaires. Of the total of 300 questionnaires distributed, 251usable questionnaires were reclaimed for the final data analysis, indicating a response rate of 84%.

Measurement Instrument and Questionnaire Design: Research scales were restructured on the basis of precedingresearch work. The national culture wasused as the independent variable in the current study which was adopted from Hofstede (1980) culture dimensions. Proper fine-tuning was made to fit the current research context and purpose. “Masculinity” measure used four-item scale measure,"Power distance” used a four-item scale measure , "Uncertainty avoidance” used a five - item scale measure , Collectivism” used a five - item scale measure which were all adapted from Christie et al.(2003) while "Latent entrepreneurs" was measured on a seven-item scale measure which was adapted from ILO(2006), Seed Working paper No.76. All the constructs were measured on afive-point Likert scale- which wasranked from: 1= strongly disagree to 5= strongly agree to articulate the degree ofagreement and disagreement.

Data Analysis: The analysis of the study's data began with the explanation of the demographic variables before the hypothesised relationship of the variables were discussed.

Respondents’ profile: Table 1 explains the depiction of the respondents' characteristics. The participants were predominantly females with 54.2%. A greater majority of the participants were between the ages of 30 - 39 years constituting 46.2%; 57.8% of the respondents were married while as many as 23.9% had masters degrees as their highest educational qualification.

Table 1: Demographic Characteristic of the Respondents

Gender	Frequency	Percentage
Male	115	45.8%
Female	136	54.2%
	251	**100%**
Age		
Below 18 years	10	4.0%
18 - 29 years	50	19.9%
30 - 39 years	116	46.2%
40 - 49 years	55	21.9%
50 plus	20	8.0%
	251	**100%**
Marital Status		
Single	65	25.9%
Married	145	57.8%
Divorced	41	16.3%
	251	**100%**
Educational Background		
MSLC /JHS	35	13.9%
SSSCE / WASSCE	45	17.9%
O /A – Level	41	16.3%
Undergraduate	50	19.9%
Masters (Postgraduate)	60	23.9%
	251	**100%**

Source: Author's compilation (2016)

Table 2: Accuracy Analysis Statistics

		Descriptive Statistics		Cronbach Alpha				
Research Constructs		**Mean**	**SD**	**Item Total**	**Value**	**CR**	**Average Variance Extracted**	**MFL**
	MA1			0.682				0.880
	MA2			0.689				0.915
Masculinity	MA3	5.1	1.5	0.732	0.942	0.958	0.852	0.956
	MA4			0.726				0.939
	PD1			0.651				0.864
Power	PD2			0.705	0.924	0.946	0.815	0.924
Distance	PD3	4.6	1.4	0.698				0.925
	PD4			0.705				0.896
	UN1			0.737				0.826
Uncertainty	UN2			0.649				0.793
Avoidance	UN3	5.0	1.4	0.710	0.901	0.927	0.717	0.844
	UN4			0.735				0.889
	UN5			0.775				0.878
Collectivism								
	C3	5.2	1.4	0.601	0.730	0.849	0.654	0.699
	C4			0.647				0.830
	C5			0.759				0.885
Latent	LE2			0.602				0.602
Entrepreneur	LE3			0.611				0.787
s	LE4	5.1	1.4	0.698	0.834	0.885	0.609	0.816
	LE5			0.710				0.799

LE6	0.699	0.871

Source: Author's compilation (2016).

Note: MA = Masculinity; PD = Power distance; UN = Uncertainty avoidance; C = Collectivism; LE = Latent entrepreneurs.

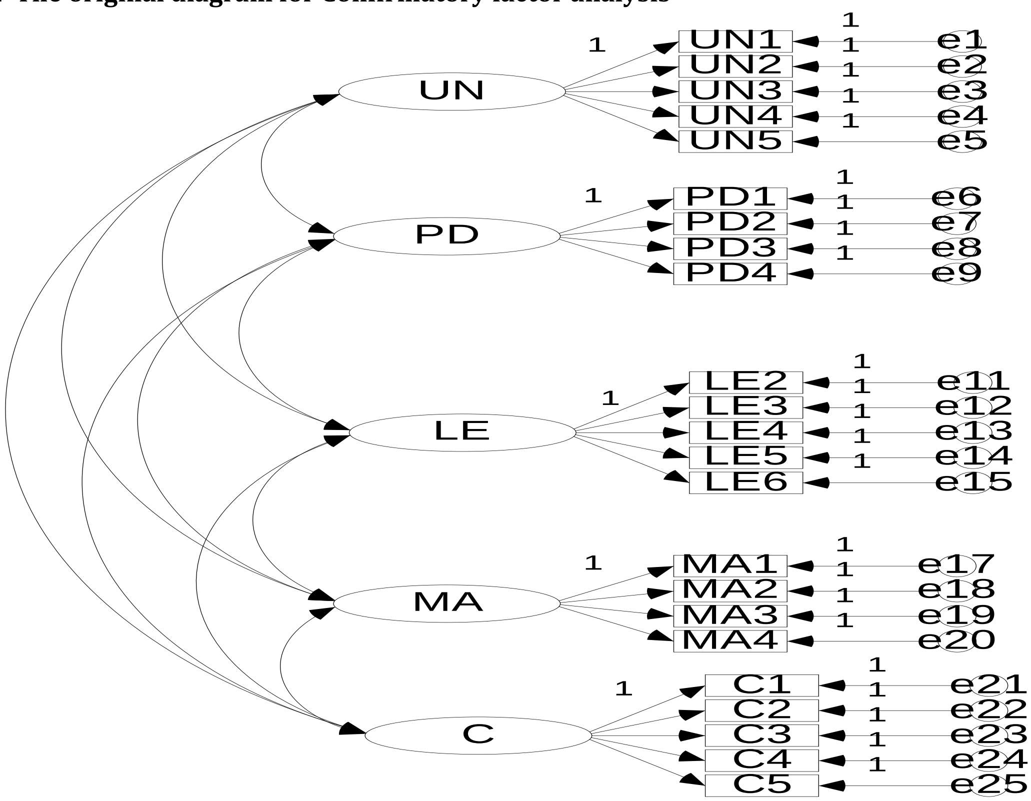
CR value = Composite reliability; MFL = Measurement factor loadings; SD = Standard Deviation.

The eliminated constructs in Table 2. Were questions that were deleted in the process of assessing the confirmatory factor analysis (CFA)?

Measure validation: A two-step system approach as recommended by Anderson and Gerbing (1988) was employed before testing the study's hypotheses. Confirmatory factor analysis (CFA) was carried out to assess reliability and validity. Cronbach alpha and composite reliability were used in checking the reliability of the study's construct. Convergent and discriminant validity of measures were assessed using factor loadings as well as the AVE values as shown in Table 2

Measurement CFA Model fit: The overall acceptable model fit was indicated in accordance with the following thresholds: chi - square value $\chi2/$ (df) ‹ 3; Goodness-of- Fit Index (GFI) > 0.9; Root Mean Square Error of Approximation (RMSEA) values< 0.08; Incremental Index of Fit (IFI) > 0.9; Tucker Lewis Index (TLI) > 0.9 as well as the Comparative Fit Index (CFI) values > 0.9 for the estimation of the confirmatory factor analysis.The study's recommended statistics for the final overall model assessment showed an acceptable fit of the measurement model to the data and they are presented as : $\chi2/$ (df) = 1.48, GFI = 0.913; IFI = 0.980; TLI = 0.974; CFI = 0.980; RMSEA = 0. 044 characterised with the respective CFA diagram at figure 2.

Figure 2: The original diagram for Confirmatory factor analysis



Note: UN = Uncertainty Avoidance; PD = Power Distance; LE = Latent Entrepreneurs; MA= Masculinity = Collectivism.

The estimation of the model measure were all checked to guarantee theirappropriateness before path modelling was employed. Geldhof, Preacher and Zyphur (2014) opined that,composite reliability coefficients give a perfectevaluation of reliability than employing alpha coefficients. The present study evaluated validity using: convergent validity and discriminant validity. Convergent validity clarifies how the variables within a single factor are related while discriminant validity assesses the extent to which factors are different and uncorrelated (Gaskins, 2013). Hair et al. (2010:709) posited that, a convergent validity is distinct when a construct's AVE coefficient is 0.5 or higher.The values of the AVE coefficients ranged from 0.609 to 0.852 which were all greater than the least threshold of 0.5. In this study, factor loadings greater than 0.5as well as AVE values greater than 0.5 was used in assessing the convergent validity. According to Hair et al. (2010) the use of composite reliability coefficients of 0.7 and above indicate a high level of construct reliability. It is seen from the table 2 that, all the constructs used in the current study offered high levels of reliability ranging from 0.849 to 0.958. According to Du Plessis (2010), a Cronbach's alpha results exceeding 0.6 replicates the least possible level of acceptability. The Cronbach alpha values far exceeded the proposed threshold of 0.6 with values ranging from 0.730 to 0.942 as shown in Table 2.

Table 3: Inter - Construct Correlation Matrix

Research Constructs	C	LE	MA	PD	UN
Collectivism (C)	**1.000**				
Latent Entrepreneurs (LE)	0.645	**1.000**			
Masculinity (MA)	0.629	0.592	**1.000**		
Power Distance (PD)	0.577	0.514	0.539	**1.000**	
Uncertainty Avoidance (UN)	0.740	0.604	0.655	0.751	**1.000**

According to Fornell & Larcker (1981) the use of square root of AVE in each latent variable facilitatesthe calculation of discriminant validity, in a situation where thevalue in question is higher than other correlation values between the latent variables.Table 3 shows the least average variance extracted among the latent variable as Latent entrepreneurs with an AVE value of 0.609, which is even the lowest among the variables; hence its square root becomes 0.780 is larger than the correlation values among all the other variable. The resultindicates that, discriminant validity is well acknowledged. Therefore, the results substantiate the existence of discriminant validity of the measurement used in the study.

4. Results

Results of structural model analysis: This study used structural equation modeling statistical technique (SEM) to estimatethe causal relationship among the constructs based on the conceptual model in Figure 1. The results are reported in Table 4. The model was acceptable in terms of overall goodness of fit. Acceptable model fit was indicated by $\chi 2$ (df) values < 3; GFI and AGFI values >.90; RMSEA values <0.08; IFI and CFI values >.90. The results of current study indicated that: $\chi 2$ (df) (1.15); GFI (0.945); IFI (0.996), TLI (0.994), CFI (0.996) as well as RMSEA (0.024). It demonstrated how all the thresholds were met in determining the hypothesised relationships (Hair et al., 2010). This suggests that, the model converged well and had acrediblemanifestation of the fundamental empirical data structures collected in the Business city of Kumasi.

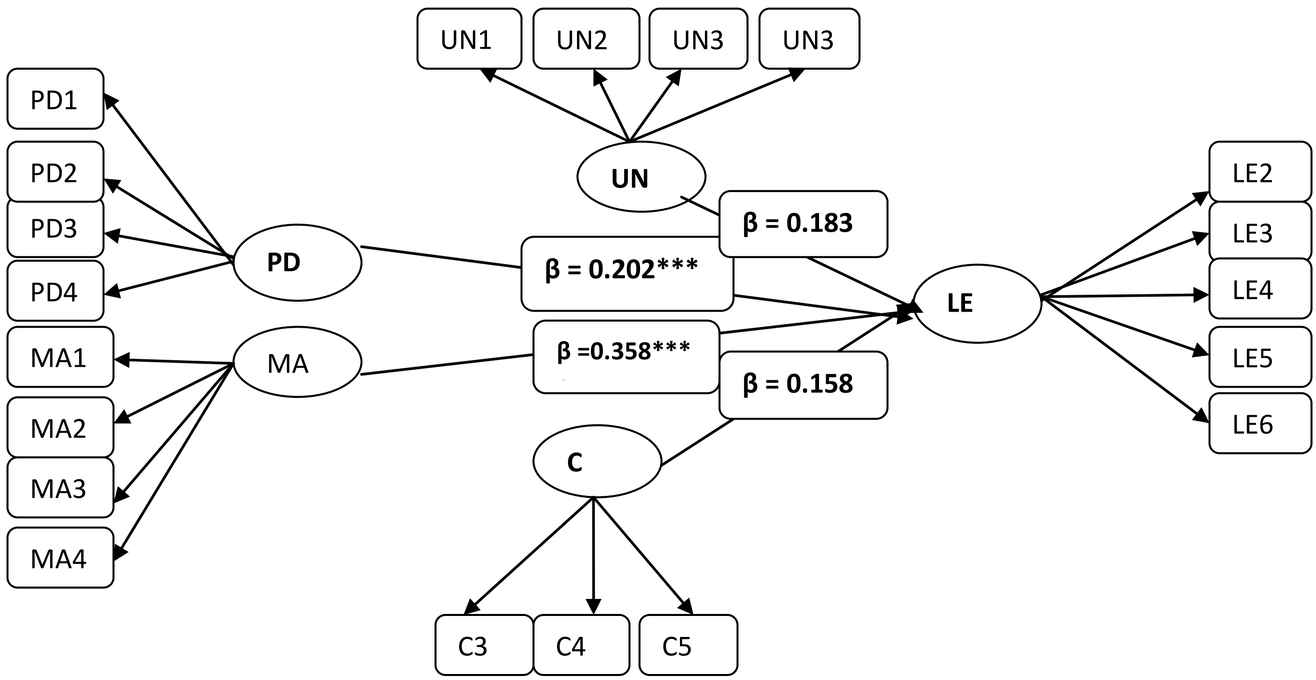
Table 4: Results of Structural Equation Model Analysis

Path Coefficient	Hypothesis	Factor Loading / P- value	Supported / Rejected
MA ⟶ Latent Entrepreneurs	H1	0. 358 + ***	Supported
PD ⟶ Latent Entrepreneurs	H2	0. 202 + ***	Supported
UN ⟶ Latent Entrepreneurs	H3	0. 183 +	**Rejected**
C ⟶ Latent Entrepreneurs	H4	0. 158 +	**Rejected**

Note: MA = Masculinity; PD = Power distance; UN = Uncertainty avoidance; C = Collectivism; LE = Latent entrepreneurs
Note: Significance level < 0.05, Significance level < 0.01; Significance 0.001
Research structural model fits: **$\chi 2$ (df) = 1.15; GFI = 0.945; AGFI = 0.915; IFI = 0.996, TLI = 0.994, CFI = 0.996, and RMSEA = 0.024.**

Testing of Hypothesis: The results in Table 4 provides explanations for all the four hypotheses. The path coefficients for *H1,H2,H3 and H4*were:0.358; 0.202; 0.183 and 0.158 respectively.Hypothesis (H1) posited a positive relationship between masculinity and latent entrepreneurs. The resultssupported the stated hypothesis with a strong and significant value of (0.358).Hypothesis (H2) posited a positive significant relationship between High power distance culture and people intention to become entrepreneurs.Figure 3 and table 4 explain the relationship with a positive values instead of negative. Hypothesis (H3) posited a negative relationship between High uncertainty avoidance and people intention to become entrepreneurs. It then violates the stated hypothesis statement with a positive value of (0.183) while Hypothesis (H4) also posited a negative relationship between a collectivist cultural environment and people intention to become entrepreneurs.The stated hypothesis statement was againrejectedsince it was stated in a negativeform but turned out to be positive with a significant value of (0.158). The values of the various relationships are shown using the beta (**β**) values in the modified diagram in the path analysis in Figure 3.

Figure 3: A Modified diagram for path analysis



Note: UN = Uncertainty Avoidance; PD = Power Distance; LE = Latent Entrepreneurs; MA= Masculinity = Collectivism.
$\chi 2$ (df) = 1.15; GFI = 0.945; AGFI = 0.915; IFI = 0.996, TLI = 0.994, CFI = 0.996, and RMSEA = 0.024.

Discussion of Results: Hypothesis (H1) posited a significant positive relationship between masculinity and latent entrepreneurs. The results shown in Figure 3 and Table 4. supported the hypothesis with a strong and significant value of (0.358).The results showed that, masculine cultures tend to propel people to become entrepreneurs. The findings are in consistent with Roxana (2012) who posited that countries with high altitude of the masculinity manifestations are liable to take more risk. It explains that, a society that is more masculine with males dominating in their everyday activities are likelyto turn out more entrepreneurs than in a feminine society. It again points to Burns &Deitz (1992) analysis on the social rule system - where social actions are coordinated by socially created systems of regulations in societies.Hypothesis (H2) also posited a significant positive relationship between High power distance culture and people intention to become entrepreneurs. Figure 3 and Table 4 explained the relationship with a significant value of (0.202); which concluded that, a society with a high power distance culture tend to motivate people to become entrepreneurs. When a society has a strong gap in relationship between the elderly and the young ones, there is a possibility that, the elderly may suggest a business idea which is possible to be adopted by the young - especially father and a child as seen in most retail businesses. The study findings are in consonance with Hofstede's (1980) observation towardshigh power distance cultures, where he revealed that,personsin such cultures have a greater probability of becoming entrepreneurs ; less in low power distance and vice versa.

Hypothesis (H3) posited a negative relationship between High uncertainty avoidance and people intention to become entrepreneurs. It violatedor rejectedthe stated hypothesis statement. Figure 3 and Table 4 explicated the relationship with a positive value of (0.183); which explained that, a society with a high uncertainty avoidance culture affect peoples' intentions to become entrepreneurs but not in a negative way. The findings of the current study are contrary to the findings of Taylor & Wilson (2012) as well as Roxana (2012) who ascribed that, low levels of uncertainty avoidance is associated with entrepreneurship. The findings are applicable to Burns &Deitz (1992) observations on the social rule system, where he posited that policies and programs in societies have a greater likelihood to amend the already existing policies in such society. The more people become engage as a result of policies in one's country, the greater the probability of affecting their espoused cultural values. Though Ghana is categorised as a country with high uncertainty avoidance index (Ansah, 2015).The socio - economic factors put in place by previous and current governments in empowering entrepreneurs to revamp the economy has rejected the myth of the cultural tendencies in the academic literature. People are now poised to establish on their own despite all evidence to the contrary in the extant academic literature.

Hypothesis (H4) also posited a negative relationship between a collective cultural environment and people intention to become entrepreneurs. The stated hypothesis statement was again violated with a positive value of (0.158); which clarified that, a society that is collective in nature does not affect its peoples' intentions to become entrepreneurs from the Ghanaian perspective.The findings are again contrary to the results of Hofstede (1980); Breuer et al. (2011) who all posited that, collectivist cultures were more probable not to produce entrepreneurs. According to Burns & Flam (1987) social rules in a system tend to effectively control the behaviour of members within that environment or institution. A new system or changes in policies directives in a society has a greater influence in the activities of people living in that society (Burns &Deitz, 1992).The promotion of entrepreneurial activities in supporting groups or associations inestablishing businesses on their own in Ghana might have had a greater influence in seeing collective groups doing more than on individual basis. It is also evident from the study's demographic characteristics that, majority of the respondents had masters degrees as their highest educational qualification - which might compel them in putting their resources together so as to establish on their own rather than to venture into business on individual basis.

5. Conclusion

The current study sought to examine the influence of national culture on latent entrepreneurs. Social rule system theory was provided as the theoretical grounding for the framework that was conceptualised for the study. The study postulated four hypotheses, data were collected from people who were not entrepreneurs but were poised to be entrepreneurs in future within the Business city of Kumasi in Ghana. The empirical findings did not support all the stated hypotheses - with some revealed in a varied way.It is therefore concluded that,masculine culture in Ghana has a greater influence on peoples' intent to becomeentrepreneurs. It shows how the systems in societies tend to shape the behaviour of people in that society or country. Programs are mostly structured in favouring men in many sphere of the average Ghanaian life - where men are regarded in many areas than women thereby giving advantage to males over females.Also, high power distance culture and people willingness to start their own businesses was also seen to be significant and positive. The more the gap between managers and employees' become clear - in terms of inequality between business owners and employees; the ideal managers or business owner being autocratic or acted as father as well as differences in privileges and status; the more likely to compel many people who want to be bosses to themselves to set up on their own.

In addition, high uncertainty avoidance culture was also seen to have a positive significant influence on latent entrepreneurs. The result then concluded that, social rule system in a form of policies and programmes in countries has greater effects on the behaviour of people in that country. Entrepreneurial programs by the government are refuting the idea of high uncertainty avoidance cultures negatively affecting latent entrepreneurship. Finally, collectivist culture also had a positive significant relationship with peoples' intention to be entrepreneurs other than a negative one - as stated in the hypothesis. The more the social system is structured in tackling some social - economic problems through education and training, the more people become familiar with new ways of doing things which are likely to violate the conformist way of getting things done. The increased number of respondents being literates is more likely to influence the idea of putting capital or resources together in carrying out business activities rather than establishing on individual basis - considering the cost - benefit analysis.

Implication of the study: The current study makes extensive contribution to academic literature, business activitiesand policy towards small and medium size enterprises in Ghana and Africa.First, on the side of the academic, the influence of national culture on latent entrepreneurs -other than actual entrepreneurs in developing countriesin Africa is expected toadd knowledge to the existing ones, since it was observed from the empirical literature that, studies on latent entrepreneurs very were scant.Secondly, contribution to business was made evident in the study as there was a growing evidence in the literature that,countries with high uncertainty avoidance tend to have negative association with entrepreneurs but the current study's findings had given different results - signifying that, the more people in a particular country become more educated, there is that likelihood that, they might begin to reason independently - which then affect their intention to establish on their own. Recent programs on entrepreneurship education among institutions' might one way or the other compel young and educated to set up on their own. Finally,the study also provides a contribution to policy by urging governments in making entrepreneurial activities a compulsory programme for the youth and people in Africa - especially those inschools. There should be an introduction of Entrepreneurship Education Innovation Fund (EEIF) to support the entrepreneurial programmesso as to increase the number of entrepreneurs in Ghana and Africa.The study finally submits that, the small business activities in countries - especially in Africa could contribute to the reduction of unemployment situation in the sub region.

Limitations and future research: The current study makes significant contributions to both academia, business and practice. However, it has its own limitations. The study's data were gathered from only respondents in Kumasi. The results would be more helpful if data from the other part of Ghana are compared. Future studies may be conducted by increasing the sample size to cover the rest of the ten regions in Ghana.

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Journal of Economics and Behavioral Studies (JEBS)
Vol. 9, No. 1, February 2017 (ISSN 2220-6140)

Behavioural Ethics among Nurses in Midwife Obstetric Units: Patients and their Perceptions in Cape Town, South Africa

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Abstract: A structured questionnaire survey of randomly selected 229 patients in two public hospitals (maternity wards) in Cape Town, South Africa was done to explore post-natal patients' perceptions towards the ethical behaviour of nurses in their wards. 150 questionnaires received were usable for descriptive, correlation, and exploratory factor analysis (principal component analysis). From the results, inadequate nurses' number, negligence on the part of the nurses, and lack of detailed information to patients are the three clear issues that need to be addressed in these public hospitals to increase patient satisfaction and retention, should they wish to give birth again. Patients' concerns with the nurses' ethical behaviour is related to 'empathy' and 'assurance' dimensions. The importance of these two dimensions cannot be overemphasised in medical care, globally, as they are increasingly becoming the driving forces towards patients' satisfaction and retention. Understanding the individual needs of the patients and showing them that the nurses do care through emotive individualised attention, and acts that raise the confidence levels of patients that the nurses and the hospital will deliver safe services, are recommended.

Keywords: *Behavioural ethics, nursing ethics, Midwife Obstetrics Units, maternity, sub-Saharan Africa*

1. Introduction

It is common knowledge that medical care is quite complex, and that the medical team, the patients and the patients' relatives are getting well informed on how to resolve ethical concerns within the medical practice. This study is focused on maternity care in hospitals. Midwifery practice in South Africa is an integral aspect of the national health care which provides maternal health care (Dippenaar, 2009). Recent authors on maternity ethics (such as Chadwick et al., 2014; Kim & Kim, 2014; Klomp et al., 2014; Suhonen et al., 2015; Zakaria et al., 2015) conducted most of their studies outside the African continent. Chadwick et al (2014) who conducted their qualitative study in South Africa found that one-third of the women interviewed in the study had positive birth experiences and half of the respondents had negative birth experiences that are related to poor interpersonal relationships with caregivers, lack of information, negligence, and absence of a labour companion. This quantitative study conducted also in South Africa (Cape Town) goes further to explore more conclusive dimensions that women who came to hospitals to give birth regard important for their satisfaction. This study will take a social science perspective on nursing / midwifery ethics rather than medical, as it is only focused on women's (patients) perceptions of nurses' behaviour towards them while they are in the maternal care during labour or birthing. The respondents are not expected to have in-depth knowledge of medical procedures and their consequences. This study's significance lies in the importance of medical practitioners to recognize factors that are important to patients during medical care. Medical care is not exempted from the classical marketing principle of service providers identifying customers' needs and trying to satisfy them. Health institutions have high regard for behavioural ethics that are aligned to the needs and care of patients. Hence the importance of this study in the medical care cannot be overemphasised, as health institutions strive to continuously understand the driving forces towards patients' satisfaction and retention.

2. Literature Review

South Africa is not performing well regarding maternal health (Chadwick et al., 2014). In as much as South Africa is classified as a middle-income nation with established health care system and infrastructure, the maternity mortality rate (MMR) has been reported to increase from about 150 deaths per 100,000 live births in 1990 to about 625 deaths per 100,000 births in 2010 (Blaauw& Penn-Kekana, 2010). The MMR for the developed world is estimated at 16 deaths per 100,000 births compared to 240 deaths per 100,000 in the developing world (World Health Organisation, 2012). These figures reveal that the MMR for South Africa is still high compared to developing world estimates. In 2012, it was reported that more than 52% of maternal deaths in the public maternities in South Africa are related to factors that can be avoided (Saving Mothers 2008-2012, 2013). Nzama and Hofmeyr (2005) posit that there is a dearth of research on the quality of medical care in South Africa, with much research focusing on health systems factors and access to medical care. Few studies revealed that poor intra-partum care affects women's use of maternity care negatively and may actually make birthing mothers hesitant to use health care facilities when they are in labour (Dzomeku, 2011; Tlebere et al., 2007). Understanding how women perceive quality health care in maternities is therefore very important (Chadwick et al., 2014).

As stated earlier, there is a dearth of literature in Africa on maternity health care, especially from the women's perspective (Chadwick et al., 2014). Few studies done in South African public sector obstetric units reported some level of verbal abuse of birthing women, negligence, poor maternal care and practices (such as Human Rights Watch, 2011; Kruger & Schoombee, 2010; Silal et al., 2012; Vivian et al., 2011). Barrett and Stark (2010) reported that modern maternity or obstetric care often subjects women to institutional routines that may have negative effects on their labour progression. Hodnett et al. (2013) posit that some women's experience during childbirth can be dehumanising. Fraser et al (2009) state that the reasons for patients' dissatisfaction with maternity services include fragmented and insensitive care, long waiting times, lack of emotional support, lack or inadequate information, inflexibility in hospital routines, poor medical control, the emotional aspects of hospitalisation and the dehumanising aspects of reproductive technologies. However doctors' and nurses' competency will assure patients that they are well-cared for, well-respected and treated with dignity, even if the experience with the prior hospital bureaucracy was unpleasant. Maputle and Hiss (2010) recommend that midwives have courtesy and respect while relating to patients.

Baston and Hall (2009) posit that there is a high likelihood that the women while being admitted in maternal care will be anxious, as they anticipate an uncertain future. If they are greeted with a smile and warm personal welcome, they will feel better, valued and respected. Caring for birthing women is not an exact science as some will not conform to the expected parameters, hence requiring individual needs to be met. Goethals et al. (2010) call on nurses to consider the values and expectations of patients and their relatives, as nurses' acts are acts of good care, oriented towards the betterment of the patients' overall well-being (Levine & Lowe, 2013). Ingvild et al. (2014) posit that a good midwife is readily available to women in labour, showing kindness and compassion to their concerns and pains. She is obliged to render safe and competent care, as her relationship with patients modulates the experiences of pregnancy, labour, birth and postpartum period. As stated by Tebid et al. (2011), the mother needs not only the physical support during labour, but understanding, respect, alliance, trust, care and warmth as well as encouragement from the nurses/midwives. Moreso, the safety of the mother and child (Halldorsdottir & Karlsdottir, 2011) is as important as preserving the mother's sense of dignity before, during and after childbirth (Torres & De Vries, 2009).

Papastavrou et al. (2011) posit that patients seem to value behaviour that reveal competency on how to perform nursing activities more important than nurses do; as nurses perceive their psychological skills and affective caring behaviour as more important than patients do. However, this study argues that an appropriate combination of competency and empathy will do a lot world of good to an anxious birthing mother, who needs care that is both individualised and holistic in nature. A competent midwife plays a general coaching role to women in labour pain and gives them individualised information about the progress of their labour (Klomp et al., 2014). Sengane (2013) posit that women in labour wish for the constant presence of a midwife, and Eliasson et al. (2008) state that women in labour expect nurses to provide support to them, for example rubbing their backs and abdomen, assisting them to stay in a comfortable position, giving them pain-relieving medications, holding their hands, giving them something to drink, assuring them that everything will be fine, and preparing them for delivery. The marketing concept put forward by Bosworth (1995) that focuses on identifying customer needs and finding ways of satisfying them also holds true for health institutions and medical care.

3. Methodology

Quantitative research method is applied to this study as this study takes a more conclusive approach, using the prior qualitative studies done as foundation. The variables (15 items) introduced in the questionnaire battery (close-ended, Likert-type scale questions) emanate from previous studies (such as Chadwick et al., 2014; Halldorsdottir & Karlsdottir, 2011; Kim & Kim, 2014; Ingvild et al., 2014; Klomp et al., 2014; Papastavrou et al., 2011;Suhonen, et al., 2015; Tebid et al., 2011; Torres & De Vries, 2009;Zakaria et al., 2015). The questionnaire explored patients' perceptions of the nurses/ midwives' behaviour towards them during their stay in two public hospitals' midwife obstetric units. These two hospitals are situated in Cape Town, South Africa. The survey of patients in two hospitals is acknowledged by this study as a research limitation, as more public hospitals needed to have been included in this study. However getting consent from public hospitals is very difficult. Consent letters were received from the two hospitals involved before the study was conducted.229 questionnaires were distributed to post-natal patients in the two hospitals, using a simple random technique at different days, over a period of two months. A total of 150 completed questionnaires received were usable for analysis. The first stage of analysis used descriptive analysis to explore the level of responses to individual variables.

An exploratory factor analysis (EFA), known as Principal Component Analysis (PCA) was conducted at the second stage of analysis, to reduce the relatively large number of the variables used in the questionnaire, grouping them into smaller factors. Both stages of data analysis used IBM's statistical software (IBM Corporation, 2016). Factor analysis has the ability of reducing and grouping variables, establishing underlying dimensions among grouped variables, and providing evidence of scale validity (Hair et al., 2010; Pallant, 2007; Williams et al., 2010). During the factor analysis, the Kaiser's criterion technique was used to decide which factors should be retained, depending on the Eigen value rule to retain factors with Eigen value of 1.0 or more, for analysis (Conway & Huffcutt, 2003; Pallant, 2007; Williams et al., 2010). At the initial stage of factor analysis, four components/factors were generated; however two of the factors have only one variable each. These two variables were eventually removed from the analysis due to their having very low correlations with the other variables, namely: *"Nurses did not explain procedural steps"* and *"I will not recommend this hospital"*. The factor analysis was re-run and two components presented in the results and discussion section of this paper, were generated. These two factors scored an Eigen value of above 1.0, with 49.48% and 9.73% of variance explained respectively. This analysis was followed by the reliability tests of these two components using Cronbach's Alpha reliability coefficient, which measures the internal consistency of variables in a factor/component (Gliem & Gliem, 2003).Cronbach's Alpha score ranges between 0 and 1, where scores that are up to 0.7 generally indicate internal consistency. George and Mallery (2003) advocated that Cronbach Alpha scores' cut-off point of between 0.5 - 0.7 be used. A low Alpha score may suggest that a small number of variables appear within a factor or that there is a poor relationship between variables in analysis (Tavakol & Dennick, 2011). This study considered a Cronbach Alpha coefficient of 0.7 and above to be acceptable in measuring internal consistency between variables in a factor. At the third and final stage of data analysis, Spearman's Correlation test was employed to scan for relationships between patients' statements - ordinal variables (Cessford, 2003; Ezeuduji et al., 2016a, b; Veal, 2011; Zondo & Ezeuduji, 2015).

4. Results and Discussion

The results of the descriptive and factor analyses conducted on post-natal patients' statements on how they were treated by the nurses in their wards are shown in Table 1.It is noteworthy that some responses made by the patients may be understood as generally positive, but some significantly negative responses need to be pointed out. Patients made positive responses towards the statements: '*nurses received me with dignity and love'* (about 89% agreed); '*nurses consulted me at procedural steps'* (80% agreed)*; 'nurses gave good care in labour ward'* (80% agreed)*; 'nurses worked with care during my labour'*(78% agreed)*; 'I am comfortable to contact nurses for help'*(about 77% agreed)*; 'nurses cooperated well with me'*(about 81% agreed)*;* and *'nurses helped me change beds'*(about 75% agreed). Respondents however made significantly negative responses to the statements: '*I was informed of my birth route'*(about 43% disagreed); *'nurses went extra mile to assist me'*(about 35% disagreed); *'nurses assured I was not left alone'*(about 33% disagreed); *'I will come back to this hospital for next birth'*(about 33% disagreed); *'I will not recommend this hospital to others'*(about 45% agreed);and *'care received attests to sufficient staff in hospital'*(about 33% disagreed).Theses study results have some conflicting responses given by the respondents, for example, 89% and 80% of respondents agreed to nurses receiving them with dignity and love, and nurses giving them good care in the labour ward, respectively; but 35% of them disagreed that nurses went the extra mile to help them, and 45% of them stating they will not recommend the hospitals to others. It is therefore posited by the researchers that patients have some real concerns towards the nurses, which they were not explicit about, but implicit. It should be noted that the respondents for this study are new mothers and mothers with new babies, and the effect that their anxious state (just after childbirth) can have on their psychology and in their responses cannot be overemphasised (see Baston& Hall, 2009). This is one of the major weaknesses of social sciences research, hence researchers always need to 'read between the lines', in interpreting the data collected.

In as much as nurses should always endeavour to go the extra mile in attending to patients and play the companion role for women in labour; however from these results, it seems that inadequate nurses' number, negligence on the part of the nurses, and lack of detailed information to patients are the three clear issues that need to be addressed in these public hospitals, to increase patient satisfaction and retention, should they wish to give birth again. This finding supports Chadwick et al. (2014) finding that lack of information, negligence, and absence of a labour companion are some of the negative experiences of maternity ward patients in South Africa. The 45% of patients who stated they will not recommend the hospitals to friends and relatives raise a strong alarm towards the nurses and the healthcare system in these maternity wards. These results support Chadwick et al. (2014) position that South Africa is not performing well regarding maternal health; and Saving Mothers 2008-2012(2013) report that more than 52% of maternal deaths in the public maternities in South Africa are related to factors that can be avoided. Dzomeku (2011) and Tlebere et al. (2007) therefore posit that poor intra-partum care affects women's use of maternity care negatively and may actually make birthing mothers hesitant to use health care facilities when they are in labour.

As earlier stated in the research design and method section, the factor analysis conducted generated two factors significant for the results of this research, self-named by the authors as 'empathy' and 'assurance', and contain variables relating closely to each other within the particular factor or dimension (Table 1). The 'empathy 'dimension contains seven variables and the 'assurance' dimension contains six variables. These dimensions were labelled as such, as the variables in each factor can be explained by these labels. Respondents mostly agreed to these statements (see mean values), depicting that the satisfaction levels are relatively acceptable. The factor analysis however brought to fore, the importance of the 'empathy' and 'assurance' dimensions in the medical care. These dimensions drive patients' level of satisfaction during their medical care and can support their decision of coming back to the hospitals' services or not. The 'empathy' factor has strong focus on understanding the individual needs of the patients and showing them that the medical practitioners do care through affective or emotive individualised attention. The 'assurance' factor focussed on the confidence that patients have not only towards the nurses, but also towards the hospital to deliver safe services.

Table 1: Descriptive and factor analyses: ethics in nurses' behaviour, items and statistics (n = 150)

Behavioural dimensions	Items	Agree or strongly agree (%)	Disagree or strongly disagree (%)	Factor Loading	Mean	±SD	Cronbach Alpha	Variance explained (%)
Empathy *(7 items)*	Nurses gave good care in labour ward	80	20	0.783	1.93	0.757	0.866	49.482
	Nurses received me with dignity and love	88.6	11.4	0.751	1.83	0.689		
	Nurses consulted me at procedural steps	80	20	0.727	1.95	0.797		
	I am comfortable to contact nurses for help	77.4	22.6	0.650	2.00	0.786		
	I was concerned for my child's safety	82.6	17.4	0.635	1.87	0.771		
	Nurses worked with care during my labour	78	22	0.600	1.99	0.768		
	I was informed of my birth route	56.7	43.3	0.600	2.27	0.793		
Assurance *(6 items)*	Care received attests to	67.4	32.6	0.792	2.14	0.795	0.846	9.728

	sufficient staff					
	Nurses helped me change beds	74.7	25.3	0.777	2.03	0.750
	I will come back for next birth	66.6	33.4	0.658	2.17	0.862
	Nurses cooperated well with me	80.7	19.3	0.653	2.03	0.704
	Nurses went extra mile to assist me	64.6	35.4	0.593	2.23	0.787
	Nurses assured I was not left alone	67.4	32,6	0.557	2.10	0.825
Variables removed from factor analysis	Nurses did not explain procedural steps	36.0	64.0	Variable removed from factor analysis		
	I will not recommend this hospital to others	45.4	54.6	Variable removed from factor analysis		

Extraction Method: Principal Component Analysis; Rotation Method: Varimax with Kaiser Normalization; Rotation converged in 3 iterations; Cumulative variance explained: 59.21; Kaiser-Meyer-Olkin Measure of Sampling Adequacy: 0.928; Bartlett's Test of Sphericity: 0.000; Two variables removed from the analysis due to very low correlations with the other variables: *"Nurses did not explain procedural steps"* and *"I will not recommend this hospital"*; Items were arranged according to results of factorial analysis (Eigen value > 1) and factorial loadings > 0.43 (Costello & Osborne, 2005); Questionnaire were itemised along a 4-point Likert-type scale: 1, strongly agree; 2, agree; 3, disagree; 4, strongly disagree.

As earlier reported, a competent midwife makes a birthing mother feel safe. She is physically and emotionally there to expertly support the women in labour pain and give them individualised information about the progress of their labour, assure them that they will be fine, and actively be involved in making them fine at the end (Eliasson et al., 2008; Klomp et al., 2014; Sengane, 2013).

