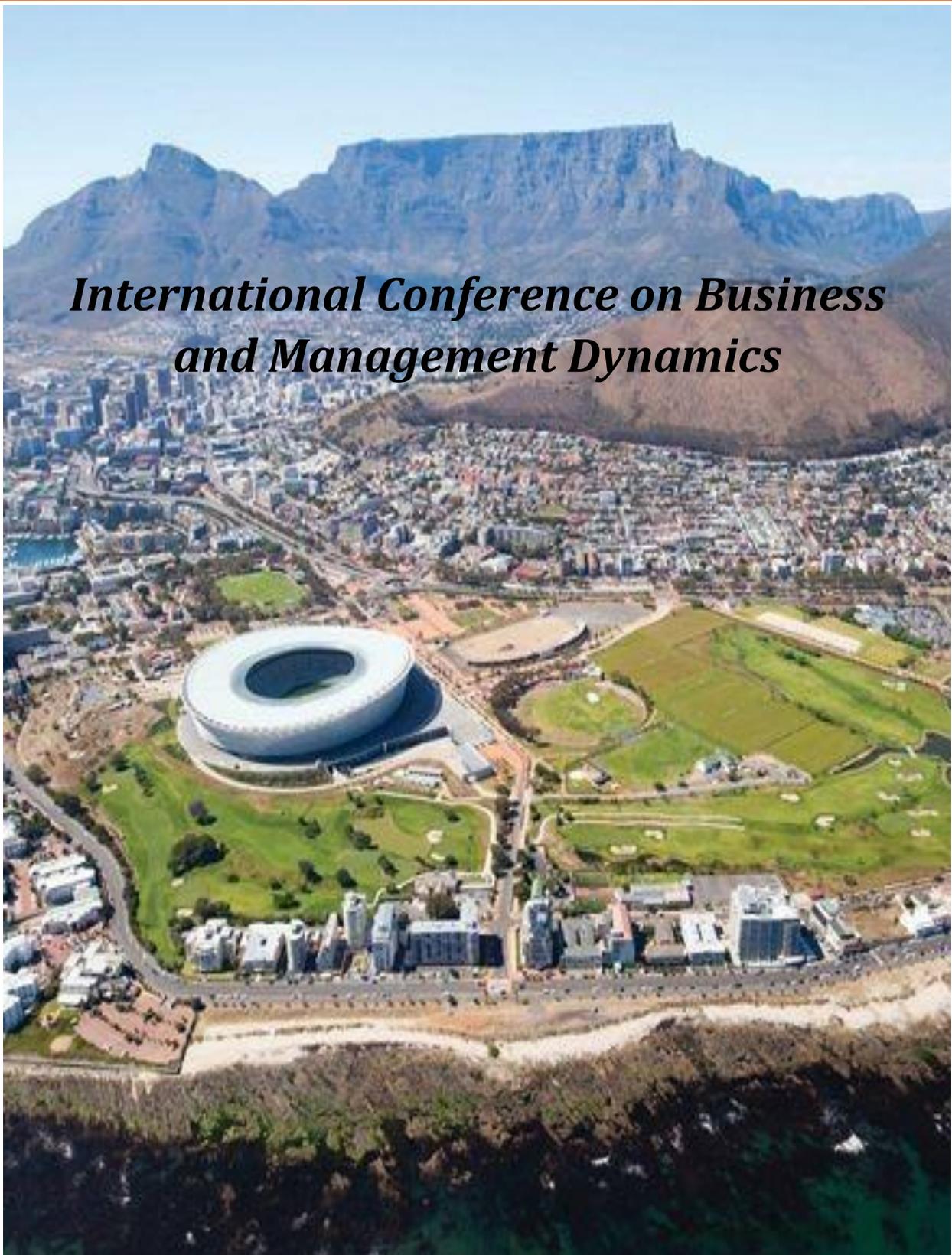


*International Conference on Business
and Management Dynamics*



ICBMD-2018

29-31 August 2018

**INTERNATIONAL
CONFERENCE ON
BUSINESS AND
MANAGEMENT
DYNAMICS**

Cape Town
South Africa

BOOK OF PROCEEDINGS

Overview

International Conference on Business and Management Dynamics (ICBMD-2018)

NH Cape Town Lord Charles Hotel
August 29, 2018 – August 31, 2018
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Theme: Managing business competitiveness in times of glocalization

Globalization has been the order of global business for a while, as firms have sought to expand into markets far afield. Technological advances and improvements in global infrastructure have made the global firm very competitive. The rewards for this strategic approach have been increased profits derived from areas that would normally not be accessible. Many firms have, therefore, retuned their strategies to give them global orientations. This is also the time when Africa is touted as “the next big thing” in global business. The economic liberalization that underpins globalization calls for opening up markets and minimizing the role of government in business. Africa seems to have swallowed this hook, line and sinker and the “Africa Rising” theme has become a common refrain. In the face of the recent backlash against globalization, manifest most significantly in the United Kingdom leaving the European Union, the uncertainty at Korean Peninsula and Iran nuclear deal with United Nations to the historic and divisive U.S. presidential elections, have brought large- scale change and uncertainty to international business and its competitiveness. Many are rushing back to regionalization, as opposed to the dominant globalization. This does not portend well for Africa as we have come to rely too much on global sources of products/services for our basic needs. African firms face a particularly difficult situation given that our local economic blocs may not be competitive enough.

Toward this end, “Managing Business Competitiveness in Times of Glocalization” will be the theme for ICBMD-2018. Business leaders and governments have expressed concerned with the impact of this trend toward glocalization and its underlying political, social, economic, and other environmental issues. These range from knowledge management, digitalization, and cost accounting to shipping methods/supply chain issues to universal payment methods/currency to cultural differences. The conference invites work in the form of scholarly papers (empirical or conceptual), rigorous case studies and technical reports addressing contemporary and development issues in all aspect of business management.

The conference seeks to provide an avenue to discuss these emerging trends and their implications for business competitiveness, especially for African enterprise. A key guiding question is: how these emerging trends has altered the way we think about business and the firms, and the new constraints that such alterations may present. Thus, papers for presentation should provide some nuanced understanding of the concept of glocalization and its underpinnings. Papers may also consider how the ambiguities and uncertainties presented by growing glocalization may be neutralized. Papers are welcome from all business disciplines e.g., Accounting, Finance, Marketing, Operations, Information Technologies, Law, and Supply Chain or from an interdisciplinary perspective.

Note: The proceedings can be referenced or cited as: Molebatsi, G., 2018, ‘Utilization of Electronic Filing Systems in South Africa’, IN M. Twum-Darko (ED.), Proceedings of The International Conference on Business and Management Dynamics 2018: Managing Business Competitiveness in Times of Glocalization, IFRD, UAE. PP. 9–16,

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Speakers



Guest of Honor: Prof. Edit Vries

Prof Edith Vries was appointed as Director General for the Department of Small Business Development of the Republic of South Africa in September 2015. She is a leading executive and international expert on organizational strategy, corporate governance, transformation, change and diversity management, people centered leadership and gender equality. As a highly regarded visionary and inspirational speaker, she balances impassioned and dynamic leadership with a well-articulated and erudite sense of strategy formulation, direction and implementation.

Edith has a proven track record of executive level leadership in the public, corporate and not-for-profit sector coupled with a distinguished academic tenure and accomplished research background as well as being a well-respected political activist. Edith has also represented the South African government at the highest levels both nationally and internationally, having led and presented national policy formulation at key multilateral forums. Edith has over the years successfully developed a deep understanding and intuitive practice of people and group dynamics at both organizational and individual level.

Her employment history includes Director General at the Department of Agriculture, Forestry and Fisheries (DAFF); Executive Head of the Independent Development Trust (IDT); Director of Community Development at the Department of Welfare; and Associate Professor at the University of the Western Cape. Edith holds varying degrees and qualifications from varying educational institutions over the world, and is well respected for her contributions within her field of study.



Keynote Speaker: Mr. Tim Harris

Mr Tim Harris is the CEO of Wesgro; the Tourism, Trade and Investment Promotion Agency for Cape Town and the Western Cape. Tim previously served as Member of Parliament and Shadow Minister of Finance for the Democratic Alliance (DA). He holds a BA in English Literature and a Masters in Economics from the University of Cape Town. Tim currently sits on the board of the Cape Town International Convention Centre, the Cape Town Film Studios and BPESA.



Keynote Speaker: Sharron McPherson

Sharron McPherson has over 25 years' experience as an accomplished investment banker and former Wall Street attorney. For the past 18 years she has lived and worked in South Africa where she continues to advise and teach. She has been at the forefront of the movement to invest differently in African women and youth and is a founding member of Women in Infrastructure Development & Energy (WINDE) and New Faces New Voices (an initiative spearheaded by Graça Machel). Sharron is also passionate about leverage advancing technologies for development in Africa. She presently teaches Project Finance at the University of Cape Town's Graduate School of Business and is a founder of Singularity University South Africa

Finance & Management

Consumer Decision-Making Styles Among Generation Y Consumers: A Comparison of Three Main Universities in Namibia

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Abstract: This study investigated the decision-making styles of the Generation Y consumers in Namibia. Generation Y, Millennial Generation, or simply Millennials are defined as a group of people born roughly between 1982 and 2002. Although this generation is said to have developed a distinctive buying behaviour, few studies in Namibia have profiled this generation's buying behaviour. Data was obtained by administering the CSI instrument to a random sample of 505 respondents from the three (3) major Universities in Namibia. Responses from the survey instrument were analysed using SPSS version 22. Factor Analysis (FA) through Principal components analysis (PCA) was used to assess the underlying structure of the components and for assessing the validity and reliability through Cronbach's Alpha coefficients. Multivariate analysis of variance (MANOVA), and analysis of variance (ANOVA), were used to test for hypotheses. The findings confirmed eight (8) consumer decision-making styles among the Generation Y consumers in Namibia. The study found that the three major Universities in Namibia produced Millennials with different Profiles of consumer decision-making styles. The findings are deemed important in the formulation and the use of effective strategies when addressing the needs of this group.

Key Words: *Consumer decision-making styles, Generation Y, Millennials, Universities, Consumer Style Inventory*

1. Introduction

Given the influence of the macro-environment forces on consumers, today's consumers are more sophisticated, inquisitive and discriminating (Strauss and Howe, 1999; Bekewell and Mitchell, 2003). They insist on high-quality products that are healthy or save time and energy (Lamb et al., 2013). Generation Y, Millennial Generation or simply Millennials are defined as a group of people born roughly between 1982 and 2002 (Strauss and Howe, 1999, Lukina, 2016). They are known to be digital natives (Lehtonen and Mäenpää, 1997; Blackwell and Mitchell, 2003). Youth in general is known to expend considerable amounts of money and time on technology related devices and the Internet. This in turn influences their purchasing decision-making. To respond to such challenges and opportunities in the marketplace, marketers need to be aware of these trends. Universities like any other business need to be aware of the consumption behaviour of their students to be able to provide appropriate services and to be in touch with the reality of the consumers they often say they care about.

Sproles and Kendall (1986) have identified eight basic mental characteristics of consumer decision-making as follows: (1) Perfectionism or high-quality consciousness; (2) Brand Consciousness; (3) Novelty-fashion consciousness; (4) Recreational, hedonistic shopping consciousness; (5) Price Consciousness; (6) Impulsiveness; (7) Confusion from over choice; (8) Brand-loyalty orientation towards consumption. A Consumer Style Inventory (CSI) with 40 Likert-scaled items has also been developed to measure these cognitive and personality characteristics (Chase, 2004; Sproles & Kendall, 1986).

2. Literature Review

Consumers are decision makers and as such organisations need to be aware of how they make decisions to influence their decision-making to the organisation's advantage (Reynolds and Olson, 2001). Generation Y, the Millennial generation or simply Millennials are defined as a group of people born roughly between 1982 and 2002 (Strauss and Howe, 1999), and who are said to have developed authentic and therefore distinctive

consciousness (Goldgehn, 2004, Koutras, 2006, DeChane 2014, Lukina, 2016). The terms coined by Strauss and Howe (1999), 'Millennial generation' and 'Millennials' refer to Generation Y and are accepted widely (Lukina, 2016). In 2018 the oldest representatives of this group are about 38 years old with the youngest being just over 16 years old.

Consumer Decision making Styles: Earlier research suggests that consumer purchasing decision-making is triggered by stimuli and that repeated participation in consumer decision-making increases an individual's knowledge and experience – thus relating it to consumer learning (Howard, 1963; Howard & Sheth, 1969). Other pioneering models include the Bettman (1979) and the Holbrook & Hirschman (1982) that describe the information processing theory of consumer choice and the experiential consumer behaviour respectively.

Sproles and Kendall (1987, p.7) defined a consumer decision-making style as “a mental orientation characterising a consumer’s approach to making choices”. Based on previous consumer literature, Sproles and Kendal (1986) organised consumer characteristics specifically related to consumer decision-making to differentiate consumer styles from the psychographics or lifestyle approach, the consumer typology approach, and the consumer characteristic approach in the consumer-interest field. Eight basic mental characteristics of consumer decision-making were identified and a Consumer Styles Inventory (CSI) with 40 Likert-scaled items was developed to measure these cognitive and personality characteristics (Chase, 2004, Sproles & Kendall, 1986). By conducting the CSI with over 500 high school students in the southwest states of America using factor analysis, an eight-factor CSI model was confirmed to be directly linked to consumer choices. The CSI dimensions as they are known are presented in Table 1 below.

Table 1 : CSI Dimensions (Adapted from Sproles and Kendal 1986, 1987, 1990)

CSI Dimensions	Consumer Style	Description of Consumer Style
1	Perfectionism or high-quality consciousness	Characteristic that describes a perfectionist, high-quality conscious consumer who searches for the very best quality in products and is not satisfied with a “good enough” product.
2	Brand Consciousness	Characteristic identifying those consumers who buy more expensive, well-known national brands. They believe that a higher price means better quality and prefer best-selling advertised brands.
3	Novelty-fashion consciousness	Characteristic indicating consumers who are fashion and novelty conscious and seek out new things; for them it is important to be up-to-date with styles.
4	Recreational, hedonistic shopping consciousness	Characteristic identifying those consumers who find shopping pleasant and shops for the fun.
5	Price Consciousness	Characteristic identifying those consumers who look for sale prices and are conscious of lower prices. They are concerned with getting the best value for their money and are likely to be comparison shoppers.
6	Impulsiveness	Characteristic identifying those consumers who do not plan their shopping and are unconcerned about how much they spend.
7	Confusion from over choice	Characteristic identifying those consumers who have difficulty making choices, and experience information overload.
8	Habitual-Brand-loyalty orientation towards consumption	Characteristic identifying those consumers who have favourite brands and stores. They stick to their brand and go shopping each time they shop.

Table 1 describes the CSI dimensions and Table 2 lists previous studies related to the consumer styles inventory.

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Table 2: Summarized List of Studies Related to the Consumer Styles Inventory

	Year	Authors	Country	N	Population	Language	Items	No. of Factors
1	1986	GB Sproles & Kendal	U.S	482	High School	English	40	8
2	1992	Hafstrom et al.	S. Korea	310	Undergraduate	Korean	38	8
3	1993	Durvasula et al.	New Zealand	210	Undergraduate	English	34	7
4	1996	Lysonski et al.	US	108	Undergraduate	English	34	7
			New Zealand	210	Undergraduate	English	34	7
			India	73	Undergraduate	English	34	7
			Greece	95	Undergraduate	Greek	34	7
5	1998	Fan & Xiao	China	271	Undergraduate	Chinese	29	5
6	2001	Siu et al.	China	357	Undergraduate	Chinese	25	8
7	2001	Walsh, Mitchel et al.	Germany	455	Adult	German	38	7
9	2002	Canabal	S India	173	Undergraduate	English	38	5
	2003	Bakewell et al.	UK	244	Undergraduate Gen Y females	English	40	8
10	2004	Hung	Taiwan	446	Adult	Chinese	18	7
11	2004	Chase	US	416	Beginning college students	English	40	8
13	2006	Bauer et al.	Germany	121	Age 18-28	German	21	4
			UK	120	Age 18-28	English	21	4
14	2006	Wesley et al.	US	527	Adult	English	39	8
15	2006	Hou& Lin	Taiwan	123	Working Female	Chinese	55	10
16	2006	Gonen & Ozmete	Turkey	202	Undergraduate	English	30	5
17	2007	Kavas & Yesilada	Turkey	229	Undergraduate	English	36	8
18	2008	Ariffin et al.	Malaysia	149	Undergraduate	English	23	8
19	2008	Tai	China	454	Adult	English	26	8
20	2008	Kwan et al.	China	264	Undergraduate	Chinese	27	7
21	2009	Hanzaee	Iran	338	Male Undergraduate	Persian	40	10
22	2009	Hanzaee	Iran	354	Female Undergraduate	Persian	40	11
23	2009	Mokhlis	Malaysia	419	Undergraduate	English	28	7
24	2009	Mokhlis & Salleh	Malaysia	122	Male Undergraduate	English	40	8
25	2010	Zhou et al.	China	440	Undergraduate	Chinese	39	8
26	2010	Mishra	India	425	Postgraduate	English	38	10
27	2010	Anić et al	Macedonia	304	Students	English	40	8
28	2012	Hsu	Taiwan	1050	Undergraduate	Chinese	40	8
29	2013	Lysonski & Durvasula	India	120	Young Consumers	English	40	8
30	2013	Potgieter et al.	South Africa	344	Adults from two ethnic groups	English	40	10
31	2014	Makgosa	Botswana	1000	Retail shoppers	English	38	8
32	2014	Tanksale et al.	India	254	Undergraduate	English	40	7
33	2015	Nayeem & Casidy	Australia	214	Young and Adult consumers	English	45	8
34	2018	Semente & Whyte	Namibia	505	undergraduate	English	40	8

From table 2, is worth noting that the most popular research target populations were undergraduate university students and that the sample size varied from 122 to 602.

Research Hypothesis: Given that the CSI has been developed and tested for applicability in other countries as presented in table 2 above, this study tests the following two hypotheses:

Hypothesis 1: The CSI is not applicable to the Namibian Generation Y consumer decision making

Hypothesis 2: Consumer decision-making styles are not significantly different for individuals who study in different Universities.

3. Research Methodology

This section describes the nature of the research methodology used in this study. It includes the research design, the study population, sample design, data collection instruments and data analysis procedures. A cross-sectional correlational survey design which is also known as a one-shot survey (quantitative) design was used in this study. This allowed the researcher to classify consumer decision-making styles, at a point in time which is an alternative to using a longitudinal design which can be used to classify the respondent's perceptions at different time intervals (Welman & Kruger, 2003).

The research population consists of estimated 30 000 Namibian youth between the ages of 18 and 34 from the three major Universities in Namibia namely (UNAM, IUM and NUST). Non-probability convenience and judgement sampling techniques were used to select undergraduate students between the ages of 18 – 34 from University undergraduate programmes in UNAM, IUM and NUST. A total of 505 undergraduate students (males & females) were selected for convenience purpose.

Data Collection Instruments: A demographic section was developed by the researcher and used to gather demographic data to describe the sample in terms of age, age category, gender, university, marital status and income. The 40-item, Sproles & Kendal's (1986) eight-factor Consumer Styles Inventory (CSI) was used to profile Generation Y consumers' decision-making styles. The CSI contains statements that require one chosen answer for each item to best represent the responses and to differentiate between the consumer decision-making styles. The responses to each statement were recorded using a five-point Likert rating scale, with 5 representing strongly agree and 1 representing strongly disagree.

Data Collection and analysis Procedures: The survey administration took place on the premises of the three chosen Universities namely University of Namibia (UNAM), International University of Management (IUM) and Namibia University of Science and Technology (NUST). The Convenience sampling approach was used. Relevant information about the purpose of the survey, how the results would be used, and the protection of anonymity and confidentiality were provided in advance.

Responses from the questionnaires were analysed using Statistical Packages for the Social Sciences software (SPSS) version 22. Both descriptive and inferential statistics were used to examine the research questions. Descriptive statistics were used to report demographic information, measurements of central tendency (mean and median), variety (range, and standard deviation [SD]), percentage (%), and frequency (f) distribution of the survey items. And for inferential statistics, the principal components analysis (PCA) was used to establish which variables could be reduced and clustered together, and Cronbach's alpha coefficients were used to examine the validity and reliability of the survey instruments. To explore the interrelationships between consumer decision-making styles (Dependent Variable) and the University attended (Independent Variable) multivariate analysis of variance (MANOVA) and analysis of variance (ANOVA) were used. All participants' identity was kept confidential.

The participants were informed of the purpose and of benefits of the study, how data were to be used and all procedures to be followed to keep information confidential. Both an introductory cover letter and a consent form agreement were provided with explanations about the study and an opportunity for respondents to terminate their participation at any time without any obligation. The questionnaires were coded by numbers

rather than by names to ensure anonymity. The data was to be kept in a safe place and destroyed at the end of the study to ensure confidentiality.

4. Results

This section presents the reliability and validity of the survey instrument and the research results of both descriptive and inferential statistical analysis.

Results of the Demographic Section: In total, 505 undergraduate students aged between 18 and 34 years both males and females participated in the study. The majority 52.3% are in the age range 20-24. UNAM's participants represented 42%, followed by 32% of NUST participants and 23% by IUM, 3% of the respondents did not state which University they attended.

Results of the Validity and Reliability Tests: This section presents the process of factor analysis through Principal Component Analysis (PCA) for Validity and the Reliability tests of the CSI instrument conducted prior to hypothesis testing.

Validity of the CSI: Participants were asked to evaluate the 40 CSI statements, using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The 40 items are grouped into eight factors that make up the CSI Instrument as per Sproles and Kendal (1986). The PCA using Varimax rotation was conducted to assess the underlying structures of the components. Eight factors were requested, since the items were designed to index eight constructs, namely: Perfectionistic/High-Quality Conscious consumer, Brand Conscious consumer, Novelty-Fashion Conscious consumer, Recreational/Hedonistic consumer, Price Conscious/Value for Money consumer, Impulsive/Careless consumer, Confused by Over Choice consumer, Habitual/Brand Loyal consumer. The interrelationship between items was addresses through an inspection of the correlation matrix for evidence of coefficient greater than 0.3. In addition, two statistical calculations generated in SPSS were used to assess the factorability:

Bartlett's Test of Sphericity and Kaiser-Mayer-Olkin (KMO) measure of sampling adequacy. Furthermore, some techniques were implemented to assist in making the decision concerning the number of factors to retain, including Kaiser's criterion (Mertler and Vannatta, 2004, Tabachnick and Fidell, 2007, Hsu, 2012). Kaiser's criterion used an eigenvalue of 1.0 and above as a cut-off point to retain factors for further investigation, and the eigenvalue showed the size of the total variance explained by that factor. The PCA found two factors/rotated solutions with eigenvalues over 1.00 and together these explain 55% of the total variability in the data. Acceptable Cronbach's Alphas were found in the first rotated solution for Factor 1 - Perfectionistic High-Quality Consciousness (0.64), Factor 2 - Brand Conscious, "Price Equals Quality" (0.75), Factor 3 - Novelty-Fashion Consciousness (0.80), Factor 4 - Recreational, Hedonistic (0.54), and Factor 8- Habitual, Brand Loyal (0.67).

While acceptable Cronbach's Alpha for Factor 5 - Price Conscious, "Value for Money" (0.84), Factor 6 - Impulsive Careless (0.71), and, Factor 7 - Confused by Over choice (0.52) were found in the second rotated solution. The factors in the first rotated solution seem to be clustered around product and brand values and hence could be classified as "Consumer Product/Brand Sensitivity behaviour" whereas the second rotated solution appear to be clustered around Price, Impulsiveness and Confused by Over choice and could be classified as "Consumer Price/Impulsive Sensitivity behaviour". Both solutions present acceptable Cronbach's Alphas and, hence the eight factors and the 40 items were retained.

Reliability of the CSI: Cronbach's alpha is the most common measure of internal consistency "reliability". Hsu (2012) and Orcher (2007) suggest that the reliability of an instrument requires a Cronbach's alpha of 0.7 or higher. Kaiser-Meyer-Olkin and Bartlett's test were conducted to assess the internal reliability of the instrument as well as the FA correlation matrix. The reliability test found determinant of 0.135 which is greater than 0.0001 suggesting an association between the factors. The Kaiser-Meyer-Olkin Measure of sampling adequacy was 0.809, which exceeds 0.70, thus indicating sufficient items for each factor in support of the correlation matrix. Bartlett's Test of Sphericity, $p < 0.000$, reached statistical significance at $p < 0.05$ to support the appropriateness of the correlation matrix.