The last stage of data analysis tested for cross relationships between 'empathy' and 'assurance' variables (Table 2). Correlation test revealed much positive correlation between variables in the 'empathy' and 'assurance' factors or dimensions, showing that the more patients agree to the variables found in the 'empathy' dimension, the more they agree to the variables explaining the 'assurance' dimension. This result further validates the finding that 'empathy' and 'assurance' related behaviour exhibited by nurses are important in drawing the trust and confidence of the patients during medical care, as nurses and other medical practitioners strive to deliver proper medical services. The correlation test also showed that in as much as there are positive correlations between 'empathy' and 'assurance' dimensions, the variable – 'nurses helped me change beds', found in the 'assurance' factor has no correlation with the 'empathy' variables – 'nurses received me with dignity and love', 'nurses consulted me at procedural steps', and 'I was informed of my birth route'. Patients therefore, do not relate nurses helping them to change beds with 'empathy'. Much of the patients who agreed that 'they were informed of their birth route' ('empathy' variable), did not agree that the 'care they received attests to sufficient staff' ('assurance' variable), showing no bivariate relationship. Generally speaking, the results in Table 2 can still be interpreted thus: there is a strong positive correlation between 'empathy' dimension and 'assurance' dimension in medical care.

Table 2: Correlation test: 'empathy' versus 'assurance' factors / dimensions (n = 150)

Assurance *(6 items)* / **Empathy** *(7 items)*	**Care received attests to sufficient staff**	**Nurses helped me change beds**	**I will come back for next birth**	**Nurses cooperated well with me**	**Nurses went extra mile to assist me**	**Nurses assured I was not left alone**
Nurses gave good care in labour ward	***	***	**	***	***	***
Nurses received me with dignity and love	***	**NS**	***	***	***	***
Nurses consulted me at procedural steps	***	**NS**	***	***	***	***
I am comfortable to contact nurses for help	***	***	***	***	***	***
I was concerned for my child's safety	***	*	**	***	***	***
Nurses worked with care during my labour	***	***	***	***	***	***
I was informed of my birth route	**NS**	**NS**	***	***	***	***

Notes: Spearman's Correlation test significance. *, $p < 0.05$; **, $p < 0.01$; ***, $p < 0.000$. NS, no significant results.

These findings are supported by the results put forward by Tebid et al. (2011), that the mother needs not only the physical support during labour, but understanding, respect, alliance, trust, care and warmth as well as encouragement from the nurses/midwives. Halldorsdottir and Karlsdottir (2011), and Torres and De Vries (2009) also posit that the safety of the mother and child is as important as preserving the mother's sense of dignity before, during and after childbirth. From the findings, this study argues that an appropriate combination of competency and empathy will do a lot world of good to an anxious birthing mother, who needs care that is both individualised and holistic in nature.

5. Conclusion

This study shows that post-natal patients surveyed are somewhat satisfied with the treatment they received from the nurses in the maternity ward. However, the 45% of patients who stated they will not recommend the hospitals to friends and relatives raise a strong alarm towards the nurses and the healthcare system in these maternity wards. Nurses should always be encouraged to go the extra mile in attending to the birthing mothers and always be there as companions while the women are in labour and after they have given birth. Lack of detailed information to patients, negligence on the part of the nurses, and inadequate staff number are the three clear issues that need to be addressed in these public hospitals, according to the study results, to increase patient satisfaction and make them come back to the hospital, should they wish to give birth again. The Government of South Africa through its National and Provincial Departments of Health must ensure that there are adequate numbers of midwives/nurses in the public hospitals' Midwife Obstetric Units, and these nurses/midwives should continue to be actively involved in continuous training and development exercises that are geared towards extensive and personalised medical care and ensuring adequate information are given to patients, whilst avoiding role conflict with the doctors. This research also infers the emphasis that must be placed on 'empathy' and 'assurance' dimensions of the medical care. These dimensions are increasingly driving patients' level of satisfaction during their medical care and can also support their decision to come back to the hospitals' services or not. The emotive individualised attention afforded to birthing mothers and the confidence given to these patients that the nurses and the hospital will deliver safe services are critical for success. This study therefore argues that an appropriate combination of nurses' high level of competency and appropriate empathy towards the anxious birthing mothers will make their medical care more holistic in nature.

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Journal of Economics and Behavioral Studies (JEBS)
Vol. 9, No. 1, February 2017 (ISSN 2220-6140)

A Review of Quality Management Systems in South African HIV-AIDS Programmes: A Pre-Requisite for Sustainable Health Delivery

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Abstract: The global commitment to end HIV-AIDS is a bold one; requiring a multi-sectoral response strongly embedded within effective HIV-AIDS prevention efforts, patient advocacy and effective healthcare programme delivery. UNAIDS estimates that, of the 36.7 million individuals infected with HIV-AIDS globally, 19.1 million reside in South Africa (UNAIDS Gap report, 2016).In addition, approximately 2.1 million new HIV infections occurred in 2015 with almost 960 000 of those occurring in South Africa signalling that the rates of infections are not dropping as expected (UNAIDS Gap report, 2016). Given the unrelenting nature of this disease burden, even greater efforts are now required to turn the tide on HIV-AIDS globally, but more so in South Africa. These efforts entail more effective HIV-AIDS service delivery with combination prevention modalities, access to HIV-AIDS treatment and care, harm reduction of HIV-AIDS stigma and discrimination together with HIV-AIDS education, awareness and advocacy. Enhancing HIV-AIDS service delivery requires strong commitment with implementation of quality management systems in programme service delivery resulting in sustainable, effective and well run HIV-AIDS programmes. Quality management systems in HIV-AIDS programmes allow programmes to successfully meet their objectives thus allowing optimal patient care through effective and efficient means. To date there has been minimal implementation of quality systems in healthcare especially in South Africa. The use of health quality tools and systems in HIV-AIDS programmes locally and globally will allow for efficient and cost effective benefits for the optimal wellbeing of all those affected and infected by HIV-AIDS. This article reviews available data on the prevalence of quality management systems in HIV-AIDS healthcare and identifies gaps and smart practises towards recommendations for comprehensive global HIV-AIDS standards development.

Keywords: *Quality management systems, HIV-AIDS, sustainability, combination prevention modalities, HIV-AIDS stigma and discrimination*

1. Introduction

The South African HIV-AIDS response has been a long fight embodying issues of denialism, social injustice, politics, mortality and morbidity until finally significant achievements have been made in fighting this disease. The fight against HIV-AIDS has been a multi sectoral response with collaborative efforts being put forth from the state, parastatal and private health sectors. Significant funding from international donors and funders has helped alleviate the burden of disease within South Africa. Circa 2004,exponential amounts of financial spending has been invested in the South African epidemic from the first world countries alike in the form of research efforts, medication funding and clinical support (Morrison and Summers, 2013:1).Today the country can boast having more than 3.5 million people on antiretroviral therapy, This is the largest ARV programme in the world. HIV-AIDS prevention efforts appear to be yielding results such as aggressive approaches to treatment, expansion of Pre exposure prophylaxis, male medical circumcision, and continued condom provision, however the determinants of HIV-AIDS still need to be addressed to assist individuals at risk of HIV-AIDS acquisition (Simelela and Venter, 2014: 249). The multi sector response to HIV-AIDS has varied from NGO to public to private sectors with different sectors modelling their own components of HIV-AIDS care based on their sector needs. Quality management in healthcare is a novel new concept and has experienced various levels of uptake in varied HIV-AIDS sectors globally and locally. Components of HIV-AIDS quality management programmes have begun to be implemented in HIV-AIDS programmes as evidenced by development of HIV-AIDS monitoring and evaluation frameworks for the public, NGO and civil HIV-AIDS health sectors. While the South African private HIV-AIDS sector, has commenced implementation of HIV-AIDS quality management systems through modalities such as the ISO certification, locally relevant and sector appropriate monitoring and evaluation frameworks for HIV-AIDS for the private sector remain elusive. An ISO certification standard, although indicated for HIV-AIDS, given the global and local on-going disease prevalence, still remains at large. Data that follows reviews components of quality management systems in healthcare and explores benefits in HIV-AIDS health service delivery and culminates with deficiencies, inefficiencies and gaps of HIV-AIDS quality management systems with recommendations for improvement.

2. Literature Review

Quality Management systems in healthcare: In the last ten years, significant improvements have been made with the quality of healthcare locally and globally. “Despite these advances, problems with quality persist. The quality of care for patients with HIV-AIDS infection is of particular concern” (Office of Health Standards Compliance, 2015).The South African Department of Health is the custodian of health matters in South Africa, as part of its mandate; The National Department of Health developed the Office of Health Standards Compliance (OCHS) to ensure that all South African health facilities comply with stringent standards of providing quality health care. The OHSC has the mandate to ensure that all South African health facilities comply with local standards in order to provide free, safe and equitable healthcare for all South Africans.

“A quality management system is a set of policies, processes and procedures required for planning and execution in the core business area of an organization”(International Organisation of standards, 2016).The purpose of quality healthcare is to ensure enhanced health service delivery together with ensuring clinic patron satisfaction. Batalden and Davidoff (2014:78) devised three focal areas where they believe the attention should be highlighted one .These are:

- “Patient Focus: Effective quality management is focused on the needs of the patients because they are the ones who judge the effectiveness of treatments and the appropriateness of the service.”
- “Leadership: Quality management in health care requires the close cooperation of people with diverse expertise. Service providers should agree on the shared goal of providing quality service, and this can come about only if supervisors assume a leadership role and motivate employees.”
- “External Environment: The health care sector is highly regulated and relies on state-of-the-art diagnostic technologies”

Health agencies across the world have also taken on the challenges of establishing quality management systems in various healthcare departments. The mission of the United States Department of Health and Human Services (HHS) is (United States Department of Health and Human Services, 2010):

- “To reduces the risk of harm from health care services by using evidence-based research and technology to promote the delivery of the best possible care;”
- “To transform the practice of health care to achieve wider access to effective services and reduce unnecessary health care costs; “
- “To improve health care outcomes by encouraging providers, consumers, and patients to use evidence-based information to make informed treatment decisions”

Carolyn, Clancy and Donabedian (1980:16) define quality in healthcare as: “very simply as health care quality is getting the right care to the right patient at the right time – every time.”Carolyn, Clancy and Donabedian (1980:16)maintains in the United States context,” that as attention has shifted from documenting that health care organizations and clinicians have the right equipment and training to deliver excellent care (structure), to assessing whether that competence is reflected in day-to-day care (process and outcomes), it has become clear that performance is often less than ideal.” More attention now needed in growing quality management programmes in healthcare and by building adequate resources to promote and implement this. In areas of established quality healthcare, efforts should now be aimed at accelerating improvement in patient satisfaction and customer excellence toward sharing best practises in overcoming challenges in trying to establish quality management systems both globally and locally.

Components of Quality management systems in healthcare

Quality planning: Quality planning refers: “to a systematic process that translates quality policy into measurable objectives and requirements, and lays down a sequence of steps for realizing them within a specified timeframe “(Varkey, Peller and Resar 2007: 736). “Quality planning is the first step where requirements are identified, criteria are set, and important procedures are recognized as part of the quality plan" (Varkey, Peller and Resar 2007: 736).

A key objective of healthcare quality planning is to ensure a clinical quality management plan is developed in line with the healthcare organisational structures. The plan should align core health quality principles with daily practise. A key feature of quality planning is to ensure the safe and satisfactory healthcare environment for patients and healthcare workers to exist in (Life healthcare, 2016).The integral component of quality planning in the healthcare sector is to ensure optimal patient treatment outcomes. This can be achieved through healthcare forecasting, clinical staff development and clinical training and capacitation. Clinical quality planning should be tailor made for the healthcare programme and organisation concerned to ensure that the strategic goals and mission of the healthcare facility is met.

Quality planning in management of HIV-AIDS programmes is of paramount importance. It is an important strategy to improve systems and reduce variation in delivery of care and services so that patients receive the correct care at every visit. Quality planning has become a fundamental component of the HIV-AIDS service delivery systems globally with emphasis being driven on continual improvement of HIV-AIDS related service delivery.; However, its uptake in the South African healthcare sector has been minimal and slow. A key objective of this research study is to develop clear monitoring and evaluation processes that will enable systematic collection, and interpretation of data that will lead to quality planning and improvement in the HIV-AIDS healthcare sectors.

An important aspect of quality planning in healthcare is performance measures in a health care setting which are derived from day to day clinical practice guidelines."Performance management is a forward-looking process used to set goals and regularly check progress toward achieving those goals" (International organisation of Standards, 2015).Performance measurement is a process by which an organization monitors important aspects of its programs, systems, and processes. Ensuring adherence to clinical guidelines and standards of care can be achieved by:

- "Maximizing collaboration and coordination of service providers to enhance access"
- "Promoting partnerships of consumers and providers that are respectful and promote client self-determination"
- "Providing services that are culturally appropriate and focused on individual client need"
- "Maximizing the efficient use of resources to provide cost-effective services"

Another critical aspect of quality management systems is quality control and quality assurance.

Quality control and quality assurance: Quality control is: " a procedure or set of procedures intended to ensure that a manufactured product or performed service adheres to a defined set of quality criteria or meets the requirements of the client or customer"(Varkey, Peller and Resar, 2007: 736).Quality control is : " needed to review the quality of the product or service. Inspection and testing is necessary to identify problems and defects that need correction". The importance of establishing quality control in the South African private and public health care sectors was necessary to standardize the medical treatment protocols to compare its usefulness in everyday medical institutions (Board of Healthcare funders, 2015). Healthcare needs to be viewed as a process and strive to minimize outside sources of variability and maximize efficiency and effectiveness. Quality and safety are important factors shaping the future of the healthcare industry for hospitals and medical care providers. Quality control is integral to healthcare as metrics shape medical practices and processes in place at the facilities in which they practice. Quality control defines both success and failure for healthcare workers and health facilities who lead in the healthcare industry. Quality control is a key component of healthcare but more so in HIV-AIDS related programmes given the high burden of disease both globally and locally.

Quality Assurance is "defined as a procedure or set of procedures intended to ensure that a product or service under development meets specified requirements" (Varkey, Peller and Resar, 2007: 736). Quality assurance is usually assessed together with quality control. The assurance procedures ensure that the standard of testing performed in the healthcare arenas allow for strict regulatory and quality criteria to be met. Quality assurance is of particular importance in the HIV-AIDS arena. In the field of HIV-AIDS, ensuring the correct and timely HIV diagnosis is given paramount importance. If an incorrect test result is given to the patient, the connotations are many that may affect the bio-psycho-social functioning of the individuals. Essential quality assurance procedures within the HIV-AIDS realm of healthcare are urgently needed to ensure standardisation and healthcare compliance among HIV-AIDS programmes and organisations. Given the high HIV-AIDS incidence and prevalence in our South African settings, it is both crucial and a priority that correct and accurate HIV test results are provided to the correct person being tested to prevent misdiagnosis of HIV status and suboptimal testing in certain areas. The South African HIV Counselling and testing campaign launched in 2009, has documented over 18 million South Africans who have been HIV tested to date (PEPFAR 2016).Stringent QA/QC procedures have been enhanced at all major testing centres as quality assurance and quality control implemented through a quality management system is essential for any HIV testing service, ranging from HIV testing conducted in laboratories and health facilities to community-based settings. Comprehensive training packages and hands on training should be provided to all staff handling HIV testing. The turbulence we have faced and continue to face in the management of HIV-AIDS serves as a reminder for the continued need for management to go to develop to a higher and more effective level of management to allow for appropriate and efficient means of curbing the spread of HIV-AIDS. Quality assurance in HIV-AIDS programmes is critical for developing standards of consistency for clinical management, for application of these standards across the programme and for assessing its effectiveness in achieving the programme goals and objectives.

Quality improvement: Quality improvement in healthcare is: " a combined and unceasing effort of healthcare professionals, patients and their families ,researchers, planners and educators to make the changes that will lead to better patient outcomes ,better system performance and better professional development" (Batalden and Davidof, 2007:22). In 1993, Dr. William Edwards Deming, one of the world's greatest minds on quality improvement, provided strong recommendations on quality improvement processes to healthcare and is well known for his five principles that have made a difference in healthcare. Deming stated : "quality improvement is the science of process management, if you cannot measure it…You cannot improve it, managed care means managing the processes of care, not managing physicians and nurses, the right data in the right format at the right time in the right hands and engaging the "smart cogs" of healthcare"(Deming, 1943). Quality improvement is defined as: "systematic and continuous actions that lead to measurable improvement in health care services and the health status of targeted patient groups" (United States Department of Health and Human Services, 2010).

Quality improvement in healthcare often encompasses the following key components (United States Department of Health and Human Services, 2010):

- Systems that affect patient access—these include the availability of accessible services for all individuals accessing healthcare and should be for the disabled, the elderly and the frail aged populations.
- Care provision that is evidence-based-A wealth of data supports clinical discretion and decision making that is factual and based on relevant evidence.
- Patient safety is of paramount importance in the healthcare industry and clinical standards should adhere
- Support for patient engagement and advocacy is critically important to ensure that patients are exposed to accurate levels of care and quality of care.
- Coordination of health systems is required to ensure that patients are dealt with holistically and from a bio-psycho-social approach to best quality healthcare.
- Patient-centred communication is a pivotal component of ensuring quality of healthcare to patients to ensure that they are empowered to critically analyse decisions and make necessary decisions regarding their health and wellness.

Quality management efforts entail more effective HIV-AIDS service delivery with combination prevention modalities, access to HIV-AIDS treatment and care, harm reduction of HIV-AIDS stigma and discrimination together with HIV-AIDS education, awareness and advocacy.

3. Methodology

A retrospective data review was undertaken to ascertain the prevalence of quality management systems in healthcare globally and specifically in the arena of HIV-AIDS. The aim of this review was to assess available data on the prevalence of quality management systems in HIV-AIDS healthcare and identify gaps and smart practices towards recommendations for comprehensive global HIV-AIDS standards development. Local and global state, private, parastatal and non-governmental HIV-AIDS programmes were analysed in terms of their clinical wellness and management protocols toward quality management systems

Benefits of quality management systems in HIV-AIDS health service delivery: The implementation of quality management systems in healthcare and more specifically in HIV-AIDS healthcare can benefit organisations in various manners. The organisation for International standards (ISO) recognises that quality management systems in HIV-AIDS care can standardise healthcare products and services to allow for consistent service delivery (ISO, 2016). Quality management systems allow HIV-AIDS programmes to discover best practices to drive operational efficiency. HIV-AIDS quality management systems add credibility and confidence for patients and also allow organisations to explore new business opportunities for additional funds and grants. Ensuring continuous improvement and quality assurance allows an organisation a competitive edge and allows for brand recognition (ISO, 2016).Patient satisfaction is also a key component of quality management allowing patients to be satisfied with the care they have received and allows them to return for continued care. The end of HIV-AIDS will require mechanisms capable of supporting HIV-AIDS programmes; one such mechanism is quality management systems.
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Deficiencies and gaps: It is imperative to note that not all health sectors have taken the challenge to implement quality management systems consistently. Some reasons for this include, implementation cost, dedicated personnel, set up, maintenance and documentation (Deming, 1964). Establishing and implementing quality management systems allow organisations to control and measure in order to review and improve (ASA, 2016).To date selected private health companies have embarked on ISO accreditation of their facilities in a bid to improve service delivery. The same has not been echoed in the public sector. Components of quality management systems have been developed such as monitoring evaluation frameworks for HIV-AIDS programmes in the NGO, public and civil sector but a similar framework for the private sector remains hopeful.

4. Discussion and Conclusion

This article highlighted the components and benefits of implementation of quality management systems in HIV-AIDS programmes .It displayed the value the organisations may experience from implementation of these systems. Literature reviewed also revealed that although the benefits of quality management systems have been demonstrated, very few healthcare organisations have taken up the implementation process. Reasons for this need to be assessed and analysed in order to address limiting factors to allow healthcare organisations to create enabling environments to establish quality management systems .This creates an urgent health priority and an identified gap which needs to be addressed. It is also pertinent to take note that selected components of quality management systems e.g. monitoring and evaluation frameworks are not being consistently developed and utilised for the various healthcare sectors. An identified gap is the devolvement of a locally relevant and contextually appropriate HIV-AIDS monitoring and evaluation framework that may be used across all healthcare sectors. Quality management systems in HIV-AIDS programmes allow programmes to successfully meet their objectives thus allowing optimal patient care through effective and efficient means. To date there has been minimal uptake of implementation of quality management systems in healthcare especially in South Africa. A locally relevant and contextually appropriate quality management tool for HIV-AIDS programme management is urgently required to be developed for adaption for use in the South African private, public, parastatal and non-governmental organizations.

Recommendations: Education and awareness activities governing quality management systems in healthcare should be encouraged among healthcare workers. Quality management systems certification should become necessary accreditation for all healthcare facilities Quality management systems in healthcare should form core curriculum in undergraduate and post graduate healthcare studies .A quality management system regulatory body should be developed locally and globally providing clinical governance to health facilities guiding best practices

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Journal of Economics and Behavioral Studies (JEBS)
Vol. 9, No. 1, February 2017 (ISSN 2220-6140)

A Robust Application of the Arbitrage Pricing Theory: Evidence from Nigeria

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Abstract: Arbitrage pricing theory (APT) is a testable theory based on the idea that in competitive financial markets arbitrage will ensure that riskless assets provide the same expected return. We sought to confirm the relevance of the arbitrage pricing theory in Nigeria. Guided by a good understanding of macroeconomic variables and stock price movements as found in the extant literature on arbitrage pricing theory (APT), we specified our APT equation for estimation. Having satisfied the integration and co-integration issues, we employ the error-correction (ECM) and the fully modified ordinary least squares (FMOLS) methods for the short-run and long-run regressions. Our short-run results seem to agree with existing theories on APT thus confirming that APT is relevant in Nigeria. However, the long-run relationship of stock returns and RGDP was found to be contentious. Even though our result runs contrary to predictions on the relationship between the two, we found peculiar events and circumstances within the Nigerian macroeconomic context that provides logical reasons for the deviation.

Keywords: *Equilibrium models, arbitrage pricing theory, capital asset pricing theory, macroeconomic variables*

1. Introduction

In the contemporary finance literature, the application and testing of equilibrium models has become very popular. The reason is simple; many financial researchers have discovered the usefulness of such theoretical models for determining the sensitivity of equity stocks to systematic risks. Such theoretical models can also be useful in the calculation of time-weighted cost of capital. Talking about equilibrium models in finance, two of them readily come to mind: capital asset pricing model (CAPM) and arbitrage pricing model (APT). Both have their root in efficient market hypothesis (EMH), and constitute part of the modern portfolio theory. Fama (1965) describes EMH as a condition for measuring how well market information reflects in security prices per time. The essence is to ensure that security prices are neither over-priced nor under-priced in their valuation. At the initial stage, CAPM provided a good theoretical background for testing market efficiency. However, the assumptions underlying the model were later proven too simple and unrealistic to accurately describe what happens in the real world (Rosenberg, 1981; Schulmerich, Leporcher, & Eu, 2015). Under the CAPM, a one-factor model is built from which stock returns are predicted. In this case, the only variable whose slope (i.e. beta) explains the changes in stock returns is the market portfolio return for all assets. Overtime, the subjection of this theoretical background to empirical testing has resulted in several conflicting results (Chen & Fang, 2009).

Arriving at a true measure of value for the market portfolio of asset can be quite challenging (Davis, Fama & French, 2000). The limitations in the application of CAPM to the real world situations has paved way for some other equilibrium models like the APT to become relevant in empirical applications. The APT developed by Ross (1976) introduced several factors as sources of systematic risks to stock returns. This is against the single variable with the single beta in the case of CAPM. APT houses more variables with a beta attached to each one of them. Usually, these variables are macroeconomic related which makes the model fit to explain to a large extent, the weight and dimension of systematic risks affecting stock returns. Another major hedge recorded by the APT over CAPM is that it relates stock returns and the macroeconomic factors in a linear fashion. This makes it possible to carry out a time series analysis on both the historical and future relationship that exists between stock returns and the multi-factors. Lastly, because APT allows the selection of multi-factors, which are macroeconomic related, it makes the practical application more interesting (Fama & French, 1992, 1996, 1997; Campbell, Lo & MacKinlay, 1997; Cochrane 2001). The APT was built on the assertion that there are both limited and non-correlated common factors that affect equity price. Among these factors is a particular one, which is totally independent from others (Campbell, Lo & MacKinlay, 1997). On this assertion, this paper is premised. While the testing of APT for developed economies is quite large, scanty works exists for the application of this interesting financial theory in many of the emerging economies especially in Africa. We therefore ask: is the arbitrage pricing theory only applicable to the developed economies? Can the factors identified in the literature exhibit significant effect on stock returns in a country like Nigeria? The rest of this paper is divided into four parts, which include; review of literature, methodology, results and conclusion.

2. Literature Review

No doubt when it comes to asset pricing and equity valuation, CAPM and APT models have been quite influential. Even though the assumptions underlying APT have been found to be less restrictive than those of CAPM, researchers still find it difficult to discard CAPM in its entirety. The emphasis in APT is providing an explanatory model as against the statistical model presented in CAPM (MacKinlay, 1995; Campbell, Lo & Mackinlay, 1997). Under the APT, investors are assumed to hold in their portfolios, securities with varied risks and returns affected differently by different factors. This is unlike the CAPM where the diverse risks and returns associated with securities in a portfolio are enveloped under the market risk and return. Another comparison of the APT and CAPM reveals that the APT presents a model that somewhat looks like a "supply-side" model, while the CAPM presents a "demand side" model (Goetzmann & Ibbotson, 2006; Jewczyn, 2014). The logic behind this is that in APT, beta coefficients of the identified factors explain the level of sensitivity of the underlying asset to these factors. The expected returns on the asset is as initiated or brought about by shocks to the identified factors (Brennan, Wang & Xiu, 2004). In the case of CAPM, the change in asset return brought about by its sensitivity to market returns is assumed to be initiated by the investors' desire to maximize his utility from the resulting market equilibrium. As consumers of assets, investors seeking to make more returns from assets held will always bring the market back to equilibrium (Brennan et al., 2004).

The goal of APT is that all risky assets prices within an economy exhibit no arbitrage condition. A condition of no arbitrage occurs when no individual investor with a portfolio that is well diversified is able to make excess return just by changing the weights of assets under his portfolio. This is with the assumption that both the systematic and unsystematic factors remain unchanged. Giving a vivid description of the kind of linear function specified by APT, Ross (1976), Chen, Roll and Ross (1986), provided a baseline equation to uphold their position. This is supported by Conor (1995), DeFusco, Mcleasey, Pinto & Runkle (2004) and Chen & Fang (2009). They explained that the risk factors considered in an APT model usually arises from changes relating to some fundamental economic and financial variables. These variables include interest rates, expected inflation, market index, real business activity and market ratings. From the description above, a linear equation of the following form is generated as follows:

$$E(R_i) = \theta_i + \psi_{i1}E_1 + \psi_{i2}E_2 + \ldots\ldots\psi_{ik}E_k + \varepsilon_i \qquad \cdots(1)$$

Where $E(R_i), i = 1,2,3\ldots n$ is the expected return of the stock i; $E_j = 1,2,3\ldots.k$ are the selected economic factors. ψ_{ij} is the sensitivity of security i to the economic factors E_{ij}. θ_{ij} represents the uncontrolled factors that influence asset risk. ε_i is the error term.

The model above is popularly called the *k*-factor model upon which several other APT models have been built overtime (Chen & Fang, 2009).Two main methods have been found in the financial and economic literature to empirically test the APT(Brennan et al., 2004; Chen & Fang, 2009). First, a simultaneous estimation of asset sensitivities and unknown factors can be carried out through what is called explanatory factor analysis on stock returns. Under this approach, there is no prediction of the exact number of content or the number of relevant factors. Second, there could be a specification of factors that explain asset values prior to the analysis. Such factors could be macroeconomic variables that affect future cash flow of organisations' operations or future cost of capital. Based on empirical evidences, a comparison of the two reveals that the second approach is more acceptable (Chen & Fang, 2009). It is believed that it provides a more attractive, dynamic and flexible option for factor composition in APT research.

For the purpose of factor identification, again the financial literature is replete with studies that have identified relevant macroeconomic variables that influence stock returns. A thin line of difference can actually be drawn when carrying out APT analysis for a sample and the entire population. A sample in this case will be a collection of securities or assets portfolio selected from the stock market. Whereas, the entire population of assets will be the market indices of all securities traded in the stock market. Where the entire population of asset in the stock market is being considered for analysis, then the relevant macroeconomic variables that affect aggregate economic activities are to be considered. Such was what Chen, Roll and Ross (1986); Davis, Fama and French (2000); Schulmerich (2012a), identified as (i) shocks in inflation (ii) shocks in gross domestic product (GDP) (iii) shocks in investor perception of market conditions (iv) shocks in the movement of the yield curve. In order to capture the market indices, sometimes, the factor analysis is employed. Alternatively, other indices that are considered as direct indices may be adopted. They include long and short-term interest rates differentials, a diversified stock or composite index, oil prices, foreign exchange rates, etc.

Empirical investigations of APT have been carried out in various degrees and intensities across the developed and emerging economies. Quite remarkable that most of these studies come from the United States (Ross, 1976;Roll & Ross, 1980; Conor 1995; Chen & Fang, 2009). A few of them also come from Europe, especially the Scandinavian countries. While in the category of emerging economies, studies from Asian countries takes the lead with very few coming from Africa. Ross (1976) pioneered the practical application of the arbitrage-pricing model using daily data for individual equities quoted on the New York Stock Exchange (NYSE) for the period 1962-72. Their result actually gave credence to the fact that the APT model better explains variations in equity return than the CAPM. Among other things, their result shows that about four macroeconomic factors, which are themselves priced, demonstrate a high level of influence on stock returns over the period of study. Chen (1983) further established the superiority of the APT model using data for the period 1963-78. By comparing the empirical outcome of the APT with that of the CAPM, his findings seem to put a final seal on the supremacy of the APT over CAPM.

Apart from the relevance of the explanatory power of the factor analysis in APT, another issue that authors have found interesting when testing the theory is the number of securities that make up a sample or population. There is the tendency that the more the number of securities under investigation, the more the number of explanatory factors that will be found relevant (Harding, 2007).The implication of this is that stock exchanges that warehouse more equities will naturally have more macroeconomic factors explaining stock returns and vice-versa. By extension, most of the developed economies that have well established stock exchanges with a good number of equity listings will have a more robust APT model than the emerging or developing ones. Unfortunately, not too many research works have been carried out on the relevance of the APT in developing economies. This has limited the desire to compare the result from developed and developing economies. Another challenge in relation to samples and population in APT studies is that finite samples risk the inability to distinguish all the latent factors, which may result in a biased result (Harding, 2007).

Besides APT studies carried out in the US where the theory emanated from, we found several other studies from other developed economies mostly European that have interesting results. Diacogiannis (1986), Abeysekra and Mahajan (1988), Ostermark (1989), Yli-olli, Virtanen and Martikainen (1990), Reilly and Brown (2003), Cagnetti (2009), are all examples of APT studies carried out in Europe. Yli-olli et al. (1990) used monthly data samples from two neighbouring countries (Finland and Sweden) for the period 1977-1986. Employing the principal component analysis cum transformation analysis, and subsequently, the cross-sectional regressions, their result shows that three priced factors determined stock returns in the two countries for frequently traded stocks while there are two priced factors for infrequently traded stocks in the two countries. In addition, it was mentioned in their work that Martikainen, Yli-Olli and Gunasekaran (1991) carried out another study on the stock market in Finland using monthly data. Their focus was to determine which of the two approaches in APT produces better result on explanatory factors for two separate periods of 1977-81 and 1982-86. The principal component analysis was used for 1977-81. The factor loadings derived were subjected to OLS regression. For the second approach, covering the period 1982-86, they specified eleven macroeconomic factors as explanatory variables to be tested in the APT model. When compared, the result from the first approach reveals that only one-priced factor was significant for the period covered. Whereas, the result of the second approach shows that all the explanatory variables have significant effect on stock returns. In addition, the relevance of foreign economic activity (i.e. fluctuations in real exchange rates) and unexpected inflation to stock returns has also been established in the literature. As reported in Loflund (1992), apart from macroeconomic factors such as changes in short-term interest rates, inflation and real GDP, other factors can also be included in the APT research like changes in real exchange rates, net export and world oil price.

Empirical evidences on equilibrium models for capital markets in developing economies are quite few. Not only are they few, but that their concentration is majorly on stock exchanges in Asia. Khilji (1993), later supported by Hussain and Uppal (1998), concluded that the stock returns features on the Karachi Stock Exchange cannot be adequately modelled by a normal distribution. Khilji (1994) went further to establish that the series of stock returns over time might not be linearly dependent on explanatory factors. Some other authors like Attuallah (2001) who used the iterative non-linear seemingly unrelated regression on the Karachi Stock Exchange monthly data on returns have supported this non-linear relationship. Most of the factors that showed significant effects were external in nature; i.e. exchange rate, trade balance and world oil price. Hence, we conclude that in the long run, foreign related macroeconomic factors may have non-linear relationship with returns (Kutty, 2010; Zubair, 2013; Masood & Sarwar, 2015) while other macroeconomic factors, which are internal, have a linear relationship with returns. There are many more empirical evidences in support of this view, some of which are found in Singh, Mehta & Varsha, 2011and Kuwonu & Owasu-Nantwi, 2011. Singh, Mehta and Versha (2011) did a study on the Taiwan Stock Exchange. They focused on the link between index returns and some key macroeconomic variables, which are GDP, inflation rate, employment rate and money supply. Their results show that both GDP and exchange rate positively affect returns of all portfolios, while exchange rate, inflation rate and money supply negatively affect returns for portfolios of both big and medium-sized firms.

While the application of the arbitrage pricing equilibrium model may not be common in the African finance literature, empirical evidences on stock returns and macroeconomic factors abound in good number. Chakaza (2008) investigated the relationship between systematic factors and stock prices in Zimbabwe. He used systematic factors that are financial in nature with the expectation that these factors cause a unidirectional effect on stock prices. He concluded that those systematic factors have significant effects on stock returns. Still on Zimbabwe, Jecheche (2012) pushed the argument further by establishing that under different methods, different results could be achieved. Using the causality test, he found a unidirectional causality from consumer price index to stock returns. Interestingly, while causality test shows that there is no relationship between stock prices and exchange rate, the impulse response analysis shows that exchange rate has significant effects on stock returns. Kuwomu and Owasu-Nantwi (2011) presented the Ghanaian evidence on stock returns and macroeconomic variables. Using the full information maximum likelihood estimation, they established that exchange rate and Treasury bill rate had significant effects on stock returns within the study period.

In Nigeria, financial and economic researchers have explored, in different forms, the relationship between stock market returns and economic growth usually proxied with gross domestic product. Most of these studies have been directed at evaluating the policy efficacy and effectiveness of macroeconomic factors. For instance, in order to look at the relationship between stock market development and economic growth, Ogun and Iyoha (2005) used the real gross domestic product with lagged values of market capitalization for the stock market within the period 1970-2003. They found positive relationship between stock market and economic growth. Others have focused on the direction of causality between stock market return and economic growth. Nyong (1996) discovered that stock market development significantly correlated with long-run economic growth. He went further to establish that there exists a bi-directional causality between capital market development and economic growth. Again, Ogboi and Oladipo (2012) sought to examine the nexus between stock market and economic growth. They concluded that there exist a uni-directional causality between stock market and economic growth with economic growth causing stock market. However, they observe that within the period of their study, stock market has a long-run positive effect on economic growth. Also, Zubair (2013) used granger causality test to shed more light on the nexus between stock returns and monetary indicators (i.e.M2 and exchange rate). He established the absence of direct linkage between all-share index (ASI) and exchange rate thus giving credence to Khilji (1994) and Attuallah (2001).

With particular reference to APT studies in Nigeria, we found quite a few that caught our attention. Isemila and Erah (2012) investigated the application of APT in Nigeria. We found the number and nature of macroeconomic variables (oil prices, money supply, GDP and exchange rate) adopted not adequate for an extensive APT research. The exclusion of inflation rate and interest rate in their model is a major concern for us. The multi-collinearity test carried out by the authors is quite impressive, but they failed to support their result with theoretical backgrounds on the interaction of the affected variables. The high collinearity value recorded for GDP may be because inflation was not accounted for in the computation of GDP data. Accounting for inflation in GDP data would have resulted in the use of real GDP, which is a better variable in this case. In our own opinion, the inclusion of oil price and exchange rates, which are both subsets of foreign activity, may foretell multi-collinearity (Harri, Nalley & Hudson, 2009; Aziz 2009; Ferraro, Rogoff & Rossi, 2015).Similarly, Izedonmi and Abdullahi (2011) who adopted two macro-economic variables (inflation rate and exchange rate) left out the 'juicy ingredients' in their APT study. In addition, the use of market capitalisation as a proxy for returns on stock market portfolio of assets is not consistent with literature (Black 1972; Reilly and Brown, 2003). The combination of market capitalization, exchange rate and inflation rate in a model without the semi-log system may be a catalyst for a spurious result. Nevertheless, we found relevance in the results of some of the earlier APT studies in Nigeria.

3. Methodology

Data consists of quarterly closing points of the macroeconomic variables and all-share index covering the period 1985Q1- 2014Q4. These are collected from the Central Bank *Statistical Bulletin*. Five explanatory macroeconomic variables that are prominent in the literature are identified and adopted for analysis in this study. They is defined in line with their *a priori* expectations as follows:

Inflation rate (CPI): as observed by some authors from different countries, stock returns could have a negative relationship with changes in both expected and unexpected inflation (Al-Qenae, Li and Wearing, 2002; Nishat and Shaheen, 2004). It has been established that a rise in inflation can cause a rise in interest rate, which in turn, can cause a fall in stock prices (Osinubi and Amaghionyediowe, 2003).

Interest rate: it acts as the transmission mechanism through which the effect of inflation is channelled to the real sector. The discount factor used in stock valuation is directly dependent on interest rate. Therefore, an increase in interest rate can trigger an increase in the discount factor, which can subsequently bring down stock value (Uanguta and Ikhide, 2002; Ogunkola and Abubakar, 2008).

Domestic credit: this is a variant of money supply and it is expected to have the same effect as money supply. Money supply typically has been a leading indicator in macroeconomic issues. Financial economics proves that money supply and demand have effect on equity prices (Barro,1990; Martikainen et al. 1991; Apte, 2001). Like interest rate, money supply has been identified as a transmission mechanism through which the effect of inflation is channelled to stock returns. In addition, it determines the future cash flow through the discount factor, which in turn determines the stock value (Binswanger, 2000).

Exchange rate: this is considered another relevant macroeconomic factor following Singh, Mehta and Versha, 2011; Kuwormu & Onwusu-Nantwi, 2011, who found significant linkage between exchange rates and stock prices. Dornbusch and Fisher (1980) developed an integration model for determination of exchange rate and concluded that rising stock market prices trigger domestic currency appreciation through direct and indirect channels. While exchange rate depreciation in the long run may lead to increase in stock market prices in some countries, exchange rate depreciation in the short run may bring about reduction in stock market returns in some situations. This position is supported by (Aydemir and Demirhan, 2009; Zubair 2013).

Gross domestic product (GDP): the growth rate of GDP is noted to be the most important performance indicator of the economy (Fama, 1981). Consequently, GDP is expected to have great influence on other sectors of the economy. The relationship between GDP and stock market returns in many cases has turned out to be positive (Fama,1981,1990; Dermirgue-Kunt and Levine,1996; Haris 1997; Chandra 2004; Obamiro, 2005). The implication of this is that as long as the economy is recording increases in domestic output, it is a signal that industries and organisations operating within the economy are also doing well.