Results of testing the Hypotheses

Hypothesis 1: The CSI is not applicable to the Namibian Generation Y consumer decision-making

The CSI reliability test validated Sproles and Kendall (1986) scale and hence the eight Factors or Dimensions with the 40 items were retained in this study. Thus, the CSI is applicable to the consumer decision-making styles of the Generation Y Consumers in Namibia, and can be listed in order of their importance as follows:

- Factor 5 - Price Conscious, "Value for Money" (0.84)
- Factor 3 - Novelty-Fashion Consciousness (0.80)
- Factor 2 - Brand Conscious, "Price Equals Quality" (0.75)
- Factor 6 - Impulsive Careless (0.71)
- Factor 8- Habitual, Brand Loyal (0.67)
- Factor 1 - Perfectionistic High-Quality Consciousness (0.64)
- Factor 4 - Recreational, Hedonistic (0.54)
- Factor 7 - Confused by Over choice (0.52)

Further, the Factor 1 - Perfectionistic High-Quality Consciousness, Factor 2 - Brand Conscious, "Price Equals Quality", Factor 3 - Novelty-Fashion Consciousness, Factor 4 - Recreational, Hedonistic, and 8- Habitual, Brand Loyal (0.67), were found in the first rotated solution. These factors seem to be clustered around product and brand values and hence could be classified as "Consumer Product and Brand Sensitivity behaviour. Factor 5 - Price Conscious, "Value for Money, Factor 6 - Impulsive Careless, and, Factor 7 - Confused by Over choice, were found in the second rotated solution. These factors appear to be clustered around Price, Impulsiveness and Confused by Over choice and could be classified as "Consumer Price/Impulsive behaviour". Table 3 below provides extracts from the items in the CSI scale that had high loading. Hence these items can be used to identify key consumer behavior among the Namibian Generation Y consumers.

Table 3: Key Consumer attitudes/characteristics of the Generation Y consumers in Namibia across the three universities

Item#	Description	Cronbach's Alpha
13	Prefer buying best-selling brands	0.65
14	Advertised brands usually good choices	0.63
15	Usually have one more outfits of the very newest style	0.70
16	Keep wardrobe up to date with changing fashions	0.73
17	Fashionable attractive styling is very important	0.62
26	Lower price products are usually my choice	0.34

Table 3 presents items in CSI that based on their loadings describe key consumption attitudes of the Namibian Generation Y consumer. Item # 16 "I Keep my wardrobe up to date with changing fashions"; item #15 "I Usually have one more outfits of the very newest style" item # 13 "I prefer buying best-selling brands", item#14 "The most advertised brands are usually very good choices"; item# 17 "Fashionable attractive styling is very important". At the bottom of the list is item#26 "Lower price products are usually my choice" - this suggests that the Namibian Generation Y consumers tend to be product and brand conscious and somehow concerned about prices.

Hypothesis 2: Consumer decision-making styles are not significantly different for individuals who study in different Universities.

The Dependent Variables were the eight Factors/Profiles of consumer decision-making styles and the Independent Variable was the University attended. MANOVA test was employed; the Box's Test of Equality of Covariance Matrices revealed an insignificant $P < 0.112$ indicating that there are no significant differences between the covariance matrices. The Levene's test of Equality of Error Variances found, except for two factors, Factor 4: Recreational, Hedonistic Consumer and Factor 7: Confused by Over choice, insignificant P values which suggested that the assumption of homogeneity of variances is not violated for most of the variables. Table 4 below presents the Multivariate Test results.

Table 4: CSI and University Name ANOVA

ANOVA

		Sum Squares	df	Mean Square	F	Sig.
Factor 1 – Perfectionistic, High-Quality Conscious	Between Groups	466.896	7	66.699	3.375	.002
	Within Groups	9465.563	479	19.761		
	Total	9932.460	486			
Factor 2 – Brand Conscious, “Price Equals Quality”	Between Groups	788.433	8	98.554	3.530	.001
	Within Groups	13291.064	476	27.922		
	Total	14079.497	484			
Factor 3 – Novelty-Fashion Conscious	Between Groups	274.701	8	34.338	2.082	.036
	Within Groups	7900.379	479	16.493		
	Total	8175.080	487			
Factor 4 – Recreational, Hedonistic	Between Groups	87.410	8	10.926	.912	.506
	Within Groups	5764.853	481	11.985		
	Total	5852.263	489			
Factor 5 – Price Conscious, “Value for Money”	Between Groups	57.003	8	7.125	1.450	.173
	Within Groups	2382.926	485	4.913		
	Total	2439.929	493			
Factor 6 – Impulsive, Careless	Between Groups	228.398	8	28.550	3.109	.002
	Within Groups	4435.236	483	9.183		
	Total	4663.634	491			
Factor 7 – Confused by Over choice	Between Groups	271.113	8	33.889	3.015	.003
	Within Groups	5428.180	483	11.238		
	Total	5699.293	491			
Factor 8 – Habitual, Brand Loyal	Between Groups	37.865	8	4.733	.416	.911
	Within Groups	5480.835	482	11.371		
	Total	5518.701	490			

According to Table 4, the following Factors of Profiles of consumer decision-making were found to be different at different Universities: Factor 1 – Perfectionistic, High-Quality Conscious; Factor 2 – Brand Conscious, “Price Equals Quality”; Factor 3 – Novelty-Fashion Conscious; Factor 6 – Impulsive, Careless and Factor 7 – Confused by Over choice.

Table 5: CSI and University Descriptive Statistics

Descriptive Statistics

	Name of University	Mean	Std. Deviation	N
Factor 1 – Perfectionistic, High-Quality Conscious	IUM	25.84	4.204	104
	NUST	26.40	4.280	137
	UNAM	24.23	4.758	184
	Total	25.34	4.543	437
Factor 2 – Brand Conscious, "Price Equals Quality"	IUM	24.45	5.084	104
	NUST	24.02	5.551	137
	UNAM	21.78	5.330	184
	Total	23.21	5.431	437
Factor 3 – Novelty-Fashion Conscious	IUM	17.94	4.031	104
	NUST	18.04	4.007	137
	UNAM	16.73	4.113	184
	Total	17.49	4.080	437
Factor 4 – Recreational, Hedonistic	IUM	16.46	3.924	104
	NUST	16.47	3.523	137
	UNAM	15.79	3.154	184
	Total	16.14	3.465	437
Factor 5 – Price Conscious, "Value for Money"	IUM	11.11	2.238	104
	NUST	11.38	1.975	137
	UNAM	10.78	2.312	184
	Total	11.05	2.193	437
Factor 6 – Impulsive, Careless	IUM	18.71	2.838	104
	NUST	18.81	3.083	137
	UNAM	17.57	3.079	184
	Total	18.27	3.072	437
Factor 7 – Confused by Over choice	IUM	13.79	3.189	104
	NUST	14.05	2.979	137
	UNAM	12.61	3.773	184
	Total	13.34	3.464	437
Factor 8 – Habitual, Brand Loyal	IUM	13.67	3.372	104
	NUST	13.59	3.375	137
	UNAM	13.88	3.289	184
	Total	13.74	3.309	437

From Table 5, the following differences, between the Profiles of consumer decision-making, were found at the different Universities:

NUST

NUST (M=26.40, SD=4.280, SE=2.26) reported slightly higher levels of Perfectionistic-High Quality Conscious individuals compared to IUM (M=25.84, SD=4.280, SE=2.534) and UNAM (M=24.23, SD= 4.758, SE=1.789).

NUST (M=18.4, SD=4.007, SE= 1.54) reported slightly higher levels of Novelty Fashion Conscious individuals compared to IUM (M=17.94, SD=4.031, SE=1.76) and UNAM (M=16.73, SD=4.113, SE=1.18).

NUST (M=18.81, SD=3.083, SE= 1.61) reported slightly higher levels of Impulsiveness, Careless individuals compared to IUM (M=18.71, SD=2.838, SE=1.83) and UNAM (M=17.57, SD=3.079, SE=1.30).

NUST (M=14.05, SD=2.979, SE= 127) reported slightly higher levels of Confused by Over choice individuals compared to IUM (M=13.79, SD=3.189, SE=1.20) and UNAM (M=12.61, SD=3.773, SE=0.922).

IUM

IUM (M=24.45, SD=4.204, SE=2.40) reported slightly higher levels of Brand Conscious – Price Equal Quality individuals compared to NUST (M=24.02, SD=5.551, SE=2.052) reported and UNAM (M=21.78, SD=5.330, SE=1.61).

In a nutshell, the eight (8) profiles of consumer decision-making were found to be applicable to the Namibian Generation Y consumers as it is the case with previous studies presented in the literature. It was found that consumer decision-making styles were significantly different when comparing the University attended.

Discussion: This session presents the discussions of the results and the implications thereof. One of the most important findings is that the study has classified the general consumer decision-making characteristics of the Namibian Generation Y consumers in the three main Universities in Namibia.

Applicability of the CSI to the Namibian Generation Y consumer decision-making: The three main profiles or characteristics of the Namibian Generation Y consumers can be described as follows: Factor 5: Price Conscious, “Value for Money” – a characteristic identifying those consumers who look for sale prices and are conscious of lower prices. They are concerned with getting the best value for their money, and are likely to be comparison shoppers; Factor 3: Novelty Fashion Conscious Consumer- this is a characteristic indicating consumers who are fashion and novelty conscious, and seek out new things; for them it is important to be up-to-date with styles; Factor 2: Brand Conscious Consumer- this is a characteristic identifying those consumers who buy more expensive, well-known national and international brands. They believe that a higher price means better quality and prefer best-selling advertised brands. The two-factor solution found in the PCA; seems to suggest that the Namibian Generation Y consumers have two distinct purchasing orientations, namely Product/Brand Sensitivity and Price/Impulsiveness Sensitivity.

The Namibian eight-factor model has confirmed all eight of the Sproles and Kendall (1986) characteristics. Thus, like previous studies, it has emerged from this study that the CSI is able to profile consumer behaviour across cultures. Factor 3 “Novelty Fashion Conscious Consumer” had the highest factor loading, indicating that Namibian Generation Y consumers are trendy and enjoy the latest fashion. Item # 16 “I Keep my wardrobe up to date with changing fashions” had a high factor loading; this implies a high sense of fashion awareness and keenness to stay on top of fashion issues. Marketers, for instance, could create specific marketing strategies to target Namibian Generation Y consumers based on this characteristic.

Comparison of Consumer decision-making styles across the three major Universities in Namibia: The study found a significant difference for individuals who studied in different Universities on the eight Factors or Profiles of consumer decision-making styles. The following differences were found among the Universities:

Factor 1-Perfectionistic, High-Quality Conscious, individuals: NUST reported slightly higher levels of Perfectionistic-High Quality Conscious individuals compared to IUM and UNAM in that order. This suggests that NUST Millennials would prefer high quality and innovative products. Niche Marketing would be an ideal marketing strategy for this group.

Factor 2-Brand Conscious, “Price Equals Quality”: IUM reported slightly higher levels of Brand Conscious Price Equal Quality individuals compared to NUST and UNAM in that order. This suggests that IUM Millennials would prefer products of high quality since they are brand loyal. To ensure continued patronage, one would need to continue providing loyalty programmes and incentives to such a group.

Factor 3-Novelty-Fashion Conscious: NUST reported slightly higher levels of Novelty Fashion Conscious individuals compared to IUM and UNAM in that order. Since these Millennials are perfectionistic and high quality conscious, it makes sense that they are also Novelty –Fashion Conscious consumers. Again, niche segmentation would be an attractive approach in targeting them. In line with this is the concept of positioning one’s brand to be novel, fashionable and of high quality to enlist positive association with this group.

Factor 6–Impulsive, Careless: NUST reported slightly higher levels Impulsive, Careless individuals, compared to IUM and UNAM in that order. Although this seems to be a contrast, given that NUST Millennials are Perfectionistic, Novelty Fashion seekers, it makes sense that they buy on impulse. Buying on impulse here would mean buying high quality and novelty products on impulse. This suggests that this group is a relatively easy target market.

Factor 7–Confused by over choice: As mentioned above NUST reported slightly higher levels of Novelty Fashion Conscious individuals compared to IUM and UNAM in that order. Given that NUST Millennials are a relatively easy target market; this tends to explain why they are confused by over choice. This can be an advantage to the marketers of innovative and fashionable items such as electronic gadgets, clothing, cosmetics and much more.

5. Conclusion

This study focused on a comparison of the decision-making styles among Generation Y consumers in Namibia across the three main Universities in Namibia through Sproles and Kendall's Consumer Style Inventory (CSI). As a major finding and a significant contribution, the study has classified the general consumer decision-making characteristics of the Namibian Generation Y consumers and found that Kendall & Sproles (1986) eight (8) basic mental characteristics of consumer decision-making and Consumer Styles Inventory are applicable to Namibian Millennials. The study found that the consumer decision-making styles are significantly different between individuals who studied in different Universities. It was interesting to note the university attended by an individual may influence his/her consumer decision-making styles. This supports the belief that the type of education received by an individual has the potential to nurture his/her faculty of reasoning and choices.

In terms of consumer decision-making styles, the Namibian Generation Y consumers were found to be predominantly Price Conscious "Value for Money", suggesting that they look for sale prices and are conscious of lower prices. To get the best value for their money they would compare prices when shopping. On the other hand, this generation was also found to be Novelty Fashion Conscious - suggesting that they seek out new things and give high importance to being up-to-date with styles. In addition, although they were found to be price conscious, they were also found to display Brand Conscious behaviour; implying that they would buy more expensive, well-known national brands, as they tend to believe that a higher price means better quality, and they would prefer best-selling advertised brands.

Limitations and further research direction

Future studies could be conducted through administering similar questionnaires to a representative sample of the adult working population to determine whether the profiles of consumer decision making styles are applicable to such a population.

- Since this study has made use of undergraduate students, future research should include a more representative sample of Generation Y as well as to possibly include other geographical setting.
- Future studies could investigate the association between consumer decision-making styles and other interesting variables, for instance perception, service quality and customer satisfaction.
- Future studies could investigate the relationship between Maslow Hierarchy of Needs and consumer decision-making styles. This would be to establish whether consumer decision-making styles are influenced by the stage of the Maslow Hierarchy of Needs that a consumer has reached.

Recommendations for Practice and Policy

- Female millennials (Generation Y) in Namibia tend to be more brand loyal than males, who often go for novelty and fashion items or products. Marketers should exploit this segment with consistent marketing communication strategies to appeal to their brand loyalty behaviours. Given that males tend to be more Perfectionistic-High quality conscious, Novelty Fashion Conscious and Impulsive or Careless consumers, they are a potential target for, innovative products, services and technologies. Hence local and international organisations should see this as a potential market for mobile phones, luxury technological gadgets, high quality personal products and designer clothing.

- Institutions should form partnership to address the need to invest in technology and cultural diversity management in consumer behaviour.
- Government, Entrepreneurs and Institutions to equip this young Generation through training and equitable product offerings and training opportunities.
- Financial Institutions should form links with this generation through Universities since they are long-term oriented and thrive for investment.

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Employee Based Brand Equity: A conceptual exploration of the applicability of the Brand Resonance Pyramid in South African B2B financial services

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Abstract: This paper aims to comprehensively interrogate the concept of brand equity, as various scholars have purely explored brand equity from two positions, namely firm's viewpoint (brand equity), and customer's perspective, Customer Based Brand Equity (CBBE). However, employees, an important audience which plays a pivotal role in attaining brand equity and creating CBBE are often overlooked. This is a conceptual paper based on an in-depth literature review on brand equity creation from an employee viewpoint, Employee Based Brand Equity (EBBE), and its impact on CBBE. Approaching brand equity from an employee outlook is particularly imperative as employees can either be enthusiastic about brand equity creation, or sabotage brand building efforts. Therefore, this paper proposes an explorative qualitative research design for further empirical research, where semi-structured individual depth interviews may be conducted with managers of a selected B2B South African bank brand. This paper suggests adding two dimensions to the original brand resonance model, namely Employee Based Brand Equity and Identity Based Brand Equity a new dimension in brand equity literature. This conceptual paper proposes an empirical exploration of the applicability of the Brand Resonance Model in Business-to-Business financial services in South Africa. The proposed amendment of the brand resonance model remains conceptual as it has not been empirically interrogated

Key words: *Customer Based Brand Equity (CBBE); Employee Based Brand Equity (EBBE); Service Brands.*

1. Introduction

Construing employees' narrations, and perceptions of their employers' brands, versus their own personal brands is fundamentally critical in brand building efforts. The ideal situation is for brands to add positively to employees' personal brands, as this translates to positive Employee-Based Brand Equity. Once this is achieved, current and potential employees establish positive associations with an employer's brand, and may become enthusiastic brand ambassadors (Beverland, 2018:69). Employee 'buy-in' particularly in service oriented sectors such as the financial industry is critical, as employees are an essential dimension in building strong bank brands. Employees are an interface between an institutions internal, and external stakeholder therefore, their attitudes and demeanor especially in client contact settings become an important success or failure factor (Terglav, Ruzzier & Kase, 2016:2).

Aaker (1996) and Keller (2013) have extensively contributed to brand equity theory, however both scholars have merely approached brand equity from two viewpoints, namely financial or company based brand equity and customer-based brand equity. Beverland (2018:69-70) further extends the brand equity phenomenon by adding two dimensions, namely employee-based brand equity and channel member based brand equity. The current study seeks to explore the former. As noted earlier, employee-based brand equity refers to employees' measurement of their personal brand versus those of employers, while channel partner-based brand equity alludes to differential effect of the brand to channel partners such as distributors and retailers. Therefore, the research problem of this conceptual paper is situated in the domain of brand equity. Firstly, it is not known whether Keller's (2013:108) brand resonance model is applicable in business-to-business financial services in South Africa. Furthermore, Beverland's (2018:83) employee-based brand equity dimension has not been tested for applicability in the same sector. Additionally, this paper seeks to explore the relationship between EBBE and CBBE. To contribute substantially to branding literature, the researcher aims to amend Keller's (2013:108) brand resonance model.

Brands and branding: Marica (2014:573-574) observed a significant paradigmatic shift in brand management, which involves positivist to interpretive perspectives. The positivist narration of branding is that the brand is owned by the firm (internal stakeholders), whose duty is to communicate the brand to receptive consumers; thus, brand equity is understood to be created by the firm. Conversely, the interpretivist paradigm views the existence of a brand and attainment of brand equity as that which emanates from an interaction between the organisation and an active consumer, hence Customer Based Brand Equity (CBBE) (Hanby, 1999; Keller, 2013; Hedging, Knudtzen & Bjerre, 2009:21-22; Rambocas, Kirpalani & Simms, 2014:313-314).

Furthermore, a study that was conducted by Liu, Wong, Tseg, Chang and Phau, (2017:199) revealed a positive relationship between brand attitude and consumer purchase intention, as brand attitude directly influences customers’ purchase behavior. Additionally, service performance is a critical dimension in service-oriented firms, as it influences the perception that consumers formulate about the brand (Krystallis & Chrysochou, 2014:144). Consumers also form brand perception based on their assessment of the people in the company, their attitudes, skills and responsiveness to their needs (Schmidt, Mason, Steenkamp, & Mugobo, 2017:216). Hence, Aaker (1991), Bravo et al. (2017:02), Veloutsou and Guzmán (2017:6-7) suggests that brand managers should entice everyone who is associated with the brand to be enthusiastic brand advocates in order to create brand equity.

Brand Equity: Various brand equity definitions exist but, fundamentally brand equity refers to a brand’s strength/assets which reside in customers’ minds (Hazee, Van Vaerenbergh & Armirotto, 2017:102, Beverland, 2018:68). According to Chow, Ling, Yen and Hwang (2017:23) brand equity can be understood to be a summary of all the various assets that formulate a brand and measure its performance. In this regard, Aaker (1996:8) notes brand awareness, loyalty, perceived quality and associations as core assets that create brand equity. While Keller (2013:57) aligns with the viewpoint that brand equity consists of the marketing effects uniquely attributable to branding. In essence, brand equity exists when different outcomes are reached in the marketing of branded products versus that of ‘unbranded’ products. Furthermore, Keller (2013:68) and Chow et al. (2017:72) postulate that brand equity can be approached from two perspectives, namely financial-based brand equity and customer-based brand equity. Subsequently, brand equity creates value for firms as well as customers (Aaker, 1996:8).

Customer Based Brand Equity: The concept customer-based brand equity (CBBE) can be understood, a school of thought that approaches brand equity and brand building in general from a customer’s viewpoint. Keller (2013:69) posits that customer-based brand equity is the differential effect that brand knowledge has on consumer responses to branding activities. Furthermore, these consumer responses can either be negative or positive, therefore CBBE can either be positive or negative. This paper has adopted Keller’s (2013:108) model as its theoretical underpinning, as can be seen in Figure 1 below. The brand resonance pyramid depicts sequential steps that may yield positive brand equity in brand building efforts.

Figure 1: The Brand Resonance Pyramid (Keller, 2013:107)



The basic premise of the brand resonance pyramid, is that a brand's strength is measured by how consumers think, feel and act with respect to a brand's activities. The pyramid approaches brand building (particularly the attainment of brand equity and customer-based brand equity) by clarifying a brand's identity, establishing its meaning, eliciting responses with the hope of establishing a point of resonance with customers (Aaker, 1996, Keller, 2013). In this regard, creating Brand Salience with customers translates to brand identity clarification, while Brand Performance is pivotal in brand equity creation, as this building block depicts how well a product meets customer's functional needs. On the other hand, Brand Imagery is how a brand attempts to meet customer's psychological need and how customers associate with the brand. Brand Judgment are customer's rational opinions and evaluation of brands, while Brand Feelings depict customer's emotional responses to branding actions. Finally, Brand Resonance depicts how a customer identifies with a brand, customer-brand relationship (Keller, 2013:107-120). This customer-brand relationship is critically important in-service oriented sectors, as services are inherently perceived to be generic.

Branding Services: Understanding the inherent characteristics that distinguish services from physical goods is fundamental in branding, as in services the company name automatically assumes the service brand name (Shanker, 2010:35; Krystallis & Chrysochou, 2014:140; Berry, 2016:5). Thus, branding is an essential tool in services, as services are intangible activities that are not necessarily tied to a physical good (Balaji, 2014:1). Furthermore, brand communication is critical in services' branding in order to create awareness, and encourage trial (Berry, 2016:4). However, Kemp, Jillapalli and Bacera (2014:133) state that a service experience that is not aligned to the value proposition as presented in a communication strategy, may defeat brand communication purposes. Moreover, trust is a vital element in branding services like banks. Hence, bank employees should master trust as a service dimension in order to see to client's financial needs in pursuit of building strong brands. The adoption of this behaviour as an institutional ethos may lead to the development and strengthening of a bank's brand equity (Yoganathan, Jebarajakirthy & Thaichon, 2015:21-22). Trust is thus a fundamental in establishing customer loyalty particularly in business-to-business (B2B) sectors.

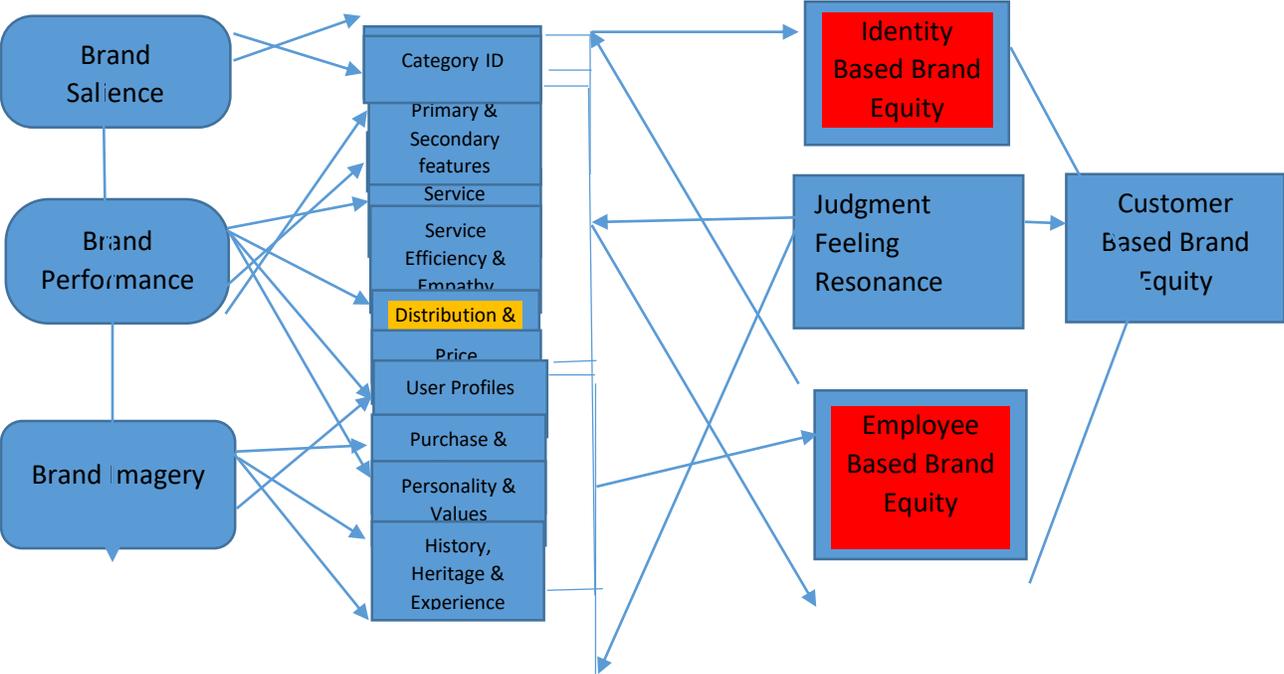
Business-to-business services: B2B services require more intimate relationships, and, high level of trust with their stakeholders, as they often involve complex business operations. Heirati and Siahtiri (2017:7) analysed the effects of customer, and supplier collaboration on B2B services, and also found the necessity of long term, meaningful stakeholder relationships. The shift from transactional relationship, to bonds between suppliers and corporate clients is also noted by Gounaris (2005:135), who however, suggests that trust precedes commitment in B2B services. This notion is corroborated by Madhavaram and Hunt (2017:44), who argue that trust alone may not be sufficient in customising B2B service, unless mediated by relational commitment. Muller, Safarova and Villavicencio (2014:31) further emphasize the role played by employees in building strong B2B bank brands, hence they advocate for employees to master a consistent interaction with stakeholders for business/brand sustainability purposes.