4. Estimation and Results

Following the original APT model specified by Ross (1976), and the subsequent identification of relevant factors, we estimated the following equation:

$$ASI_t = \beta_0 + \beta_1 InRGDP_t + \beta_2 TB_t + \beta_3 CPI_t + \beta_4 InDC_t + \beta_5 EX_t + \mu_t .... \quad (2)$$

Where *ASI* = all-share index; *RGDP* = real GDP; *TB* = treasury bill rate; *DC* = domestic credit and *EX* = exchange rate and $\mu$is the error term.β_0, β_1...β_5 are the parameters to be estimated.

A test of unit root properties of the variables using the Augmented Dickey Fuller (ADF) and Phillips Peron shows that all are significant at first difference except logRGDP, which was significant at levels. As presented below, the co-integration result from both the Trace and Maximum-Eigen tests indicates the presence of three and one co-integration relationship (s) in the model respectively.

Table 1: Co-integration Analysis

Panel A: Unrestricted Co-integration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.461	134.4	95.75	0.000
At most 1 *	0.307	80.61	69.82	0.005
At most 2 *	0.262	48.71	47.86	0.042
At most 3	0.151	22.32	29.78	0.281
At most 4	0.085	8.116	15.49	0.453
At most 5	0.005	0.425	3.842	0.514

Trace test indicates 3 co-integrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Panel B: Unrestricted Co-integration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.461	53.75	40.08	0.001
At most 1	0.307	31.90	33.88	0.084
At most 2	0.262	26.39	27.58	0.071
At most 3	0.151	14.21	21.13	0.348
At most 4	0.085	7.691	14.26	0.411
At most 5	0.005	0.425	3.841	0.514

Max-eigenvalue test indicates 1 co-integrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Table 1 above shows the co-integration analysis. Panel A shows the co-integration result using the Trace test while Panel B shows the maximum-Eigenvalue result. The first column on both sides reports the number of possible co-integration relationships. Both the Trace and Max-Eigen tests considers critical values for co-integration relationships at ** which indicates 5percent level of significance. From the foregoing, we go ahead to test for both the short-run and long-run effects using the error-correction and fully modified least square methods, respectively. We present the results in Tables 2 & 3 as follows:

Table 2 below shows the short-run regression result derived from the error-correction analysis. The error-correction indicator and the lagged variables are contained in Column 1, regression co-efficient values in column 2, standard error of estimates in column 3 and column 4, the t-statistics taken at probability levels of *= 10%; **= 5%; ***=1%, respectively. The error-correction indicator of less than 1% at 5% level of significance shows that just about 1% of previous period's disequilibrium in stock returns occasioned by the factors in view is corrected in the long run. Below the variables is vital statistical information about the estimated equation. Akaike information .criterion and Schwartz criterion show negative signs as expected indicating the adequacy of our lag length. Durbin Watson value of 1.8 indicates our model is devoid of serial autocorrelation.

Table 2: Short-run Regression Result (Error-correction Method)

Dependent Variable :
D(ASI)
Least Squares Method

Variable	Co-efficient	Std. Error	t-Statistic	Prob.
C	0.053***	0.012	4.308	0.000
ECM(-1)	-0.001**	0.000	-2.097	0.039
D(CPI(-1))	-0.003***	0.001	-3.959	0.000
D(EX(-2))	-0.005***	0.001	-3.229	0.002
D(TB)	-0.007***	0.001	-4.428	0.000
D(ASI(-1))	0.257**	0.100	2.558	0.012
R-squared	0.363			
Adj.R- squared	0.329			
F-statistic	10.60			
Prob(F-statistic)	0.000			
Akaike Info. criterion	-1.597			
Schwartz criterion	-1.440			
Durbin-Watson statistic	1.804			

Table 3: Long-run Regression Result (Fully Modified Least Squares)

Dependent Variable :
D(ASI)
Least Squares Method

Variable	Co-efficient	Std. Error	t-Statistic	Prob.
C	0.078***	0.013	6.018	0.000
D(CPI)	-0.001	0.001	-0.677	0.500
DLOG(DC)	-0.001**	0.000	-2.234	0.028
D(EX)	-0.002	0.002	-1.251	0.214
DLOG(RGDP)	-0.010	0.034	-0.294	0.769
D(TB)	-0.007***	0.002	-3.572	0.001
R-squared	0.194			
Adj.R- squared	0.149			
S.E of Regression	0.116			
Durbin-Watson statistic	1.509			

We note in Table 2 that all the explanatory variables have significant negative effects on stock market returns in the short run except for the lag of ASI. D(ASI(-1)) has positive effects which is significant. The level of their significance gives credence to the strength of their effects in the short run. The negative relationship that inflation, interest rate and exchange rate respectively have with stock prices also agrees with the positions of earlier studies like Stulz (1986); Kaul (1987); Li and Wearing (2002);Ibrahim and Aziz (2003); Osinubi and Amaghionyediowe (2003); Isemilla and Erah (2012); Ogunkola and Abubakar (2008). In order to estimate the long-run relationship, we use the fully modified least squares (FMOLS): Phillips and Hansen (1990), for our I(1) and I(0) regressors . FMOLS is reputed to give optimal estimates of co-integrating regressors. Under this method, possible serial correlation effects and endogeneity in the regressors are properly accounted for. Amongst other things, FMOLS has also been found relevant in models with I(1) and I(0) regressors (Phillips 1995). Table 3 above contains the estimates of the long-run regression using the fully modified least squares method. Columns 1 contain the parsimonious variables, Column 2, the regression coefficients of the variables, Column 3, standard error of estimates. Column 4 and 5 contains the t-Statistics and the associated probability values. ***,**,* indicate significance at 1, 5 and 10 percent respectively. As seen in the table, our Durbin–Watson of 1.5 dismisses the possibility of serial-autocorrelation.

The long-run regression in Table 3shows that all the factors still have a negative effect on stock returns at varying levels of significance. DW is still within the acceptable range of 1.5-2.0. Following Martikainen et al. (1991), domestic credit which is a variant of money supply is expected to have a positive relationship with stock returns, but our result shows a negative co-efficient of -0.00000009.84 for DC at 5% level of significance. Treasury bill rate representing short-term interest rate records a negative co-efficient of -0.006538 significant at 1%, which confirms the prediction of Martikainen *et al* (1991), Barro (1990), and Fama (1990). Other variables observed are not significant. Even though it is predicted that exchange rate depreciation and GDP should have positive relationship with stock prices in the long run (Apte, 2001; Dornbush and Fisher 1980; Chandra 1994), our result shows negative coefficients for these variables although they are not significant. CPI is also predicted to have negative relationship with stock price (Stulz, 1986: Kaul 1987). However, our result shows a negative but insignificant coefficient of -0.000773.Lastly, in line with the position of Khilji (1994), we found that over time, the strength of the variations in stock returns explained by the explanatory factors decreased significantly from 36% to19%.

5. Conclusion

Our aim was to find out if the APT model was relevant in Nigeria. The period selected (1985-2014) was such that we believe encompasses diversities in the financial and trading activities of the country. Our source of data; (CBN bulletin) we believe is very reliable so that we do not have concerns over some of the deviations observed in our result. As much as possible, we managed the analysis using the relevant techniques. We draw our conclusion from this work that in the short run three priced factors: inflation, exchange rate and Treasury bill have significant negative effects on stock returns as expected. In the long run, domestic credit and Treasury bill rate are the two priced factors that have influenced stock returns in Nigeria for the period under study. Some of the factors, which were predicted to have positive effects but returned negative, may be due to the peculiar nature of the investment and consumption pattern of the country. Nigeria embarked on full devaluation of naira since 1986 and it is expected that in line with theory, this would boost local investments and have a spillover effect on stock market. However, being a consuming nation, Nigeria's importation drive has continued leaving very few resources to be invested in the real sector which the stock market represents.

The negative coefficient of GDP as against the predicted positive coefficient of GDP may be due to the existence of a bi-directional causality between GDP and Stock Market development (Nyong 1996). Stock market index return, a key indicator of development in the stock market, reveals the growth rate in the value of the listed firms for all the industries operating in the economy. GDP measures the value of goods and services produced within the economy. It is expected that as more goods and services are produced in the economy, income will increase, investment fund will also increase some of which will find their way to the stock market. Increase in investment in the stock market will bring more capital to the listed companies and ultimately increase their production activities. In turn, increase in the production of listed companies will add to increase in production for the economy at large. The Nigerian economy for a long time has been mono-cultural depending mainly on crude oil extraction and production of petroleum and allied products. Therefore, crude oil production has accounted for about 80% of its GDP which is still prevalent. For about half of the period that this study covers, most of the factors that have led to the growth in GDP cannot be traced to the stock market including Increases in oil price, establishment of telecommunication services most of which are not quoted on the stock exchange coupled with the stock market crash which started in the last quarter of 2007 and investments in the stock market which have been transferred to some other areas of direct investment in the economy. The stock market is yet to recover from this downslide position as the GDP has continued to rise.

In addition, we could not exhaust the information on the relationship of stock returns with exchange rate. Exchange rates, like some other externally determined variables, have been proven to have a non-linear relationship with stock returns in the long run. The seemingly unrelated regression analysis would be a better method for this. We found it cumbersome juggling between variables that have a linear relationship and one with a non-linear relationship using different methods of analysis at the same time. More so that our focus for this research is on the internally determined priced factors. Perhaps in the future, we may carry out another analysis on the application of APT to Nigeria, bringing together with exchange rate other externally determined priced variables. In this case, the seemingly unrelated regression analysis will be employed. We may also include other factors whose long-run relationship with stock returns have been controversial to see if they will display useful characteristics under this method.

At this point, it is important to state that in all, the APT model formed in this study and the variables used looks like a comparison of the capital market and money market. While the stock returns represent the capital market, the explanatory variables are all derived from money market activities. The negative or inverse relationship between inflation, exchange rate, Treasury bill and stock return in the short run can be used to predict the impact of monetary policy on the stock market. Of all the priced factors, Treasury bill is found to be relevant both in the short run and in the long run. Like all other factors with negative effects, when Treasury bill is booming, the stock market is bleeding. As against government borrowing through Treasury bill, government can resort to external borrowing without putting pressure on the available scarce investment funds thereby short-changing the stock market. The GDP as well as the stock market indices are regarded as strong indicators of growth in any economy. It is high time Nigeria placed less emphasis on GDP and more emphasis on the stock market indices as true measures of economic growth. Discrepancies between stock market indices and GDP values should be an indication that there is a mismatch in investment, production and output. Stock market points to the real sector investment while GDP indicates real sector output. It therefore behoves on policy makers to understand that output accounted for in GDP is not internally driven. Government will therefore be justified imposing all measures aimed at boosting local production.

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Journal of Economics and Behavioral Studies (JEBS)
Vol. 9, No. 1, February 2017 (ISSN 2220-6140)

Awareness of Ecological Economics as a Model for Promoting Sustainable Construction

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Abstract: Construction industry is a major consumer of natural resources and this has a significant impact on the environment and socio-economic development of society. The result of this impact includes deforestation; climate change, air, water and land pollution; and the like. Ecological economics (EE) models are tools for assessing and understanding these issues with a view to enhancing green buildings and sustainable construction in general. As part of a continuous study, this research therefore examines the level of awareness of the concept of EE by construction professionals in a quest to adopting the principle of sustainable development. Data were collected through questionnaires administered on relevant and experienced construction professionals such as construction project managers, architects, engineers, quantity surveyors and construction managers. EE as an aid would help in mitigating construction impacts on the environment, thereby enhancing sustainability but it is barely practised in the construction industry. This is as a result of the fact that construction professionals have little or no knowledge of its existence in the local industry. Most professionals with knowledge of the concept in the study area obtained the information on sustainability through the media and short courses .. The basic influencing factors are related to professionals' levels of education, the economic development of the country and knowledge of the environment. Introducing EE through communicating new ideas to stakeholders (through environmental campaigns, conferences, and the like) as well as incentivising ideas for change relating to greener construction will assist in overcoming the barriers to the adoption of EE in the construction industry. Professionals also need to keep abreast of current sustainable practices, their benefits, challenges, barriers as well as the methods of overcoming these barriers in their quest for delivering sustainable projects.

Keywords: *Community empowerment; Ecosystem; Sustainable neighbourhood*

1. Introduction

For many decades construction professionals worldwide have struggled with keeping to the stipulated construction project budgets, time frames and quality requirements of their projects. This occurs mainly as a result of the inadequate or improper planning of the projects by the selected professional teams. Hussin, Rahman and Memon (2013) observed that the built environment has a high number of inhospitable construction activities owing to the large quantities of natural resources being consumed. This results in the pollution of the environment, thus negatively impacting on the environment. It was further identified that the majority of construction professionals were not too enthusiastic about environmental conservation within the construction industry. Kolev (2009) highlighted that the carbon emissions from buildings supplemented the rapidly increasing global warming and extensive weather variations globally. One of the methods of understanding this is ecological economics which is concerned with the study of the environment, the impact of various activities and the means of minimising them. Through mitigation of the environmental impact of the construction industry, EE can promote sustainable development. This will be achieved by improving the quality of human life on one the hand and on the other, maintaining the magnitude of the ecosystem locally and globally which the present sustainable model fails to do. As a result, Dodds (1997) concluded that the contribution of EE in aiding sustainability has emphasised maintaining an active stream of goods and services that currently impact the well-being of the environment at large. There is therefore a need to incorporate the general sustainable development concepts into conventional construction practices through EE as a model. As part of on-going research, this article examines the level of awareness and knowledge of various construction professionals regarding the concept of ecological economics in the quest to promote its adoption for the delivery of sustainable projects in the construction industry.

2. Literature Review

Awareness of Ecological Economics Concept: The construction industry consists of various indispensable professionals working together for the purpose of delivering projects to acceptable standard. According to

Elforgani and Rahmat (2010), it was noted that due to the materials and energy efficiency choice, design team members, especially architects and engineers, influence the delivery and production of sustainable construction. It was further revealed that the fruition of green building is influenced by the participation of other industry players. Buys and Hurbisson (2011) argued that despite contractors being key players in green construction, as a result of their being part of the project delivery system and contract specifications, contractors still had limited involvement in the design process. Furthermore, it was noted that contractors' participation in sustainable construction through recycling and reusing of material waste, limitation of hazardous material being used and the use of efficient production systems was important but not sufficient. However, Windapo and Cattell (2013) discovered that the use of integrated procurement systems (IPC) such as design and build, turnkey, and procure and construct could warrant that contractors could be more actively involved in the design and construction of sustainable development. Environmental awareness is defined by Kollmuss and Agteman (2002) as the knowledge of how human behaviour impacts the surrounding environment. Zsóka (2005) highlighted that five constituents of ecological awareness based on critical research conducted are ecological knowledge, environmental attitudes, environmental values, willingness to act, and actual behaviour. Nevertheless, Chawla (1999) discovered that an increase in n ecological awareness does not necessarily lead to pro-environmental behaviour. Various studies indicate the gap that exists between the constituents of ecological awareness that is caused by the diverse nature of reality and economic-structural factors.

Fuchs and Lorek (2005) stated that switching from an efficiency-based model to a sustainable approach requires significant alterations in the manner of conduct. Professionals with an escalated level of ecological awareness may not act sustainably owing to socio-economic factors, thus leading to a constant battle between personal values and societal expectations (Sears, Freedman and Peplau, 1985; Szerényi, Zsóka and Széchy, 2011). According to Balderjahn (1988), ecologically-concerned professionals belong mainly to wealthier construction companies. However, the financial enrichment of the construction industry will not reduce the burden on the environment. Sanne (2002) observed that professionals are captive to unsustainable lifestyles by circumstances such as social norms, regardless of their willingness to act in that manner. Furthermore, it was stated that circumstances developed as a result of other interests, and the adoption of sustainable approaches is limited owing to policies that look into minimum means over a greater field. This prevents the adaptation of EE as a sustainable model in the construction industry.

Construction professionals act according to their discretion rather than the on basis of the scientific definition of sustainable consumption (Csutora, 2012). The awareness-behaviour gap in various industries has been exhaustively investigated by numerous studies. Kollmuss and Agteman (2002) discovered that demographic factors, internal factors (motivation, professionals' environmental knowledge, awareness, priorities, and responsibilities) as well as external factors (institutional, economic, social, and cultural), are vital influencing factors of pro-environmental behaviour. In an interview conducted by Chawla (1999), it was revealed that childhood experiences of professionals are the most important factor affecting the behaviour of various environmentalists in the USA and Norway. It was further highlighted that education is the least important variable. Similarly, Jackson (2005) argued that changing professionals' behaviours is currently challenging because individual behaviours affects the state of affairs of the industry at large. Also, Hobson (2001) supported this view by mentioning that at times, ecological awareness campaigns are not effective enough in promoting the industry's promotion of sustainable construction.

3. Methodology

A survey design was adopted for the collection of data for this study. The population includes architects, quantity surveyors, engineers, construction project managers, construction managers and other relevant professionals within the built environment in South African construction industry, specifically in the Gauteng region. The research adopted the use of a close-ended questionnaire based on data obtained from a literature review of existimg materials in the area of sustainability, ecology and economics. The questionnaire was designed to explore the awareness level of ecological construction based on various demographic, internal and external factors highlighted from literature. Using convenience sampling, the distribution of questionnaires to respondents was mainly through electronic mail as well as hand delivery and they were retrieved through the same means. Prior to actual distribution, a pilot study was carried out among selected

academics and construction professionals to test and improve the instrument. Their comments, observations and views were examined and considered in the preparation of the final instrument for data collection.
The first section of the questionnaire examined the background of the respondents while the second portion explored the awareness levels of EE amongst identified construction professionals. The importance of the identified variables was examined based on the level of agreement of respondents using a five-point Likert scale. The ratings were as follows: 1=Strongly disagree; 2=Disagree; 3=Neutral; 4=Agree; 5=Strongly agree. Mean item scores (MIS) and standard deviations (SD) were thereafter computed for each of the variables and the values were used in ranking and determining their importance. Cronbach's alpha test was carried out on the group of collected data and values of 0.701 and 0.714 were obtained for responses in respect of sources of information and reasons for the gap in knowledge. This is acceptable as noted by George and Mallery (2003) as well as Punch (2005), namely that the value of the Cronbach's alpha above 0.7 is acceptable.

4. Results and Discussion

Biographical information of respondents: Finding revealed that 38 per cent of the respondents are engaged in contracting firms, 40 per cent worked for consulting firms, 4 per cent worked for developers, 14 per cent worked for project management firms and 4 were employed in other fields, which included tertiary institutions and commercial banks. Further results showed that 52.08 per cent of the respondents' companies work for the private sector, 12.50 per cent work in the public sector and 35.42 companies operate in both the private and public sectors. Findings relating to respondents' current position in the company showed that 8 per cent are architects, 40 per cent are quantity surveyors, and 12 per cent are engineers. Also, 14 per cent are project managers, 8 per cent are construction managers or site engineer/agent, 14 per cent are construction project managers, and 4 per cent held other positions, which included a facility manager.

Sources of ecological economics knowledge: Table 1 reveals the respondents' rankings of the main sources of information of obtaining knowledge on sustainable construction in the study area. It reveals that short courses in environment and sustainability are the most important with a mean item score (MIS) of 3.96 and a standard deviation (SD) of 0.989. This is followed by the media and articles, attending seminars arranged by the government, and personal research. Other means are through professional councils and discussions as well as information from co-workers.

Table 1: Source of information on ecological economics

Sources	SD	MIS	Rank
Short courses in environment and sustainability	0.99	3.96	1
Media/Articles	0.96	3.82	2
Attending seminars arranged by the state	1.11	3.80	3
Personal research	0.84	3.70	4
Professional councils	0.84	3.70	5
Co-workers	1.01	3.38	6

SD = Standard deviation; MIS = Mean item scores

Influences of ecological economics knowledge gap: Causes of the gap in knowledge relating to ecological economics amongst professionals are indicated in table 2. It reveals that the level of education is the most important demographical factor, followed by sector of employment and childhood experiences. In addition, economic development is the most significant external factor with an MIS of 3.88 and an SD of 0.558, followed by social and cultural aspects, institutional factors and increased competitiveness on project bids.

Moreover, the table further reveals environmental knowledge as the most important internal factor with MIS of 3.88 and SD of 1.023; lack of motivation was ranked second with an MIS of 3.78 and SD of 0.790; environmental awareness was ranked third with an MIS of 3.66 and SD of 0.848; values (individual and organisational) was ranked fourth with an MIS of 3.70 and SD of 0.848, while work priorities and responsibilities were ranked fifth with an MIS of 3.58 and SD of 0.835.

Table 2: Causes of gap in EE knowledge

Factors	SD	MIS	Rank	
			Group	Overall
Demographic factors				
Level of education	0.96	3.88	1	2
Sector of Employment	1.07	3.52	2	11
Childhood experiences in nature	1.14	2.92	3	12
External factors				
Economic development	0.56	3.88	1	1
Social and cultural aspects	0.86	3.72	2	5
Institution	0.79	3.70	3	7
Increased competitiveness on project bids	1.03	3.62	4	9
Internal factors				
Environmental knowledge	1.02	3.88	1	3
Lack of motivation	0.79	3.78	2	4
Environmental awareness	0.97	3.70	3	6
Values (individual and organisational)	0.85	3.66	4	8
Work priorities and responsibilities	0.84	3.58	5	10

SD = Standard deviation; MIS = Mean item scores

Discussion of findings: These findings on causes of knowledge gap of ecological economics were comparable with the findings by Kollmuss and Agteman (2002), where democratic factors such as the level of education and sector of employment were indicated as the most significant reasons for gaps in knowledge; external factors such as environmental knowledge and environmental awareness were also important factors behind the reason for the knowledge gaps of professional. Likewise, the findings were also similar to the those of the study done by Galli et al. (2014), revealing that the level of education as well as institutional factors affect the awareness levels of professionals regarding pro-environmental knowledge. However, , the finding in the current study were not in agreement with a survey conducted by Chawla (1999) who discovered that childhood experiences in nature were the most frequently mentioned and education was the least frequently mentioned factor during interviews with numerous professional environmentalist in the USA and Norway. This is also similar to the findings of Csutora (2012) and Balderjahn (1988). Csutora (2012) advocated that ecologically concerned professionals belong mainly to wealthier construction companies. From the current study, it was discovered that 62 per cent of the respondents' companies operated in the private sector, yet 62 per cent of the respondents had not been involved in a single 'green' or sustainable project.

5. Conclusion and Recommendations

The possibility for the adoption of ecological economics for delivery and production of sustainable of development is the overall goal of this study. Therefore, , this study evaluates the ecological and environmental awareness of professionals within the built environment with respect to their sources of information and factors influencing the gap in knowledge. Findings revealed that there is low awareness of ecological economics and the basic concept of sustainable development among construction professionals in the study area. This is due mainly to various demographic, internal and external factors. The major ones are related to the education level of the professionals, their level of economic development and their knowledge of the environment. There is also a lack of information regarding the concepts. It is therefore recommended that all professionals in the construction industry should be educated and trained in the implementation of EE as a model for promoting sustainable construction. They should also keep abreast of trends and the various principles necessary for improving ecological economics awareness for the purpose of improving the performance of construction projects. Regulatory bodies and government agencies concerned with construction project performance and the delivery of sustainable infrastructure should therefore increase their level of sensitisation on the need for adopting and implementing the concept in the construction industry. In continuation of this work, further studies can be conducted into drivers, challenges and perceived benefits of ecological economics if fully adopted in the construction industry.

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Journal of Economics and Behavioral Studies (JEBS)
Vol. 9, No. 1, February 2017 (ISSN 2220-6140)

A Regression Analysis of Generation Y Female Students' Perceptions on Social Risk, Buying Behaviour and Apparel Store Choice

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Abstract: In the present post-modern era, Generation Y female students are faced with a discerning process of selecting the optimum apparel retail store to be loyal to and from which to buy clothing products. Therefore, the active store choice decision is conceptualized as the difficulty of determining someplace and when and where to shop. The main objective of the study was to examine the relationship between social risk, buying behavior and store choice within the apparel retail industry. The study is positioned within a post-positivism quantitative paradigm and adopts a cross-sectional survey approach collecting data from 400 conveniently selected university students. Scale purification was done through pre-testing and pilot testing. Through multiple regression analysis, the results show that social risk and buying behavior significantly influences retail store choice in an apparel retail setting. The findings indicated that there is a positive and significant association between perceived social risk, buying behavior and retail store choice. Based on the outcomes of the study, recommendations were suggested to retail managers to develop retailing strategies that charm the female Generation Y consumers. In addition, limitations and future research directions are referred to.

Keywords: *Apparel, perceived social risk; buying behavior; retail store choice; Generation Y female students*

1. Introduction

A clear understanding of why customers choose a certain store over others has become a major objective of retail strategists and researchers (Muzondo & Mutandwa, 2011). Zulqarnain, Zafar and Shahzad (2015) concur that the study of how consumers choose retail stores and what drives their store choice is an indispensable contribution to the retail sector. Du Plessis and Rousseau (2003) as well as Cooper (2010) supports Du Plessis and Rousseau (2003) assertion that consumers are challenged with decisions regarding the store choice as well as the products and services they buy daily. Therefore, since consumers are frequently uncertain about the consequences of their store and purchase decisions, they perceive a certain degree of risk when making a retail store choice. Social risk is associated with poor store choice decision that will result in social humiliation (Schiffman & Kanuk, 2007; Peter & Olson, 2005). In addition, Faarup (2010) describes social risk as the kind of risk that refers to how the reference group will observe the choice of retail store and the purchasing of a specific product. Therefore, a consumer can experience a low self-esteem if their social group, family and friends do not favorably perceive the reputation of the store (Amin & Mahasan, 2014).

According to Diejomaoh (2013), consumer buying behavior can be understood as how, where and which retail store consumers prefer to buy products when confronted with buying decisions. It is of utmost importance for a retailer to understand the buying behavior of its consumers in order to develop retailing strategies that attract and keep clientele (Sinha, Banerjee, & Uniyal, 2002). Prasad (2012) believes that while consumers often patronize many stores, they typically have a primary attachment to the "main store" that captures most of their purchases. Floor (2006) is of the view that store choice and buying behavior depends on the type of product, the time of purchase, the available budget and many other factors. According to Zulqarnain, Zafar and Shahzad (2015), consumers now consider a number of factors when choosing a retail store. Diverse store types or categories expose customers to a multiple of choices when choosing the store from where to make a purchase (Carpenter & Brosdahl, 2011). The active store choice decision is conceptualized as the challenge of choosing when and where to shop (Leszczyc, Peter, Sinha & Timmermans, 2000). Jayasankaraprasad (2010) reiterate that in the process of deciding which stores to frequent, consumers consider a number of risk factors, often alluded to as store choice evaluative criteria. Therefore, an understanding of how consumers evaluate quality and which variables influence their purchase decisions will assist retailers in choosing what commodities to stock (De Klerk & Lubbe, 2008).

Research Problem and Gap: One of the difficulties encountered by retailers includes developing an appreciation of the intervening variables relating to consumers store choices (Mowen, 1995). To this end, Karpova, Hodges and Tullar (2007) point out that a gap that emanates from ignorance regarding in respect of the wants and needs of customers also intensify challenges to retailers. Whilst many studies have focused on Generation Y consumers and students specifically (Bevan-Dye, Garnett & De Klerk, 2012), there is scant research on buying behavior, social risk and their impact on retail store choice. Previous research has examined Generation Y students in various contexts by focusing on consumer shopping styles (Mandhlazi, Dhurup & Mafini, 2014), impulsive fashion apparel consumption (Dhurup, 2014), attitude towards online shopping (Makhitha, 2014), fashion consciousness behavior (Motale, Bevan-Dye & De Klerk, 2014) and innovation and risk-taking propensity (Koloba & May, 2014).Against this backdrop, there remains a vast scope for research in the apparel retail setting driven by a quest to have an ongoing understanding of the variables influencing purchase decisions among shoppers in South Africa (Mafini & Dhurup, 2015). Therefore, it can be noted that there is a paucity of empirical literature on perceived social risk, buying behavior and retail store choice decisions of Generation Y female students, thus the main objective of this study is to clear this gap in knowledge. The research study is also noteworthy in that its findings may be applicable in assisting retailers to improve and implement appropriate strategies in satisfying the needs of Generation Y female students.

Purpose of the Study: The study explores the association between perceived social risk and buying behavior towards retail store choice of Generation Y female students within Gauteng Province in South Africa.

2. Literature Review

This study reviewed literature on the concept of retail store choice, buying behavior, perceived social risk and the Generation Y consumers.

Perceived social risk: Generally, consumers have the subjective norms that they are concerned about the opinions of their family, peers and friends with respect to their own actions and subsequently their responses would be determined by people around them (Nasir, Wu, Yago & Li, 2015). These subjective norms lead us to the concept of perceived social risk, which is generated by families' and friends' thoughts about their weak or improper choices (Bazgosha, Eizi, Nawaser & Parhizgar, 2012). Therefore, perceived social risk confirms the dissatisfaction in the consumers by peers and household in case of a poor store choice (Ueltschy, Krampf & Yannopoulous, 2004). Moreover, Weib (2015) emphasized that perceived social risk is a personally identified risk of suffering status loss in individual's environment. Hawkins, Mothersbaugh, & Best (2007) mentioned that apparel, like other symbolic goods, are subjected to social risk.

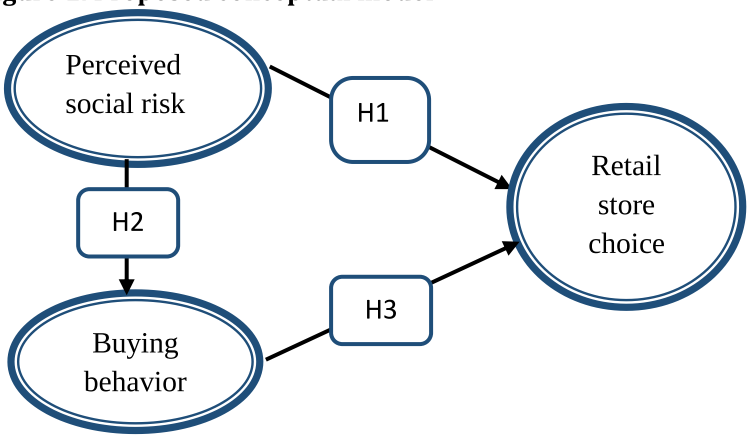
Buying behavior: The behavior of the buyer with specific reference to Generation Y consumers has been of interest to many retailers and researchers. This has resulted to overwhelming research exertions in pursuant of how best retailers can dispose their offerings to these elusive consumers in unpredictable markets (Mandhlazi, Dhurup & Mafini, 2014). According to Zinyemba and Manase (2015), buying behavior denotes the purchasing behavior of individuals and households who purchase for consumption. According to Khaniwale (2015), it is not easy for consumers to decide on how best to spend their time, efforts and money. Therefore, it becomes imperative for retailers to possess extensive knowledge towards the preservation of consumers in the marketplace (Hollywood, Armstrong & Durkin, 2007).

Retail store choice: Store choice is recognised as a mental process and much of an information processing behaviour (Sinha & Banerjee, 2004). Rikhotso (2004), further refers to store choice as store loyalty or store patronage behaviour, In this regard, Bailey (2011) points out that the store choice might be more critical than the choice of a brand since it entails a difficult fixed decision criteria. Mason, Mayer and Ezell (1991) affirm that consumers make conscious decisions with respect to choosing retail stores they wish to patronise. The selection of a store to frequent is critical because apparel consumers will often gather information, appraise options and draw conclusions at the point of sale (Du Preez & Visser, 2003).

Generation Y cohort: The Generation Y cohort in South Africa, comprise 38% of the country's population (Statistics South Africa, 2014), making this cohort a significantly relevant retail segment. Williams and Page, (2011), further confirm that Generation Y is profiled as personality-obsessed, image-driven and geared towards peer recognition as well a need for appropriateness. Furthermore, Martin and Turley (2004) argues that this cohort hold fashion in high esteem, and as such, expend the greatest part of their disposable earnings on fashionable clothing.

Conceptual framework and hypotheses: Based on the preceding discussion, the conceptual model and its related hypotheses were developed to guide the research. See Figure **1.**

Figure 1: Proposed conceptual model



H_1: There is a *positive association between perceived social and retail store choice decision of Generation Y female university students.*
H_2: There is a *positive association between perceived social risk and buying behavior of Generation Y female university students*.
H_3: There is a *positive association between buying behavior and retail store choice decision of Generation Y female university students*

3. Methodology and Design of Research

This study was conducted using a quantitative research paradigm, which is deemed suitable for use to ascertain the relationships between the constructs under investigation. The survey method was adopted since it allows the use of questionnaires to collect data and control bias as the participants was requested to relate their own perception free from the researcher's intervention (Dhurup, 2014).

Sample and sampling method: The sample consisted of Generation Y female students within two universities located in southern Gauteng in South Africa using the purposively sampling procedure. This non-probability sampling procedure was adopted in order to avoid numerous biases associated with selecting sample members from a sample frame.

Instrumentation and collection of data: The measurement tools developed for the study were informed by previous studies conducted in similar contexts and appropriate adjustments were effected in order to be suitable for the current research purpose. A self-administered structured survey questionnaire was chosen because of its accuracy since every participant was asked the same questions. Section A of the questionnaire requested the biographical profile of the participant's respondents to provide their demographic profile. Section B of the questionnaire, which assessed perceived social risk, was adopted from Zhang, Tan, Xu and Tan (2012) as well as Arslan, Gecti and Zengin (2013). Section C of the questionnaire, measured buying behavior by employing a scale adopted from Kaul (2007) and Zhang et al. (2012). In Section D, items adopted from the studies of Prashar (2013) measured retail store choice. Sections B to D items were assessed on a five-point Likert-type scale that was denoted by 1=strongly disagree to 5=strongly agree to express the degree of disagreement or agreement to various statements, while 3= neither disagree and neither agree. Of the 400 distributed questionnaires, 370 constituted the final analysis, which represented a response rate of 92.5 percent.

Statistical analysis procedure: The Statistical Package for the Social Sciences (SPSS), version 23.0, was used to analyze data. The degree of association between variables under investigation was assessed using Spearman's rho. The hypothesized relationships in the research model were assessed using multiple regression analysis.

4. Results

Sample composition: Most participants (26.5%) were 21 years of age, followed by (20.5%) being 22 years of age and (17%) being 20 years of age. For the remaining participants (11.9%) indicated that they were 23 years of age, (11.6%) were 19 years of age, (8.4 %) were 24 years of age, and (4.1%) were 18 years of age. The year of study category was dominated by first year students (35.7%), followed by third year students (25.1%) and second year students (21.9%). The remainder (14.1%) was made up of fourth year and postgraduate students (3.2%). The majority of the participants (40.3%) spend between R600-R1000 on apparel per month, closely followed by the participants who spend between R300-R600 on apparel per month (38.4%). Lastly, 59.2% of the participants buy apparel clothing in fashion specialty stores, 21.9 percent at boutiques and 18.9 percent at departmental stores.

Exploratory factor analysis (EFA): EFA was conducted initially on each construct in order to establish the factor structure for the constructs under review. The individual results for the study constructs are shown in Table 1.

Table 1: Results for exploratory factor analysis of the research constructs

Constructs	Bartlett's test of sphericity[1] Sig	KMO[2] (sampling adequacy)	Eigen-values[3]	% of variance[4]	No of items
Perceived social risk	.000	.836	5.245	74.93	7
Buying behaviour	.000	.857	5.348	76.40	7
Retail store choice	.000	.860	5.607	70.09	8

[1] Refer to significance of the data. [2] Refer to sampling adequacy. [3] Eigen value is measured by extraction of factors by greater than 1 formula. [4] Percentage of the total variance extracted.

Confirmatory factor analysis (CFA): Building from the EFA, CFA was computed through the AMOS program to check the construct reliability and to ascertain whether the model fits the data. The goodness-of-fit values recommended for an acceptable model fit includes the following: chi-square/degree of freedom (<3.0), incremental fit index (IFI) (>0.90), Tucker-Lewis index (TLI) (>0.90), comparative fit index (CFI) >0.90, normed fit index (NFI) (>0.90) and standard root mean square error of approximation (RMSEA) (<0.08) (Hu & Bentler, 1999). The total fit of the model was satisfactory. All the measures shown in Table 2, confirm a robust and acceptable model fit (Schreiber, Stage, King, Nora & Barlow, 2006).

Table 2: Goodness-of-fit statistics

Fit indices	CFA
Chi square/degree of freedom	2.532
IFI	0.945
TLI	0.932
CFI	0.948
NFI	0.918
RMSEA	0.064

Reliability and validity: Psychometric properties of the measurement instrument were ascertained through a reflection of its reliability and validity which are reported in Table 3.The Cronbach alpha coefficients and composite reliabilities (CR) were computed to ascertain the reliability of the measurement scales. Both

Cronbach alpha values (0.876; 0.894and 0.872) and composite reliabilities (CR)values (0.87; 0.89 and0.88)for all the constructs under investigation respectively were greater than 0.70, and thus regarded as adequate to prove the internal consistency of the proposed dimensions (Nunnally & Bernstein, 1994). With regard to content validity, the measurement instrument was scrutinized by a panel of academics during the pretesting and piloting stages. The scale items in the final questionnaire sufficiently confirmed the domain of the constructs and the content validity of the questionnaire was addressed. The correlation matrix is shown in Table 3. The item-total correlations shown in Table 3ranges between 0.606 and 0.843 (i.e. all above the suggested threshold of 0.50), thus indicating an acceptable standards of construct validity. The results yielded supportive significant correlations between r=0.464 and r=0.729 (at p less than 0.01) indicating satisfactory convergent validity. In addition, the higher inter-item correlations (>0.50) reveal convergence among the measured items (Anderson & Gerbing, 1988). The results also signify an adequate inter-item convergent validity, as more than 50% percent of an individual item's variance was common with another respective construct. Discriminant validity was checked through a comparison of the average variance extracted (AVE) values with the squared correlations(SV) between the respective constructs. Since all AVE values (0.51; 0.55and 0.49) were greater than the corresponding SV values (0.28; 0.05and 0.08), discriminant validity was confirmed (Yoshida & James, 2010). In addition, the correlations between constructs (<0.80),(See Table 3), provided further evidence of discriminant validity (Kline, 1998).

Correlation analysis among constructs: In order to establish the degree of the relationship between constructs under investigation, the Spearman's rho was computed. The results are reported in Table 3. Moderate to strong correlations were found between retail store choice and perceived social risk (r=0.464; p<0.01); retail store choice and buying behavior (r=0.515; p<0.01) and perceived social risk and buying behavior (r=0.729; p<0.01) correlations

Table 3: Correlations between constructs

	RSC	PSR	BB	MEANS	STD DEV
RSC	1.000	.464**	.515**	4.16	.631
PSR	.464**	1.00	.729**	3.79	.903
BB	.515**	.729**	1.00	3.86	.894

**Correlation is significant at the 0.01 level (2-tailed).*RSC = Retail store choice, PSR = Perceived social risk, BB= Buying behavior.*

Regression analysis: Regression analysis was undertaken in order to check the association between the independent and dependent variables. Key assumptions were verified prior to conducting regression analysis. First, to minimize the susceptibility of regression analysis to sample sizes, the adequacy of the sample size was verified. Tabachnnik and Fiddel (2007) recommends a sample size of N>50+8m (where m=number of independent variables) as satisfactory to compute multiple regression analysis. The sample size confirmed in the study is 301 participants, which is greater than the threshold of 66 participants in instances where two independent variables are involved. Secondly, multicollinearity was ascertained by checking the inter-correlation matrix (<0.80), tolerance value (>0.1) and the variance inflation factor(VIF) (<10). As shown in Table 3, there was no evidence of multicollinearity as all constructs reported inter-correlations below 0.80. In Table 4, both values were acceptable (highest tolerance value=0.469 and the highest VIF=2.132), indicating that multicollinearity did not constitute a problem in the study. Table 4indicates that none of the independent variables had VIF values of more than 10 and tolerance value of <0.10, affirming the absence of multicollinearity within the data set. Table 4 shows the results of regression analysis.

Table 4: Results of regression analysis

Dependent variable: Retail store choice (RSC)	**Standardized Beta**	**T**	**Sig**	**Collinearity statistics**	
Model 1: Independent variables				Tolerance	VIF
Perceived social risk (PSR)	.189	2.927	.004*	.469	2.132
Buying behavior (BB)	.377	5.844	.000**	.469	2.132
$R = 0.531$ $R^2 = 0.282$ Adjusted $R^2 = 0.278$	* sig at p<0.05	**sig at <0.001			
Dependent variable: Buying behavior (BB)	Standardized Beta	T	Sig	Collinearity statistics	
Model 2: Independent variable				Tolerance	VIF
Perceived social risk (PSR)	.705	.19.045	.000**	1.000	1.000
$R = 0.705$ $R^2 = 0.496$ Adjusted $R^2 = 0.495$* sig at p<0.05 **sig at <0.001					

To examine the influence of perceived social risk and buying behavior on retail store choice, regression analysis was performed (Model 1) with perceived social risk and buying behavior as independent variables and retail store choice as a dependent variable. The overall regression was significant ($p<0.001$; $p<0.05$). The R^2 value (0.282) indicated that approximately 28 percent of the variance in female Generation Y university students pertaining to retail store choice was primarily due to their perception of their perceived social risk and buying behavior provided by an apparel store. Another regression analysis was performed (Model 2), which included perceived social risk as an independent variable and buying behavior as a dependent variable. Since previous studies have indicated a strong evidence of the influence of perceived social risk on buying behavior, Generation Y female student's perceived social risk was included as an independent variable. Overall perceived social risk explained an estimated 50 percent of buying behavior (R^2 of 0.495).

Discussion: The first hypothesis (H_1) posited that perceived social risk would exhibit a positive relationship on retail store choice among the participants. As predicted, this hypothesis was supported ($\beta = 0.189$, t-value = 2.2927, $p < 0.000$). This result was also substantiated by a significant correlation of $r = 0.464$. In addition, the perceived social risk construct scored a summated mean of 3.4834 out of 5. This result suggests that female Generation Y consumers attach significant social value to apparel retail store choice. This result is further supported by previous studies of Liang, Lu and Tu (2006), which indicated a significant influence of perceived risk on customer's decision-making process. Horvat and Dosen (2013) also confirmed that perceived risk bears a substantial influence on consumer attitudes.

The second hypothesis (H_2) posited that perceived social risk would exhibit a positive relationship on buying behaviour amongthe participants. This hypothesis was reinforced by a significant effect ($\beta = 0.705$, t-value = 19.045, $p<0.01$). This result was also supported by the existence of a significant positive correlation of $r=0.729$. In addition, the perceived social risk construct scored a summated mean of 3.4834 out of 5 implying that the majority of the respondents perceived social risk as critical. This result is supported by the studies conducted by Arslan, Gecti and Zengin (2013) that revealed that perceived social risk is connected largely with buying behavior. Xue (2015), as well confirmed that consumer's buying behavior is influenced by perceived risks.

The third hypothesis (H_3) predicted that buying behavior would exhibit a positive relationship on retail store choice among the participants.This hypothesis was confirmed ($\beta=0.377$, t-value=5.844, $p<0.000$). This result was also corroborated by a significant positive correlation $r=0.515$. In line with this hypothesis, the buying behaviour construct recorded a summated mean of 3.6166 out of 5. This finding is pertinent in the sense that Sinha, Banerjee and Uniyal (2002) studies identified store choice to rely on consumers' behavior and past purchase experience. Furthermore, Goodman, Lockshin and Renau (2010) confirmed that buying behavior generally is directed by consumer perception and largely by the store, which fulfils the needs of the consumer at that particular occasion of consumption. Hasan (2015) conclusively asserts that formation of certain judgments about the store influences how a buyer behaves.

Limitations and Implications for Further Research: The researchers acknowledge limitations to the study which offer opportunities for further research. Firstly, the non-probability convenient sampling technique employed in the study suffers from the limitations inherent in non-probability sampling techniques and also restricts the generalisability of the research findings. Future studies should consider using probability sampling techniques to enhance the generalizability of the results. In addition, the study was confined to the female Generation Y cohort. Against this backdrop, further research should incorporate other generational cohorts such as Generation X so that more critical evidence may be collected to segments markets and to develop suitable retail strategies.Another limitation concerns the use of a single method of data collection, as the study employed a quantitative research paradigm. Complementing quantitative with qualitative research will be advantageous as this will provide richer data and support the findings of the study. Further research may consider using triangulation methodology that would incorporate both qualitative and quantitative research designs.

5. Conclusion

In today's competitive retailing industry, fashion retailers who currently target, or who are planning to target, the Generation Y female student cohort need to familiarise themselves with this market. An appreciation of what motivates this generation to choose apparel retail store and the identification of in-store and out-store events inspires customers to stay loyal. Therefore, it is imperative for apparel retailers to inculcate an appreciation of how perceived social risk and buying behaviour influences store selection to apparel consumers. Future research can be conducted to overcome the mentioned limitations of this study.

Recommendations: Apparel retailers have to alter their current marketing strategies or adapt them to respond to continuous changes in needs. In addition, apparel retailers can reduce perceived social risk through provision of sufficient information for a consumer to feel comfortable in making decisions, thus reducing perceived social risk. Furthermore, retail store managers must provide a good service to consumers in order to build positive shopping experiences for apparel products purchasing. Familiar brands and guarantees of satisfaction can assist to diminish perceived social risks. In addition, point of purchase advertisements, product displays and well-informed sales personnel can supply customers with the information they need.It is imperative for apparel retailers within southern Gauteng to have a clear understanding of the buying behaviour of consumers, more specifically the needs, wants and preferences of the Generation Y female cohort so that they can respond accordingly. Apparel retailers can make use of the biographical information as a basis for segmenting this market. Information such as age, ethnical group and year of study can help them in identifying exactly who their customers are, which advertising media will appeal to them and finally, how long will they study at their respective institutions of higher learning. It is further recommended that the validated measuring instrument in the study be employed as a diagnostic methodology to uncover broad areas of perceived social risk, buying behavior and retail store choice decisions among Generation Y female university students.

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Journal of Economics and Behavioral Studies (JEBS)
Vol. 9, No. 1, February 2017 (ISSN 2220-6140)

A Hierarchical Multiple Regression Approach on Determining the Effect of Psychological Capital on Entrepreneurial Intention amongst Prospective University Graduates in South Africa

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Abstract: The goal of the study is to identify the contribution of psychological capital in the prediction of entrepreneurial intention using the Theory of Planned Behaviour (TPB) as a theoretical lens. South Africa needs young entrepreneurs, not job seekers. However, in order to adapt, graduates must rely on psychological resources to succeed in their entrepreneurial ventures and pursuits. Using the TPB and Psychological capital (Psycap), the researchers explored the influence of planned behaviour and Pyscap on entrepreneurial intention of 270 final year students in the Management and Commerce faculty at a selected university in the Eastern Cape Province of South Africa. A structured questionnaire was used to collect data as the researchers opted for a survey design. Results of hierarchical multiple regression modelling showed that entrepreneurial intentions is positively influenced by perceived behavioural control ($\beta_1 = 0.367$; $p = <0.0001$) attitudes towards becoming an entrepreneur ($\beta_2 = 0.316$; $p = <0.0001$) and resilience ($\beta_3 = 0.130$; $p = 0.009$). The resultant model revealed that resilience ($\Delta R^2 = 0.016$; $R^2 = 0.392$; df = 266; $p = 0.009$) was the only significant psychological capital construct that added unique variance in predicting entrepreneurial intention above and beyond, which is predicted by the theory of planned behavior variables among the prospective graduates. Findings of the study are helpful to policy makers as they try to optimise strategies for entrepreneurial success in the South African context and the developing world.

Keywords: *Theory of planned behaviour, entrepreneurial intention, psychological capital, hope, resilience, optimism, self-efficacy, university students, prospective graduates, hierarchical regression*

1. Introduction

The role of entrepreneurs in driving economic growth cannot be underwritten as global markets are characterised by increasing levels of unemployment. At the end of each academic calendar, universities produce thousands of young people for the world of work. In the South African context, entrepreneurship is becoming an area of high priority as the economy is weakening, thereby culminating to potential job losses. Consequently, most graduates are not absorbed due to a scarcity of jobs, among other factors. As such, it is advisable for graduates to become employers by adopting an entrepreneurial orientation. South Africa needs young entrepreneurs, not job seekers. The researchers propose that in order to adapt, prospective graduates must rely on psychological resources to succeed in their entrepreneurial ventures. Psychological capital has been identified by Luthans, Avey, Avolio, Norman and Combs (2006) as a predictor of performance and self-fulfilment. Theoretically and empirically, psychological capital is positively related to higher performance and positive attitudes (Yousaf, Hizam-Hanafiah & Usman, 2015). Although psychological capital is a new paradigm in the developed world, its benefits to entrepreneurship intention cannot be underwritten. However, it is recognised as a vital trait required by entrepreneurs to lead their businesses throughout their entrepreneurial practices (Yousaf et al., 2015). The researchers also assert that even though the benefits of positive psychology are known, there is little empirical literature on how psychological capital can be applied to entrepreneurs. In literature, entrepreneurship intention is identified as a key element in explaining entrepreneurial behaviour. It has also been established that there exists a link between entrepreneurial intention and the theoretical constructs of the theory of planned behaviour (Malebana & Swanepoel, 2015; Kautonen et al., 2013; Herrington & Kew, 2014; Kolvereid & Isaksen, 2006; Zhang & Yang, 2006; Delanoë, 2013). These theoretical constructs capture the three motivational factors which influence behaviour, namely: attitudes towards the behaviour, perceived social norms, and perceived behavioural control (Ajzen, 1991; Linan, 2004). The study is motivated by the recommendation for future studies by Malebana and Swanepoel (2015) who proposed that the link between entrepreneurial intention and behaviour would shed more light on the determinants of entrepreneurial behaviour in South Africa. The adoption of Psycap in the study is motivated as it is a breakaway from the traditional economic capital. As eluded by Luthans et al. (2006), the researchers are keen on exploring how positive psychology influences prospective graduates in the Management and Commerce Faculty at the selected university on entrepreneurial intention. The contributions of this study extend on the literature on Psycap and entrepreneurship intentions in the African context.

2. Literature Review

Entrepreneurship and planned behaviour: Benefits of entrepreneurship in any nation include job creation, innovation and economic growth (van Gelderen, Brand, van Praag, Bodewes, Poutsma & van Gils, 2008). The relevance of entrepreneurship to economies in developing nations is viewed as a tangible way of lessening social employment pressures (Fenghua, Haibei & Le, 2013). In the current environment, employment in organisations reduced due to the economic social and political changes (van Gelderen et al., 2008). There is no concise definition of the term *entrepreneurship* (Fenghua et al., 2013) as most in academia define it according to their objectives. The European Commission (2003) pronounces entrepreneurship with specific reference to the attitude reflected by a person's drive and aptitude to not only identify opportunities but pursue to produce economic benefits or new values. Entrepreneurship is an intentional activity (Henley, 2007) while its intention develops prior the creation of a new venture. Entrepreneurial intention presumably may predict entrepreneurial behaviour as it encompasses faith, attitude and intention (Fenghua et al., 2013). Needs, values, wants, habits and beliefs are factors identified, which influence intention preceding behaviour. Wong and Choo (2009) affirm intention as a critical predictor of entrepreneurial behaviour. The theory of planned behaviour, as interpreted in Linan (2004), constitutes the constructs that explain entrepreneurial intention. Fenghua et al. (2013) identify the consensus in the literature on how intention best predicts planned behaviour. Entrepreneurs, among other beneficiaries, are a source of innovation and new jobs creation (Yousaf et al., 2015).

In entrepreneurship theory, the theory of planned behaviour by Ajzen is the most celebrated theory (Küttim, Kallaste, Venesaar & Kiis, 2014; Kautonen, Van Gelderen & Tornikoski, 2013). The theory identifies intention as a determinant of behaviour (Ajzen, 2011). The theory has been validated and empirically tested by many scholars across the globe (Fenghua et al., 2013). Lortie and Castogiovanni (2015) affirm that the applicability of the theory stretches beyond the realm of entrepreneurship and extends to marketing, health sciences, psychology and tourism, to mention a few.In adopting the theory of planned behaviour, the researchers were attentive of critique on intention; intention does not always lead to the adoption of a behaviour (Conner & Armitage, 1998; Hamid & Isa, 2015). The theory of planned behaviour was adopted similar to (van Gelderen et al., 2008). It is identified as the most relevant in exploring subjective norms, perceived behaviour control and attitudes. The theory is applicable in any context which seeks to predict and study human behaviour (Küttim et al., 2014).

Psychological Capital: In defining psychological capital, the accepted criteria to operationalize the term includes: confidence/efficacy, optimism, hope, and resiliency (Luthans et al., 2006). Fenghua et al. (2013), in their definition of Psycap, simplified it to personality traits which affect individual productivity. Resilient people can turn pressure into motive rather than succumb to setbacks. They study new knowledge actively and creatively to improve their ability to recover (Keen, McCoy & Powell, 2012). Regardless of risk and adversity, one who exudes resilience always seeks a positive outcome. Self-efficacy is identified by Bandura, self-belief in putting in place actions which meet the desired outcome. Hope dwells on the planning of a goal-directed energy to achieve a goal. Individuals with hope are resourceful and strong with creative ideas. When one is optimistic, they have positive expectations for the future regardless of circumstance. Optimistic individuals accept new ideas and have positive emotions (Luthans & Youssef, 2004; Chen, Gully & Eden, 2001; Masten & Reed, 2002; Snyder, Irving & Anderson, 1991; Oldham & Hackman 1980; Mónico, Pais, dos Santos & Santos, 2014; Luthans, Youssef & Avolio, 2007; Gina & Marthine, 2013). From the deconstructed psychological capital variables, an association can be inferred to entrepreneurial intention as theoretically and empirically psychological capital is positively related to performance (Yousaf et al., 2015). The study sought then to interrogate which attribute/s of psychological capital influence entrepreneurial intention in spite of people expressing themselves beyond a challenge.

Study objectives: The researchers sought to:

- identify the theoretical constructs of the theory of planned behavior and psychological capital which have a significant effect on entrepreneurial intention; and

- Explore the extent to which psychological capital constructs add unique variance in predicting entrepreneurial intentions above and beyond as predicted by the theory of planned behaviour variables among prospective graduates.

Hypothesis: From the objectives stated above, we deconstructed the following hypotheses:
H_1 Hope can affect prospective graduates' entrepreneurial intention.
H_{1a} Hope adds a unique variance in predicting entrepreneurial intention above and beyond as predicted by the theory of planned behavior variables among prospective graduates.
H_2 Self-efficacy can affect prospective graduates' entrepreneurial intention.
H_{2a} Self-efficacy adds a unique variance in predicting entrepreneurial intention above and beyond as predicted by the theory of planned behaviour variables among prospective graduates.
H_3 Resilience can affect prospective graduates' entrepreneurial intention.
H_{3a} Resilience adds a unique variance in predicting entrepreneurial intention above and beyond as predicted by the theory of planned behaviour variables among prospective graduates.
H_4 Optimism can affect prospective graduates' entrepreneurial intention.
H_{4a} Optimism adds a unique variance in predicting entrepreneurial intention above and beyond as predicted by the theory of planned behaviour variables among prospective graduates.
H_5 Attitudes towards becoming an entrepreneur can affect prospective graduates' entrepreneurial intention.
H_6 Perceived behavioural control can affect prospective graduates' entrepreneurial intention.
H_7 Close environment support (Subjective Norms) can affect prospective graduates' entrepreneurial intention.

3. Methodology

Participants: The respondents to the study were final year students in the Management and Commerce Faculty at the selected university in the Eastern Cape Province of South Africa. The researchers selected final year students in the Management and Commerce Faculty as they are essential clientele for entrepreneurship education in universities (van Gelderen et al., 2008). Convenience sampling was used to select the sample. The response rate of the survey was 0.84 as a total of 270 usable questionnaires were returned from the 320 distributed. Ethical clearance of the study was obtained from the ethics committee of the university. Each participant signed (prior participation) consent forms, and participation was voluntary. The researchers made sure to abide by the code of ethics, and anonymity of participants was observed to preserve respondent identity.

Measures: The researchers used the principle of one questionnaire per respondent. The research instrument comprised sections which measured psychological capital and its constructs, entrepreneurship intention, perceived behavioral control, subjective norms and attitudes towards becoming an entrepreneur. The variables were assessed with items rated on a 5 point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Dawkins, Martin and Scott (2013) identify the psychological capital questionnaire as the most frequently used instrument in the literature to measure psychological capital. To measure psychological capital and its four dimensions (hope resilience self-efficacy, and optimism), the PCQ 24 was opted, and it computed an alpha of 0.869. Questions on entrepreneurship intention, perceived behavioral control, subjective norms and attitudes towards becoming an entrepreneur were adopted from the Malebana and Swanepoel (2015) who designed their instrument from Linan and Chen (2009). The computed alpha values of these constructs ranged between 0.701 and 0.867. These are high scores of reliability as the scores are above the prescribed 0.7; thus, research instruments are reliable.

Data Analysis: SPSS version 23 was used for analysis. All tests were carried out at a 5% level of significance. Three research assistants independently entered all data with 100% verification, thus resolving any data-entry discrepancies. We used descriptive statistics to describe the sample's main demographic features (gender and age) and the T-Test to identify the mean gender differences that existed on psychological capital constructs among the prospective graduates. Pearson product-moment correlation coefficients (r) were used to identify correlates of entrepreneurial intention. A stepwise multiple linear regression model using the forward selection approach was used to determine the variables that have a significant effect on entrepreneurial intentions. The model included the theory of planned behaviour variables selected *a priori* as predictors: perceived behavioral control, subjective norms and attitudes towards becoming an entrepreneur, and psychological capital constructs. In order to establish the amount of variation that each psychological capital construct adds in predicting entrepreneurial intention above and beyond, which is predicted by the theory of planned behaviour variables among prospective graduates, a hierarchical multiple regression model was used. Tests for normality were done using the normal plots of the standardized residuals. In accessing these plots, we found out that the points of the expected (against the observed) cumulative probabilities were lying on the line, thus the normality assumption for linear regression modeling was satisfied.

4. Results

Demographic profile of the respondents: Table 1 below shows the demographic results of the respondents. From the study sample (n = 270), the majority of the respondents (55.9%, n = 151) are male students, while female students comprised 44.1% of the respondents (n = 119). In terms of age, the majority of the respondents (49.6%, n = 134) are in the age group of 22-25 years, while 23.7% (n = 64) are below 21 years of age. A total of fifty-six respondents (20.7%) fall in the age category 26-29 whilst only sixteen respondents (5.90%) fall in the age category of 30 years and above.

Table 1: Descriptive Statistics for Demographic Variables

Variable	Levels	df	f	%
Gender	Male	1	151	55.9
	Female		119	44.1
Age	Below 21 yrs	3	64	23.7
	22– 25 yrs		134	49.6
	26 – 29 yrs		56	20.7
	30 yrs and above		16	5.90

N=270, No missing data

Table 2: T-Tests for Mean Gender Differences on Study Variables

Study Variable	Gender	Mean	SD	Levene's Test for Equality of Variances		t-test for Equality of Means				
				F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Self-Efficacy	Male	3.8223	0.71639	0.080	0.777	-1.059	268	0.290	-0.09367	0.08843
	Female	3.9160	0.72774							
Optimism	Male	3.8874	0.58644	0.038	0.845	0.148	268	0.882	0.01067	0.07193
	Female	3.8768	0.58724							
Hope	Male	3.7141	0.57329	0.103	0.749	-1.753	268	0.081	-0.12341	0.07039
	Female	3.8375	0.57550							
Resilience	Male	3.6308	0.66416	2.053	0.153	-2.072	268	0.039**	-0.15597	0.07527
	Female	3.7868	0.54373							

N=270, No missing data, Total number of Males = 151 and of females = 119 for all comparisons.
**Significant differences with equal variances assumed
*Significant differences with equal variances not assumed

Table 2 above depicts an independent-samples test which compared the means between male and female students' levels on the psychological capital constructs. Levene's test for homogeneity of variance (homoscedasticity) was used. This test verified that the assumption of equal variances holds in all samples. Significant differences in means between males and females were only noticed on resilience. Females (mean = 3.7868; SD = 0.54673) showed a significantly higher mean level of resilience than their male (mean = 3.6308; SD = 0.66416) counterparts (t = -2.072; Pr > |t| = 0.039). This shows that female students had higher mean levels of resilience than male students. Pearson correlation analysis gave preparatory decomposition into the study variables. Table 3 illustrates the variables presented in the study. All the variables were significantly correlated to entrepreneurial intention. However, 'hope' had a somewhat statistically significant relationship with entrepreneurial intention (r = 0.118; p = 0.054). Entrepreneurial intention was significantly positively correlated to self-efficacy ($r = 0.158$; $p = 0.009$), optimism ($r = 0.177$; $p = 0.004$), resiliency ($r = 0.255$; $p = <0.0001$), attitudes towards becoming an entrepreneur ($r = 0.514$; $p = <0.0001$), perceived behavioral control ($r = 0.534$; $p = <0.0001$), and close environment support ($r = 0.233$; $p = <0.0001$).

Table 3: Pearson product-moment correlations (r) and significance probabilities (p) for relations of entrepreneurial intentions to theoretical constructs

	Theoretical Constructs	r	p
Theory of planned behavior			
1	Attitudes Towards Becoming an Entrepreneur	0.514	<0.0001**
2	Perceived Behavioral Control	0.534	<0.0001**
3	Close Environment Support	0.233	<0.0001**
Psychological Capital			
1	Self-Efficacy	0.158	0.009**
2	Optimism	0.177	0.004**
3	Hope	0.118	0.054
4	Resilience	0.255	<0.0001**

** Correlation is remarkable when the significant level is 0.01(Two-tailed test).

* Correlation is remarkable when the significant level is 0.05(Two-tailed test).

Regression of psychological capital and theory of planned behaviour on entrepreneurial intentions: The stepwise procedure yielded a total of three significant models. Table 4 below shows that the first significant model was the one with perceived behavioural control as a predictor variable on entrepreneurial intentions ($F = 107.130$; $df = 1$; $p = <0.0001$). The standardized β coefficients in Table 4 show that perceived behavioural control has a significant positive effect on entrepreneurial intentions ($\beta_1 = 0.534$; $t = 10.350$; $p = <0.0001$). Multi-collinearity is non-existent in this linear regression model as tolerance was > 0.1 (and VIF < 10) for the significant variable (perceived behavioural control). The resulting model yields:

*(1) Entrepreneurial Intentions = 3.490 + 0.534*Perceived Behavioral Control + residual (ε)*

The second significant variable that was added to the model was ‘attitudes towards becoming an entrepreneur’ which yielded a significant model ($F = 80.466$; $df = 2$; $p = <0.0001$). The collinearity diagnostics in Table 4 shows that multi-collinearity does not exist in this 2nd regression model (Tol > 0.1 (or VIF < 10 for all variables). Parameter estimates show that both perceived behavioural control and attitudes towards becoming an entrepreneur have a significantly positive effect on entrepreneurial intentions and the standardized regression coefficients are $\beta_1 = 0.377$ ($p = <0.0001$) and $\beta_2 = 0.339$ ($p = <0.0001$), respectively. Thus, the standardised regression equation of entrepreneurial intentions is:

*(2) Entrepreneurial Intentions = 3.490 + 0.377*Perceived Behavioral Control + 0.339*Attitudes towards Becoming an Entrepreneur + residual (ε)*

Resilience was the last significant variable to be added to the regression model. This yielded a significant linear regression model ($F = 57.173$; $p = <0.0001$). Durbin-Watson test for auto-correlation ($d = 2.012$) is between the two critical values of $1.5 < d < 2.5$; therefore, we can assume that there is no first order linear auto-correlation in our multiple linear regression data. In table 4, the variance inflation factor (VIF) of each independent variable is between 1.052 and 1.304. According to the standard of statistical tests, a variance inflation factor (VIF) less than 10 and Tolerance greater than 0.1 indicated that a collinearity problem does not exist among variables. Thus, in the regression model, a collinearity problem does not exist among variables. The parameter estimates in Table 4 show that all the predictor variables, perceived behavioural control ($\beta_1 = 0.367$; $t = 6.786$; $p = <0.0001$), attitudes towards becoming an entrepreneur ($\beta_2 = 0.317$; $t = 5.086$; $p = <0.0001$) and resilience ($\beta_3 = 0.130$; $t = 2.642$; $p = 0.009$) have a positively significant effect on entrepreneurial intentions. The resulting final model yields:

*(3) Entrepreneurial Intentions = 3.490 + 0.367*Perceived Behavioral Control + 0.317*Attitudes Towards Becoming an Entrepreneur + 0.130*Resilience + residual (ε)*

Table 4: Parameter Estimates

Model/Parameter		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	T	Sig.	Collinearity Statistics Tol	VIF
1	(Constant)	3.490	0.043		80.587	.000*		
	Perceived Behavioral Control	0.449	0.043	0.534	10.350	.000*	1.000	1.000
2	(Constant)	3.490	0.041		86.072	.000*		
	Perceived Behavioral Control	0.317	0.046	0.377	6.920	.000*	0.786	1.272
	Attitudes Towards Becoming an Entrepreneur	0.285	0.046	0.339	6.223	.000*	0.786	1.272
3	(Constant)	3.490	0.040		87.031	.000*		
	Perceived Behavioral Control	0.308	0.045	0.367	6.786	.000*	0.782	1.279
	Attitudes Towards Becoming an Entrepreneur	0.266	0.046	0.317	5.806	.000*	0.767	1.304
	Resilience	0.109	0.041	0.130	2.642	.009*	0.951	1.052

Note; Dependent Variable: Entrepreneurial Intentions, *Significant effect.

Self-efficacy, optimism, hope and close environmental support were all non-significant and were excluded from the model (see Table 5 below).

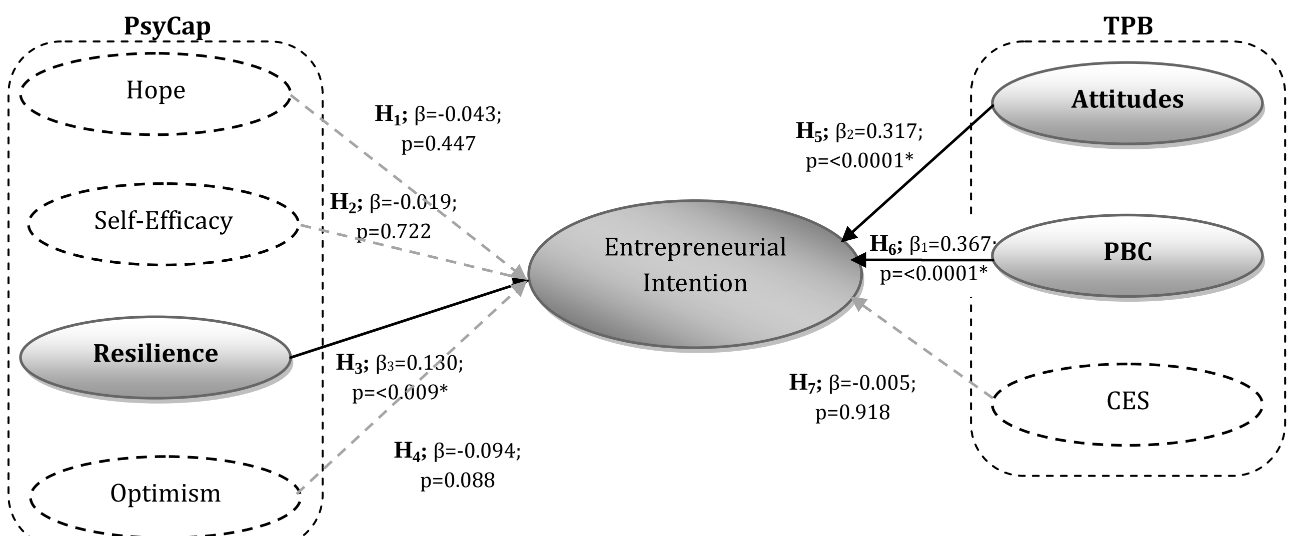
Table 5: Excluded Variables

Model		Beta In	T	Sig.	Partial Correlation	Collinearity Statistics Tolerance	VIF	Minimum Tolerance
3	Self-Efficacy	-0.019	-0.357	0.722	-0.022	0.821	1.219	0.749
	Optimism	-0.094	-1.713	0.088	-0.105	0.749	1.336	0.727
	Hope	-0.043	-0.761	0.447	-0.047	0.730	1.370	0.716
	Close Environment Support	-0.005	-0.103	0.918	-0.006	0.845	1.183	0.710

Note; Dependent Variable: Entrepreneurial Intentions
Predictors in the Model: (Constant), Perceived Behavioral Control, Attitudes Towards Becoming an Entrepreneur, Resilience

Below is the summary of the findings on the effects of the major study variables on entrepreneurial Intentions among the university's prospective graduates.

Figure 1: Summary of the conceptual model and hypothesis of psychological capital and theory of planned behaviour effect on prospective graduates' entrepreneurial intention. Note - Dependent Variable: Entrepreneurial Intentions; *Significant effect.



****key**; PBC; perceived behavioral control, CES; Closed environment support, TPB; theory of planned behavior.

Hypothesis Hope (H_1): Hope can affect prospective graduates' entrepreneurial intention.
Figure 1 above shows that hope does not significantly affect prospective graduates' entrepreneurial intention (β = -0.043; p = 0.447).
Hypothesis Self-Efficacy (H_2): Self-Efficacy can affect prospective graduates' entrepreneurial intention.
Self-efficacy does not significantly affect prospective graduates' entrepreneurial intention (β = -0.019; p = 0.722).
Hypothesis Resilience (H_3): Resilience can affect prospective graduates' entrepreneurial intention.
Resilience significantly affects prospective graduates' entrepreneurial intention (β = 0.130; p = 0.009).
Hypothesis Optimism (H_4): Optimism can affect prospective graduates' entrepreneurial intention.
Optimism does not significantly affect prospective graduates' entrepreneurial intention (β = -0.094; p = 0.088).
Hypothesis Attitudes towards becoming an entrepreneur (H_5): Attitudes towards Becoming an Entrepreneur can affect prospective graduates' entrepreneurial intention.
Attitudes towards becoming an entrepreneur significantly affect prospective graduates' entrepreneurial intention (β = 0.317; p = <0.0001).
Hypothesis Perceived behavioural control (H_6): Perceived Behavioural Control can affect prospective graduates' entrepreneurial intention.
Perceived behavioural control significantly affects prospective graduates' entrepreneurial intention (β = 0.367; p = <0.0001).
Hypothesis Close environment support (Subjective Norms) (H_7): Close Environment Support (Subjective Norms) can affect prospective graduates' entrepreneurial intention.
Close environment support (Subjective Norms) does not significantly affect prospective graduates' entrepreneurial intention (β = -0.005; p = 0.918).

Hierarchical multiple regression analyses: To examine if the individual psychological capital constructs add unique variance in predicting entrepreneurial intentions above and beyond that which is predicted by the three theories of planned behaviour constructs hierarchical multiple regression models, were used. The predicting variables, perceived behavioural control, attitudes towards becoming an entrepreneur, close environmental support and the individual psychological capital constructs were added to the model in their respective order. At each stage, an additional explanatory variable was added to the model, and the change in R^2 was noted. A hypothesis test using the F-test was done to test whether the change in R^2 is significant after addition of each of the psychological capital constructs to the theory of planned behaviour variables.

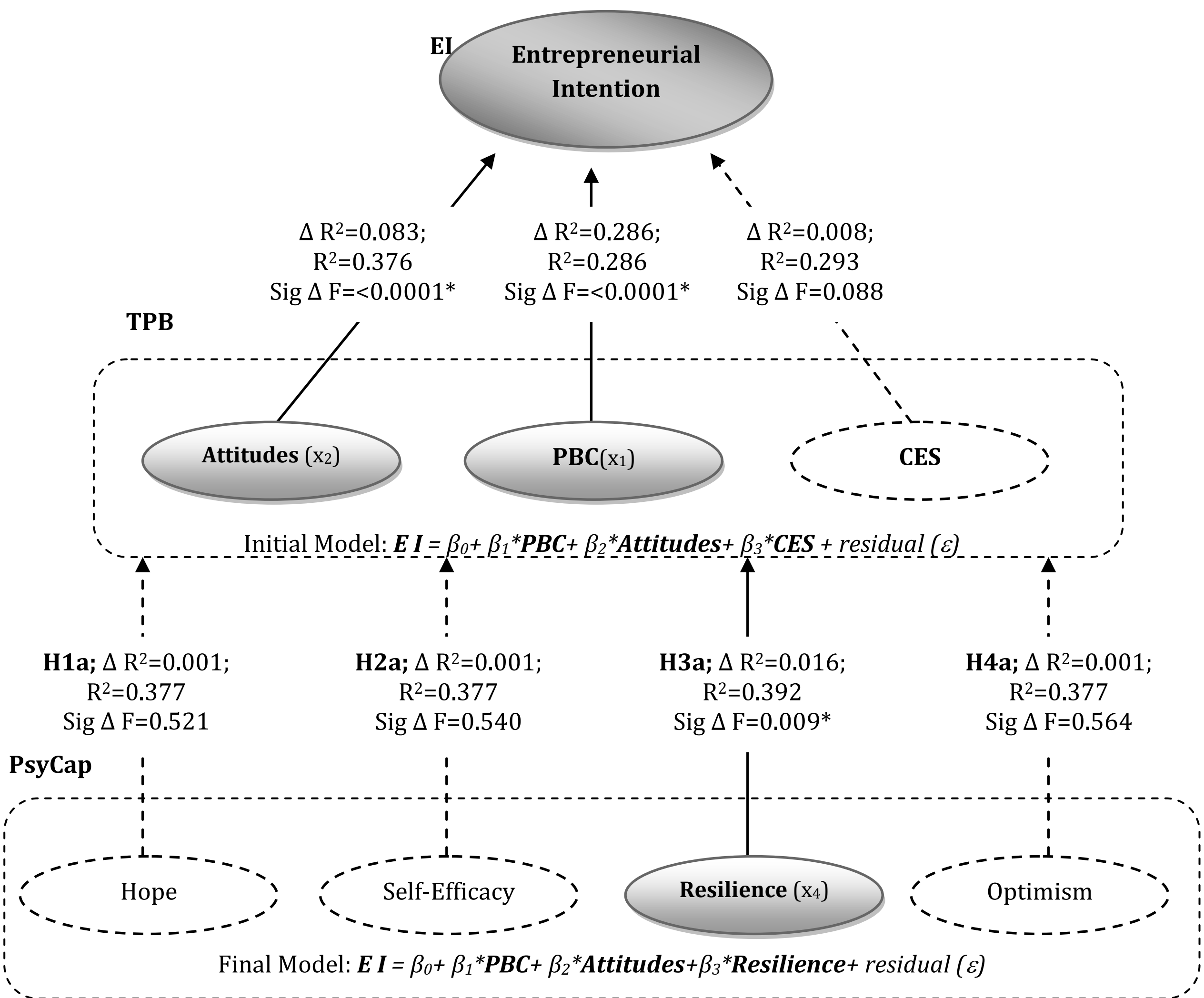
Table 6: A summary of hierarchical multiple regression analyses testing psychological capital and theory of planned behaviour constructs in the prediction of entrepreneurial intentions

Variable	Entrepreneurial Intentions					
	F	*F∆*	*R²*	*R²∆*	*df2*	*Sig. F∆*
Perceived Behavioural Control	107.130*		0.286*	0.286*	268	<0.0001*
Close Environmental Support		2.935	0.293	0.008	267	0.088
Attitudes Towards Becoming an E.		35.271	0.376	0.083	266	<0.0001*
[a]Hope		0.413	0.377	0.001	265	0.521
[b]Self-Efficacy		0.377	0.377	0.001	265	0.540
[c]Resilience		6.961	0.392	0.016	265	0.009*
[d]Optimism		0.334	0.377	0.001	265	0.564

*Significant change in the amount of variation of dependent variable being explained by the predictors.
a. Predictors: (Constant), Theory of Planned Behaviour, Hope;
b. Predictors: (Constant), Theory of Planned Behaviour, Self -Efficacy
c. Predictors: (Constant), Theory of Planned Behaviour, Resilience;
d. Predictors: (Constant), Theory of Planned Behaviour, Optimism
Dependent Variable: Entrepreneurial Intentions

Table 6 above shows that perceived behavioural control explains 28.6% of the variation in the dependent variables (R-Square = 0.286). Combined with attitudes towards becoming an entrepreneur, the resultant model accounted for a total of 37.6% of the variation in entrepreneurial intentions. Thus, this model adds significant variation to the first model. This means adding attitudes towards becoming an entrepreneur to perceived behavioural control as independent variables on entrepreneurial intentions results in a significant increase in the amount of variation explained by the model (ΔR^2 = 0.83; ΔF = 35.271; Sig ΔF = <0.0001). For the psychological capital constructs, only resilience added a significant unique variance in predicting entrepreneurial intention above and beyond, which is predicted by the theory of planned behaviour variables among university students. Thus, a total of 39.2% of the variation in entrepreneurial intentions is explained by the final model. Thus, adding resilience to perceived behavioural control, attitudes towards becoming an entrepreneur and close environmental support,as independent variables on entrepreneurial intentions, results in a significant increase in the amount of variation explained by the model (ΔR^2 = 0.016; ΔF = 6.961; Sig ΔF = 0.009). The findings of the hierarchical multiple regression analyses are presented in Figure 2 below.

Fig 2: Summary of the hierarchical multiple regression conceptual model and the hypothesis of psychological capital constructs in adding unique variance in predicting entrepreneurial intention above and beyond, which is predicted by the theory of planned behaviour variables among prospective graduates. Note - Dependent Variable: Entrepreneurial Intentions; *Significant effect.



****key**; PBC; perceived behavioral control, CES; Closed environment support, TPB; theory of planned behavior

Hypothesis Hope (H_{1a}): Hope adds unique variance in predicting entrepreneurial intentions above and beyond that which is predicted by the three theories of planned behaviour constructs.