Yoganathan, Jebarajakirthy and Thaichon (2015:14) also note a paradigm shift from transactional service brand-customer interactions to relationship oriented business practices in their research, which observes that bank brands now prioritise relationship management as an organisational imperative. Hence, employees' attitudes in client contact situations need to be aligned with what the bank brand claims to stand for. Frontline staff 'buy-in' is thus critical, as employees can advocate for or sabotage the brand (Wallace, de Chernatony & Buil, 2013:165; Yoganathan, Jebarajakirthy & Thaichon, 2015:21-22).

Research gap: Based on an in-depth literature interrogation, the researcher notes dearth in brand equity theory, specifically in relation to South African B2B financial services, a context of the current research. Furthermore, to the best of the researcher's knowledge, no other research approaches brand equity from an identity viewpoint (Identity Based Brand Equity). Moreover, Beverland (2018) posit that approaching brand equity from an employee perspective (Employee Based Brand Equity) is an imperative in brand building efforts. Consequently, the research gap is that Keller's (2013:107) CBBE model omits and important audience (employees) in brand equity creation. Employees play a pivotal role in attaining brand equity and creating CBBE. Furthermore, even though the CBBE model notes brand identity creation as an internal process, it is not explicit on how brand identity (Identity Based Brand Equity) can create brand equity. It is in this regard, that the researcher proposes an amendment of the CBBE model, as can be seen on Figure 2 below.

Theoretical contribution (Proposed amended Brand Resonance Model): Employee contribution in the brand equity discussion/construct is two pronged, primarily employees play a crucial role in attaining brand equity, and subsequently facilitate the creation of Customer Based Brand Equity (CBBE) particularly in service oriented sectors. As can be seen in Figure 2 below, this paper proposes additional dimensions (highlighted in red) to the original brand resonance model.

Figure 2: Proposed framework (Adopted from Keller, 2013; Steenkamp, 2016)



Various studies (Wong & Teoh, 2015; Steenkamp, 2016; Majid et. 2016) have explored the applicability of brand resonance model in service oriented sectors. However, no study has incorporated Employee-Based Brand Equity and Identity-Based Brand Equity as critical factors that may directly influence attaining Customer-Based Brand Equity. This study acknowledges that Keller (2013:108) addresses brand identity clarification as an essential dimension in achieving brand meaning, responses and ultimately customer relationships. However, the current research posits that brand equity can be approached from a brand identity point of view. In essence, this research puts forward a new dimension namely Identity-Based Brand Equity (IBBE). This notion is supported by Aaker’s (1996:68) categorization of brand identity elements, namely brand-as-product, brand-as-organisation, brand-as-person, and brand-as symbol. Furthermore, Keller’s (2013:107) accepts that brand identity means creating salience and awareness with customers. This is another validation that brand identity directly influences the creation of Customer-Based Brand Equity, hence Brand-Identity Based Brand Equity.

Moreover, it remains a quandary whether or not a firm’s brand identity is influenced by its employees’ collective personal identities. In this regard, Beverland (2018:69) further approaches brand equity from an employee perspective in what he terms Employee-Based Brand Equity. In essence, this dimension probes whether employees feel their personal brands are worth more or less owing to their association with the firms/brand of their employ. The current paper argues that EBBE directly influences CBBE particularly in service dominant business-to-business financial service, as these services are largely dependent on employees’ behaviour and demeanour (Kemp, Jilapalli & Bacera, and 2014:133). Hence, bank employees should master trust as a service dimension in order to see to client’s financial needs in pursuit of building strong brands. The adoption of this behaviour as an institutional ethos may lead to the development and strengthening of a bank’s brand equity, and the creation of a positive Customer-Based Brand Equity (Yoganathan, Jebarajakirthy & Thaichon, 2015:21-22). These business practices are fundamental in oligopolistic banking sectors such as the South African (SA) banking sector.

South African Banking Sector: The SA banking sector is characterised by oligopolistic market structure, as it is dominated by few banks, namely Standard Bank, Absa Bank, First National Bank, Nedbank, Investec Bank, and collectively they hold 89% of the market share, while Capitec Bank which competes in retail banking has the second largest number of clients (BuzzSouthAfrica, 2017; Businesstech, 2017; Wanke, Maredza, & Gupta, 2017:362). However, the emergence of Capitec bank depicts a sector that is still contestable, hence the reference to the 'big 5' banks (Simatele, 2015:826). SA banks compete and compare favourably to other international bank brands. This view is corroborated by the 2017 Brand Finance annual bank rankings which reported SA banks among the most powerful bank brands in the world (Businesstech 2017). Standard Bank is Africa's most valuable bank brand, while FNB and Capitec are among the top ten most powerful bank brands in the world, according to the 2017 Brand Finance Brand Strength Index. However, the Land and Agricultural Development Bank of South Africa is the chosen reference bank, where the researcher proposes the empirical testing of the brand resonance model, as the bank only operates in B2B space.

2. Research methodology

A researcher's investigation and posture can either be tested through empirical (applied research) or conceptual contribution, the current paper finds expression in the latter (Haydam, 2013). Therefore, the research discourse is inductive, as it is exploring the applicability of an existing theory (Babin & Zikmund, 2016:7). Malhotra (2015:119) Brown, Suter and Churchill (2018:158) posits that exploratory research is unstructured and is based on small samples that provide insights, and understanding of the research problem. In this regard, the researcher suggests that exploratory qualitative research design would be suitable to empirically test the propositions argued in this conceptual paper. Individual depth interviews may be conducted with the top management of the Land Bank of South Africa (a B2B bank). Therefore, the sample technique would be non-probable judgmental sample (Leedy & Omrod, 2010:147; Babin & Zikmund, 2016:348).

Objectives and research questions: The researcher puts forward what could be ideal objectives and questions for an empirical exploration of the current working paper.

Primary research objectives:

To test the applicability of the brand resonance model in the South African business-to-business financial services.

Secondary research objectives

- To explore the relationship between employee-based brand equity, identity-based brand equity, and customer-based brand equity.
- To amend the brand resonance model by adding employee-based brand-equity and identity-based brand equity as dimensions that may be critical factors in the creation of customer-based brand equity.

Research questions

- Is the brand resonance model applicable in South African business-to-business financial services?
- Is there a relationship between employee-based brand equity, brand identity-based brand equity and customer-based brand equity?
- Are there any other brand equity dimensions (beyond the brand resonance model) that may affect the creation of customer-based brand equity?

3. Conclusion

The primal limitation of the current research, is that it has not been empirically tested. Therefore, the proposed amendment of the brand resonance model remains only a theoretical framework. However, this article substantially contributes to branding theory as it puts forward new critical dimensions (EBBE and IBBE) that may directly affect the creation of CBBE. The addition of EBBE and IBBE dimensions to the brand resonance model depicts a comprehensive framework that could aid practitioners in creating a positive CBBE. Furthermore, this paper proposes further research on the applicability of Keller's (2013:108) brand resonance model in business-to-business financial services in South African. The Land Bank of South African is the

proposed reference institution where the model could be tested for applicability. In essence, this paper adopts an optimistic approach on how positive IBBE and positive EBBE could yield positive CBBE.

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Exploring Employee Motivation and the Level of Performance in The Danish Refugee Council in Nigeria

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Abstract: The study focused on employees' motivation and the level of performance at the Danish refugee Council in Nigeria. The specific objectives of the study were: 1) To determine the profiles of the respondents, 2) To determine the extent of employee motivation in the Danish Refugee Council, 3) To determine the level of employee performance in the Danish Refugee Council and 4) To find out if there is a significant relationship between the level of Employee Motivation and the level of performance in the Danish Refugee Council Staff. The researchers used descriptive statistics and regression and correlation analysis to analyse the results. The sample size of this study was 105 respondents selected from a target population of 143. Simple random sampling was used for the sampling and the researcher distributed questionnaires in different departments and randomly selected members from each department to give a questionnaire, the staff performance questionnaire was only completed by the supervisors/section heads who totalled 8 in number. Key findings from the study indicated that the overall level of employee motivation was found to be low (mean=2.50); (3) the overall level of performance was found to be high (mean=3.024); (4) the study also found that there is no significant correlation between employee motivation and performance. Having tested the hypotheses, it was concluded that the extent of employee motivation has no significant relationship with the level of performance. The decision was to accept the null hypothesis. At end of the study the researcher recommended: 1) for the organisation to increase staff presence in decision making; 2) a proper rewarding system should be put in place; 3) performance appraisals should be enhanced to monitor, improve and reward performance and reduce under-performance

Key Words: *Employee Motivation; Employee Performance, Nigeria*

1. Introduction

Background of the study: Staff performance is highly important for an organisation and for the individuals working in it. Performance management comprises both a behavioural and an outcome aspect. It is a multi-dimensional and dynamic concept. Staff performance can be explained by individual differences in abilities, personality and/or motivation. Campbell (1990) proposed a general model of individual differences in performance which became very influential (cf. also Campbell, J. P., McCloy, R. A., Oppler, S.H., & Sager, C. E. (1993). In his model, Campbell (1990) differentiates performance components (e.g., job specific task proficiency), determinants of job performance components, as a function of three determinants: (1) declarative knowledge, (2) procedural knowledge and skills, and (3) motivation. Declarative knowledge includes knowledge about facts, principles, goals, and the self. It is assumed to be a function of a person's abilities, personality, interests, education, training, experience, and aptitude-treatment interactions.

Procedural knowledge and skills include cognitive and psychomotor skills, physical skills, self-management skills, and interpersonal skills. Predictors of procedural knowledge and skills are again: abilities, personality, interest, education and motivation. The predictors also comprise: choice to perform, level of effort, and persistence of effort. Campbell does not make specific assumptions about the predictors of motivation. He assumes that there are interactions between the three types of performance determinants, but does not specify them in detail (Campbell, J.P.; Gasser, M.B. & Oswald, F.L. (1996). In his model, Campbell (1990) largely neglects situational variables as predictors of performance (cf. Hesketh & Neal, (1999), for a discussion of this issue). Campbell et al., (1996) summarised studies that identified job knowledge and job skill as measured by work

sample tests as predictors of individual performance. Moreover, ability and experience were predictors of job knowledge and job skills but had no direct effect on job performance. Campbell et al., (1996) interpret these findings as support for their model with declarative knowledge, procedural. Knowledge, and motivation acting as the only direct determinant of performance. Motowidlo et al., (1997) built on the work of Campbell et al., (1996), they agreed that cognitive ability variables influence task knowledge, task skills, and task habits. The Merriam-Webster dictionary defines motivation as something inside people that drives them to action. This motivation varies in different people. We can also say that motivation is the willingness to work at a certain level of effort. Motivation emerges in current theories, out of needs, values, goals, intentions, and expectations. Since motivation comes from within, managers need to cultivate and direct the motivation that their employees already have (Merriam Webster Online Dictionary).