Figure 2 above shows that adding hope does not significantly increase the variance explained by the model (R^2 = 0.377, ΔR^2 = 0.001, p = 0.521). Thus, hope does not add unique variance in predicting entrepreneurial intentions above and beyond that which is predicted by the three theories of planned behaviour variables.

Hypothesis Self-Efficacy (H_{2a}): Self-efficacy adds unique variance in predicting entrepreneurial intentions above and beyond that which is predicted by the three theories of planned behaviour constructs.

Self-efficacy does not add unique variance in predicting entrepreneurial intentions above and beyond that which is predicted by the three TPB constructs (R^2 = 0.377, ΔR^2 = 0.001, p = 0.540).

Hypothesis Resilience (H_{3a}): Resilience adds unique variance in predicting entrepreneurial intentions above and beyond that which is predicted by the three theories of planned behaviour constructs.

Adding resilience significantly increases the variance explained by the model (R^2 = 0.392, ΔR^2 = 0.016, p = 0.009). Thus, resilience adds unique variance in predicting entrepreneurial intentions above and beyond that which is predicted by the three theories of planned behaviour variables.

Hypothesis Optimism (H_{4a}): Optimism adds unique variance in predicting entrepreneurial intentions above and beyond that which is predicted by the three theories of planned behaviour constructs.

Addition of optimism to perceived behavioural control, attitudes towards becoming an entrepreneur and close environmental support to the prediction of entrepreneurial intentions resulted in no significant change of the variance explained by the explanatory variables (R^2 = 0.377, ΔR^2 = 0.001, p = 0.564).

5. Conclusion

Existing literature on entrepreneurial intension solely focuses on social norms, perceived behavioural control and attitudes towards becoming an entrepreneur, largely ignoring the influence of positive psychology (Malebana & Swanepoel, 2015; Herrington & Kew, 2014; Kolvereid & Isaksen, 2006; Zhang & Yang, 2006; Delanoë, 2013; Yousaf et al., 2015). Our findings concur with literature as we found a statistically significant relationship between entrepreneurial intentions and TPB (Kolvereid & Isaksen, 2006; Zhang & Yang, 2006; Delanoë, 2013; Kautonen et al., 2013). We found that attitudes towards becoming an entrepreneur (r = 0.514; p = <0.0001); perceived behavioural control (r = 0.534; p = <0.0001); and with close environment support (r = 0.233; p = <0.0001) had a significant statistical relationship with entrepreneurial intention. Although the three antecedents of TPB were correlated with entrepreneurial intention, the results indicated that the entrepreneurial intention of the participants can be predicted from the attitude towards becoming an entrepreneur and perceived behavioural control. These results are similar to those of Liñán and Chen (2009) in which entrepreneurial intention based on the attitude towards becoming an entrepreneur and perceived behavioural control significantly predicted entrepreneurial intention. The findings corroborate those of Liñán et al. (2013), Liñán et al. (2011), Liñán and Chen (2009), Li (2006) and Krueger et al. (2000) regarding the impact of the attitude towards the behaviour and perceived behavioural control on entrepreneurial intention. The findings also cement previous research regarding the use of the theory of planned behaviour as a valuable model for predicting entrepreneurial intentions (Ajzen, 2005; Souitaris et al., 2007; Basu & Virick, 2008; Engle et al., 2010; Iakovleva et al., 2011; Mueller, 2011; Angriawan et al., 2012; Otuya et al., 2013). However, our results are contradicting with those of Gird and Bagraim (2008) who reported that an attitude towards becoming an entrepreneur is the best predictor of entrepreneurial intention among university students. Moreover, in a study based on Chinese students by Yang (2013), social norm was the best predictor of entrepreneurial intentions.

However, our findings are consistent with some prior studies (Armitage & Conner, 2001; Autio et al., 2001; Liñán et al., 2011; Krueger et al., 2000; Schlaegel & Koenig, 2014) that social norm does not influence entrepreneurial intention. Also in line with Malebana and Swanepoel (2015), our findings revealed that there is no significant effect of entrepreneurial family background on entrepreneurial intention. Close environment support did not significantly affect prospective graduates' entrepreneurial intention (β = -0.005; p = 0.918). Our findings revealed that perceived behavioural control is the best predictor of entrepreneurial intention (Autio et al., 2001; Krueger, 1993; Krueger et al., 2000) and that TPB accounts for more than 35% of the variance in the explanation of entrepreneurial intention (Krueger et al., 2000). However, Gird and Bagraim (2008) and Schlaegel and Koenig (2014), respectively, found that TPB explained lower percentages (27% and 28%, respectively) of the variance in the explanation of entrepreneurial intention. A study by Yang (2013) also confirmed the high variance of about 49% explained by TPB in the explanation of students' entrepreneurial intention. The results of this study did not only provide strong support for TPB in the explanation of entrepreneurial intention but also how psychological constructs adds unique variance in predicting entrepreneurial intention above and beyond, which is predicted by the TPB variables among prospective graduates. The researchers were of the view that the adoption of positive psychology adds the prediction power to intention, thus predicting intention becomes more precise.

Fenghua et al. (2013) tested the relationship of psychological capital on entrepreneurial intention and found that hope had no significant relationship to entrepreneurial intention. However, self-efficacy, resilience and optimism had a statistically significant relationship. Our results indicated that entrepreneurial intention was significantly positively related to self-efficacy ($r = 0.158$; $p = 0.009$), optimism ($r = 0.177$; $p = 0.004$) and resilience ($r = 0.255$; $p = <0.0001$). However, hope had a somewhat statistically significant relationship with entrepreneurial intention ($r = 0.118$; $p = 0.054$) as the alpha level was 0.05. Hope had no significant relationship to entrepreneurial intention. Hope, self-efficacy and optimism did not significantly influence the prediction of entrepreneurial intentions. In contrast, in Fenghua et al. (2013) study, self-efficacy and optimism had a positive influence on entrepreneurial intention and entrepreneurial ability. In our study, only resilience significantly influenced the prediction of entrepreneurial intentions and also added unique variance on the prediction of entrepreneurial intentions above and beyond that which is predicted by the three theory of planned behaviour constructs. These findings concur with Fenghua et al. (2013) who found toughness to positively influence entrepreneurial intention and opportunity recognition capability. The researchers concede on the applicability of the theory of planned behaviour and affirm it as a relevant theory in determining intent. To cater for the shortcomings of the theory we adopted, psychological capital is offered as a means to cement and justify entrepreneurial intention. From this finding, entrepreneurial success is likely to be attained by those who enter entrepreneurship and are resilient.

Findings in the study are useful in developing the nation's context as governments and policy makers are looking to entrepreneurship as a measure of reducing unemployment and dealing with global challenges. Focussing on individual traits can further explain why most small organisations fail in the incubations phase; although the notion needs to be further explored, focusing on the positive attributes can remedy this. It is an area of investment which can have an influence on returns. Universities can help in the early identification of these traits and aid in aligning entrepreneurship. These findings help in understanding how prospective graduates can use Psycap in their personal development. This study, among others, has demonstrated the psychological value of the theory of planned behaviour from observable action and to encourage policy makers to target not only the economic attributes but also attitudes and norms of entrepreneurship.

Limitations and areas of further research: As the current study required students to conduct a self-assessment on the constructs under investigation, responses may have been greatly subjective as respondents were influenced by how the students perceived the situation. It would be interesting to conduct a longitudinal study to explore the extent to which intent sums up to actual action. The researchers argue that a longitudinal study would further test the construct under investigation; in as much as entrepreneurial behaviour can be planned; there is a need to explore the extent to which one ends up being an entrepreneur. A qualitative orientation may also give greater meaning to the study findings, especially on the demographics. The study found females to be more resilient than males but did not explore other demographic variables such as race, nationality and age. Testing the same variables in a heterogeneous environment might infer more meaning to constructs.

Contribution: The empirical investigation undertaken has identified resilience as the only psychological capital construct which had a significant influence in predicting entrepreneurial intention among prospective graduates and added unique variance in predicting entrepreneurial intention above and beyond, which is predicted by the theoretical constructs of the theory of planned behaviour among prospective graduates. The findings extend knowledge on the theory of planned behaviour and the driving factors of entrepreneurial intention. Exploring the impact of psychological capital to entrepreneurs' growth intention and performance is not only for academic purposes but stakeholders among them, namely: the state, private sector institutions, prospective entrepreneurs and current entrepreneurs who are interested in entrepreneurial development which starts from entrepreneurial intentions (Yousaf et al., 2015).

Acknowledgements: The authors are grateful for funding provided by the Research Niche Area within the Faculty of Management and Commerce at the University of Fort Hare.

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Journal of Economics and Behavioral Studies (JEBS)
Vol. 9, No. 1, February 2017 (ISSN 2220-6140)

Mechanisms for Changing the Structure of Mpumalanga Economy through Industrialization

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Abstract: Industrialization is still viewed by many countries as a tool for achieving economic growth and development (Sampath, 2016). Almost all countries that have attained growth have followed an industrialization trajectory (Xu & van Leeuwen, 2016; Szirmai, 2012). Britain— with the introduction of the industrial revolution— and other countries that followed suit experienced unprecedented economic growth. This research explored the structure of Mpumalanga, a South African provincial economy, which was found to be inhibiting growth. Its aim was to suggest mechanisms for industrializing the province in order to attain growth and economic development. The methodology employed in this study involved interviews with members of the Mpumalanga Industry Sector Forum, representatives from big industry, business chambers, all three spheres of government, including State Owned Entities and Development Funding Institutions (FDIs). A total of 20 respondents were selected for the study. The method used was convenient for obtaining first-hand information on the state of industrialization in the province and for soliciting a new set of ideas, resulting in the recommendations of this study. The study discovered a number of factors that inhibited industrialization, including the unavailability of industrial infrastructure, the cost and difficulty of doing business and lack of skills and support for SMMEs. The study proposes the use of an Industrial Centres of Competence model that concentrates on certain industrial sectors with a suite of support services for industry, incubation and supplier development centres for small businesses, research and development, as well as innovation centres for industry.

Keywords: *Industrialization, employment, economic growth, development, industry*

1. Introduction

Industrialization is associated with the attainment of high levels of economic growth and development, and it is often described as an engine of growth (Sampath, 2016). Evidence affirms this, considering countries that have followed earlier industrial development paths, such as Great Britain, in the 18th and 19th centuries (Xu & van Leeuwen, 2016). According to Szirmai (2008), Great Britain was the first country to become industrialized and it has become a technological hub of the world's economy. Other countries that followed their example, such as Belgium, France, Switzerland, the US and even latecomers to industrialization— for example, Germany, Russia, Japan and others—are also associated with high levels of development and are categorized as 'developed' countries today (Maddison, 2008; Szirmai, 2012). There is also evidence of growth prospects for developing countries that have recently embraced an industrialization development trajectory, such as the larger Latin American countries of Mexico, Brazil, Argentina and Chile, and the Asian countries of China and India (Maddison, 2008). The significance of industrialization cannot be ignored; it tends to be a major catalyst for growth and development, and often leads to the creation and reduction of the socio-economic challenges of unemployment, poverty and inequality. Industrialization increases both the skills base of an area and the possibility of a country's participation in global value chains that often propel it to become more competitive (Sampath, 2016). Industrialization also increases the capabilities for advanced technological uptake and usage, as well as innovation that results in increased productivity. Industrialization is underpinned by a high level of manufacturing activity (Sampath, 2016; Xu & van Leeuwen, 2016). Maddison (2008) asserted that manufacturing often results in remarkable changes in the structure of a country's economy, leading to sustained growth and improved general living conditions for its populace. The central objective of this study is to conduct an investigation into factors that characterize the nature of the industrialization process in the Mpumalanga province, with the aim of reviewing the process and recommending mechanisms for accelerating industrialization in the province.

2. Background

The industrialization process of Mpumalanga can be traced from historical events in South Africa's industrialization processes. South African development, according to the Mpumalanga Economic Growth and

Development Path Policy document (2011), occurred in three phases: The first phase is defined as the agriculture phase, taking place around the early 1600s to about 1868; the second phase was known as the era of agricultural mining, dating back from mid-1860s to late 1930s; and the third phase was defined by agricultural mining industries, which occurred around the late 1930s to around the early 1990s. The different stages of development in South Africa occurred during the era of colonization by Afrikaans and English-speaking people in 1652 and 1820 respectively (McMichael, 2016). The two groupings were in control of economic and political power until 1948, the time of Afrikaner nationalism when political power was transferred to a grouping with domestic interests, as opposed to colonizers whose interest lay in developing the countries of their origins and who exploited the resources of colonized countries. The political power transfer to a grouping with domestic interests paved the way for the contemporary industrialization of South Africa (McMichael, 2016). The era of Afrikaner nationalism, which dates back to 1948, promoted an industrial base that largely hinged on mining and related industries (Marks, 2016; Chang, 2002). The South African economy, according to Fine & Rustomjee (1997), is still based on what they refer to as the minerals-energy complex (MEC) approach to industrialization. They pointed out that the MEC approach to industrialization presents a challenge in that policy design assumed an exclusionary posture, tailored to benefit a minority during the apartheid era. The apartheid industrial policies, according to Chang (1997), perpetuated an inefficient industrial structure.

The brunt of South Africa's industrial policies under the apartheid period and the country's isolation by the international world continued to be felt in the post-apartheid era (Roberts, 2007). According to Roberts (2000), the isolation of South Africa through imposed sanctions meant that South African firms could not participate in the global economy, which resulted in a thriving manufacturing sector purely for domestic markets. Chabane, Goldstein and Roberts (2007) asserted that apartheid industrial policies created the dominance of big business and they have, to a great extent, shaped the industrial structure. The dominance of large firms, which received subsidies from the state, resulted in the demise of small- to medium-sized enterprises (Marks, 2016). According to Joffe et al. (2005), the industrial environment under the apartheid regime was highly uncompetitive, owing to high import tariffs, a lack of incentive dispensation for improving productivity, minimal investment in human capital, due to government policy to disempower the majority, and a lack of investment in modern technology. Chang (1997) held that the apartheid industrial dispensation would not have survived long, had it not been for South Africa's endowment of natural resources. Roberts (2007) further pointed to the success of the apartheid state in meeting skewed objectives at the back of interventionist policies, in as far its establishment of an industrial base in targeted sectors, which were in the main linked to mining and energy. The state-owned enterprises were an important vehicle to achieving those objectives.

The current phase is referred to as the global agriculture-mining industrial-technological phase, which began in the mid-1990s. According to the *Socio-Economic Review and Outlook of Mpumalanga* (SERO) (2014), South Africa experienced an economic crisis in the 1990s, which saw the GDP falling, investments rates dwindling and negative export growth of goods and services. Exports were heavily based on mining and mineral products, with an overvalued exchange rate. The external capital account had long displayed signs of distress and was in deficit for a decade. Tariffs and incentives were tailor-made to suit the protection of domestic industry. All of the above resulted in poverty, inequality, high unemployment and low productivity, which necessitated the shifting away by South Africa, during this fourth phase, from its stance of promoting an inward, domestic-protected economy, and a move instead towards integration with the global economy. This required diversification and opening up. The move to integrate into the global economy saved South Africa from the imminent de-industrialization that was already looming by the early 1990s. The performance of the South African economy since 1994 has been mixed. According to SERO (2013), GDP growth rates accounted for around 3 percent in 2003 and 4.5 percent in 2004, with GDP per capita growth rising from only 1 percent to about 3 percent. The performance reflecting growth took place in the context of critical structural changes in the economy of South Africa. The restructuring took place at a time when the traditional tradable sectors of agriculture, mining and manufacturing were undergoing a decline. Kusi (2002) pointed out that the participation of South Africa in the global economy was carefully planned, with trade liberalization taking place in phases, aided by a variety of industrial measures and policies that were designed to stimulate productivity and increase exports. The country managed to take advantage of the opportunities in global markets, because of well-planned policies.

According to Loots (2001) and Bernstein (2016), South Africa had hoped to receive high levels of foreign direct investments (FDI) when it entered the global economic stage but this did not occur because political instability at the time created uncertainty among potential investors. The transition period also saw a decline in fixed investment as a percentage of GDP but this improved significantly to about 20 percent of GDP between 1994 and 1996 (Bernstein, 2016). The transition period also witnessed a decline in important manufacturing subsectors. Trade was the main driver in the globalization process of the country's economy, despite the decline of the manufacturing sector, which was already manifesting in the years that proceeded the democratic era (Chang, 2002). Industrialization of the economy started to gain momentum in the early 1990s and even though there were low investment levels, the export of manufactured goods 'increased by an annual average of 6.7% between 1990 and 2005, up from 2.9% in the preceding two decades' (Manuel, 2007: 12). Evidence shows that, post-1994, there has been diversification in South African exports, which reflect a departure from over-reliance on the mineral-energy complex. Fine and Rustomjee (1997) held a different view, asserting that the MEC is still a feature of the South African economy. Their assertion is also backed by the fact that resource oriented sectors continue to dominate manufacturing exports, even though, according to the MEGDP (2011), the share of manufacturing exports of resource based sectors declined from over 75 percent in 1994 to 61 percent in 2006. The State took the decision to promote the automotive industry and it has been the most important source of manufacturing export growth and diversification in South Africa, post-1994. This was achieved through an industrial policy strategy instrument, called the Motor Industry Development Program (MIDP), in 1995. While the new government has been pursuing industrialization since 1994 and put in place policy instruments that were sector focused, such as the Integrated Manufacturing Strategy (IMS) and Advanced Manufacturing Technology Strategy (AMTS), it did not have a comprehensive approach to industrialization. A National Industrial Policy Framework (NIPF), however, was introduced in 2007.

The Mpumalanga Provincial Government developed the PGDS and the SDF as a Constitutional requirement, with a five-year horizon, and these documents were reviewed in 2008. While the PGDS had a chapter focusing on economic growth and development, it also concentrated on other elements, such as governance, social development, justice and sustainable development in general. The recession that hit South Africa during the last quarter of 2008 and most of 2009, saw the national government introducing the New Growth Path (NGP) policy document in 2010, providing a plan on how to mitigate the effects of the recession, by building on existing policies such as the National Industrial Policy Framework. The NGP focuses on economic growth in general but reinforces the NIPF in that it spells out priority industries for achieving growth in South Africa. The Mpumalanga government customized the NGP and developed a provincial, dedicated economic policy document called the Mpumalanga Economic Growth and Development Path (MEGDP) in 2011. Like the NGP, the MEGDP defined the industries that could grow the economy of the province. The pillars of the MEGDP are Human Capital Development, Rural Development, Infrastructure Development and Production/Beneficiation. The MEGDP further outlined plans to be realized to support these pillars, which are the Human Development Strategy for human capital development, the Comprehensive Rural Development Plan, the Infrastructure Master Plan, for infrastructure development, and the Industrial Plan for Production/Beneficiation. The support plans are all at different stages of development. What is important to note is that the province will have a dedicated policy framework for industrialization and this research is intended to enrich Mpumalanga's industrialization process.

Industrialization: According to Kuznets (1973), the term refers to the economic structural changes in an underdeveloped country in its development process, through its shifting from an agrarian to industrial economy, with manifest improvement to society's standard of living. Warmington and Wells (1962) defined industrialization as the exchange of power-driven machinery for handicraft methods of production. This definition is narrow, in that it only focuses on mechanization, while the concept of industrialization extends beyond this. A definition by Yesuf (1996) also reflects a narrow view, defining industrialization as the process of accelerated institutionalization of manufacturing techniques in a predominantly rural and technologically backward economy. While industrialization largely involves manufacturing industries, it goes beyond manufacturing and even covers service sectors. Adrian (2000) asserted that industrialization is often characterized by the substitution of farming with the extraction of resources by manufacturing and service activity.

The MEGDP (2011) defines industrialization as the process of transforming socio-economic conditions of a society from a pre-industrial to a pro-industrial society. It is further defined as part of a broader modernization dispensation that links social transformation to economic development, through the deployment of technology and innovation, resulting in high-tech industries with economies of scale. Rodan (2016) defines industrialization as the process of building up a country's capacity to process raw materials and manufacture goods, either for consumption or for further production. Uwubanmwen (2002) defined the industrialization process as the act of developing a nation's capacity, within its borders, to produce products that are ready for the end user. The industrial process would involve the capacity of a nation to produce raw materials; its capacity and expertise pertaining to producing intermediate products required in further production; its ability to fabricate machines and tools essential for the manufacture of desired products; and its development of requisite skills to operate, maintain and reconstruct machines and tools. The scholar further asserted that the industrialization process involves the use of appropriate skills to manage production factories as well as organize the production process.

Industrialization as an economic growth strategy: According to Pitelis and Teece (2016), most developing nations view industrialization as an economic strategy that is vital for achieving economic growth and transforming the structure of an economy. They further outlined some of the factors that would enable industrialization to thrive. These include abundance of resources, logistics, availability of skills and adaptable labour at a reasonable cost, favorable political and legal environment and general ease of doing business (Pitelis& Teece, 2016, Szirmai, 2012).The economic growth and development of any country hinges upon the industries established within that particular state (Rodan, 2016; Sheng, 2016). Literature reveals that industrialized countries are associated with a high level of development and this aspect was confirmed by Rodrik (2000), when he asserted that countries with a larger manufacturing base were more economically advanced than those without. According to Rodan (2016), industrialization is an important strategy to attain faster rates of economic growth. He further asserted that countries that are highly industrialized tend to be better equipped to address socio-economic conditions, such as unemployment. The benefits and contribution of industrialization in a pursuant region to economic growth and development are well documented as an increase in income, wealth creation, output and employment (Sheng, 2016). Rodan (2016) asserted that industry has a profound influence on almost all economic sectors, including agriculture, which explains the tendency to consider industrialization as a key economic indicator for growth; underdeveloped nations consider it a top priority. While industrialization is desirable, it must also be noted that difficulties arise with its introduction, although in many cases these are outweighed by its benefits (Pitelis& Teece, 2016). The industrialization process in some parts of the country has led to serious degradation of environmental assets, with South Africa cited among the leading nations regarding environmental pollution. Mpumalanga contributes significantly to this, due to its mining activities and further processing of minerals. It is imperative that industrialization takes place in a way that promotes sustainable development (Rodan, 2016).

3. Methodology

This is a qualitative study that employed a semi-structured interview schedule, which encouraged informal conversation and enabled researchers to cover certain themes and questions that might not have been covered in structured interviews. The researchers selected a sample size that was representative of the population, which assisted him in drawing conclusions. The sample consisted of 20 divisional and operational managers, drawn from a population of eight large firms, five government departments, five state-owned entities, three district municipalities and three chambers. The researchers undertook thematic content analysis to examine the data that was collected and the work was segmented into different themes with objectives. The researcher transcribed the recorded material and read the transcripts repeatedly, then summarized transcripts and developed matrices.

4. Analysis and findings —the role of government and industry in industrializing the province

The main theme of the data is the role of government and industry in industrializing the province. The following were the sub-themes:

- The cost and ease of doing business;
- Sustainable resource utilization;

- Environmental assessment;
- Critical industrialization enablers; and
- Rural and township industries.

Government is fundamental in creating a platform for industrialization to take place in the province. Interviews conducted reveal that there is much that needs to be done in order to create a platform for attracting investment to Mpumalanga. This entails putting in place certain fundamentals, which are discussed in detail in this section.

The cost and ease of doing business: The study discovered that the cost of doing business in the Province of Mpumalanga is quite high, due to inefficiencies in business regulation on the part of government. An interviewee from one of the major forestry companies had this to say:
Acquiring business rights in the province is such a cumbersome process, as you have to go to different government offices, across spheres of government, which may even deter investors. There is a need to have a one-stop shop, where one can get everything under one roof.

Most of the interviewees from industry and the business formations in the province cited this aspect as a major challenge and recommended the idea of a business help-desk or a one-stop shop centre to mitigate this challenge. One interviewee mentioned that obtaining a business license took too long in Mpumalanga and other business rights, such EIAs and water use licenses, could even take up to two years. The issue of municipal by-laws was cited as another challenge, particularly for industries that have cross-boundary operations. The by-laws were not standardized, resulting in different requirements for doing business, which can affect production output and further industrialization opportunities. Industry proposed a situation where there was a process to streamline and standardize the by-laws of municipalities. On the aspect of the cost of doing business, the study discovered that it is generally expensive in the province; the major challenge cited was energy costs, which raise the cost of production. The reality of high-energy costs brought another aspect to the fore — that of assessing the ability of the green economy sector to relieve this challenge in the future. It was discovered that the initiatives linked to the Green Economy were dispersed across the province, which does not bode well for the development of the critical mass necessary for capability development and competitiveness. On the high cost of electricity, one interviewee had this to say:
The advocated increase in tempo of mining coal and its consumption for electricity generation for short-term economic development should be viewed with circumspection.

There are opportunities to promote renewable energy initiatives, such as solar geysers, biogas digesters and other biofuels, which could promote local work opportunities. This also promotes the creation of industries in the green economy space, which can contribute to further industrializing Mpumalanga. The predominant industrial subsector of focus appears to be biofuels-based renewable energy (including biomass conversion).The rationale for this is based on the competitive advantage of agricultural production in the province. There is no clear rationale for the proposal of non-biofuels-based renewable energy initiatives, such as wind and solar energy. The province has relatively low levels of annual solar radiation and wind power potential. Certain localized biofuel projects have been set up, with the possibility of involving cooperatives in rural areas. However, there is no vision for the development of a biofuels industry, based on innovation capability. Another issue, mentioned by industry that makes it difficult to do business in the province, island availability for business purposes. It has been discovered that municipalities in the province are disposing of suitable business land by selling it to private developers, who are mostly in real estate and developing for residential purposes. Industry has registered concern about this aspect and pointed out that municipalities need to ring-fence and acquire more land for business purposes. Industry has suggested that government introduce incentives in the form of reducing tariffs (energy, water and rates costs), as incentives play a major role in attracting investments. The study also discovered that government was perceived by industry as over regulating and it was mentioned that it prohibits industry from increasing production, thereby limiting prospects for further industrialization. The researcher posed the question to an interviewee: 'What is your view on compliance monitoring and enforcement by authorities? 'The answer was:
We are concerned, as industry, about the compliance costs; we spend a lot of money on compliance and this can be directed at expanding production, which will create more jobs for the people of the province. Government has

to regulate and monitor compliance, particularly on environmental matters; the challenge is with over regulating. Government needs to create a conjunctive environment for industry to thrive and not the opposite.

Sustainable resource utilization: The government respondents interviewed pointed out that it was important for industry to exploit natural resources in the province in a sustainable way that was not harmful to the environment. It was found that industry, in the quest to maximize profits, tended to neglect the aspect of conducting their activities in a sustainable way. The study also discovered that, while Mpumalanga was one of the leading provinces for natural resources, it was losing its dominance in some mineral deposits, including coal. An interviewee asserted that Limpopo's coal production was now ahead of that of Mpumalanga. It must be noted that, as mentioned earlier, most of the power stations are in Mpumalanga, which means that coal will flow from Limpopo to Mpumalanga, confirming that there will still be opportunities for beneficiation in coal related industries, thus presenting an opportunity for further industrialization in Mpumalanga. An interviewee said, when asked if there were opportunities for further industries leveraging on the petro-chemical industrial activities, looking at the resource profile of Mpumalanga:
Of course, there are further opportunities. We have done our studies and they show us that we can still operate for another 40 years with the coal available in the province, hence we have taken a view to rejuvenate our technologies and create a smart city in the town we operate in, so we will attract all expertise from all over the world to reside here.

The researcher was struck by this statement, which confirmed an earlier assertion by another interviewee that some mineral deposits were dwindling in the province. In economic terms, 40 years is not a very long time, therefore there is a need to start thinking critically about alternative industries when these deposits are depleted. Structural change in the economy can occur over a period of at least 15 to 20 years and, therefore, aggressive industrialization needs to begin now. The study further discovered that coal is not the only mineral deposit that is dwindling in the province, but gold and other minerals, including nickel, diamonds and precious stone, are suffering from depletion. Gold mining has substantially decreased in the province, with several mines having closed down in the Barberton, Lydenburg and Pilgrim's Rest areas. This has resulted in job losses and the gradual demise of the towns that used to host these activities. Mpumalanga recently witnessed the shutdown of the only manganese company in the Lowveld, and a Highveld steel business. The shutdown of the two giant companies may not be solely attributed to dwindling deposits but to difficult global economic conditions. The slowdown brought about a balancing act that resulted in a shift of focus from manufacturing and investment to consumption and services. There was also a decline in prices for oil and other commodities, as well as a negative effect on emerging market economies, due to a fiscal tightening by the US.

The industrialization process of the province will have to bear in mind the difficulties experienced by global financial markets. The closure of the companies mentioned builds a strong case for diversification and further industrialization, in order to mitigate the challenges wrought by job losses and joblessness. Government will need to play an important role in protecting the natural assets of the province from being over-exploited. An interviewee emphasized the need to curb illegal mining, which deprives government of valuable taxes. The study discovered that illegal mining is a common practice and results in raw materials being taken out to the country and being of benefit elsewhere. According to a few interviewees, about one third of the trucks on the roads in the platinum belt, north of Mpumalanga, are transporting minerals that have been illegally mined. These practices result in overexploitation of resources.

Environmental management: A situational analysis of the natural resources of the province already indicates that they are stressed, with water of gravest concern, followed by loss of biodiversity and soil. Water is not only essential for all forms of life but also for industrial development. The study further found that industry players as being one of the most significant global challenges recognized climate change. One interviewee mentioned that industrial activities in the province release carbon emissions into the atmosphere. Representatives from industry indicated that they were shifting towards cleaner technologies to mitigate environmental impact. Other industry players around the Highveld, where there is a concentration of industrial activities, also emphasized that they were shifting to cleaner technologies. It is therefore essential that correct and appropriate land use planning and environmental sustainability appraisals are undertaken at different levels, both strategically and at the project level, by means of Strategic Environmental and

Environmental Impact Assessments. The development and gazetting of environmental frameworks must continue and it should be encouraged that all municipalities instigate Integrated Development Plans. Biodiversity is irreplaceable and is a cornerstone of tourism. It must be considered a key element in future land-use practices. Total cost accounting could be considered when comparing industrial development options.

The issue of water quantity and water quality was raised by industry players as being a major concern with regard to the expansion of industrial activities throughout the province. It was discovered that agriculture, mining and manufacturing were the largest water users in the Mpumalanga. The mining industry does not only utilize vast quantities but also affects the quality of water. The most significant impacts on water quality are as a result of mining, malfunctioning sewage treatment works and soil erosion from various practices, especially agriculture and urban and rural development projects. Effluent quality from sewage works can be managed and rehabilitation technologies for mining must prevent acid mine drainage. The study further found that some mining houses and other related industries are committed to taking measures to ameliorate the effects of mine acid drainage, by purifying this water for industrial use. An interviewee from a big mining company with a global footprint had this to say about purifying groundwater for re-use and mitigating the effects of acid mine drainage:
We understand that water is a scarce resource in this area and we purify the ground water for re-use, and we are negotiating with municipalities around the area, so we can sell them the excess water at a minimum cost to recover our expenses. We use membrane technologies to deal with the effects of acid mine drainage and the technology is expensive, but we do it because we are a responsible corporate citizen.
It was also discovered that there is much uncontrolled construction activity over the wetlands, which interfere with the water system, and industry players pointed out that government needs to manage this aspect, as the EIA process is a responsibility of the State. The preservation of wetlands is critical for the industrialization process of Mpumalanga, as they are crucial water sources.

Critical industrialization enablers: During interviews, industry players stressed that the role of government was critical in industrializing the province. The government of Mpumalanga is aware of this and is signing partnership agreements with industry and business chambers. The provincial government has signed agreements with most of the big industry players, including Sasol, some mining houses, South African breweries and business chambers, and more agreements are to be made in due course. These partnership agreements require all spheres of government and private sector to work collaboratively for maximum impact, with joint planning and collaboration on resources. These formalized agreements require parties to commit resources in order to attain results in four targeted development areas, namely human capital, infrastructure, rural and increased production/business. A forum comprising industry, government, associations, chambers and labour oversees this work. This partnership is expected to address the question that the researcher posed to respondents from industry about the role government is expected to play in order to unlock further industrialization. The question generated many answers, including that government needs to fix road and rail networks, sort out the issue of land claims, relax regulatory burdens, build supplier parks and light industrial hubs, and maintain and install new bulk infrastructure, among others. It was interesting to note that most industry respondents revealed that they were willing to expand production and this holds prospects for increasing employment. The drawback was that certain fundamentals that were not in place in Mpumalanga. This partnership claims that industry needs to work with government and contribute in all the areas cited, to limit the prospects on further industrialization. Industry needs to participate in skills development, infrastructure and rural development, among other aspects. This will assist the province to industrialize at a faster pace.

Rural and township industries: The study established that a large percentage of the population in Mpumalanga is rural and industrialization of the rural nodes will be critical to both socio-economic development and rural-to-urban migration. Rural industrialization involves measures and initiatives that encourage new and existing enterprises to locate to rural nodes, away from urban areas. This requires efficient logistics links with urban nodes and the development of rural corridors is therefore crucial. In general, the proposed strategy for rural industrialization in the province involves the development of active links between priority rural nodes, with industrial centres of competence for business flows, technology transfer and capacity development. Previous investigations revealed weak institutional capacity in rural nodes, resulting in limited success for rural development programs. This was attributed to a dearth of clearly defined investment opportunities, targeted labour force development programs and technology transfer and business support mechanisms. Urban nodes provided the only realistic, short-term institutional support.

4. Mechanisms for industrializing the province

A number of mechanisms for industrializing Mpumalanga emerged during the study and are summarized in this section. There is a need to implement the centres of competency model, which will see the establishment of three technology parks in the three regions of Mpumalanga. This form of industrialization will provide targeted support for particular regions, which leads to leveraging of government investment in key technology drivers for the diversification of the industrial base. The proposed Technology Parks will need to have embedded R&D and technology transfer capabilities, modeled around similar developments in other developing economies. These Centres of Competence would be further enhanced through targeted industry-university partnerships to establish advanced training and technology transfer facilities, development of skills infrastructure in the FET-network to support infrastructure expansion projects and the leveraging of National Skills Fund and SETA funding to build dedicated technology training centres. One particular opportunity for such a dedicated technology-training centre is linked to the gasification of the province, both for retrofitting of aging power plants and for energy supply for domestic and industrial use. The Rovuma and other gas fields of Mozambique provide a major industrial opportunity for developing an industry sector aligned to manufacture, installation and the maintenance of gas distribution infrastructure.

The need for the development of a higher education institution or faculty in eMalahleni, which is dedicated to mining and minerals engineering, has been identified. This could be achieved through a partnership between the new University of Mpumalanga and the existing Tshwane University of Technology campus, as well as the major industrial companies in the region. Capable business enhancement infrastructure will be critical to the attraction of enterprises and the proliferation of new enterprises. In addition, the marketing and leveraging of supply contracts, based on preferential trade agreements and development obligations, will become a central driver for these centres of competence. The development of a Centre for Entrepreneurship within the proposed eMalahleni Mining Technology Park has been identified as a key driver for SME development to support the mining industry. This development can be achieved in a relatively short time, as part of the Department of SME's program of developing centres of entrepreneurship in several locations across the country. This could be based on successful models implemented within BRICS partner countries. The development of a Metals Manufacturing R&D Centre, as part of the proposed Middelburg Metals Manufacturing Technology Park, would create an enabling environment from which to develop a metals manufacturing industry that can participate in high-technology supply chains. This centre would need to have links with other R&D centres based in Gauteng, including CSIR Materials Science and Manufacturing, to shorten the development trajectory. The proposal will be premised on the number of strategic metals manufacturing projects, such as specialized steel castings for the nuclear build program, in partnership with existing local foundries and new investors linked to the nuclear and oil and gas infrastructure programs. Similarly, the development of a Forestry R&D Centre, linked to the University of Mpumalanga, would create an enabling environment for the expansion of the forestry sector and would further enhance and diversify its beneficiation capabilities.

The aforementioned would provide a number of strategic industrialization platforms for launching technology-intensive industrialization projects. These include biomass conversion plants, downstream chemicals beneficiation for the production of chemical products, development of cold chains for increasing fresh fruit exports, beneficiation of agricultural produce, the manufacture of mining instrumentation and equipment and the expansion of high-value agriculture production, among others. Mpumalanga is a rural province and previous industrialization strategies failed because they ignored the integration of rural economies into the development agenda. The centres of competence model takes cognizance of this aspect and will allow a structured integration with rural development nodes, creating supply chains within which small enterprises can participate. The ongoing massive rural transport network, as espoused in the National Transport Master Plan, will need to be implemented in order to realize this integration. Agro-processing and the gas industries were discovered to present immediate opportunities for further industrialization. Partnerships between the government and private sector are crucial. While the province had signed a few partnership agreements with four big companies, it was even more important to sign these partnership agreements with all the bigger industry players for accelerated industrialization, as the collaboration of resources will have more impact.

The mechanisms for industrializing the province also include its determination to resolve the challenges discussed in this study, in addition to the skills problem, which has been discussed extensively. The province will need to resolve the challenges of the cost, ease of doing business by establishing a one-stop shop for acquiring business rights, and provide incentives to attract more investments, including a reduction in charges for electricity, water, rates, and taxes. The regulatory function would have to be carried out by government in a manner that does not prejudice business. For example, the timeline for issuing of EIAs should not exceed four months. There is a need to standardize by-laws in municipalities across the province and to regulate the overexploitation of minerals and exports of raw materials, to create local benefits and create employment. The province will need to roll out critical infrastructure in order to unlock the industrialization potential of Mpumalanga and this includes the expansion of the rail and road network, the deployment of industrial facilities and broadband infrastructure. A commitment by the province to resolve these challenges and the implementation of the centre of competency model will accelerate Mpumalanga towards an industrialization trajectory.

Recommendations: Industrialization is aimed at developing globally competitive industries, which continuously improve and innovate to respond to market demands. The development and support of industrial clusters and their capabilities for knowledge flows, innovation and diversification are therefore key pillars of the industrial development process of the province proposed by this research. The State is central in creating a conducive environment for industrial development, yet it is unclear whether it is playing its role; the literature did not reflect an active state, nor did the interviews with industry players. The study determined that the policy role of the State makes it an important institution in development. This study therefore recommends focused research on the role of the State and its relationship with other role-players in development, including industry, labour, social formations and international players, among others. The study on the relationship should focus on the issues outlined in this study, including skills development, industrial financing and regulatory burden.

The study found that there are opportunities to increase production and further industrialize but the extent to which this can happen remains unclear. The study further discovered that the province has a range of natural resources, some of which leave as raw materials and this limits local beneficiation. The study suggested that government introduce a policy to heavily tax the exportation of raw materials, however, it is unclear as to how much production can increase if most raw materials are to be beneficiated in the province and how many more jobs can be created. Ferrochrome is a case in point. It is imported to China and returned to South Africa as finished product, meaning that jobs are created in China. There is a need for a future study that looks at the production capability of the sectors of the provincial economy. The research needs to examine processes for cooperation between government and industry, prerequisite policy instruments (innovation, R&D and incentives) and available business opportunities. Finally, the study findings make an important contribution to the understanding of the structure of the economy of Mpumalanga and the mechanisms for industrialization. The study proposes model of industrialization that takes into to account the rural characteristics of the province and all the factors required to make industrial development a success, such as skills development, incubation of SMMEs, innovation and R&D, which all relate to the development of industrial capabilities.