Motivation comes from within us through thoughts, beliefs, ambitions, and goals. The people who are most interested in motivation studies are managers of people, because they may provide insights into why people perform at work as they do, and as a result provide managers with techniques to improve worker productivity. The Danish Refugee Council is a private Danish humanitarian organisation, founded in 1956. It serves as an umbrella organisation for 33 member-organisations. Formed after the Second World War, and in response to the European refugee crises caused by the Soviet invasion of Hungary in 1956. The DRC has been active in large-scale humanitarian projects around the world. Through convoy operations the DRC was responsible for delivering half of the international humanitarian aid in Bosnia and Herzegovina during the wars of independence in the former Yugoslavia during the 1990s (<https://drc.ngo/>). Amongst the countries the DRC operates in is Nigeria. Staff motivation and level of performance considerations came into the spotlight when the Danish refugee council lost so many members of staff especially the senior staff. All the staff who left the Danish refugee council joined other international NGOs which were operating in Nigeria.

Statement of the problem: For every organisation, either profit-making or not for profit, staff performance is the main issue that needs to be managed for the organisation to achieve its overall goal. The Danish refugee council is a humanitarian organisation and is among the organisations who are experiencing low staff performance. Some of the causes of low performance have been thought to include: working environment, level of pay, job security and employee motivation. The success of the organisation depends on the performance of its staff. The Danish Refugee Council (DRC) is among the non-profit making organisations whose aim is to deliver humanitarian assistance for the needy communities (Refugees, Internally Displaced people and other affected communities). Staff performance is key for these organisations. This study examines the relationship between staff motivation and performance at the Danish refugee council in Nigeria.

Research Objectives: The main objective of the study was: To explore the relationship between the level of Employee motivation and the level of performance in the Danish Refugee Council, Nigeria staff.

The Specific objectives of the study were:

- To investigate if there is a significant relationship between the level of Employee motivation and the level of performance in the DRC Nigeria Staff
- To determine the demographic profile of the respondents in order to ascertain the application of gender equity
- To determine the extent of employee motivation in the DRC Nigeria staff
- To determine the level of performance in the DRC Nigeria staff

Hypotheses Testing

H₀ there is no significant relationship between employee motivation and the level of performance at the DRC Nigeria Staff.

H₁ there is a significant relationship between employee motivation and the level of performance at the DRC Nigeria Staff.

Delimitation of the Study: The study was limited to the DRC Nigeria offices covering the regions: Borno, Taraba, Yobe and Adamawa. It was limited to exploring the relationship between employee motivation and the level of performance in the DRC Nigeria. Maslow's hierarchy of needs, developed by Abraham Maslow in the 1940s, is arguably the most famous needs theory - famous probably because it was so straightforward and

'intuitively appealing' to those interested in work behaviour. Maslow, who labelled human beings as 'wanting' animals, asserted that people have an 'innate' desire to satisfy a predictable five-step hierarchy of needs. In terms of time, the research covers one year - 2015 - from the development of the proposal to the presentation of the findings.

Significance of the study: Performance is essential in the attainment of any organisational objectives. Performance toning as a tool was geared towards improving the general organisational performance and the study will be of great benefit to the DRC managers, labour unions, policy makers and future researchers in the field of staff performance.

2. Literature Review

KSAs are the knowledge, skills, and attitudes required to perform a job well. Training is a possible solution for KSA deficiencies. But as the Performance Formula indicates, training is not the answer for all performance problems. Training will not solve motivation-related or environment-related performance problems (ibid). Motivation-related performance problems include factors such as poorly designed reward systems. Environment-related performance problems include excessive interruptions, old equipment, poor raw material quality, bottlenecks in production, communication breakdowns, and poor working conditions. Clearly, training will not solve any of these problems (ibid). When diagnosing performance problems, it is important to make a distinction between training (KSA) needs and non-training (motivational or environmental) needs. A needs analysis should reveal deficiencies in KSAs, motivational factors, and/or environmental factors. Any motivational or environmental needs revealed in the need's analysis should be discussed with the managers who have the authority (and motivation) to make the necessary changes (Beitler, 2013)

Employee performance, according to Campbell et al., (1996) is a process of establishing a shared workforce understanding with regards to what is to be achieved at an organisational level. It is about aligning the organisational objectives with the Employees' agreed measures, skills, competency requirements, development plans and the delivery of results. Campbell goes on to state that the emphasis is on improvement, learning and development, to achieve the overall business strategy and to create a high-performance workforce. Job performance is a commonly used, yet poorly defined concept in industrial and organisational psychology, the branch of psychology that deals with the workplace. It most commonly refers to whether a person performs their job well or not. Despite the confusion over how it should exactly be defined, performance is an extremely important criterion that relates to organisational outcomes and success. One of the most commonly accepted theories of job performance comes from the work of Campbell et al., (1996). Coming from a psychological perspective, Campbell describes job performance as an individual level variable. That is, performance is something a single person does. This differentiates it from more encompassing constructs such as organisational performance or national performance which are higher level variables.

According to an article entitled 'Needs-based Perspectives on Motivation' by Moorhead and Griffin (1998), job performance depends on three main factors: Motivation, Ability and Environment. For an employee to reach a higher level of performance, he/she must 'want to do the job' (Motivation), 'be able to do the job' (Ability), and 'must have the materials, resources, and equipment to do the job (environment). For this reason, the following relationship can be established:

Performance = Motivation + Ability + Environment

Moorhead and Griffin (1998) are therefore in agreement with Campbell et al., (1996) with the only variation being that Moorhead and Griffin combine the KSAs into Ability.

Motivation: Motivation derives from the Latin Word *movere*, meaning, 'to move' this means that no one can understand a person's motivation until that person 'behaves or literally moves'. According Kreitner (1947) motivation is 'the psychological process that gives behaviour purpose and direction', while Moorhead and Griffin explain motivation as 'the set of forces that causes people to engage in one behaviour rather than some alternative behaviour. Employees are essentially the most important aspect of an organisation. Managers strive to motivate their employees so that they are willing to perform at their highest levels. When Employees work

hard, come to work regularly and continue making positive contributions to the organisation, the business will be able to cut costs and yield more profit, both of which are the ultimate goals of any organisation. On the contrary, unmotivated employees will mean the organisation will have people that are not willing to do well in the jobs or must hire more people to do different jobs, which contributes to higher operating costs and a reduction in profit (Moorhead and Griffin, 1996).

Types of motivation: Since the study has shown several very important motivation theories, the researchers now turn attention to the types of motivation that managers can take into consideration to successfully motivate their employees

Money and motivation: According to Hackman & Oldham, (1980), 'People neither work for free, nor should they be pursuing money. Hard work to provide security and comfort for self and their family is not the same with pursuing money with a negative motive'. Obviously, employees want to earn fair wages and salaries, and the employer wants them to know this is what they are getting for their hard work. Unsurprisingly, this all leads to the fact that the employees and the employer would all view money as the fundamental incentive for satisfactory job performance. According to Perry and Wise (2010) two general suggestions can be provided to the manager:

Financial incentives are very important, but their effectiveness also depends on the condition of the organisation. Differences in organisational conditions contribute to the possibility and effectiveness of various monetary incentives. Therefore, to ensure success in the implementation of any changes to existing incentive plans, companies are recommended to study those environmental conditions. Group incentive systems can also be very effective in private sector settings. Team-based or small-group incentives are described as rewards for individuals' hard work as a team. In general, its effectiveness depends on the characteristics of the reward systems, the organisation, the team and the individual team members. Research suggests that equally divided small-group incentives maintain a high level of productivity. If, as acknowledged by many scholars and theorists, money is not the single most important motivational factor, what are the other types of motivation? The next sections attempt to explain the most common types of motivation that good managers can consider.

Motivation through job design: Since the average adult spends half of their waking lifetime at work, to effectively motivate them no longer relies on the importance of money or other material objects. As jobs are the central feature of 'modern existence', feelings of having a challenging and interesting work can attach people to their jobs whereas a boring and tedious job, on the other hand, can become a serious obstacle to motivating people, not to mention the effect it has on an individual's physical and mental health. This is when Job design comes in to deepen a good manager's understanding and persuade them to adopt different approaches of dealing with employee mediation rather than the typical approach of motivating people through financial means (Taylor, 1911; Wilson, 1999).

Motivation through rewards: Employees, or volunteers who donate their time and effort for good causes, expect to receive rewards of some sort for their contributions. Managers have found that rewards play a significant role in motivating employees to work harder and longer (Kreitner and Kinicki 2004). This section, therefore, attempts to identify the numerous types of rewards that can be administered by managers. There are two types of rewards: Extrinsic and Intrinsic. Extrinsic rewards are external outcomes granted to someone by others, such as money, employee benefits, promotions, recognition, status symbols, and praise. In other words, this kind of reward is provided by another person or by an organisational system to an individual. In contrast, an intrinsic reward derives internally from individuals and can be experienced through their work, such as the feelings of competency, sense of accomplishment, personal development and self-esteem. The importance of being self-administered offers great advantages and power of "motivating from within". As a 50-year-old, Steve Schiffer, who worked at a small copper kettle manufacturer in northern Ohio, once said, 'it gets in your blood and you can't get rid of it, it's something you can create with your hands and no one else can' (Schermerhorn, 2002, P.363). There are four ways in which extrinsic rewards can be administered to improve job performance and efficiency.

Motivation through Quality-of-Work-Life (QWL) innovations: One of the world authorities on this subject once described QWL as “a process by which an organisation attempts to unlock the creative potential of its people by involving them in decisions affecting their work life” (Harvard Business Review, 1979/07). In other words, the QWL program is an interpersonal connection between employees and the organisation; it touches every aspect of modern work life. Three main categories of the QWL program are flexible work schedules, participative management, and workplace democracy. The common characteristic of these three categories is that they give employees a degree of control over their own work lives. Also, every step and decision they make does not only affect the company but also themselves, which leads to another kind of employee motivation – Motivation through Quality of Work Life (Shankar and Vignesh, 2014).

Theoretical Perspectives On Employee Performance

Reactance staff performance Theory: According to Reactance theory (Brehm, 1966, 1972, Brehm & Brehm, 1981 & Wicklund, 1974), when a person feels that his freedom to choose an action is restricted, he’s more likely to choose that particular behaviour. Parents often experience this early on, discovering that forbidding an action makes that action more enticing to the child. Reactance drives people to perform that threatened or newly-forbidden behaviour and prove that they still have free will. In a workplace, if an employee can’t perform the behaviour without risking his job, he might start doing something else that’s like the restricted action. He might also perform reactive behaviours such as taking extra-long breaks or even missing work days (Brehm, 1966, 1972, Brehm & Brehm, 1981 & Wicklund, 1974).

Inclusion in Decision-Making: According to the reactance theory, an employee generally wants to have some control in responding well when given options to help them progress and obtain additional rewards. They prefer some input into any decisions that directly affect them, or at least to be kept in the loop when the company makes these decisions. The previous researcher studied organisations that implemented a new payment system connected with performance, they found that discussing the plan with the workers ahead of time led to improved performance. Not doing so, in contrast, led to the plan being unsuccessful.

Request Vs Demand: A polite and rational request to employees tends to work better than heavy persuasive tactics or direct orders, even when they know they must comply. Again, employees need a sense of being able to choose their behaviour and to have some control over their jobs. For behaviour, you’d like to see that it isn’t officially prescribed or coerced. Using too much persuasion or strong-arm tactics can drive the employee to resist and even to the opposite of what you want.

Supervision Considerations: According to the reactance theory, employees frustrated with overly aggressive supervision engage in retaliatory behaviour, as well as other sorts of deviant behaviour directed not only towards the supervisor but towards their associates and the organisation. The results of the study indicated reactance theory is correct in this regard.

Employee Motivation Theories: There are many different views as to what motivates workers. The most commonly held views or theories are discussed below and have been developed over the last 100 years or so. Unfortunately, these theories do not all reach the same conclusions! Needs theories represent the ‘starting point’ for most contemporary thought on motivation? These theories argue that humans are motivated by ‘deficiencies’ in one or more important needs or needs categories. Human beings then try harder to satisfy those needs and thus become motivated. The two best-known needs theories are Maslow’s hierarchy of needs and Alderfer’s ERG theory.

Maslow’s Hierarchy of Needs Theory: Maslow’s hierarchy of needs, developed by Abraham Maslow in the 1940s, was arguably the most famous needs theory – famous probably because it was so straightforward and ‘intuitively appealing’ to those interested in work behaviour. Maslow, who labelled human beings as ‘wanting’ animals, asserted that people have an ‘innate’ desire to satisfy a predicable five – step hierarchy of needs. These needs have been categorized in an order of importance, with the most basic needs at the foundation of the hierarchy. The three sets of needs at the bottom of the hierarchy can be grouped as ‘deficiency needs’, which must be satisfied for a person to be comfortable, while the top two sets can be named ‘growth needs’, which

focus on the growth and development of an individual. Having looked at the basic concepts of Maslow's hierarchy of needs theory, we are going to examine each one of the five needs very closely:

Physiological needs: these needs refer to the desire to fulfil physical satisfaction such as water, sleep, food, air and sex. These needs are considered the most important needs because without them, human beings cannot survive. No other needs would be of any importance if physiological needs have not been satisfied.

Safety needs: Maslow's theory states that human beings strive to meet these needs once the physiological needs are satisfied. It is about individual safety – being away from evils and threats. It is also believed that most modern employees can fulfil these needs through earning an income or depending on unemployment benefits. Maslow asserts that individuals who have 'prolonged deprivation of physiological and safety needs' may become 'seriously maladjusted' people.

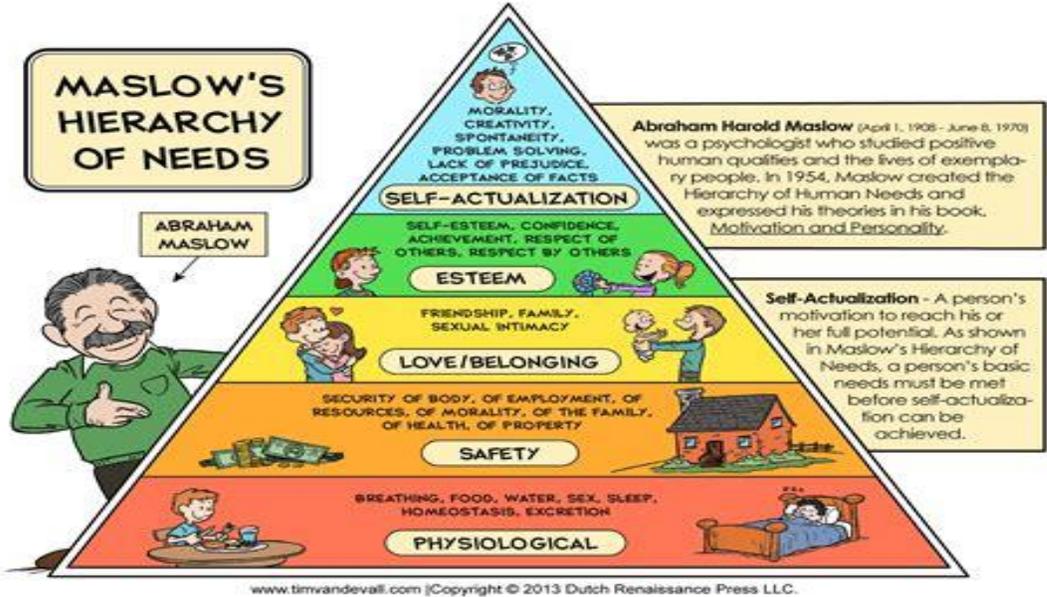
Love/belongingness need: Once the physiological and safety needs are satisfied, human beings tend to focus on the needs for love and affection. People endeavour to obtain a sense of belonging with others. This category of needs is a very powerful motivator of human behaviour.

Esteem Needs: A person who wishes to be a highly valued individual in the society always desires for high self-esteem. These self-esteem needs derive from self-respect, which in turn comes from being accepted and respected by the society. It is essential for those who are considered the people to help achieve an organisation's targeted objective to be able to fulfil this category of needs. Once again, according to Maslow, esteem needs, need to be met for an individual to move to higher-level needs.

Self-actualisation Needs - The fifth and final category at the top of Maslow's hierarchy of needs are the needs for self-actualisation. This means 'realising our full potential and becoming all that we can be'. In other words, it involves the need to become more and more what we are, and to become everything that we can become, which makes self-actualization an open-ended category.

Achieving all the above characteristics is almost an impossible task. After all, it is still debatable whether an organisation should have more or fewer self-Actualised managers. On the one hand, this type of managers will play an important role in breaking barriers to creativity and providing new initiatives as to where the organisation should be heading. On the other hand, too many 'unconventional nonconformists', i.e. self-actualised individuals, can also provoke chaos in one organisation. Figure 1 summarizes the categories of needs that we discussed above.

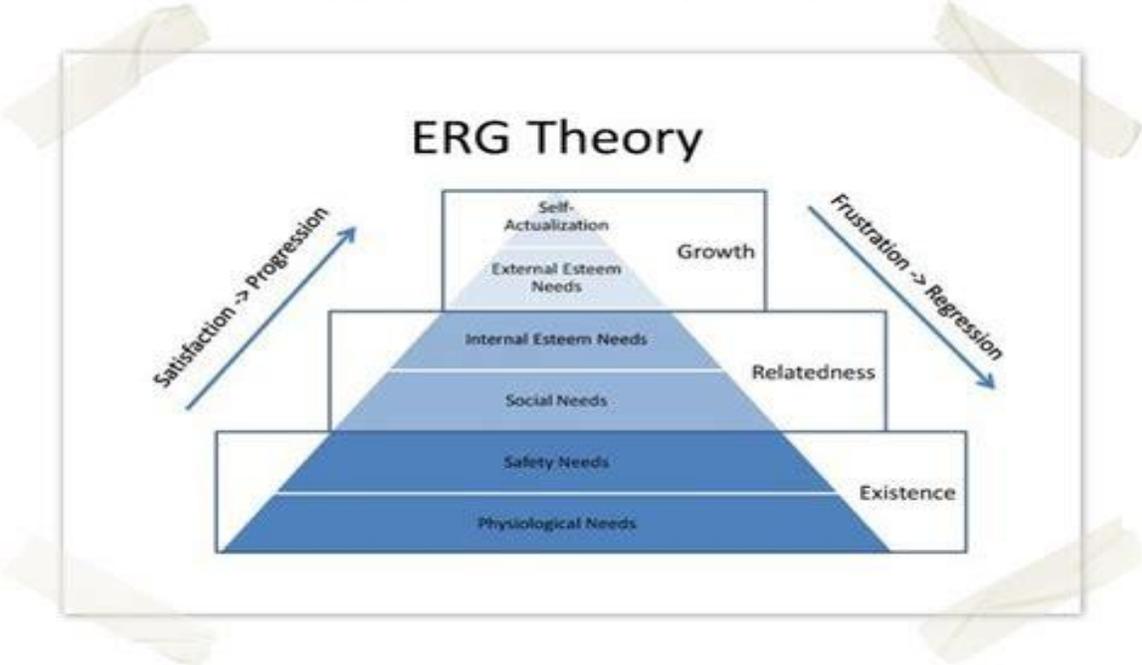
Figure 1: Maslow's Hierarchy of Needs (Dutch Renaissance Press LLC)



Alderfer's ERG Theory: Another very important theory of motivation is the ERG Theory, which was developed by Yale psychologist Clayton Alderfer. In the ERG theory, the E stands for Existence needs, the R for Relatedness and the G for Growth needs. The theory has many aspects that are very much like those of Maslow's hierarchy of needs, although there are still several very important differences between the two (Armstrong, 2012). For Alderfer's ERG Theory. The Existence category is similar to Maslow's Physiological and Safety needs, while Maslow's Love and Self Esteem needs are placed in the Relatedness needs category. Finally, the Growth category is like the self-actualization and self-esteem needs of Maslow's theory.

The ERG Theory, in contrast to the Hierarchy of needs theory, emphasises that more than one kind of need may motivate a person at the same time. Also, an even more important difference between the two theories is that the ERG theory includes two main components: The Satisfaction-Progression Component and The Frustration-Regression Component. The satisfaction-progression component explains that after an individual has satisfied one category of needs, he then moves on to the next level. This concept agrees with that of the hierarchy of needs theory. The Frustration-Regression component, on the other hand, argues that if an employee is not able to satisfy a higher level of needs, he becomes 'frustrated' and eventually 'regresses' to the previously satisfied level (Armstrong, 2012). To illustrate, we are going to look at an example. Nick Hernandez has satisfied his basic needs at the relatedness level, which means he has a lot of friends and social relationships. As a result, he is now trying to satisfy his growth needs through doing his best to progress to a higher position in his career. However, due to certain organisational constraints (e.g. few challenging jobs, few chances to demonstrate his ability and potential), he does not have the opportunity to advance to a higher position. Consequently, according to the ERG theory, he grows frustrated, and such frustration eventually causes his previous level of needs – his relatedness needs – to dominate his thoughts. This means that once again Nick has the desire to make more friends and develop more social relationships.

Figure 2: Alderfer's ERG Theory (pidp3250motivation.wikispaces.com)



According (Campbell, 1990) staff performance is a core concept within work and organisational psychology. During the past 10 or 15 years, researchers have made progress in clarifying and extending the performance concept, moreover, advances have been made in specifying major predictors and processes associated with staff performance. With the ongoing changes that we are witnessing within organisations today, the performance concepts and performance requirements are undergoing changes as well (Ilgen & Pulakos, 1999).

Organisations need highly performing staff to meet their goals, to deliver the humanitarian services they are specialized in, and finally to achieve competitive advantage. Performance is also important for the individual.

Accomplishing tasks and performing at a high level can be a source of satisfaction, with fueling of mastery and pride. Low performance and not achieving the goals might be regarded as dissatisfying or even as a personal failure. Moreover, performance, if it is recognized by others within the organisation, is often rewarded by financial and other benefits. Performance is a major, although not the only-prerequisite for future career development and success in the labour market. Although there might be exceptions, high performers get promoted more easily within an organisation and generally have better career opportunities than low performers (VanScotter, Motowidlo, & Cross, 2000). The high relevance of individual performance is also reflected in work and organisational psychology. Staff performance is a key variable in work and organisational development.

According Hackman & Oldham (1980) when employees have high autonomy, receive feedback about their performance, and have an important, identifiable piece of work to do which requires skill variety, they may experience feelings of happiness and therefore intrinsic motivation to keep performing well. Frederick Herzberg, a distinguished professor of Management at the University of Utah and Behavioural theorist conducted studies on worker motivation in the 1950s. He developed the Motivation-Hygiene theory of worker satisfaction and dissatisfaction. This incredible researcher concluded that hygiene factors such as salary, fringe benefits, and working conditions can prevent dissatisfaction, but they do not motivate the worker. He found that motivators such as achievement, recognition, responsibility and advancement increase satisfaction from work and motivate people towards a greater effort and performance. Herzberg and other behavioural theorists were influenced by the writings of Abraham Maslow, a theoretical psychologist who analysed what human beings seek in their lives and developed the Needs-Hierarchy concept. Of the many theories of work motivation, Herzberg's (1966) motivator-hygiene theory has been one of the most influential in recent decades. Basically, the theory divides motivating factors into two categories: Motivator factors, which have something to do with the work itself, and Hygiene factors, which have something to do with the surrounding context.

According to Herzberg, Motivator factors include such things as responsible work, independence in doing the work, and satisfaction arising from the completion of challenging tasks. Hygiene factors include pay, security, and general working conditions. According to Frederick Herzberg, hygiene factors operate primarily as demotivators if they are not enough. He suggests that workers are most satisfied and most productive when their jobs are rich in the motivator factor. When the work is interesting, he suggests, it can be accomplished by the job enrichment. The argument is that if one's working environment is hygienic, then one tends to work better, because they are healthy and do not have any distractions. On the other hand, an unhygienic environment results in sick workers and less productivity.

Hackman and Oldham's (1976) model of job enrichment proposed that jobs can be made more motivating by increasing the following: skill variety (the number of different skills required for the job), task identity (the degree to which the job produces something meaningful), task significance (the importance of the work), autonomy (the degree to which the individual has freedom in deciding how to perform the job), and feedback (the degree to which the individual obtains ongoing information on how they are performing). Many of these same characteristics of the work, particularly independence and competence, are referred as intrinsic motivators by social and personality psychologists. Deci and his colleagues proposed that intrinsic motivation occurs when individuals feel both self-determined and competent in their work. According to (Deci 1975; Deci & Ryan 1985) people will feel competent if they obtain feedback that indicates progress in their work or suggests way they can increase their competence. One psychological view suggests that very high levels of intrinsic motivation are marked by such strong interest and involvement in the work, and by such a perfect match of task complexity with skill level, that people experience psychological "flow," a sense of merging with the activity they are doing (Csikszentmihalyi, 1975).