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Journal of Economics and Behavioral Studies (JEBS)
Vol. 9, No. 1, February 2017 (ISSN 2220-6140)

Technology-Enhanced Knowledge Management Framework for Retaining Research Knowledge among University Academics

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Abstract: Given the challenge of retaining the research knowledge of an aging, experienced professoriate at South African Universities of Technology, institutions with a nascent tradition of scholarly research, this paper explores the feasibility of a technology-enhanced knowledge management framework for generating, sharing and retaining tacit research knowledge to leverage research outputs at the Central University of Technology (CUT), Free State, South Africa. Since digital trails of established-novice researcher interactions are left behind whenever they interact in online platforms, an examination of such interactions can provide insights into the sharing and transferring of tacit research knowledge from senior researchers to novices. This theoretical study draws on Nonaka and Takeuchi's Theory of Organisational Knowledge Creation, an emerging technology platform, SharePoint, mainstream literature and the authors' reflective experiences to develop a technology-enhanced knowledge management model. The paper argues that tacit knowledge can be assimilated from a comprehensive examination of the knowledge production interactions between senior academics and novices enabled by low threshold technology and collaborative sharing of content. This study's insights are relevant to Higher Educational Institutions (HEIs) struggling to create a sustainable culture of scholarly research and grow a new generation of competent researchers amid the attrition of senior academics and the prevalence of systemic blockages in knowledge transfer processes.

Keywords: *Knowledge management, emerging technology, talent retention and research outputs*

1. Introduction

Knowledge management (KM), which entails the management practices and processes that allow organisations to leverage their intellectual capital and create sustainable competitive advantage (Dumay, 2015), is becoming central to increasing research productivity and creating knowledge-based economies (Wallis, 2003; Rahnavard & Mohammadi, 2009; Liebowitz, 2011; Talebi & Galekandi, 2013). In spite of the fundamental economic benefits of knowledge management, Martins & Meyer (2012) highlight the risk of losing people's tacit knowledge as one of the prime considerations in the development of knowledge retention strategies. In knowledge creating sectors such as higher education where senior academics are retiring, aging and exiting academia at a pace faster than their rate of replacement by less experienced, junior academics, the demands for intergenerational transfer and retention of tacit research knowledge have been acute (Durst & Ferenhof, 2014; Rambe & Mlambo, 2014; Burmeister & Deller, 2016). Notwithstanding the fundamental importance of tacit knowledge retention in view of the aging and shrinking of the skilled research workforce, Burmeister & Deller (2016) highlight that research on tacit knowledge transfer in organisations is scarce, and an integrated conceptual framework for promoting tacit knowledge transfer and retention is yet to be developed. In view of the tragedy that when valuable employees retire, valuable knowledge is lost if there are no effective knowledge management processes in place to prevent it (Burmeister & Rooney, 2015), this study seeks to develop a technology-enhanced knowledge management framework for retaining research knowledge at the Central University of Technology, Free State (CUT) in South Africa.

The louder call for effective knowledge management strategies in higher education manifests in Baban's (2007) emphasis on (1) the development of mechanisms to acquire, select, organise and retrieve knowledge, both within and outside higher education, and (2) the generation of management practices to transfer knowledge across the organisation, with a special attention to the management of tacit knowledge. To the extent that tacit knowledge is profoundly unique but difficult to understand and transfer, there is no doubt that tapping into such knowledge can contribute to the improved differentiation of the organisation and the leveraging of its competitive advantage. Therefore, Baban's (2007) two considerations are critical to the South African higher education institutions (SAHEIs), which consider knowledge production and retention as critical components of their reputation by ranking race. For instance, traditional university ranking systems' exclusive focus on areas that carry the greatest ranking weight, such as scientific research performance (Ntshoe & Selesho, 2014) has pushed South African universities to jostle for national and international recognition and status through leveraging their research publication outputs, the number of doctoral graduates and National Research Foundation (NRF) rated researchers. With this 'reputation race' in which institutions strive to leap higher the university ranking charts yearly (Richardson, 2011) comes an obligation for universities not only to retain prolific, aging professoriate but also develop sustainable knowledge management models that embrace the intergenerational transfer of tacit research knowledge.

Although there is growing consensus on the capacity of emerging technologies (ETs) to enhance and leverage research knowledge management (Rao, 2002; Dave, Dave & Shishodia, 2012; Pande, Yavatmal, Shelodkar & Khobragade, 2013; Dumay, 2015; El Badawy, Marwan & Magdy, 2015), the ideal nature of the knowledge retention process is yet to be fully understood (Burmeister & Deller, 2016). While the field of knowledge retention [drawing on ETs] is only beginning to emerge (Martins & Meyer, 2012), the call to exploit low cost, low threshold ubiquitous technologies to transfer and retain knowledge has never been louder (Rambe & Mlambo, 2014; Bozalek, Gachago & Watters, 2015; Ng'ambi & Bozalek, 2015). For this reason, this research addresses the following research questions:

- What institutional mechanisms have been employed by the Central University of Technology (CUT), Free State to enhance the retention and transfer of tacit research knowledge from senior academics to a new generation of emerging researchers?
- What are the current constraints of this university's research knowledge retention and transfer strategies?
- How can emerge technologies (e.g. SharePoint) be harnessed to enhance the retention and transfer of tacit research knowledge from senior academics to a new generation of emerging researchers?
- How can a technology-enhanced knowledge management framework be constituted to foster the transfer of tacit research knowledge from senior academics to the young generation of academics at the Central University of Technology, Free State?

The rest of this paper is organised as follows: the problem statement is rendered, the research background and a literature review are presented, a conceptual framework is then developed, and the authors' reflections founded on the mainstream knowledge management and ET literature and personal experiences are rendered, implications for future studies are given and a conclusion is granted.

Problem Statement: Knowledge management literature has highlighted the need for knowledge generation, transfer and retention in particular, the need to devise proactive measures to address the potential acute shortages of research leadership in higher education worldwide in general, and in SAHEIs in particular (Levine, 2008; Carman, Leland & Wilson, 2010; Robinson, Carrillo, Anumba & Patel, 2010; McNair, Duree & Ebbers, 2011). These fissures in research leadership are exacerbated by an apparent disjuncture between the retention rate of senior academics (e.g. full professors, associate professors and senior researchers with researcher experience) and their replacement by a new generation of staff with nascent experience and research competencies as well as other systemic blockages that constrain knowledge transfer and retention. According to Thomas (2009) the paucity of higher educational leadership can be a consequence of early retirement, mid or late career changes or outsourcing, leading to persistent gaps in the retention of research knowledge. At the Central University of Technology (CUT), Free State, where a small cohort of the professoriate comprising 16 associate professors and 11 full professors exists (De Jager, 2014), the progression of junior staff to professorship has been derailed by the lack of a strong research culture at the institution. For instance, out of a total employ of 276 permanent academic staff members, there were only 6 NRF rated researchers in 2014 (De Jager, 2014). Similarly, the number of accredited articles in comparison with permanent staff (excluding staff involved with post-graduate studies and junior lecturers) in the faculty of Management Sciences, which is ranked as one of the most research productive faculties at CUT, was below ten units for the four quarters of the year 2015 (Chipunza, 2015).

CUT has witnessed numerous strides in its research agenda over the years. For example, it generated 55.02 journal credit units, 13.02 published conference proceeding units and 0.44 scientific book units in 2014 and received the NRF Excelleration Award for attaining the most improved research performance in recent years

(Research and Innovation Report, 2014). In spite of these laudable research achievements, some systemic fissures that point to constrained knowledge generation and transfer capacity still remain. In fact, the aforementioned 2014 research outputs represented a weighted output of 0.24 units per academic staff member (Research and Innovation Report, 2014), a clear demonstration of the skewed distribution of knowledge production of the staff members at this university. This possibly implies the concentration of prolific research production among senior, experienced academics and the limited contribution of junior academics at the institution. In view of the need to grow the number of publication outputs to the expected Department of Higher Education and Training's (DHET) norm of 75% by 2020 (the current norm is 1.1 credit output-unit per full-time academic staff at CUT) (Lategan, 2015), the fact that a sizable number of permanently employed academic staff have not published an article suggests the prevalence of "juniorisation" of research at the institution. The low ratio of research output to academic staff members suggests some systemic institutional blockages and personal constraints in the existing knowledge transfer models at this institution.

Furthermore, the potential research experience gap between the current, retiring leaders (senior researchers and professors) and emerging researchers expected to fill the vacated positions at CUT is very disturbing (Joshi, Dencker, Franz & Martocchio, 2010; Linder & Wald, 2011, Mbeo and Rambe, 2016). It demonstrates the lack of a solid research tradition at Universities of Technologies (UoT) that enables intergenerational transfer of knowledge. Since UoTs were primarily designed to offer sectoral knowledge derived from specific occupational, industrial sectors on the one hand, and specialist disciplines on the other, their primary foci and specialisations have traditionally been teaching and the conduct of applied research required by industry and employers (Ntshoe & Selesho, 2014) rather than the production of scholarly research-based knowledge, the domain of traditional research-intensive universities. A clear manifestation of this limited tradition of cutting edge research and limited knowledge transfer across academic generations manifests in strident efforts of UoTs such as CUT to transform their research staff into more seasoned academics. As Lategan (2015) observes, CUT is striving to decrease the "juniorisation" of its institutional research system in favour of "seniorisation" through: increased academic staff participation in research outputs (primarily award of research grants, publications, completed postgraduate studies and rated researchers) and studies towards higher qualifications in their disciplines.

Problem background: The challenge of developing an appropriate technology-enhanced framework for the retention of tacit research knowledge can be approached from the perspective of national development imperatives and national funding policies for South African universities. These are inter alia the following: The national pressure on higher education to increase research productivity, to contribute immensely to the knowledge economy and social innovations, the research performance-based funding policy, which appear to be inconsistent with the differentiated higher education system, and the compulsive elements of world ranking of universities. These critical points are elaborated in subsequent sections.

Pressure to contribute to increased research productivity to meet national development goals: More than half a decade after the abolition of apartheid in South Africa, strong manifestations of valuing the production and retention of research knowledge had begun to emerge in the country's higher education landscape. By the early 2000s, research and development had already become the mainstay of higher education in the country (Waghid & Le Grange, 2003) as evidenced by the increased pressure to secure research grants, obtaining [research] rating from the National Research Foundation (NRF) and South African academics' need for promotion, which prized academic research above teaching and community service (Le Grange, 2003). Since then, the research productivity dimension of universities seems to determine the performance, excellence and reputation of institutions, and the standing of academic staff through securing of NRF rating (Ntshoe & Selesho, 2014).

The promotion of research productivity at South African universities is also informed by the advancement of the national development agenda. Perhaps, the South African government's first bold emphasis on research productivity was laid in the National Plan on Higher Education (NPHE), which stressed the importance of sustaining current research strengths of universities, promoting research and knowledge outputs required to meet the development needs of the nation (NPHE, 2001). This national development thrust of research performance is substantiated in the White Paper for Post-School Education and Training (2013), which focuses on "growing research and innovation, improving the quality of research, ensuring coherence of the policy frameworks guiding these areas across the higher education, research communities and strengthening particular areas identified as important for national development." The need for high quality research that meets developmental imperatives is also alluded to in future policy documents. The 2015 Research Output Policy of the South African Department of Higher Education and Training (DHET) stipulates its intention to encourage research productivity by recognising and rewarding quality research output at public higher education institutions in pursuit of national development goals (DHET, 2015).

The emphasis on research productivity has also been voiced at institutional levels. For instance, the then Vice-Chancellor of the Central University of Technology, Free State, highlights how this university has embraced research and innovation as a key driver in addressing policy imperatives and socio-economic challenges of the communities it serves (Mthembu, 2014). Consistent with this recognition of the importance of expanding research outputs, the university has witnessed a 16.2% growth in publication outputs for the years 2012-2013 (Mthembu, 2014). In spite of these significant strides, the disaggregation of this growth in research output per academic staff member for the same year is far from commendable. For example, the total of 110 or 71% publications produced at CUT in the 2012-2013 year was produced by 274 academic staff members representing 0.565 output units per full-time academic staff member. More so, the projected growth target in research outputs per academic staff member for the year 2020 target of 0.75 (De Jager, 2014) suggests a disproportionate contribution by senior academics exclusively compared to junior staff. More so, despite the adoption of the CUT Research and Development Plan 2014 – 2020, the policy on Strategic Research Clusters (i.e. Research Centres, Units and Groups) and research mentor-mentee programmes such as Stars of Academe and Research (SoAR), there is no compelling evidence of differentiation of research output on the basis of quality (e.g. publications in high impact journals, improved citation index of authors, increase in the number of National Research Chairs from NRF) at the institution. In view of the foregoing arguments, the need for mechanisms to transfer tacit research knowledge from the small pool of experienced professors to junior academics cannot be overemphasised.

Differentiated higher educational system and performative nature of university funding: Universities of Technology are a consequence of the major reconfiguration of the higher education landscape, which took place from 2004 onwards. Through a process of mergers and re-designations, South Africa's 36 higher education institutions (21 traditional universities and 15 technikons) were trimmed down to 23 – comprising 11 traditional (some of which were merged with others), 6 comprehensive universities (arising from mergers between a traditional university and a technikon), and 6 Universities of Technology (created from 11 unmerged technikons) (Du Pre, 2010). While some of the knowledge management challenges are a consequence of this merging of differentiated educational systems with different research production ethos, capacities and practices and varying resource constraints, other challenges arise from the paucity of tacit research knowledge production and retention strategies of individual institutions especially those of UoTs.

To further compound the challenge of merging institutions with different research traditions, the funding formula of the DHET does not seems to differentiate high from low impact publishing through considering the reputation of book publishing houses, the impact factors of journals and conferences. For instance, not only does government funding policy fail to differentiate between 'high' or 'low' impact journals; citation indexes and other relevant research quality measurements, it also does not differentiate between types of output. For instance, all journal outputs receive the same level of subsidy irrespective of whether they are published internationally or locally (DHET Research Outputs Policy, 2015). We, therefore, argue that to the extent that the incentive system erroneously prices research productivity at the expense of publication quality and impact, it discourages academics' aspirations to publish in high impact journals with more rigorous peer review system and research quality considerations. This problematic incentive system further undermines the culture of scholarly research and may compromise the intergenerational transfer of seasoned research expertise to emerging scholars.

The digression of world ranking of universities: While UoTs have certain key distinguishing features, missions and mandates, the conspicuous emphasis on research productivity seems to have distorted these imperatives and compelled these universities to jump onto the research gravy train. The South African Technology Network (SATN, 2008) observes that among other considerations, UoTs were created to:

- Provide technology-focused programmes, with undergraduate career-oriented education and technological competence as their main attributes;
- Render applied research and innovation in and through technology and technique in strategic areas, with the attributes of technology transfer; and
- Generate entrepreneurial and innovative ethos, with the creation of an enabling environment for developing commercial ventures and student entrepreneurship.

Although these considerations may not necessarily conflict with the "publish or perish" mantra which the world ranking of universities has created, this over-emphasis on publications has pushed UoTs to elide their broader mandates in pursuits of research productivity. The consequences of the university ranking's emphasis on research productivity are the homogenisation of the university (Neave, 1996; Ntshoe & Selesho, 2014) and failure to sufficiently represent and capture a diverse range of issues, such as student satisfaction within these institutions (Richardson, 2011). The main weakness of traditional ranking of universities are that: (i) ranking focuses exclusively on whole institutions (ignoring internal variance); (ii) the focus is on comprehensive research universities ignoring the diversity of missions and structures [of non-traditional universities]; (iii) ranking concentrates on traditional research productivity, impact and aggregation of performance into composite overall indicators (Federkeil & Westerheijden, 2009). We extend Federkeil & Westerheijden's (2009) views by arguing that the intergenerational knowledge transfer component may be compromised by the UoTs' relentless pursuit of research productivity to improve their world rankings.

We argue that the reputation rivalry created by the ranking of universities has digressed UoTs from their main mandate of vocational education. Therefore, UoTs' pre-occupation with the development of vocational/professional education; technological capabilities as important as cognitive skills (Du Pre, 2009) has been sacrificed in pursuit of the publication agenda. The reputation frenzy of South African UoTs has also tempted them to pursue the values of research intensive, traditional universities. This coercive isomorphism manifests in powerful organisations' (e.g. traditional research-intensive universities) application of pressure and imposition of structural forms and/or practices on weaker organisations (e.g. UoTs with a nascent research culture), pushing the weaker institutions to comply with the forms, rules and norms of the stronger organisations (Van Vught, 2007). The traditional research-intensive universities with a strong tradition of research, long track record of publishing in leading journals and diversified funding models tend to exert their influence on the drafting and development of higher education policy in South Africa and hence, trigger an isomorphism that constraints the capacity of universities with a nascent research trajectory to exercise institutional autonomy and chart their own destiny. This argument buttresses Ng'ethe, Subotzky & Afeti's (2008) claim that newly formed universities are likely to model themselves around the practices of older and more established institutions.

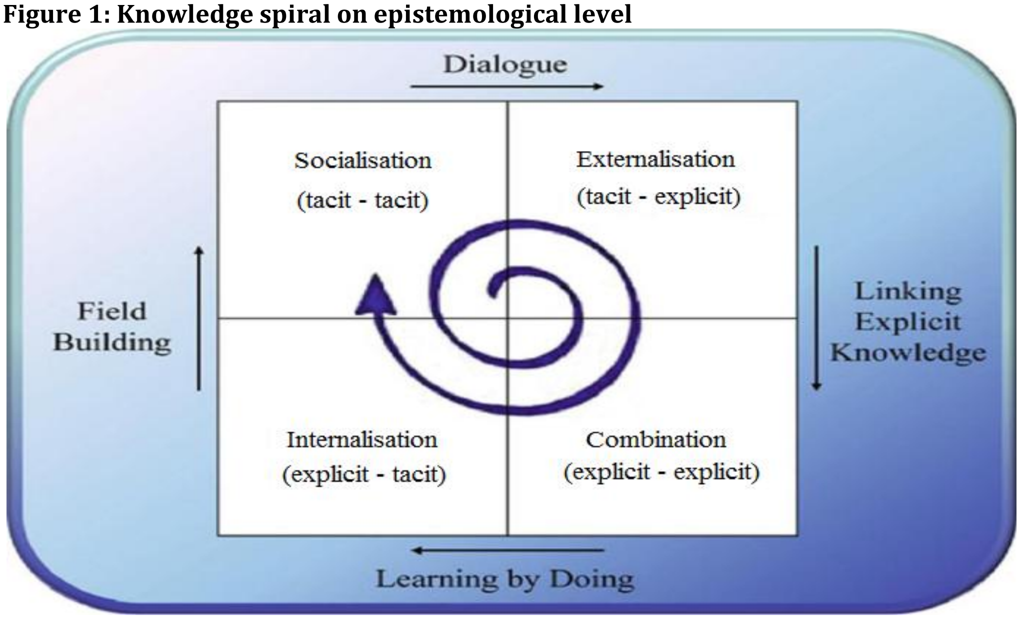
2. Theoretical Framework

Nonaka and Takeuchi's Theory of Organisational Knowledge Creation: Nonaka and Takeuchi (1995) proposed a theory to explain the phenomenon of organisational knowledge creation and retention. They defined organisational knowledge creation as "…the capability of a company as a whole to create new knowledge, disseminate it throughout the organisation, and embody it in products, services and systems." Nonaka and Takeuchi (1995) argue that knowledge is created initially by individuals and such knowledge becomes organisational knowledge through a process described in Figure 1. The focus of the current study is not on organisational knowledge per se but rather on how tacit research knowledge can be transferred from senior experienced research academics to junior staff as well as its retention among such staff.

The Theory of Organisational Knowledge Creation describes two dimensions of organisational knowledge creation namely the epistemological and ontological. On the epistemological level, the authors recognise two types of knowledge—*tacit* and *explicit*. Explicit knowledge is the knowledge that can be written down and is easily transferred from one person to the next. Senior researchers may communicate disciplinary content and subject matter such as constructs and concepts through transmission processes such as direct teaching, mentoring, simulations and coaching. To the contrary, tacit knowledge is more difficult to articulate because it is often embedded in individual experiences. Such knowledge may be assimilated through junior researchers' imitation of the research repertoires of seasoned researchers and close reading of their informal writings in informal spaces (e.g. blogs and wikis) to interpret and make inferences about such writings. The ontological dimension ranges from the individual level to team, group, organisation level and beyond. The current study is preoccupied with knowledge retention and transfer that unfolds between individuals and groups - that is between the experienced knowers (that is, seasoned academics and researchers) and the research novices (that is, junior researchers) at CUT.

With regard to the knowledge generation and transfer process, Nonaka and Takeuchi (1995) further assert that a spiral emerges when the interaction between tacit and explicit knowledge is elevated dynamically from a lower ontological level to higher levels. The four modes of knowledge conversion create a spiral through which knowledge is transformed from one type to another. These models include *socialisation* (from tacit to tacit knowledge), *externalisation* (from tacit to explicit knowledge), *combination* (from explicit to explicit knowledge), and *internalisation* (from explicit to tacit knowledge). Junior academics can be socialised into leading research productivity through informal conversations with senior academics on important subjects in their disciplinary fields or through accessing the informal writing of senior academics in informal spaces such as their personal blogs, wikis, and virtual learning communities. Externalisation processes can take the form of senior academics' engagement with their personal experiences, anecdotes, conventional wisdom, lay and mainstream literature in preparation of scholarly papers to deliver at seminars, inaugural lectures and keynote addresses and the direct mentoring of junior staff informal learning spaces. Combining knowledge may arise from formal modes of knowledge delivery such as: (1) a senior academic's use of a lecture to teach the concepts s/he wrote in her scholarly book or article, and (2) demonstration of a clinical procedure drawing on established/ conventional standard operating procedure. Internalisation may involve drawing on a seasoned academic' constructs or concepts (explicit knowledge) to write up a concept paper or a non-scholarly article (tacit knowledge).

Figure 1: Knowledge spiral on epistemological level



Source: Wilde, 2011

Nonaka and Takeuchi (1995) drew extensively on the existing body of knowledge on organisational knowledge creation and a collection of case studies of multiple Japanese organisations to develop their Theory of Organisational Knowledge Creation. Figure 1 summarises the knowledge creation and retention process. From a process perspective, knowledge creation and retention in organisations entails the following:

- From *tacit to tacit:* occurs when an experienced researcher exchanges knowledge with a novice in face to face communication.
- From *tacit to explicit*: generating new knowledge by combining existing knowledge. For instance, an organisation's director of finance collects financial information from different parts of the organisation to produce financial reports.

- From *implicit to explicit*: Developing experiences, opinions and comments so that others can use them.
- From *explicit to implicit*: implicit knowledge occurs when it is internalised in staff and results in the development of their own knowledge.

3. Literature Review

Knowledge transfer and retention: In view of this paper's focus on developing a model for knowledge transfer and retention, this section of the study is preoccupied with knowledge transfer and retention. The concepts of knowledge transfer and retention are linked to knowledge loss occasioned by experienced employees' departure from organisations. As Phaladi (2011) observes, when key employees leave the organisation, expert knowledge leaves with them. Accordingly, this challenge of surging retirements is tougher for organisations with a limited research culture such as that of CUT. This is because it takes a protracted duration (e.g. years or generations) to transfer critical knowledge developed through many years of experience from highly experienced researchers to novice researchers. For Carlie & Rebentisch (2003), knowledge transfer is an area of knowledge management concerned with the movement of knowledge across the boundaries created by specialised knowledge domains. It is a process of identifying and retaining research knowledge that already exists in the organisation, acquiring as well as applying it to enhance organisational performance and sustainability in both short-term and long-term planning (Phaladi, 2011). Yet knowledge transfer is deeply implicated in knowledge retention and cannot be divorced from it. Literature alludes to the action oriented and performance-based nature of knowledge retention (Kirsch, 2008; Liebowitz, 2008). For instance, Kirsch (2008) argues that knowledge retention focuses on the critical knowledge at the risk of loss, prioritises such knowledge based on the potential knowledge gaps and their impact on overall organisational performance, and then develops actionable plans to retain such knowledge. One of the key reasons for enhancing knowledge retention is to grow the institutional memory of the organisation (Liebowitz, 2008), by allowing employees to learn from past successes and failures to ensure positive research results.

Knowledge retention and transfer as forms of knowledge management cannot be fully understood without recourse to types of knowledge, and hence it is necessary to make a distinction between explicit and tacit knowledge. Explicit knowledge is the knowledge that can be written down or articulated through formal language such as manuals, procedures, guidelines or reports. Tacit knowledge is the knowledge that cannot be written down, is difficult to articulate through formal language and is embedded in an individual's experiences as well as their values or emotions (Rai, 2011). Notwithstanding such variations in definition, both types of knowledge are essential to the growth of any organisation (Ngai & Chan, 2005) as they provide a framework through which knowledge can be transferred. Literature emphasises how distinguishing between the two categories and even transcending such a distinction allows an organisation to be innovative, efficient, competitive and enduring (Chen, 2004; Rhodes, Hung, Lok, Lien & Wu, 2008; Rowe & Widener, 2011). Overall, tacit and explicit knowledge are consequences of knowledge transfer and knowledge retention, processes that are mutually interdependent.

Knowledge transfer and knowledge retention are components of a protracted process of knowledge management. To the extent that knowledge is the most important strategic resource of a firm and has enormous effects on organisations' competitive advantage (Kang, Rhee & Kang, 2010), firm success in the 21st Century is intractably connected to existing knowledge and creating new ones continuously in response to rapid changes in society (Baban, 2007). Therefore, a holistic approach to knowledge management is more informative than an examination of the individual distinct processes of knowledge management. At the core of knowledge management is to transform individual knowledge into organisational knowledge through acquiring, sharing, storing, disseminating, exploiting and applying knowledge innovatively. Knowledge management also assists higher education managers in their managerial and administrative efforts to facilitate the acquisition, creation, storage, sharing, diffusion, development, and deployment of knowledge by individuals and groups (Zheng, Yang & McLean, 2010). However, an organisation's knowledge management activities should not be limited to knowledge creation and dissemination but to activities related to knowledge retention as well (Durst & Ferenhof, 2014). Therefore, the entire life of the knowledge management (KM) process should be considered to better understand KM activities in HE.

Knowledge transfer, retention and research outputs: As already articulated, knowledge retention is about "maintaining, not losing, knowledge that exists in the minds of people (tacit knowledge, not easily documented) and knowing (experiential action manifesting in behaviour) that is vital to the organisation's overall functioning" (Martins & Meyer, 2012). Therefore, knowledge retention entails strategies for retaining knowledge already generated or about to be generated within the organisation to ensure its continued existence and improved productivity. Similarly, knowledge transfer involves the processes of capturing, documenting and sharing acquired explicit and tacit knowledge for re-use in similar or varied contexts. In view of the irony between the increasingly critical importance of knowledge to organisational productivity and the inevitability of knowledge loss due to the massive wave of retirements of members of the baby boomer generation (Beazley, Boenisch & Harden, 2002; Burmeister & Deller, 2016), the need to retain and transfer knowledge cannot be overemphasised. This need is dire in the South African higher education, where it is considered to take approximately two decades for a doctoral graduate to be groomed into a seasoned professor/ highly experienced researcher (Mangcu, 2014; Price, 2016). Unfortunately, extracting knowledge from these seasoned academics to make it available to novices within the organisation is not an automatic process (Calo, 2008) due to the variability of personal traits, contexts and organisations in which knowledge transfer occurs. That said, to the extent that knowledge retention and transfer can help organisations to reduce the danger of knowledge leakage or loss (Andersen, 2012), addressing the challenge of knowledge loss is critical to increasing the competitive advantage of smaller institutions such as CUT.

In essence, key enablers for successful knowledge management in the higher education institutions are knowledge transfer and retention, which are founded on sharing, collaborating and contributing to explicit and tacit knowledge. The transfer and retention of research knowledge is particularly urgent for CUT, where a small, emerging generation of research active academics operates in an academic environment marked by the drift of the aging professoriate. The capturing, documenting and transferring of existing and new knowledge in the research innovation chain is not only critical to the sustainable increase of peer-reviewed books, DHET accredited articles and conference proceedings, research patents, postgraduate student graduations and internationalisation of the research but also the inter-generational sharing of research expertise at CUT. Given the importance of knowledge in advancing organisational competitiveness; organisational processes for transferring knowledge from well-seasoned employees to the inexperienced have to be devised (Bussard, 2013).

Institutional mechanisms for knowledge retention and transfer and their associated constraints at CUT: Vision 2020 Strategic Plan, Research and Development Plan 2014-2020 and Technology Innovation Plans are some of the strategic research documents CUT has designed and implemented to reposition the university as a key player in the knowledge economy, increase its research outputs and introduce innovations which improve the well-being of less privileged communities respectively (Mthembu, 2014). The implementation of the CUT Research and Development Plan 2014 – 2020 manifests in inter alia, the realignment of research entities with new research priorities, and the development of an institutional policy on research centres, units and groups, the rolling out of ten research support programmes for the benefit of staff and postgraduate students, and increasing the research capacity of the institution (De Jager, 2014). CUT has also developed a couple of interventions for dealing with the transfer of knowledge from senior academics to junior academics. These include mentorship programmes such as Scholarship of Teaching and Learning (SoTL), Stars of Academe and Research (SoAR), and Talent Management Strategy and the strengthening of the research collaboration with the University of the Free State, a neighbouring traditional research-intensive university.

Although it is early to understand the full impact of these recently developed research interventions, some of their strides manifest in the following: increased publication outputs, postgraduate student completions, academic staff with doctoral degrees, and a slight increase in the number of NRF rated researchers. For instance:

- Thirteen doctoral degrees were awarded in 2014 compared to the three awarded in 2013.
- In 2013, the university had 55.02 journal credit units, 13.02 published conference proceeding units and 0.44 scientific book units.
- 72% of the 2014 publications target was achieved towards the end of 2014.
- An increase in NRF rated researchers from six in 2014 to nine in 2015.
- The generation of R8.5 million from external funding for the year 2014 in addition to the R8.7 million

external funding availed for the year 2013 (Research and Innovation Report, 2014).

In spite of these significant research developments, multiple research challenges still remain at CUT. For instance, the aforementioned academic output for 2013 represented a weighted output of 0.24 units per academic staff member (Research and Innovation Report, 2014). In view of the 107 academic staff holding doctorates at the institution in the year 2013 (Progress Report on Academic Plan, 2014), we infer that the increase in research productivity at the institution is attributed to a handful of prolific experienced researchers across the different faculties. This means that the institution harbours a sizable number of research inactive academics. Perhaps, this low research profile can be interpreted as a lack of effective mechanisms for transferring research knowledge from senior academics/researchers to emerging academics and the reluctance of senior academics to share their research expertise. More so, the sluggish growth in the number of NRF rated researchers due to retirements, resignations and exits is a cause for concern. For instance, between the years 2013, 2014 and 2015, their numbers fluctuated from 7 to 6 and then 9 respectively (De Jager, 2014). The growth in external funding can also be attributed to the individual efforts of a small number of experienced academics, suggesting the lack of transfer of research grant proposal writing skills.

Emerging technologies to enhance the retention and transfer of research knowledge: Emerging technologies (ETs), are those new or evolving technologies that can be used to enhance teaching, learning, research and creative inquiry, culminating in the generation of new knowledge (Johnson, Smith, Willis, Levine & Haywood, 2011). To the extent that the adoption of ETs is on the rise in the higher education sector worldwide, there is a growing consensus that such technologies may be a panacea to the knowledge management woes which research based and knowledge-creating institutions are entrapped in (Dave, Dave & Shishodia, 2012; Bozalek, Ng'ambi & Gachago, 2013; Pande, Yavatmal, Shelodkar & Khobragade, 2013; El Badawy, Marwan, Magdy, 2015). Emerging technologies such as social networking sites, content repositories, learning management systems and virtual games, are contributing to the digitisation of knowledge creation processes, changing the structure of knowledge management processes, improving the efficiency and effectiveness of knowledge work processes, improving access to information at tweak speed and increasing the competitive advantage of research institutions (Gates, 1999; Rotman, 2013; El Badawy et al., 2015). In spite of the acknowledgement of ETs' capacity to foster knowledge management, the actual impact of such technologies on knowledge transfer and retention is yet to be fully comprehended and realised.

While the decreasing cost of access to content and the concomitant increased availability of ETs are creating new possibilities for the transformation of pedagogical and social practices in higher education (Bozalek, Gachago & Watters, 2015), good examples of ET use for knowledge transfer and retention remain speculative and under-explored in mainstream management literature. The New Media Consortium examined the view of experts to understand how emerging technologies would impact on creative scholarly inquiry (an example of knowledge management) in a variety of Latin American Higher Educational Institutions. One of its key findings that resonate with knowledge management was that most academics are not using new and compelling technologies for organising their own research, and metrics of evaluating their research lagged behind new scholarly forms of research, authorship, and publishing (Johnson et al., 2011).

The under-researched nature of ETs for knowledge management creates a chasm in our in-depth understanding of the critical and relevant processes of knowledge transfer and retention. To the extent that most ETs were invented long after the boomer's generation (those aged between 50 and 70) had progressed in their professions without them, this generation may harbour negative perceptions on the uptake, appropriation and implementation of these technologies for knowledge management (Burch & Strawderman, 2014). That said, the growing family of ETs such as collaborative platforms (wikis, blogs), digital content repositories (e.g. Google docs, Google drive, Dropbox), academic sites (such as Researchgate, Academia.edu, Linked-in) and application software (such as SharePoint) are indispensable knowledge management platforms upon which effective 21st Century researchers and academics depend on for knowledge appreciation, generation, enactment, documentation, retention and transfer.

An ET such as SharePoint is a useful collaborative knowledge creation and sharing tool for senior academics at CUT, an institution under pressure to retain and transfer its research knowledge to emerging academics, amid the aging, retiring and exiting of its experienced academics. SharePoint has potential to grow the institutional memory of the organisation through its provisions of:

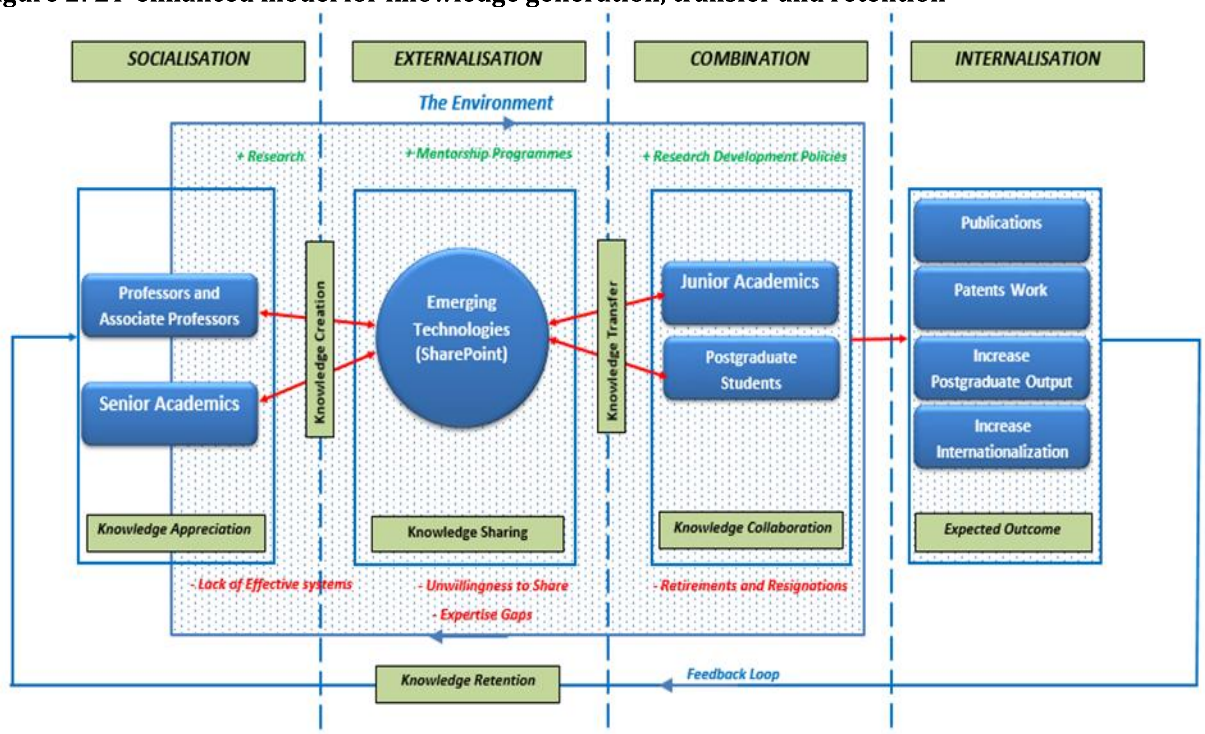
- A platform for experienced academics to generate and store content and knowledge (that is, a *knowledge repository*).
- Interactive interfaces that allow novices' individual reflection and senior researchers-novices' collaborative interaction (that is, *meaningful engagement*).
- Textual archives that retain trails of previous conversations between research experts and expert-novices, which other novices can access in future to augment their memory (that is, *digital footprints*).
- Open learning of novices in connected individual environment (that is, a *personal learning environment*).

By providing a connected interactive environment that allows for individual reflection and collaborative networking of research processes between experienced researchers and novices, SharePoint serves as an effective platform for enhancing knowledge transfer and retention. In this manner, novices can learn from past successes and failures of experts to ensure positive results. Learning from experts could help novices avoid going down the wrong paths or reinventing the wheel (Liebowitz, 2008).

4. Proposed conceptual framework

Consistent with the intention of this study to investigate the feasibility of a knowledge management (KM) model for the retention and transfer of tacit research knowledge from senior academics to junior academics at CUT, Free State, we argue that SharePoint enables six knowledge creation processes namely *knowledge appreciation, knowledge enactment and documentation* (i.e. knowledge creation), *knowledge sharing, knowledge transfer* and *retention* (See Figure 2).

Figure 2: ET-enhanced model for knowledge generation, transfer and retention



Source: Authors' compilation

Knowledge appreciation stage is an equivalent of Nonaka & Takeuchi's (1995) socialisation stage. In this stage, a seasoned researcher may create his/her personal internal or external blog where s/he experiments with his/her fuzzy, unrefined ideas, develop new insights and deploy them as triggersfor high-level thinking and deep learning. A typical example of knowledge appreciation is that Steven Downes and George Siemens employed personal blogs to explore and experiment with formative ideas leading to the formulation of Connectivism theory. A personal blog can be livestreamed and integrated into the SharePoint platform for easy accessibility by colleagues. As an external tool that is plugged into the university's SharePoint platform or university website, a personal blog becomes an excellent tool for thought leadership positioning (Pande et al., 2013). It is at this stage that a clear definition of roles and responsibilities in the knowledge management becomes critical to both the experienced researcher and novice's fulfillment of their duties. *Knowledge creatio*n involves enactment, negotiation, documentation of knowledge or conversion of information into knowledge. In this stage, an organisational memory is formed by refining, organising, and storing knowledge using structured content repositories and data warehouses (Pande et al., 2013). In SharePoint, senior academics can create knowledge through 'crowd sourcing' and synthesis of ideas from various literatures, the development of scholarly manuscripts and their archiving on this platform. Senior academics can also generate knowledge through collaborative authorship with their experienced peers or with their novice researchers serving as research assistants. This stage can be conceived as the first phase of Nonaka & Takeuchi's (1995) knowledge externalisation process (see Nonaka & Toyama, 2007).

Knowledge sharing may take different forms such as the exchange of explicit knowledge through formal presentations such as lectures, seminars and talks. Alternatively, it may involve the sharing of uncodified research experiences, repertoires and social practices, which triggers the externalisation of tacit research knowledge. This highly personal and hard to formalise research knowledge comprises insights, hunches and intuitions (Dave et al., 2012), which senior academics may possess but find hard to communicate to junior academics. Senior academics' informal offline conversations with novice academics may also provide the platforms through which such knowledge can be negotiated and shared collaboratively. This is externalisation of knowledge (Nonaka & Takeuchi, 1995) may also involve junior academics' critical commentary of senior academics' draft manuscripts, work in progress, working papers and position papers via SharePoint features, which emphasise document management, collaboration, engagement and argument development. Knowledge sharing may also take the form of social bookmarking, where both senior and junior researchers save the links of relevant web resources they want to share or access in future. Overall, a combination of knowledge creation and sharing constitutes the knowledge externalisation process (Nonaka, Byosiere, Borucki & Konno, 1994).

Knowledge transfer involves the extraction of knowledge from the knowledgeable knower (or experienced researcher) to the potential knower (or novice researcher) through various processes such as co-construction of knowledge, scaffolding processes, direct instruction and mentoring. It relates to the sharing or communicating of knowledge (Szulanski, 1996; Wang & Noe, 2010) through processes such as social interaction and intimate communication (Burmeister & Rooney, 2015). To the extent that knowledge transfer in research knowledge production processes happens among potentially different generations and age groups, it may unfold in SharePoint through direct instruction, mentoring, narrating case studies and interactive digital storytelling by the experienced researchers. The knowledge transfer processes can also take practical forms such as division of labour in the write up of draft manuscripts, simulations of article writing and knowledge sharing processes in critical reading groups. The process of knowledge transfer demands a culture that prohibits or minimises hiding knowledge internal and external to the organisation and ensures unrestricted access to information (Esterhuizen, Schutte & du Toit, 2012). Collectively, the knowledge transfer and collaboration phrases (see Figure 2) will form the knowledge combination phrase of Nonaka & Takeuchi's model (Nonaka et al., 1995).

Knowledge retention emphasises knowledge management practices and processes designed to preserve [senior] or older workers' valuable organisational knowledge before they retire (Burmeister & Rooney, 2015). The preservation of knowledge is intractably connected to its transfer without whom such preservation is untenable. At the core of knowledge retention is not only the transfer or exchange part (the responsibility of the knowledgeable knower) but rather authentic learning, de-learning and re-learning, which are precisely the responsibility of the potential knower (that is, the novice). As Rule (2006) suggests, the main dynamics of authentic learning are (1) encountering (close approximations of) real world problems, (2) using higher order thinking skills, (3) communicating between members of a community of learners, and (4) empowering novices to choose their own learning pathways. In the context of SharePoint, authentic learning processes may take deliberative, transactive and collaborative characters. Deliberative engagement may involve Socratic dialogues where experienced knowers and novices engage in question-based debates requiring deep thinking and critical questioning of concepts and issues. Such engagement lies at the level of conception of research ideas and their application in context. The transactive part may involve team building and group work that give rise to draft manuscripts while the collaborative component underlies taking collective responsibility for the final drafts, responding to reviewer comments and finalising the drafts.

Expected outcome involves the conversion of explicit knowledge into tacit knowledge, which is referred to as internalisation, which is closely related to 'learning by doing' (Nonaka & Takeuchi, 1995). The approach/ model in Figure 2 illustrates the environment (academic world), where senior academics interact with the junior academics and postgraduates. In this environment, knowledge is firstly generated and afterwards transferred, notwithstanding the various obstacles that stand in the way of knowledge transfer. Some of these obstacles in the environment such as ineffective knowledge transfer systems can be addressed by the effective utilisation of the emerging technologies. Overall, the activities in knowledge creation environment which involve; knowledge appreciation, creation, sharing, transfer and retention are expected to yield various outcomes already indicated in the previous subsections of this study. Created explicit knowledge is shared throughout an enterprise and converted into tacit knowledge by individuals as they embody it (Nonaka & Takeuchi, 1995). It is through the process of novices' internalisation of research knowledge, research repertoires and hunches that knowledge retention unfolds.

Research policy implications for knowledge management: Since the challenge of ineffective knowledge transfer systems can compromise the sharing of knowledge and that ETs could catalyze knowledge transfer processes, CUT's research development and innovation policy should clearly stipulate and monitor the place and role of ETs in knowledge sharing and transfer. To the extent that emerging technologies are hailed as important web-based tools for increased collaboration, innovation, participation and knowledge sharing (El-Sayed & Westrup, 2011; Mihai, 2014), such technologies should be integrated into this policy to ensure their holistic use in the entire knowledge management process at the institution. The culture of knowledge hiding and subtle reluctance of senior academics to mentor novices could be addressed through the strict enforcement of performance management policy targets that require senior academics to mentor and produce tangible research outputs with junior staff. These mentorship programs should include joint-production of articles in high impact journals, write-up of book chapters published by esteemed publishing houses, and presentation of papers in high profile conferences in various disciplines. Although the Scholarship of Teaching and Learning Programme is an incredible institutional research intervention in this direction, joining this program is not compulsory, enforcement of targets is weak and many faculties are poorly represented on the program. The Star of Academe and Research Policy could be the critical vehicle through which research-based career succession could be forged. The integration of career succession planning into this policy at senior academic levels could be critical to addressing the expertise gaps and early retirements alluded to in Figure 2. The consideration and training of young academics with high potential to fill senior academic positions would be critical to building the requisite critical mass of research at CUT. Such shadowing could include joint preparation, write up and production of publications and co-supervision at postgraduate levels to improve research productivity.

Implications of share point-based knowledge management model for knowledge retention: Since the knowledge appreciation stage sets the tone for the articulation of tacit knowledge conveyed through research insights, hunches and difficult-to-communicate research repertoires, the seasoned researcher's articulation ability and the novice's appreciation of such tacit knowledge are key to the effective socialisation of the novice into the knowledge management process. Once people with the appropriate knowledge have been identified, they must be able to convey that knowledge, as tacit knowledge cannot be captured if it remains in the head of the knower (Esterhuizen et al., 2012). Therefore, although seasoned research practitioners may rely on craft knowledge to solve complex problems, they need to have important communication skills to articulate such knowledge just as the novice should not simply accumulate the knowledge but have an appreciation of how it is used in the framing and reframing of real life problems and testing out of real solutions (Calderhead & Shorrock, 2005; Rambe & Mawere, 2011). Knowledge appreciation demands epistemological access, which is not just about possessing the knowledge but knowing how to make it (i.e. the values, attitudes and practices that go into its making) (Rambe & Mawere, 2011; Boughey, 2014). Knowledge appreciation stage demands expertise-in-context, which entails the articulation of non-deliberative behaviour along with its non-conceptual and embodied character (Boyd & Addis, 2011).

Knowledge creation requires the knower to possess information sourcing and synthesis abilities to ensure seamless integration and conversion of information into knowledge. The synthesis and processing of the information collected are considered to be critical steps in the creation phase of the knowledge management theory (Nonaka, Byosiere, Borucki & Noboru Konno, 1994; Agile Innovation, 2010). That said, for the experienced researcher, the synthesis of knowledge may be a consequence of individual conceptualisation and reflection, while for the novice researcher, interaction with the experienced knower is key to her ability to create new knowledge. The synthesis of research knowledge may be an outcome of dialectic intercourse in temporary and multi-faceted dialogues where participants can express their own ideas freely and openly, affirming and negating these in mutually constructive ways (Agile Innovation, 2010). Knowledge creation also depends on the enactment, and retrievability of the tacit knowledge. The usability, accessibility and familiarity of low cost, ubiquitous, threshold technologies such as SharePoint to the novice and the experienced researcher are also pivotal to knowledge creation and overcoming of organisational amnesia.

Knowledge sharing demands mutual trust and open communication between experienced researchers and the novices. Trust and open lines of communication are closely related to fostering strong personal relationships (Argote & Ingram, 2000; Esterhuizen et al., 2012). Mutual trust implies that the novices believe in the capacity of the knowledgeable knower to articulate knowledge while the knowledgeable knower also holds the conviction that the potential knower (novice) will apply critically and genuinely the knowledge s/he (the knowledgeable knower) has articulated. This means the research expert should give the novice the 'benefit of the doubt' that he/she will demonstrate research integrity (e.g. through proper acknowledgement of the expert's work and desisting from plagiarism) and has an ability to become a research authority in her own right. Yet mutual trust also depends on the existence of a shared practice and understanding of the domain in which knowledge is shared and exchanged (Wenger, 1998; 2004; Rambe & Mlambo, 2014).

The transfer of research knowledge demands the senior academic/researcher to desist from hiding knowledge by increasing the levels of knowledge accessibility to the novices. The journey to the externalisation of knowledge should support a culture that prohibits knowledge hiding within and beyond the organisation (Esterhuizen, et al., 2012). If tacit knowledge remains unspoken and hidden (McInerney, 2002), such knowledge which emerges from the assumptions and expertise of individuals that develop over years, may never be documented or recorded (Martins & Martins, 2011). The transfer of knowledge also demands an alignment of the technology in use, the transfer strategy and the individuals affecting such transfer. Therefore, co-operating individuals should draw on available, low-cost technologies such as SharePoint, to develop an effective knowledge transfer strategy that draws on context relevant content in situated learning environments.

Knowledge retention requires not only organisational learning but also the re-hiring of senior academics who have already retired. With regard to organisational learning, the development of intergenerational teams may foster the reciprocal transfer of knowledge and enable less experienced workers to function as catalysts in unlocking the knowledge base of experienced workers (Tempest, 2003; Burmeister & Deller, 2016). Ropes (2014) identify age-diverse teams as one of the effective mechanisms for advancing intergenerational learning. In academic settings, this may take the form of inter-and cross-generational research collaboration groups and group mentoring through mixed-age groups. Ebrahimi, Saives & Holford (2008) conceive intergenerational management of knowledge to depend on the organisation's knowledge strategy, its information management systems and knowledge transfer processes, its employees' places of socialisation and communication networks. Levy (2011), however, emphasises effective human development strategies (e.g., shadowing, mentoring/ coaching, training) and leadership style, trust, organisational learning culture as the backbones of intergenerational transfer of knowledge.

5. Conclusion and Future Research

This paper revealed that knowledge transfer and retention are critical to the effective management of tacit research knowledge and increased research productivity of the university. Identifying with Mohayidin, Azirawani, Kamaruddin & Margono, (2007), we argued that the unspoken and undocumented tacit knowledge is the most valuable strategic asset of UoTs, young universities with a limited tradition of high profile, scholarly research. The paper also argued that since tacit knowledge is inexorably difficult to articulate, inexpensive, ubiquitous digital platforms such as SharePoint, where senior academics and young academics congregate and deliberate on research matters, may serve as useful arenas for the externalisation of tacit research knowledge.

Mindful of the inter-generational knowledge and technology exposure gaps between aging academics (professors and senior researchers) and novice researchers, collaborative academic engagements in traditional web-based technologies which both groups are familiar with and exposed to (e.g. blogs, wikis) could serve as a springboard for the use of SharePoint. We proposed the seamless integration of these technologies through content aggregation tools such as notifications, RSS feeds and other content aggregators. That said, the appropriate integration of robust knowledge transfer and retention strategies, dedicated academic groups and appropriate, low cost, low threshold technologies would guarantee effective transfer of tacit research knowledge from experienced academics to novice researchers.

The success of the proposed knowledge transfer and retention model depends on a multi-pronged strategy of human resource development and talent retention founded on intergenerational training, creation of age-diverse knowledge sharing teams, re-hiring of retired senior researchers (such as professor emeritus) on contract basis, promoting organisational learning, desisting from counterproductive practices such as knowledge hiding and eliminating systemic blockages to knowledge externalisation and sharing. Conscious of the fact that talent management can be a supplementary approach to addressing knowledge management challenges (Kumpirarusk, 2012); our model is located in strategies for advancing knowledge transfer and retention. While agreed succession plans with clear milestones can be used as mechanisms to groom novices and retain talented individuals, we are also mindful of the perilous effects of fast tracking junior, inexperienced researchers to senior positions prematurely without a corresponding level of research mastery.

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Journal of Economics and Behavioral Studies (JEBS)
Vol. 9, No. 1, February 2017 (ISSN 2220-6140)

A Bank Failure Prediction Model for Zimbabwe: A Corporate Governance Perspective

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Abstract: The primary objective of this study was to come up with a bank failure prediction model for Zimbabwe. The research sample comprised five failed commercial banks that were operational in 2003 as well as five non-failed commercial banks that were operational during that same period. The model developed in this research was applied to each of these banks and a failure classification awarded. Out of a sample of ten banks, the model misclassified one bank as failed instead of non-failed and this signified a strong predictive power. Results revealed a distinct pattern of owner managed banks being predicted to fail while those banks run by professional managers, divorced from ownership, were getting high passes, a sign of stability. Some owner managed entities were predicted as non-failing and this was interpreted as emanating from a strong presence of institutional and other outside shareholders with a significant shareholding in the banks and thus eliminating shareholder concentration. The findings from the research showed that owner managers were more likely to commit corporate governance abuses than professional managers. It was concluded that corporate governance factors significantly contributed to the bank failures experienced in Zimbabwe between 2003 and 2004. As a result, banks need to focus more on corporate governance factors to avoid failures in the future.

Keywords: *Bank failures, corporate governance, model, professional managers, Zimbabwe*

1. Introduction

A review by the International Monetary Fund (IMF) revealed that 133 out of 181 member countries had experienced significant banking sector problems during the years 1980-1996 (Goodhart et al., 1998). The most notable failures being in Argentina, Chile and Uruguay (1979-1983), the Nordic banking crisis (1987-1994), Japan (1992), Mexico (1994), the Asian Financial Crisis (1998) and the Global Financial Crisis(2008). The increase in bank failures has rekindled interest in early warning systems. Bank regulators, in particular, are attracted to the prospects of models that assist them to predict banking distress in good time (Maimbo, 2000). In the last quarter of 2003 and the first quarter of 2004, a number of banking institutions in Zimbabwe faced serious challenges that ranged from chronic liquidity problems, deep rooted risk management deficiencies and poor corporate governance practices. By the end of 2004, ten (10) banking institutions had been placed under curatorship, two (2) were under liquidation and one discount house had been closed (Muranda, 2006).The fact that remains glaring and renders the Zimbabwean banking crisis significantly unique is that out of all the financial institutions operating at the time, only locally owned banks were affected.

The banking crisis that saw the collapse of these banks was triggered by the collapse of ENG Capital asset management and later developed into a fully-fledged systemic crisis only drawn apart from crises witnessed in other countries in that it seemed to affect only those banks with a significant domestic ownership. Other crises witnessed in different countries have been truly systemic in nature affecting banks randomly and indiscriminately with the only link between the collapsed institutions being shared structural weaknesses. The fact that all the collapsed institutions in Zimbabwe were locally owned cannot be treated as mere coincidence but points towards a far deep rooted problem. Coorey et al. (2005: 55) pointed out that, "It seems clear in retrospect, even if there was uncertainty at the time, that the difficulties faced by the banking sector in 2003-2004 were not systemic. The institutions affected in 2004 were all relatively small, collectively accounting for only about 12% of bank deposits and 16% of assets."The Reserve Bank of Zimbabwe (RBZ) responded by stepping up the regulatory regime and tightening entry requirements into the sector. Just as confidence was beginning to creep back into the sector another bank, Renaissance Merchant Bank was placed under curatorship at the beginning of June 2011after investigations revealed the collapse of corporate governance structures within the institution. The bank came under spotlight after several irregularities were found to be working against the interests of business. These included the collapse of corporate governance structures, gross abuse of depositors' funds, capitalisation through borrowed and depositors' funds, irregular shareholding structure, technical insolvency and lack of separation of ownership and management. The failure of yet another bank on the back of a seemingly tightened regulatory environment points towards the need for a lasting solution to the problem of continued bouts of instability in the sector.

The RBZ is currently using the CAMEL rating system as a way of determining bank soundness. A research carried out by Rojas-Sarez (1998) used bank level indicators based on the CAMEL model to evaluate bank failures in developing countries. She concluded that the CAMEL indicators were not good measures of bank strength in emerging countries and that what was required for them were simpler alternative measures that were more appropriate to the unsophisticated nature of developing countries. Furthermore, the inability of accounting data to reflect management quality, the collapse of corporate governance structures as a major contributing factor in bank failures and the failure to incorporate other important qualitative factors not easily quantifiable, may explain why bank failure prediction models have not had a strong predictive power in developing countries. There is need for coming up with measures that ensure early detection of likelihood of failure and subsequent prevention. In developed markets, a number of scholars have come up with models that address bank failure prediction. The thrust of this research is to come up with a model that is tailor made for the Zimbabwean context in view of the realities specific to the local financial services sector.

Statement of the Problem: It is worrying to note that bank failures continue to occur despite frameworks such as the Basel II that are designed to foster stability in financial systems globally. Diagnostic studies on the causes of these failures have been extensively carried out but the challenge as far as bank failures are concerned seems to lie more with the prevention aspect. The underlying factors behind bank failures appear to be the same for banks operating under similar conditions. Most academic work on bank failures can be traced to developed countries and has been targeted to address bank failures in developed markets. Most scholarly work done in this area is based on statistical and econometric models and these studies have made use of fundamentals that in some cases are largely appropriate to these specific markets. Financial markets in developing countries although largely governed by the same set of principles that govern financial markets elsewhere, have some factors peculiar to them with a significant bearing on their stability. The study thus sought to come up with an approach to bank failure prediction that is relevant to the Zimbabwean market in as far as it incorporates factors that have been seen to contribute heavily towards instability of the banking system in Zimbabwe.

The next section provides a brief review of literature related to the study and looks at the structure of bank failure prediction models developed by various scholars.

2. Literature Review

Predicting failures, due to whatever cause, reduces the length of time losses are incurred and the misallocation of resources (Meyer and Pifer, 1970). The Interest in predicting failures dates back to Secrist's classic study in 1934 where he examined banks that failed between the early 1920s and early 1930s. Given the importance of the subject of bank failure prediction at micro and macro levels, numerous models have been developed to predict bank failure. These models employ statistical techniques which include regression analysis, multivariate discriminant analysis, multivariate probit or logit analysis, arctangent regression analysis and factor logistic analysis among others. Although widely practiced, these models have been criticised for their problematic methodologies (Demyanyk and Hasan, 2009).Barr and Siems (1996) argued that for a bank failure prediction model to be useful to regulators, it must be understandable and easy to use. Bank failure prediction models have been built around financial ratios derived from accounting data and analysed using various statistical methods. Barr and Siems (1996) asserted that early warning models for banks began with Meyer and Pifer (1970) and since then various researchers have used multivariate techniques to explain past closures and predict future failures. Meyer and Pifer (1970) used stepwise regression program with binary dependent dummy variables to discriminate between bankrupt and solvent banks that faced similar local and national market conditions.

Multivariate techniques have been abundantly applied to bank failure prediction. Beaver (1966) is among the pioneers of bank failure prediction and he conducted a univariate analysis by examining the predictive ability of financial ratios with respect to bankruptcy. According to Ohlson (1980), research has found that discriminant analysis based models are theoretically flawed in a manner that reduces the likelihood that they could be generally effective at predicting failure. They went on to argue that, all these models suffer from the narrowness of any model that relies on quantitative data that is doubtful accuracy and the fact that quantitative data only represents a portion of the information an expert would use if asked to assess the likelihood of a company failing. They pointed out that none of these models effectively stipulates what occurs in practice and as such, they cannot be assumed to be sufficient as commercial risk assessment systems. Whalen (1991) examined a particular type of bank failure prediction model called a Cox proportional hazards model, which produces estimates of the probability that a bank with a given set of characteristics will survive longer than some specified length of time into the future. Using a relatively small set of publicly available explanatory variables, the model identifies both failed and healthy banks with a high degree of accuracy. A large proportion of banks that subsequently failed are flagged as potential failures in periods prior to their actual demise.

Thomson (1991) as cited by Jagtiani et al. (2003) models bank failures of all sizes based on Call Report data using a logit regression analysis. The probability that a bank will fail was modelled as a function of capital adequacy, asset quality, management quality, earnings performance, and the relative liquidity of the portfolio. These are CAMEL-motivated proxy variables. Thomson (1991) found that the majority of these factors were significantly related to the probability of failure as much as four years before a bank fails. Barr and Siems (1996) took on a different angle to bank failure prediction and presented a failure prediction model for detecting a bank's troubled status two years prior to insolvency using publicly available data a category of explanatory variable to capture the elusive yet crucial element of institutional success: management quality. The empirical results of the study confirmed that the quality of management is crucial to a bank's survival. Scores for surviving institutions are statistically higher than the scores for failed banks. These results are significant in that banks that survive can be statistically differentiated from banks that fail based on management quality scores generated by the DEA model. In the same vein, Cole and Gunther (1998) developed a model of bank failure, using a probit analysis to draw a comparison between the predictive power of off-site monitoring systems and the CAMEL ratings derived during onsite examinations. They found that the CAMEL ratings assigned to banks have a short life span not exceeding two quarters after which they lose their predictive power. They conclude that models built through use of accounting ratios still have to be relied upon as a complement to the on-site examinations.

In line with other statistical based prediction models, Gilbert, Meyer, and Vaughan (1999) compare univariate and multivariate models' ability to predict bank failures. They find that the "best" single variable varied from year to year, and that only multivariate models could provide consistently accurate predictions. One of the most significant variables in all their tests was the equity ratio. Maimbo (2000) departed from the other conventional approaches to bank failure prediction by carrying out a study on Zambian banks which sought to improve the diagnosis and prediction of bank failures by incorporating non-financial factors into the process of analysing bank performance. The objective of his research was to provide a simple, non-econometric, yet practical policy instrument for regulators and supervisors in small developing countries. The research evaluates the experience of the Bank of Zambia in analysing the performance of commercial banks in operation over the period December 1995 to December 1998. He concludes that the CAMEL-S model is a more flexible approach to the effective analysis and prediction of bank failures in Zambia. Parker, Peters and Turestsky (2002) investigated the association of various corporate governance attributes and financial characteristics with the survival likelihood of distressed firms. Results revealed suggest that firms that replaced their CEO with an outsider were more than twice as likely to experience bankruptcy. Furthermore, larger levels of block holder and insider ownership over the sample period were positively associated with the likelihood of firm survival.

In line with the study by Parker et al. (2002), Polsiri and Sookanapphibarn (2009) develop failure prediction models that incorporate both governance and financial variables and examine the impact of major corporate governance attributes, that is ownership and board structures on the likelihood of distress. They find that the presence of a controlling shareholder and the board involvement by controlling shareholders reduce the probability of corporate financial distress. Lee, Yeh and Liu (2003) integrate accounting, corporate governance, and macroeconomic variables to build up a binary logistic regression model for the prediction of financially distressed firms. Debt ratio and ROA are found to be significant explanatory accounting variables while the percentage of directors controlled by the largest shareholder (which measures negative entrenchment effect), management participation, and the percentage of shares pledged for loans by large shareholders are shown to have positive contribution to the probability of financial distress. Arena (2005) developed the first comparative empirical study of bank failures during the nineties between East Asia and Latin America using bank-level data. The results for East Asia and Latin America show that bank-level fundamentals significantly affect the likelihood of bank failure. According to Bongini, Claessens and Ferri (2001), one can identify the specific characteristics of distressed (or failed) institutions compared to non-distressed (or non-failed) institutions. These characteristics can be then used in developing systems to monitor the risk of distress of financial institutions in the future.

The use of corporate governance variables for formulation of failure prediction models is also supported by Yeh and Woidtke (2005) as cited by Li, Liang and Chu (2010) where they suggest that corporate governance factors, such as corporate board structure, concentrated ownership and shareholder concentration, should be taken into consideration when measuring the possibility of bankruptcy. In particular, these corporate governance variables are said to possess the characteristics of lead indicator prior to the event of distress.

The A score model developed by Argenti (1976) used qualitative data and suggested that business failure follows three predictable sequences:

- Defects (divided into management weaknesses and accounting deficiencies)
- Mistakes made (High gearing, overtrading and the big internal or external projects)
- Symptoms of failure (Financial Signs, creative accounting, non-financial signs and terminal signs).

According to ACCA (2008), each deficiency is given a mark (as shown in table 1) or given zero if the problem is not present. The total mark for defects is 45, 45 for mistakes and 10 for symptoms of failure. Argenti's argument is that, if a company's management is weak, then it will inevitably make mistakes which may not become evident in the form of symptoms for a long period of time. Literature shows that a number of causes have been identified as being behind bank failures across the globe. In the past decade, however, the issue of lapses in corporate governance seems to have played a major role in triggering these failures. Of concern, however, is the fact that it is evident from literature that none of the failure prediction models that have been produced to date, place emphasis on corporate governance factors as significant variables in the construction of failure prediction models. According to Gramlich et al. (2010:199) 'models should be more precisely adjusted to a changing banking environment and should be able to integrate additional risks'. Hendricks, Kambhu and Mosser (2007) linked the new character of systemic risk to the increased complexity of financial products and the inter-linkages within the financial system and the fact that systemic crises are now more likely to be more market oriented than institution specific where disruptions in certain market fundamentals can trigger a crisis.

The CAMEL rating system has also been widely relied upon by regulators across the globe in the process of bank supervision and surveillance and has been used to complement failure prediction models. According to Cole and Gunther (1998:104), "CAMEL ratings incorporate a bank's financial condition, its compliance with laws and regulatory policies and the quality of its management and systems of internal control". They also point out that given the multiple dimensions of CAMEL ratings, their primary purpose is not to predict bank failures. The fact that CAMEL ratings quickly decay because of the quickly changing environment is also cited as an important aspect in evaluation of the CAMEL rating system. Cole and Gunther (1998) bring to the fore the important fact that the examination process and the CAMEL ratings it generates have numerous important uses, many of which are quite distinct from the relatively narrow task of identifying bank failures. This argument points towards the fact that the CAMEL rating model is a primary tool for every supervisory body and though it cannot be solely relied upon for bank failure prediction, models specifically targeted at this task can then be brought in as complementary measures. Rojas-Suarez (2001) however questions the use of the CAMEL variables to assess risk of financial institutions in developing countries. She argues that the system, designed for developed financial systems, performs poorly in signalling problems in emerging markets because of accounting deficiencies, supervisory framework and the illiquidity in the market for bank shares.

3. Methodology

The model in this study is built around corporate governance variables as well as some risk management aspects. Choice of variables takes root in the aspects that have been paramount in bank failures experienced in Zimbabwe and also the level of importance placed on issues to do with risk management by the international regulatory frameworks, as well as the level of attention that has been given to capital adequacy by regulatory authorities locally. The risk management variables were included to increase robustness of the model in recognition of the fact that bank failure is much broader than corporate governance failures, although more emphasis is being placed on corporate governance variables in this instance. The model uses the "A" score model as a basis and drops some variables in the model for corporate governance variables while maintaining the scores as well as modifying some of the variables to align the corporate failure prediction model to a specific bank failure prediction model as shown in table 1 below.

Table 1: Variables for Inclusion in the Model Based On the A Score Model

A) DEFECTS (Original A Score model)	A) DEFECTS (Corp-Govbased model)
i) Management weaknesses:	i) Lapses in Corporate Governance
Autocratic Chief Executive Officer (8)	Owner/Manager Chief Executive Officer
Failure to separate role of Chairman and Chief Executive Officer (4)	Failure to separate role of Chairman and Chief Executive Officer
Passive Board of Directors (2)	Passive Board of Directors
Lack of balance of skills in management team financial, legal, marketing, etc (4)	Poor Board composition
Weak Finance Director (2)	Absence of an autonomous Finance Director with absolute control on finances
Lack of depth in management (1)	Poor Board oversight
Poor response to change (15).	Disregard for governance procedures under the pressure of a change in operating environment.
ii) Accounting deficiencies:	ii) Risk Management Deficiencies
No budgetary control (3)	Absence of direct reporting of Risk Management department to the Chief Executive
No cash flow plans (3)	Weak Internal controls
No costing system (3).	Non adherence to loan advances procedures for insider loan advances
B) MISTAKES	B) MISTAKES
High gearing – a company allows gearing to rise to such a level that one unfortunate event can have disastrous consequences (15)	Significant mismatches between assets and liabilities
Overtrading – this occurs when a company expands faster than its financing is capable of supporting. The capital base can become too small and unbalanced (15)	Inadequate capital not commensurate with the level of business activity
The big project – any external/internal project, the failure of which would bring the company down (15).	Overexpansion using Depositors' funds as opposed to equity
C. SYMPTOMS	C. SYMPTOMS
Financial signs – in the A score context, these appear only towards the end of the failure process, in the last two years (3).	Huge levels of Non performing insider loans, Negative equity position
Creative accounting – optimistic statements are made to the public and figures are altered (inventory valued higher, depreciation lower, etc). Because of this, the outsider may not recognise any change, and failure, when it arrives, is therefore very rapid (3).	Failure by External auditors to detect the precarious positions of these institutions even as they were facing imminent collapse. (In a way, one could say that these institutions were given a clean bill of health just before they failed pointing towards a possibility of creative accounting).
Non-financial signs – various signs include frozen management salaries, delayed capital expenditure,	Failure to honour withdrawal of demand deposits

falling market share, rising staff turnover (3).	
Terminal signs – at the end of the failure process, the financial and non-financial signs become so obvious that even the casual observer recognises them (1).	Regulatory authorities intervention

Failure classifications as per the model- Argenti (1976) interpreted the possible failure scores as follows:

Total Score	Prognosis
0-10……………………………………………	No worry (High pass)
11-18………………………………………...	Cause for anxiety (pass)
19-35………………………………………...	Grey Zone- Warning Sign
Greater than 35……………………………...	Company at Risk

The model adopted in this study is a general corporate failure prediction model and reconfiguring it to make it relevant to a banking scenario had its challenges. The incorporation of strictly corporate governance and the additional risk management variables presented further challenges by narrowing the scope within which to play around with the possible variables for inclusion in the model. The stance taken in this case to maintain the scores as per the original model, again required special attention to the 'replacement variables' as per the model derived out of the A score model to maintain alignment between the scores and the 'replacement variables' which brought in a certain measure of subjectivity which could negate model accuracy. In a bid to counter these limitations all the 'replacement variables' where possible, had to have a close relationship with the original variables which is why other significant corporate governance variables such as board size, ownership percentage of major shareholder, ownership percentage of institutional investors had to be left out of the model as they were too out of line with the original variables. The 'replacement variables' were also incorporated bearing in mind that they had to be in sync with the size of the score as per original model. A close look at the A score model reveals a positive relationship between the magnitude of the score and the level of the contribution to failure associated with the variable.

The research was based solely on secondary data sources due to the historical nature of the information required hence the reliance on documented information from the period under study. The study relied on information from publicly available financial statements as well as RBZ publications. Forensic audit reports as well as other RBZ publications revealed information on corporate governance violations by the collapsed banks while financial statements for the non-failed banks provided information on the corporate governance practices of these companies based on such aspects as the balance between non-executive directors and executive directors, the separation of the role of Chairman and Chief Executive Officer, shareholder concentration and the extent of non-performing related party loans.

4. Results and Discussion

The model was applied to each bank in the sample and each bank was awarded a failure classification based on the above interpretations. A summary of the results obtained is presented in table2 below.

Table 2: Summary of Failure Classifications

Bank	Score	Failure Classification
1. Trust	76	Fail (Bank at risk)
2. Royal	91	Fail (Bank at risk)
3. Barbican	88	Fail (Bank at risk)
4. Time	88	Fail (Bank at risk)
5. Intermarket	99	Fail (Bank at risk)
6. ZB	3	High Pass
7. NMB	15	Pass
8. Kingdom	14	Pass
9. CBZ	3	High Pass
10. Metropolitan	40	Fail (Bank at risk)

Interpretation of Findings: The model correctly classified all the failed banks but misclassified one non-failed bank as failed which shows a 90% predictive power. Both the failed and non-failed banks in this sample shared one common factor, and that is the fact that they were all operating under a challenging environment as evidenced by the macroeconomic fundamentals that prevailed during that period. While the failed banks were struggling with liquidity challenges, other banks such as NMB and CBZ managed to pay out dividends during that same period, signalling stability. The failure predictions are skewed towards the smaller banks (measured using total assets) and in this case the smaller banks could be perceived to be weaker than the bigger and more established banks which survived the crisis. This observation is supported by Gavin and Hausmann (1996) where they argued that macroeconomic factors that are often labelled as the major drivers of bank failures are only in essence catalysts that simply unearth weaknesses already existent in the banks that are destined to fail. The failures experienced in Zimbabwe are linked to the emergence of new entrants into the sector, mostly indigenous players (as shown in the research sample) as well as shifts in the regulatory environment ushered in by the then new RBZ governor in his bid to control the level of speculative activities that were encouraging divergence from core banking activities. Similarly, Honohan (1997) pointed out that regime shifts have been known to sometimes heighten the vulnerability of banking systems, whether by altering the incentives facing the banks or introducing new and inexperienced players, in this case the locally owned banks run by their founders.

The documented facts on these bank failures also reflect that the problems experienced in the banking sector were not entirely market wide factors given the pattern of failures. The major problems were non-performing loans, poor management, fraud, inadequate regulatory capital and weak risk management systems among other factors. From literature, banking crises have been shown to have their roots in poor bank operations characterised by a total disregard for best practice and that in developing countries, banks end up being siphoned of financial resources through related party lending and fraud (Oviedo, 2003).The bank failures in Zimbabwe can also be explained from a macroeconomic perspective where according to literature, financial crises can be a result of the interaction of shocks and vulnerability. Imprudent risk taking has an impact of increasing vulnerability unless that added risk is backed by an increase in the bank's capital base and this is supported by (Gavin and Hausmann, 1998). The banks that failed were taking on added risk through funding long term positions with demand deposits as well as extending huge amounts of related party loans that were unlikely to be repaid, without recapitalising their banks in line with these riskier positions.

The study revealed that, central to factors that led to the banking sector crisis, were corporate governance violations. The modern banking environment across the globe is increasingly becoming associated with bank failures whose roots can be traced to lapses in corporate governance. Literature suggests that manifestations of these lapses are different across markets. A variety of studies on bank failures in the developed world present manifestations in the form of largely imprudent risk taking spurred by incentive packages as well as poor regulatory mechanisms and limited board oversight in view of the increased complexity of the financial products and financial activities that are supposed to be under their watch. The developing world on the other hand is presented as having corporate governance problems in the form of a rudimentary approach to business, a serious lack of market discipline and a total disregard for regulations. Factors identified include boardroom squabbles arising from ownership structure and a lack of corporate discipline leading to banks becoming directionless and uncontrolled. Factors such as the extension of huge loans to directors which in most cases were not being serviced, use of depositor's funds for expansion purposes, related party lending, venturing in stock market activities and foreign exchange transactions, purchase of fixed assets using depositors' funds signified a serious lack of market discipline and a total disregard for regulations and this is in line with (Ogubunka, 2003).

The bank failures in Zimbabwe were initially misconstrued as being systemic in nature but the study revealed a distinct pattern in these failures. All the failed banks were owner managed, were owned by relatively new and presumably inexperienced players, had concentrated shareholding and had a high risk appetite which given adequate board oversight could perhaps have been kept in check. NMB and Kingdom banks in particular, though owner managed had institutional and outside investors with a significant stake in the bank. Old mutual had a significant stake in NMB while Meikles Africa limited and Old Mutual had sizable shareholdings in Kingdom Bank. The presence of these outsiders in a way helped diffuse power from a few individuals. While Ifeanye et al. (2011) conclude that diffused shareholding is characteristic of African markets and ownership is divorced from control leading to the promotion of management's interests at the expense of shareholders, the findings from this research show that the bulk of the new entrants in the sector have concentrated ownership which actually leads to corporate abuse and minority shareholder oppression.

The findings from the study suggest that banks in which the government has a significant stake are more stable than those that do not have significant government ownership. Both CBZ and ZB in which the government is a shareholder, were rated as 'high passes' by the model. This is in contradiction with Honohan (1997) who argues that, many banking crises in developing countries can be traced to pervasive government involvement where banks end up not operating as autonomous profit seeking entities but as a quasi fiscal mechanism. Becht et al. (2011) point out that, empirically it has been difficult to establish a link between bank failures and corporate governance partly because government rescues have masked the true extent of the banks' problems. The misclassification of Metropolitan bank as a bank likely to fail could probably be explained by the fact that the RBZ through its Troubled Bank Fund intervened and rescued the bank, when in fact it should have failed.

5. Conclusion and Recommendations

Corporate governance factors significantly explain the failure of Zimbabwean banks for the period 2003-2004. The fact that bank governance is unique means that corporate governance has a strong bearing on the overall stability of the bank. The findings from the research show that performance as measured by profit does not necessarily translate into bank stability. Bank specific factors are also more important than overall market conditions in ensuring bank stability. While other schools of thought argue that concentrated ownership increases the level of monitoring and control, the findings from this research suggest that, concentrated shareholding can also lead to corporate abuse since key decisions will be in the hands of a few. Board effectiveness in the light of the repeated occurrences of bank failures is thrown in doubt. Board members seem to be put in place as a compliance measure and have no real power in terms of steering the course of a bank. Boards are in most cases properly constituted comprising highly qualified professionals with vast experience in their areas of specialisation but who according to this research consistently displayed an inability to offer adequate oversight to the banks under their control. External auditors are not being as effective as they should be given their inability to unearth various corporate abuses within the banks that they were auditing. One could also conclude that this was largely because corporate abuses in the form of bad governance are not as conspicuous as abuses such as fraud and are thus more difficult to detect. This further shows the extent of the gravity of the problems of a corporate governance nature emanating from their elusive nature.

Bank failure prediction models need to be structured bearing in mind the relevant problems in today's operating environment. Focusing on the issue of minimum capital requirements in the Zimbabwean scenario while an important aspect, does not deal with the problem of bank failures decisively and is reactive rather than proactive. Corporate governance problems that characterised the bank failures of 2004 have again resurfaced years later (Renaissance, Interfin) and the problem is still corporate governance abuses. Having a buffer against losses is important but it is even more important to put in place measures that help avoid those losses at an early stage. Bank failure prediction models with a corporate governance bias should thus be adopted by regulators. A board of directors is meant to monitor the activities of management on behalf of shareholders but in the case of owner managed entities, there is a glaring conflict of interest in the choice of a board that is meant to be performing an oversight function on management. The central bank should regulate the shareholding structures in banks and put ceilings on the percentage holding that an individual can have to discourage concentrated shareholdings which have been seen to lead to shareholder dominance.

The CAMEL rating system should be used in conjunction with bank failure prediction models such as the one formulated in this study since they are more direct measures geared to specifically address the problems of bank failures and thus likely to yield better results in terms of identifying problem banks. Banking sector reforms should be implemented against a background of a complete understanding of the fundamental issues affecting banks and after a careful consideration of the likely effects of such reforms. Banking sector reforms should be preceded by rigorous feasibility studies that will attempt to forecast the likely impact of such reforms to avoid cases of well-meaning reforms having a negative impact on the very systems they are meant to improving. The elusive nature of corporate governance abuses calls for the implementation of periodic forensic audits of a proactive nature targeted at good corporate governance compliance over and above the general audits carried out by external auditors. The policy implication for the research is that regulators should take cognisance of the qualitative corporate governance factors in financial sector stability by paying more attention to corporate governance structures in banks and the government at large should also put in place legislative instruments which address white collar crime such as the abuse of depositors' funds. From the study, the failure predictions were skewed towards the smaller banks (measured using total assets) and in this case the smaller banks could be perceived to be weaker than the bigger and more established banks which survived the crisis. This implies that the regulator through their bank supervision and licensing division should have in place robust systems for vetting financial market players.

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Journal of Economics and Behavioral Studies (JEBS)
Vol. 9, No. 1, February 2017 (ISSN 2220-6140)

Generation Y-Turnover: A Complementary Fit Perspective

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Abstract: Generation Y becomes the main pillar of workforce around the world. This generation enters the workplace with different values and characteristics from their counterparts of other generational workforces. In Malaysia, generation Y employees are well known of their high job mobility. Human resource managers are in dilemma of how to retain this new workforce? This paper serves the purpose to respond to such queries by investigating the factors contributing to Generation Y employees' Turnover from a complementary fit perspective. This study was conducted in Malaysian Business Process Outsourcing Sector (PBO). The total sample was comprised of 318 respondents belong to generation Y employees. The data was analysed in Amos using two steps approach. Extrinsic, freedom and demand abilities fit were the predictors of Generation Y employees' intention to quit in Malaysian BPO sector.Using cross sectional method limits our understanding to whether the predictors of turnover intention were due to career effects or generational effects. This study provides empirical evidences to Malaysian HR Managers to what makes generation Y employees leave the organization. This is a better surrogate of the existed anecdotal information. Furthermore, this study informs HR Managers that stereotyping the findings from Western context may be treated with caution.

Keywords: *Generation Y, Turnover, Complementary fit, Business process outsourcing sector*

1. Introduction

The workforce demography has changed. Currently, the workplace comprises of three generational workforces, which are baby boomers, generation X and generation Y (Angeline, 2011). In Malaysia, the influx of the generation Y workforce into the different industries and sectors is at a high pace. Generation Y workforce is a source of sustainable competitive advantage; this generation represents over 50% of Malaysia's workforce. Out of the 12,675,800 employees that currently hold positions, the generation Y workforce represents approximately 6,267,200 of them (Malaysian Statistical Department, 2011). This workforce group is expecting to replace the retired individuals of baby boomers, as the latter have commenced their retirements since three years back and will continue to do so in the future. Generation X has been promoted to senior management positions (Josiam et al., 2009). This generation will soon become the main pillar of the workforce; hence, the transition towards knowledge based economy as a goal of 2020's vision lies on their shoulders (Angeline, 2011). Both theorist and academics recently have argued that this generation requires different set of HR practices to influence their attitudes and behaviours at the workplace (Twenge, 2010). In the past, both theorists and practitioners input more efforts in setting effective strategies to recruit and retain talented employees, most of which were developed based on employee life cycle needs, maturity (age) needs or based on career stage needs (Macky Gardner, and Forsyth, 2008). However, such criteria on employee selection and retention practices are rendered less effective and require reconsideration (Wan Yusoff, Queiri, Zakaria, and Raja Hisham, 2013). It is argued by a number of scholars on the worth of customizing recruiting and retaining strategies based on generational workforce differences, that is, the reality of the generational gap theory as prime criteria into understanding the attitudes and behaviours of the generational workforce are often overlooked (Wong, Gardiner, Lang, 2008; Giancola, 2006).

With the increased popularity of the generational gap concept, it is argued that each of the three existing generational workforces (i.e., Baby boomers, generation-X and generation-Y) was exposed to distinctive fundamental life events that have shaped distinguishable peer personalities and values/work values for each generational workforce, which are durable and resistance to change (Howe and Strauss, 2007). Consistent with this, empirical evidences based on longitude studies affirmed that the differences in work values and personality traits among the generational workforce are real scientific facts rather than being fiction (Twenge and Campbell, 2009). Contemporary, generational differences at the workplace is an equally, if not more important, criterion to be considered while setting recruiting and retaining human resource (HR) strategies (Westerman and Yamamura, 2007).This group of employees enters the workplace with desirable traits, such as: better education, technological savvy, the ability to multi-task, technically skilled, achievement oriented, culturally diverse and having sense of true empowerment (Han and Su, 2011). However, this generation is well known of the increased job mobility. The turnover rate associated with the generation Y workforce in Malaysia has been described to be unprecedented (Wan Yusoff et al., 2013). According to Malaysian human resource practitioners, generation Y employees change jobs frequently, the average tenure of the youngest employees estimated to be 18 months, compared to an average of 3 years for other generations (Sheahan, 2007). There is a deep concern on national and organizational level about the generation Y workforce increased job mobility. According to The Malaysian Employers Federation (MEF) (2012), it costs RM 30,000 to replace an employee, which exceeds four times the cost of recruiting. Furthermore, the concern of increased job mobility at national level becomes more complicated, as the Malaysian Labor market currently experiences a shortage of talents and it is difficult to find an adequate employee (Marthandan et al., 2013).

Furthermore, the labor market increasingly faces the brain drain phenomenon, especially among adult workers, whereby Singapore becomes a favorite destination to most of them; the anticipated emigrants of educated adults in 2010 were 276,558, of which Singapore absorbs 44% of them (Choong et al., 2013). In this vein, the literatures continue to prompt calls to examine variables, test models and create models to understand the reasons of high turnover rates of generation Y working adults in Malaysian context, in order to set effective retention strategies (Choong et al., 2013; Angeline, 2011; Solnet& Hood, 2008). Despite the calls, empirical studies attempted to examine generation Y employees' intention to quit is quite limited, and the issue has not received substantial discussion in previous literature, as it is still regarded as uncharted territory and requires further investigation (Lee et al., 2012). In light of that generation Y employees are undergoing a radical change and since most supervisors and managers who hold senior positions in organisations belong to other cohorts (i.e., baby boomers, generation X), there is likelihood that the difficulty of retaining generation Y employees arises from insufficient understanding of generation Y employees' needs at the workplace. Eisner (2005) refers to this as the generational gap, that if not sufficiently addressed, the conflict at the workplace is inevitable, and that will entail adverse attitudes. In this vein, the focus is given to the lack of fit between the environment and generation Y employees' expectations and work values as the cause of turnover intention. More specifically, the complementary fit perspective as a branch of person – environment fit is utilised to investigate the specific dimensions of complementary fit facets and their impact on generation Y employees' intention to quit.

2. Literature Review

Person-Environment (P-E) Fit: Drawing from Lewin (1935), neither personnel characteristics nor environment adequately explains the great amount of variance in attitudes or behaviors. It is rather the interaction of both (P X E) that would be expected to explain a larger amount of variance in an individual's attitudes (Kristof-Brown et al., 2005). The theory of work adjustment developed by Dawis et al. in 1968postulates that, due to the mutual obligations on one another (person and environment), a state of correspondence is required between individual and environment at the workplace, in order to achieve successful work relations, adjustment constitutes the means to maintain these good relations. The third proposition of theory of work adjustment explicitly states that the correspondence state, or alternatively fit, is an inducement of job attitudes. Similarly, the theory of needs fulfilment proposed by Locke in 1976 underpinned on the principle of person-environment fit. This theory explains that job satisfaction and other positive job attitudes are the function of one's perception that his/her needs/values are. In addition, Edwards (1996) argues in the context of Nomo-logical network that another distinct stream is explained by P-E fit theory, which is job stress. Based on cybernetics theory of self-regulatory, Edwards (1996) declared job stress to be a consequence of the discrepancy between person and environment fit. The notion of cybernetic theory stipulates that the discrepancies between environmental inputs and internal standards should be kept at minimum. Two possible reasons for this stress to occur are, either the individuals lack the abilities to meet environmental (work) demands, or, there is a shortage in fulfilling needs of individuals at the workplace.

Conceptualization of Person-Environment Fit: Kristof (1996) responded to the ambiguity surrounding the P-E fit concept, as people tend to interpret fit differently. Subsequently, P-E fit has been conceptually divided into two main domains: supplementary fit and complementary fit. The four aforementioned domains of P-E fit have been grouped under either complementary or supplementary fit.

The work of Kristof (1996) refined the fit definition whereby supplementary fit refers to a person that possesses characteristics similar to other individuals in an environment and both environment and individual place the same importance on dimensions. Such dimensions could be either in goals, values or in personality traits (Edwards &Billsberry, 2010). On the other hand, complementary fit posits that a good fit exists as the reciprocal requirements of individuals and environment are fulfilled. Thus, a complementary fit occurs when organizations fulfil the requirements of their employees or employees fulfil the requirements of organizations. Both types of fit can be distinguished from conceptual perspective, instead of content perspective, whereby complementary fit is the desire amount of an attribute that influence job related attitudes, therefore, meeting individual needs (desire) is more proximal measure to attitudes more than placing similar importance on particular dimensions. However, the role of Supplementary fit influencing attitudinal outcomes has been recognised in the literature. In Byrne's similarity attraction paradigm (1971) and Van Vianen (2000) argued that supplementary fit is a mean of meeting personal needs. In the sense, consensual validation is a need for the individuals which can be achieved at person-person level. Albeit that, fulfilling complementary fit aspects are more direct in influencing and interpreting attitudinal outcome, as complementary fit emphasises on directly meeting the needs of individuals at workplace (Kristoff et al., 2005).

Work Values Fit and Intention to Quit: According to Liu et al. (2010), organisations should pay attention to the congruity of the supplied work values of their employees. Elfenbein and O'Reilly (2007) contend that the willingness of employees to remain with their organisation is subjected to the extent of fulfilling their work values through human resource functions. Moynihan and Pandey (2007) found that employees have less intention to quit when they experience better fit with their organisation. Drawn from generational theory notion, the generation Y workforce is of different paradigm when compared to its counterparts. In essence, generation Y emphasizes on certain work values; such work values are developed at early stage of adolescence and peaked during adulthood. Accordingly, Cennamo and Gardner (2008) anticipated that generation Y employees will experience less fit, since the most senior positions are occupied by the older groups who belong to previous generations that hold different work values. Thus, if the preferred work values of generation Y employees are unmet, it will probably result in triggering their intention to quit. Kim et al. (2009) added to the above argument, that, loyalty is not a generation Y characteristic.It would be expected that generation Y, whose preferred work values are not actualised, will have the intention to leave the organisation. Given the contradictory discussion on the preferences of work values of generation Y at the workplace, besides the limited scholarly work in this regard, the influence of the five work values fit on the intention to quit has remained empirically unjustified for the generation Y workforce in Malaysia (Queiri et al., 2014). If Malaysian generation Y employees have preferences towards particular work values, this, in return, may affect their intention to quit, especially with increased mobility and impatience of generation Y. Consequently, it could be hypothesised:

H1a: Extrinsic work values fit will negatively influence Generation Y's intention to quit.

H1b: Intrinsic work values fit will negatively influence generation Y employees' intention to quit.

H1c: Status work values fit will negatively influence generation Y employees' intention to quit.

H1d: Freedom work values fit will negatively influence generation Y employees' intention to quit

H1e: Altruistic work values fit will significantly and negatively influence generation Y employees' intention to quit.

Demands Abilities Fit and Intention to Quit: Hassan et al. (2012) conducted an empirical study and found that poor match between the assigned tasks and one's abilities (DA misfit) will induce the turnover intention positively. As, DA fit is about matching the knowledge, skills and abilities (KSAs) of employees with the demands of the job, hence lower the fit is the high turnover rate and more absenteeism will be the result if a good fit does not exists. Mathis and Jackson (2003) individuals who experience a mis-fit between their own abilities and complexities of the job will have an intention to leave their job for another job in which they perceive better utilisation for their skills and knowledge through providing job tasks which better suit their abilities. In this vein, the impact of demand abilities fit in terms of utilisation generation Y employees' skills, abilities and knowledge on intention to quit is not investigated within Malaysian context, and however, it is reasonably to hypothesis the following:

H1f: Perceived demands abilities fit will negatively influence generation Y employees' intention to quit.

Mediating Role of Job satisfaction, Affective commitment and Job Stress

In view of the discussed theoretical background, the perceived fit with preferred work values and demand abilities may exert an influence on employees' job satisfaction and affective organisational commitment and job stress. This is an indication that the relationship between the perceived work values fit and demand abilities with intention to quit is more complex than a direct relationship. Westerman and Cyr (2004), Liu et al. (2010) and Aurther et al. (2006) empirically justified that needs-supplied fit influences on intention to quit are mediated by job satisfaction and affective organisational commitment. Solnet and Hood (2008) in their turnover model specifically tailored for generation Y workforce, proposed the alignment of HR practices with generation Y work values, in other words fit is a determinant of work related attitudes that in return may exert an influence on intention to quit. Calisir et al. (2011) and Deery (2008) based on reviewing wide range of empirical studies, job satisfaction and effective organisational commitment to be among the direct and strongest antecedents of the intention to quit. Consistent with this, their empirical findings affirmed that job satisfaction and affective organisational commitment where strongest predictors of intention to quit and such job attitudes mediate the relationship between organisational factors and the intention to quit. Accordingly, given the potential impact of the preferred work values fit and demand abilities fit on job attitudes, in addition to the influences of such job attitudes on the decision to leave organization. It is of important to highlight that the preferred work values for generation Y employees in Malaysia are not known. Thus, all the perceived fit with work values are hypothesized, in effort of attempting to find out which of the particular type of fit may influence the intention to quit through evoking psychological response at first place. Hence, it is reasonably to states the following hypothesizes:

H2a: Job satisfaction will mediate the relationship between the (extrinsic, intrinsic, status, freedom and altruistic) works values fit and intention to quit.

H2b: Job satisfaction will mediate the relationship between the demands abilities fit and intention to quit.

H3a: Affective organizational commitment will mediate the relationship between the (extrinsic, intrinsic, status, freedom and altruistic) works values fit and intention to quit.

H3b: Affective organizational commitment will mediate the relationship between the demands abilities fit and intention to quit.

Drawing from the theoretical discussion that highlights the likelihood of complementary fit (demands abilities fit and different aspects of work values fit) to influence job stress, it is reasonable to conclude that unmet preferred work values or mismatch of abilities will result in job stress. With this said, large body of literature considers intention to quit as consequence of job stress. Similar to the other generational workforce, when generation Y employees experience stress at their jobs due to unmet preferred rewards or assigned tasks to employee that not within his skills , it is likely that such feeling would result in triggering the intention to quit job. Job stress is considered one of the major personal attributes that consistently found to be positively related to the intention to quit (Firth et al., 2004). Accordingly it is hypothesized as following:

H4a: Job stress will mediate the relationship between the perceived (extrinsic, intrinsic, status, freedom and altruistic) works values fit and intention to quit.

H4b: Job stress will mediate the relationship between the perceived demands abilities fit and intention to quit.

Job Related Attitudes and Turnover Intention Griffeth and Hom (1995) conducted a meta-analysis of employees' turnover antecedents and correlates, which is updated in Griffeth, Hom and Gaertner (2000). The latter Meta-analysis reconfirmed the finding that overall job satisfaction and organizational commitment were the best direct predictors of turnover intention; the comparison was conducted with personnel characteristics factors (e.g., gender, tenure, educational level and job category), work experience factors (e.g., advancement, leadership, participation and co-work group cohesion), and external work environment factors (e.g., perceived alternatives). However, the crux of debates was surrounded by which of the two work related attitudes was more closely related to the turnover intention (Deery, 2008). Despite the perplex results in the organizational behavior field, Griffeth et al. (2000), Shore and Martin (1989) and Porter et al. (1974), agreed based on empirical findings and meta-analysis approaches that organisational commitment is a stronger predictor of turnover intention. Thus, it is more closely related to turnover intention. They further argued that a global attitude, such an organisational commitment, is closely associated with organisational behavioural outcomes such as intention to quit. Nevertheless, for generation Y workforce it is argued that overall job satisfaction is a stronger predictor than affective organisational commitment and job stress for turnover intention (Solnet and Hood, 2008). Probably, generation Y employees strive for self-actualisation,

and can move from one organisation to another that provides better opportunities of fulfilling self-actualisation needs. This makes the commitment to their careers instead of their organisations, which may explain the weakness of affective organisational commitment and job stress in predicting turnover intention compared to job satisfaction. Additionally, job stress predictive strength of turnover intention of generation Y employees is less than job satisfaction and affective organisational commitment. This concurs with Firth et al. (2004) finding, Griffeth et al. (2000) meta-analysis finding, and Nee et al. (2013) finding on turnover intention antecedents for the all employees and for generation Y employees, respectively. Therefore, it could be reasonably to hypothesise the following;
H5: Job satisfaction will be a stronger predictor of generation Y employees' intention to quit more than affective organisational commitment and job stress

3. Methodology

Sample and data collection: A paper and pencil survey was administrated to employees who fall under the generation Y workforce during office hours and breaks. Generation Y employees (born from 1980 until 2000) in the Business Process Outsourcing (BPO) sector is the target population. In total, a total of 350 responses were collected, and the data screening suggests that 318 responses should be retained for further analysis. Thirty two responses were excluded, as two of them have missing data over 5%. The other 30 responses were excluded based on the sampling criteria guidelines; these 30 responses indicated that they were not born between 1980 and 2000. This left the researcher with 318 responses, which met the sampling criteria and missing data of less than 5% was treated by mean substitution method. Table 1 reflects the demographical profile of the respondents.

Table 1: Demographical Profile of Respondents

Gender (%)		
Male: 43%	Female: 57%	
Ethnicity (%)		
Malay:28%	Chinese:49%	Indian:23%
Tenure (%)		
Less than 1 year : 42%	1-3years: 40%	More than 3 years: 18%
Educational level (%)		
Diploma: 21%	Degree:70%	Master:9%
Job Categories (%)		
Non-executive:21%	Executive: 69%	Managers:10%

This study uses the Work Values Scale (WVS) developed by Lyons (2004), which consists of 31 items that can represent five work values dimensions (extrinsic, intrinsic, status, freedom and altruistic values). The fit is assessed through indirect subjective fit, whereby work values are asked twice: first as desirable work values, and second as perceived work values of the organisation, based on commensurate work values measure for both forms. Accordingly, the respondents are given the following two tasks: a) Please indicate the desirability level of having a job with these items (individual form or ideal form). b) To what extent are these items provided by your present job (perceived organisational supply form). The work values fit on each dimension is measured by calculating the discrepancies between the items provided in individual form and perceived organisational supply (differences between paired items), thus creating a fit profile (D-score) (Westerman& Yamamura, 2007). Van vianen (2000) defines the D-score profile as a profile comparison method whereby fit is calculated as the difference between an individual's work values with others' perceived work values. A positive sign indicates that there is under fit, and a negative sign indicates that there is over fit. The response for both forms is based on a five point scale.

For ideal form, 1 indicates the item is very undesirable and 5 indicate the item is very desirable. For perceived supply form, 1 indicates that the item is supplied with very little extent and 5 indicate a very large extent. Demands abilities fit - It is measured directly using the perceived direct fit using four items. Participants are asked to respond on a five-point Likert scale; 1 indicates "strongly disagree" and 5 indicates "strongly agree". The items of demand abilities fit were originally combined from (Giauque et al., 2014; Schmitt et al., 2008; Cable & DeRue, 2002).

Job satisfaction - is measured using five items on a five–point Likert scale, as provided by Hochwarter et al. (2003). This measure is suitable for the current study, as it reflects the overall job satisfaction, rather than questioning the satisfaction with different aspects of work.

Affective organisational commitment - It is measured using Allen and Meyer's (1990) scale, which consists of five items, and the response is on a 5-point Likert scale.

Job Stress - It is measured using House and Rizzo's (1972) scale, which consists of six items on a five-point scale. Originally, House and Rizzo's (1972) scale to measure job stress consists of 7 items. However, the seventh item "I have felt nervous before attending meetings at work" was removed from the scale, as it was deemed to be irrelevant in the Malaysian context, since a large number of the targeted population do not attend meetings often.

Analysis: This study relies on the two-step approach suggested by Anderson and Gerbing (1988) to perform the analysis stage, measurement and structural models. However, prior to the implementation of the two step approach, exploratory factor analysis (EFA) was employed to group the multiple indicators to their corresponding constructs according to the content. The measurement model is implemented with use of confirmatory factor analysis (CFA). Anderson and Gerbing (1988) recommend the use of CFA to achieve the uni-dimensionality of constructs. The ultimate goal of the measurement model is to achieve a construct validity and reliability. Using structural equitation modelling, the proposed hypothesises were examined.

4. Results

Prior to the exploratory factor analysis (EFA) implementation, several assumptions were investigated to judge on the appropriateness of implementing EFA. These assumptions are the sample size, factorability and univariate normality of items, as recommended by Hair et al. (2006). The individual form of the work scale (WVS) that consists of 31 items was found to satisfy such conditions. The implementation of EFA has generated five factors that measure 17 items. The exclusion criteria for the rest of the items is based on items that have a factor loading value under 0.4, which is removed and items that cross load on other factors is removed as well. Following the recommendation of Stevens (1992), 0.4 is the cutoff value of the factor loading, since a lower value can reduce the model goodness of fit. Furthermore, the assumptions of EFA were satisfied for all the items of Demand abilities fit, job satisfaction, affective organisational commitment, job stress and intention to quit. EFA is also implemented with these constructs separately, to establish a single factor solution. Measurement Model using confirmatory factor analysis (CFA), the goodness of fit for the five generated factors is collectively assessed. These factors are: intrinsic, extrinsic, status, freedom and altruistic work values, which measure 17 items. To assess the goodness of fit, several indices are used, following the recommendation of Hu &Bentler (1999) and Hair et al. (1998). The fit indices suggest that the model provides an adequate fit to the data, Table II Goodness of fit for work values model (individual form), as displayed in Table 2. Similarly, the goodness of fit for the five factors with 17 items that reflect organizational items is assessed using CFA. The work values model for organizational form shows a reasonable fit to the data, with x^2= 424; p < 0.01; df = 90, SRMR = 0.069, CFI = 0.90).

Table 2: Goodness of Fit for Work ValuesModel (Individual Form)

Fit index	Recommended values	Observed Values	
x^2/df ,(x^2, df)	$x^2/df \leq 3$	1.89	(171, 90)
CFI	≥ 0.90		0.94
RMSEA, Pclose	≤ 0.08 , Pclose ≥ 0.05 (no.sig)	0.053	0.32
TLI	≥ 0.90		0.92
SRMR	≤ 0.08		0.053
GFI	≥ 0.90		0.94
AGFI	≥ 0.80		0.91

All the fit statistics fall within the range of the recommended values, as advised by Hu &Bentler (1999) and Hair et al. (1998). Additionally, the goodness of fit for demand abilities fit (DA), job satisfaction (JSAT), affective organizational commitment (AOC), job stress (JS) and intention to quit (IQ) are assessed separately through CFA. The fit indices are shown in Table III. All the constructs show adequate fit to the data. Table 3 Goodness of fit for research constructs. The respondents should be invariant (equivalent) to the factors structure and to the corresponding items loading on the factors. Thus, the interpretation of the subsequent analysis becomes more meaningful (Milfont& Fischer, 2010).

Table 3: Goodness of Fit for Research Constructs

Construct	(x^2,df)	CFI	RMSEA	Pclose
DA	(4.683, 2)	0.99	0.065	0.28
JSAT	(0.853,1)	0.99	0.01	0.526
AOC	(12,4)	0.99	0.08	0.134
JS	(1.8,1)	0.99	0.05	0.339
IQ	(3,1)	0.99	0.08	0.158

Vandenberg and Lance (2000) provided good guidelines for establishing invariance measurement. It is suggested that configural invariance is assumed as long as the unconstrained model shows a goodness of fit when two groups (male and female) are under the analysis. Table 4 presents the goodness of fit for the unconstrained model for both groups. All the fit statistics indicate that the goodness of fit is adequate, based on Hair et al. (1998) suggestion. Thus, the configural invariance is assumed for male and female. The configural model will serve as the baseline model for subsequent analysis of invariance. Furthermore, the metric invariance test is employed through constraining all items across the two groups to be equal. It is observed that there is a metric invariance between male and female if the full constrained model's goodness of fit has not reduced significantly when compared with the baseline model (unconstrained model). Bentler (1990) suggests the use of ΔCFI, where the metric invariance model's goodness of fit is said to be significantly reduced if the ΔCFI is reduced by more than 0.01 when compared to the baseline model. However, the reduction of ΔCFI is equal to 0.008.

Table 4: Invariance Analysis

Model	(X^2,df)	X^2/df	RMSEA/Pclose	SRMR	CFI	Comparisons	Decision
Model 1 : Full Configural invariance (unconstrained model)	(281,18)	1.6	0.042/0.92	0.063	0.928	n/a	accept
Model 2 : Full Metric invariance (constrained model)	(308,19)	1.58	0.043/0.908	0.076	0.92	Model 1 vs. Model 2	accept
Note: Δ_-= 308-281= 27 , Δdf = 15	P-value = 0.03			ΔCFI=0.008			

The presence of common method effects is assessed through Harman's single-factor test in SPSS. The test is implemented by extracting a single factor solution. A common method effects is present if the extracted one factor accounts for the majority of variance, which is over 50% (Calisir et al., 2011). A single factor solution accounts for 32.345% of the variance. Hence, it is not a majority, and the Harman's test indicates that the constructs measurement is due to more than a common methods effects. The AVE and CR are estimated for each factor and the calculated values are presented in Table 5. Despite that AVE for EWV, IWV and FWV are below the threshold of accepted AVE. Nevertheless, Fornell and Larcker (1981) argued that an AVE of less than 0.5 is acceptable given that the CR is above 0.6. Such criteria is used in a wide range of management researches, as in Kim et al. (2009), who decided to proceed with analysis under such low AVE. Additionally, the AVE for constructs is quit close to 0.5. In terms of discriminant validity, it is assessed using the guideline provided by Fornell and Larcker (1981). Discriminant validity is achieved if the average variance extracted for each factor is larger than the shared variance with any factor. For instance, as shown in Table5, the average variance of FWV (0.486) is larger than any shared variance that FWV shares with other factors, and the same is applied to the remaining factors. Accordingly, each factor measure is distinct from the others, with no overlapping or possible co-linearity.

Table 5: CR, AVEs and Shared Variances

	Composite Reliability (CR)	Average variance extracted(AVE)	FWV	EWV	IWV	SWV
FWV	0.739	0.486	***0.486***			
EWV	0.744	0.421	0.401	***0.421***		
IWV	0.746	0.382	0.219	0.327	***0.382***	
SWV	0.753	0.513	0.217	0.053	0.163	***0.513***
AWV	1	1				

Similarly, convergent validity for the job satisfaction, affective organisational commitment, job stress and demand abilities fit are assessed to measure the extent that the items reflect the theoretical concept. Using same criteria provided by Bagozzi et al. (1991) which suggested that convergent validity is established through assessing three different dimensions. The calculated average variance extracted was above 0.5, except for job stress. According to Fornell and Larker (1981) and Huang et al. (2013), even if the average variance extracted is less than 0.5, provided that composite reliability is higher than 0.6, the convergent validity of the construct is still acceptable. With reference to Table 6 all the constructs have composite reliabilities above 0.6. Thus, it is concluded that the different constructs have a convergent validity, and naturally have discriminant validity, since these factors (job satisfaction, job stress, and affective organisational commitment and demand abilities) are theoretically distinctive from each other and each factor measures a different concept.

Table 6: Constructs' Validity

Construct	Average Variance Extracted (AVE)	Composite Reliability (CR)
Demands Abilities Fit (DA)	0.591	0.851
Job Satisfaction (JSAT)	0.745	0.921
Affective Organisational Commitment (AOC)	0.665	0.908
Job Stress (JS)	0.33	0.603
Intention to Quit	0.756	0.902

The path coefficients enable us to draw some conclusions concerning the hypothesized relationships. H1a until H1f theorized that fit with different work value dimensions would be negatively related to the turnover intention of generation Y employees. The structural model supports (H1d) that is the fit with freedom work value exert direct influence on the turnover intention of generation Y employees. Such result is indicated in Table 7. To assess the mediating role of job related attitudes in linking work values fit dimensions to the turnover intention, different path model was analyzed in order to assess the unique contribution of each theorized mediator, instead of collective assessment of these mediators. Each potential mediator is assessed separately to make an inference of which of the potential mediators explain the intention to quit for generation Y employees. H2a received partial support, as job satisfaction was found to mediate the relationship between extrinsic and freedom work values. Furthermore, H2b received full support, as demand abilities fit has indirect influence on the turnover intention, through job satisfaction.Additionally, H4a received partial support, as freedom work values fit was found to exert indirect influence on the turnover intention, through job stress. On the other hand, H3a-b did not receive support, in the sense affective organizational commitment was irrelevant mediator in explaining generation Y turnover intention, as well as H4b was not supported either. The results of mediation test are presented in Table 8.

Table 7: Direct Impact on Turnover Intention

Dependent variable	Independent variables	Direct effects
Intention to quit (IQ)	**Job satisfaction (JSAT)**	**-0.552****
	Affective organizational commitment (AOC)	**-0.168****
	Job stress (JS)	**0.124****
	Extrinsic work values fit (EWV fit)	0.105
	Intrinsic work values fit (IWV fit)	-0.108
	Status work values fit (SWV fit)	0.020
**P<0.05*	**Freedom work values fit (FWV fit)**	**-0.112***
***p<0.01*	Altruistic work values fit (AWV fit)	-0.029
	Demand ability fit (DA)	-0.033
	Gender	-0.031
	Tenure	0.080
	Job Category	-0.037
	Educational Level	0.006

Table 8: Mediation Test

Dependent variable	Independent variables	Indirect (JSAT)	Indirect (AOC)	Indirect (JS)
Intention to Quit	Extrinsic work values fit (EWVfit)	**-0.073***	-0.021	- 0.007
	Intrinsic work values fit (IWVfit)	-0.072	-0.020	0.005
	Status work values fit (SWVfit)	0.060	0.039	-0.013
	Freedom work values fit (FWVfit)	**-0.130****	-0.038	**-0.035***
*P<0.05, **P<0.01	Altruistic work values fit (AWVfit)	-0.038	-0.022	-0.014
	Demand ability fit (DA)	**-0.230****	-0.067	-0.038

Discussion: First aim of this study was to determine which types of complementary fit dimensions are relevant in explaining generation Y employees' intention to quit. Freedom work values fit, extrinsic work values fit and demands abilities fit were relevant predictors of generation Y employees' intention to quit, with freedom work values fit to be the strongest direct predictor. A high preference towards freedom work values could be linked to the decline of work centrality; generation Y had witnessed their parents to be work-centric and devote a huge time to work, and in return they fell victims to economic shrinking measures (retrenchment and unstable salaries; Kowske et al., 2010). This, in turn, influences generation Y towards the concept of live to work instead of work to live (Twenge, 2010). This is also particularly true in Malaysia, as the country went through economic uncertainties when generation Y was at the developmental stage, which are the same reasons that cause them to place higher emphasis on freedom work values. They expect a workplace that provides a balance between life's and family's responsibilities with work, besides preferences of convenient working hours that suit their life schedule. They also expect workplace engaged in leisure and workplace fun activities instead of taking the workplace very serious. Generation Y are said to exhibit citizenship behaviour outside the workplace. This, in turn, leads to generation Y seeking a balance between work and life. However, generation Y does not necessarily exhibit citizenship behaviour in the workplace, as this generation perceives the workplace as a means to an end rather than an end in itself.

It could be argued that Malaysia's generation Y employees grew up in a collective society, which consequently causes them to be more committed to a work-life balance in order to cater the needs of families or personal life, which, in the end will bring benefits to the entire family. Therefore, freedom work values fit is extremely salient for generation Y employees, as they regard freedom work values to be a necessity instead of a luxury, and therefore, if it is not adequately supplied, the impatience and low tolerance of such stressors (work-life conflict, inconvenient long working hours and serious workplace environment) will drastically result in a high level of generation Y mobility. Furthermore, this generation is confronted with new economic trends and has financial obligations ahead. For instance, this group of employees needs to cope with the rapid inflation of living expenses, increased higher education costs, and the associated load of debt. Therefore, it is very likely that there will be high preference towards extrinsic work values. Alternatively, the high emphasis on extrinsic work values could be as response of the economic hardships experienced during formative years.

Apart from preferences towards material possession and benefits, having friendly co-workers and supportive supervisors as part of extrinsic rewards could be meaningful in explaining generation Y employees' attitudinal outcomes and behavioural intention once there is a good fit. The need of friendly co-workers reflects that generation Y employees are seeking for social interaction, and they do not have less attention towards social interaction activities. Despite the generation Y cohort being digitally connected and available online 24/7, social interaction at the workplace matters for them. As culture plays a vital role in shaping the preferences of work values, Malaysia is known as a collective society. Such cultural belief seems to be embraced by the generation Y workforce in Malaysia, and this is brought with them into the workplace. This collectivist culture belief is demonstrated by more demands of relationship and interpersonal factors by the generation Y workforce. In line with this, Ching and Kee (2012) found empirical support that the collectivist cultural orientation influences the choice of social values, and thereafter, such values have an impact on work related attitude aspects. On the other hand, intrinsic work values fit, status work values fit and altruistic work values fit are found to be irrelevant for generation Y employees' intention to quit. Collectivistically oriented individuals would endorse more group-linked work values (e.g., interpersonal relations). Indeed, the work values held by Malaysians reflect the cultural orientation that exists in their society. On the other hand, individualism asserts that "the individual is autonomous from the group". In individualistic societies, the core values are individual achievement, self-reliance, belief in equality of opportunity, competitiveness, hard work, informality and belief that change is good (Ching and Kee, 2012). Given that collectivism is a dominant value in Malaysia, the status work values may not be vital in determining generation Y's future career. It is also likely that individualism may not be a character of the Malaysia's generation Y employees, and thus, the group is realistic towards the need of status work values.

Moreover, this may explain why the status work values fit was irrelevant in explaining the decision to quit and career path for Malaysia's generation Y employees compared to extrinsic/social rewards. Demands abilities fit for generation Y employees is in line with notion of P-E fit theory ,that complementary fit dimensions and turnover intention is more complex than a direct relationship. It would be expected that the relationship between demand abilities fit and intention to quit for generation Y employees to be in line with Westerman and Cyr (2004), Liu et al. (2010) and Arthur et al. (2006) who affirmed that fit at first place affects employees' job attitudes and thereafter intention to quit. In contradiction of Meyer et al. (2002), Griffeth et al. (2000), Shore and Martin (1989) and Porter et al. (1974), this study revealed that overall job satisfaction is a stronger predictor than affective organisational commitment for turnover intention, specifically for generation Y employees. Probably, the earlier studies focused on other generational workforce, as by that time of studies, generation Y employees were not in a large numbers. There is a possible interpretation for such current findings which opposed the traditional theory. Indeed, generation Y employees strive for self-actualisation, and can move from one organisation to another that provides better opportunities of fulfilling self-actualisation needs. This makes the commitment to their careers instead of their organisations, which explains the weakness of affective organisational commitment in predicting turnover intention compared to job satisfaction. Indeed, it was argued that generation Y employees begin their careers with the assumption that they will change jobs frequently; therefore, if they are not satisfied with working at a company, they will leave. Furthermore, the contemporary dynamic environment has resulted in changes of the career traditional management system, which emphasises on the individual in developing careers (Baruch, 2006). Accordingly, career development becomes an individual responsibility, and several concepts, such as protein career "career resilience", is growing among professionals (Baruch, 2006). It is likely that a generation Y cohort witnesses such changes, and given their high level of mobility compared with other generational workforces, this generation is expected to be committed to their careers and not to the organisations. In turn, this signifies that the role of affective organisational commitment as a mediator will probably not hold true for the generation Y workforce, and the job satisfaction role as mediator becomes more pronounced.

5. Managerial Implication

Indeed, the BPO sector suffers from non-attractive fringe benefits (monetary and non-monetary) when compared with other sectors (Wan Yusoff et al., 2013). Given this, managers in the BPO sector should reconsider their fringe benefits directed to generation Y employees as part of their retention strategy, or to conduct mentoring sessions to discuss the potential of fringe benefits increases. The relationship with supervisors is essential in retaining this generation workforce; this generation lacks the direction and requires constant support from their supervisors to rapidly achieve success. With this respect, managers should enhance the relationship between supervisors and generation Y employees through developing coaching and monitoring programs to ensure that generation Y employees receive immediate and constant feedback. However, feedback should be constructive and not carrying cynicism. Also, Managers should increase generation Y employees' cohesion with each other and ensure there is no conflict among them on a regular basis, and whether any possible remedies can be introduced to mitigate the conflict. Fairness of a company's policy requires managers' consideration when the improvement of retention for generation Y employees is the aim. Generation Y employees are said to have a sense of entitlement (disconnection of rewards and performance; Queiri, Dwaikat and Wan Yusoff, 2014). Therefore, this generation may perceive incremental bonuses or other rewards based on performance that are issued to others as to be applicable to them as well, regardless of their performance.

Thus, perception of inequity increases among generation Y employees, and judge the situation to be treated with partiality. Managers could tackle this issue by adopting gain sharing (GS) schemes, which are based on common fate concepts. This, in turn, may mitigate the perception of unfair policies associated with sense of entitlement and encourage teamwork that generation Y comforts with to carry out social interactions with others. Managers in the BPO sector should reconsider the freedom rewards directed for generation Y employees to improve generation Y employees' retention. Part of the retention strategies that enrich the freedom rewards is providing a balance between life/family and work. This could be achieved by giving generation Y employees the choice they perceive convenient to decide when to start and to stop work, in order to handle life/family responsibilities, instead of routine working hours. Other than that, reconfiguring the number of days to work may be beneficial to them. For instance, instead of working five days, generation Y employees are given the option to compress working days to four days, with more working hours per day. Other choices to enable balance between work and life may be a special on site area for employees' children. The retention strategy to enrich freedom rewards should go beyond providing a work life balance to incorporate fun activities at the workplace. Introducing more leisure time with intervention of fun activities could be an affective retention strategy resonated for generation Y employees. Fun activities are achieved through making the workplace less serious. Managers can incorporate task activities that provide pleasure, amusement and enjoyment. Sponsorship hobby activities could be incorporated into the job.Demand abilities fit is another crucial factor in retaining generation Y employees in the BPO sector. This signifies that managers should use generation Y employees' full potential through assigning tasks and duties that are relevant to their KSA's, where generation Y employees find themselves excelling and performing better. It is likely that recruited generation Y employees are technical savvy and possess vocational professionalism, and demands to be treated professionally. Therefore managers should avoid assignments that underutilise or miss-utilise their KSA's.

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