The major psychological view suggests that extrinsic motivation works in opposition to intrinsic motivation (Deci 1975; Deci & Ryan 1985). Extrinsic motivation takes place when individuals feel driven by something outside of the work itself such as promised rewards or incentives. In general, these theorists suggest that, when strong extrinsic motivators are put to work, intrinsic motivation will decline. Amabile, Hill, Hennessey and Tighe, (1994) on Assessing Intrinsic and Extrinsic Motivational Orientations, adopted the definition of intrinsic and extrinsic motivation that includes a lot of the concepts proposed by previous theorists. Individuals are intrinsically motivated when they seek enjoyment, interest, satisfaction of curiosity, self-expression, or

personal challenge in the work. Individuals are extrinsically motivated when they engage in the work to obtain some goal that is apart from work itself. Hackman and Oldham (1980) devised a self-report instrument to assess the extent to which a specific job possesses the five core job characteristics. With this instrument, it is possible to calculate the motivating potential score (MPS) which is a summary index that represents the extent to which the job characteristics foster internal work motivation.

$$\text{MPS} = \frac{\text{skill variety} + \text{task identity} + \text{task significance}}{3}$$

Research has found that there is a positive correlation between motivation and job satisfaction. It has also been found that satisfaction with supervision also significantly correlates with motivation, hence, it is important for managers to explore the notion of job satisfaction as this affects motivation and in turn will influence performance. Job satisfaction is an affective or emotional response to one's job.

Five predominant models give insight into the issue of job satisfaction:

Need fulfillment: This proposes that the degree to which one's needs are met through one's job, is the degree to which one experiences job satisfaction.

Discrepancies: These models propose that when the expectations one has of a job exceeds one's experience of the job there is dissatisfaction. It is important for managers to be aware of this because often employees are "sweet talked" into joining a firm by unrealistic promises. It then increases their expectations and the likelihood of dissatisfaction when these are not met.

Value Attainment: These models propose that there is a positive correlation between job satisfaction and the perception one has of one's job fulfilling one's values. Hence managers can restructure working environments to reinforce some of these values.

Equity: Employees perceive that when the relationship between their inputs and outcomes compare favourably with that of others, there is a sense of satisfaction.

Locus of control: Someone has an internal locus of control when they believe that they can shape their future. They believe that their work experience is dependent on themselves. The result of this posture can be a sense of dissatisfaction which has a motivating effect to bring about change. On the other hand, it has been found that many people from collectivist cultures tend to have an external locus of control. This means that they see their present reality as being in the hands of someone else. As a result, they become fatalistic and somewhat content, even in adverse conditions. This means that job satisfaction is also influenced by cultural backgrounds and patterns of thinking which have resulted in either an internal or external locus of control.

Having succinctly discussed the two main needs theories, we would like to specifically examine three very pivotal individual needs: the need for (a) achievement, (b) affiliation, and (c) power.

- (a) **The Need for Achievement:** This need is the individual desire of accomplishing goals or tasks more effectively than in the past. People who have a high need for achievement are likely to set challenging goals and take risks with decision making. Suppose, for example that Neary, the Sales Manager of a company, has set a goal to increase sales of the business from 1% to 5% and another one to increase the sales of the department from 5% to 50%. The first goal is certainly too easy while the last is impossible to achieve. However, a target somewhere in the middle would be an ideal one. 15% to 20% might represent a reasonable and reachable target. This goal is what is called the need for high achievement and is likely going to encourage high performance (Moorhead and Griffin, 1998, pp. 129).
- (b) **The Need for Affiliation:** Individuals also experience the need for affiliation, which refers to the need for 'human companionship'. People with high need for affiliation most likely want to be approved by others and are usually concerned about others' feelings. They tend to act and think as what they believe to be expected by others, specifically relating to those whom they long for friendship. Researchers recognize that people with high need for affiliation are most attached to jobs as sales and teaching positions where there is a lot of interpersonal contact (Moorhead and Griffin, 1998, pp.131).

- (c) **The Need for Power:** The third individual need is the need for power – ‘The desire to control one’s environment, including financial, material, informational, and human resources. Not everyone experiences this kind of need. Some people can spend a lot of time searching for power while some will try to avoid it if possible (Moorhead and Griffin, 1998, pp. 133).

If the three conditions can be met, people with high need for power can be very successful in management jobs. First, they must try to avoid seeking personal interests for power and think for the good of the whole organisation. Secondly, they must have a low need for affiliation. This is because a desire to obtain power may force an individual to ‘alienate’ other people. Finally, they should be able to control the limits of their desire for power if it has a negative impact on organisational or interpersonal relationships.

In the late 1950s and early 1960s, Frederick Herzberg developed what would be a very famous theory known as the Dual-Structure Theory. Originally called the ‘Two-Factor’ Theory, it went on to play a very important role in influencing managers’ decisions on Employee motivation. Herzberg and his associates started by asking around 200 accountants and engineers in Pittsburgh to recall times they felt satisfied and motivated by their jobs and times they felt dissatisfied and unmotivated. He then went on to ask them to describe the reasons behind those good and bad feelings. Surprisingly, Herzberg found that entirely different factors were related to the Employees’ feelings about their jobs. For instance, those who stated they were not satisfied because their jobs were “low paid” would not necessarily identify “high pay” as a cause of satisfaction and motivation. Most people instead claimed that factors such as recognition or achievement were some of the main causes of job satisfaction and motivation. In this instance high pay could be regarded as a hygiene factor, whereas recognition and hygiene could be regarded as motivators.

These findings led Herzberg to conclude that the traditional view of job satisfaction and dissatisfaction as being equal to motivation and demotivation was “incorrect”. The theorist insisted that “the opposite of job satisfaction is not job dissatisfaction but, rather no job satisfaction; and similarly, the opposite of job dissatisfaction is not job satisfaction, but no dissatisfaction. These two different dimensions led to him naming his theory the “Dual – structure theory”. In addition, Herzberg claimed that the primary factor that cause satisfaction and motivation are called **Motivation factors**, such as achievement and recognition. The presence of these factors results in job satisfaction and motivation, while their absence leads to feelings of “no satisfaction’ rather than dissatisfaction. The other set of factors is called **Hygiene factors**, which refers to things such as job security, pay and working conditions. Without these factors, people will be dissatisfied; and if they are present, there will be a feeling of no dissatisfaction; rather than satisfaction. Due to its fast gain in popularity, the dual – structure theory has been studied and analysed by scientists more than most other theories in organisational behaviour.

One criticism of this theory was that the original sample of accountants and engineers may not represent the general working population. Sceptics argue that the theory does not consider the individual differences. In addition, further research has found that one factor, for example salary, may influence satisfaction in one sample and dissatisfaction in another, and that the individual’s age and organisational level has a huge impact on the outcome of any one factor. Finally, the theory does not clearly identify the relationship between satisfaction and motivation. Such criticisms obviously led to the shrinking popularity of the theory by organisational behaviour researchers. Nonetheless, its early esteem would mean that the theory still has a place and role to play in the field of organisational motivation.

Both Maslow’s and Herzberg’s motivation theories have been criticised for generalizing about human motivation. Our practical experience can show that the same people are motivated by different things at different times and that different people are motivated by different things at the same time. The expectancy theory, first proposed by Victor H. Vroom in the 1960s, somehow focused more on highly personalized rational choices that an individual makes when dealing with the prospect of having to work hard to achieve rewards. “Expectancy” refers to the subjective probability that one thing will result in another. Individual perception is therefore an essential part of the Expectancy theory.

According to the expectancy model, people’s motivation strength increases as their perceived effort–performance and performance–reward probabilities increase. Although the two terms may sound very

complicated, they can easily be understood through simple examples. For instance, how strong can you be motivated to study if you expect to score poorly on your tests no matter how hard you study (Low effort – performance probability) and when you know that the test will not be graded (low performance – reward probability)? In contrast, your motivation to study will increase if you know that you can score well on the tests with just a little hard work (high effort – performance probability) and that your grades will be significantly improved (high performance – reward probability). Employees are no different to students – they are motivated to work harder when they believe their hard work will lead them to achieve personally valued rewards.

If employees' contributions are based on their expectations, managers can take steps to try to cultivate favourable expectations among their employees. When people can expect personally valued rewards, they will undoubtedly work harder to try to accomplish their tasks. A good manager will listen to his/her employees, learn from his experience and try to discover what rewards certain Employees value. By so doing, the manager can potentially enhance their Employees' willingness to put more effort into their work.

Regarded as one of the “justice” theories, the **Equity theory** was first developed in 1962 by John Stacey Adams. It attempts to explain the satisfaction that derives from the fairness and equality that a manager brings to his/her employees. Equity theory places value on fair treatment, which is believed to be the major motivational factor among Employees. An individual will consider that he is treated fairly when he feels that the ratio of his input to his outcome is the same to other people around him. In this case, it would be acceptable for an Employee who has much more work experience and who is a more senior colleague to receive higher compensation/salary for his/her job. On the other hand, if an employee feels that another individual who has the same qualifications and provides the same amount of efforts is earning more recognition or compensation, he will feel he's treated unfairly and thus perform at a lower level. An employee who feels he is over – compensated may increase his effort. However, he may also change the perceptions of his inputs and feel a sense of superiority, which may lead to him decreasing his effort instead.

However, just like other motivation theories, equity theory has its own criticisms. Critics argue that many demographic and psychological variables affect people's perceptions of equality. In other words, what a manager feel is equal may be considered unfair by his employees. Secondly, because much of the research supporting the propositions of this equity theory have been conducted in laboratory settings, some people may believe that it does not apply to the practical situations. Finally, sceptics have also argued that Employees might perceive equity/inequity not only in terms of their relationships with their colleagues, but also with the overall system. This means that, for instance an employee may view his input and output as relatively similar compared to his colleagues yet may feel that the system is unfair. Nevertheless, Adam's Equity theory reminds us that people are hugely concerned of the way they are treated in their surrounding environment, team and system. For this reason, they must be managed, controlled, and treated fairly.

3. Research Methods

Research Design: The study employed descriptive correlation analysis. The research design is about the agreement of variables, conditions and participants for the study. The Quantitative Research Method was applied.

Research population: *The target population of the study was the 143 staff members of the DRC. This was composed of employees, supervisors and management of the DRC offices in Borno, Taraba, Yobe and Adamawa. In total only 143 members of staff were working in the above regions and these formed the population for the study.*

Sample: *The researcher calculated a sample of 105 of the staff members to study employee motivation and performance. This was arrived at using Slovene's formula*

$$n = N / (1 + N(e^2))$$

Where, n = Sample size; N = target population; e = constant variable: equivalent to 0.05, which was the margin of error.

Table 1: Sample for the Study

Category	Population	Sample size
Managers	15	11
Employees	117	86
Supervisors	11	8
Total	143	105

Therefore, given the formula, the sample size of 105 was calculated as follows:

$$N = 143; n = (1 + N (e^2))/N = (1+143 (0.0025))/143 = (1 + 0.3575)/143 = 105.34 = 105$$

Sampling Procedures: *The researchers used stratified random sampling procedure because this kind of sample ensured that each and every member of the strata under consideration had an equal chance of being selected as part of the sample in the research investigating the level of motivation and employees' performance at the Danish refugee council, Nigeria.*

Research instruments: *The research instrument used for the collection of data was a questionnaire. A questionnaire is a carefully designed instrument written, typed or printed for collecting data direct from the people. Structured questions were employed to collect the required data for this study to assess the employees' motivation and levels of performance at the Danish Refugee Council Nigeria offices.*

Validity and reliability of the instrument: *Content validity was ensured by subjecting the research devised questionnaires on resources availability and utilisation to judgment by the content experts who estimated the validity based on their experience and knowledge towards the subject. The individuals made their judgment on the relevance of the items. The Content Validity Index (CVI) was established using the formula:*

$$CVI = \frac{\text{No of items declared valid by the judges}}{\text{Total No of items on the questionnaire}}$$

$$\text{Employee motivation} = 12/14 = 0.86$$

$$\text{Level of Performance} = 13/15 = 0.87$$

The result of the CVI are shown in Table 2 A below

Table 2A: Primary data - Researcher's Calculations

Variable	Number of Item	CVI
Employee motivation	12	0.86
Performance	13	0.87

To ensure reliability, the two instruments were pre-tested by administering them to 3 international NGOs and 20 respondents. Pre-testing for reliability helped to reveal:

- (1) Problems relating to answering, completing or returning the questionnaire and
- (2) Weaknesses in the administration, organisation and distribution of the questionnaire.

The Reliability of the data collected was tested using Cronbach's Alpha Coefficient (0), computed using SPSS. The results are in table 2B below:

Table 2B: Cronbach's Alpha Value (Primary data - Researcher's Calculations)

Variable	Number of items	Cronbach's Alpha
Employee motivation	5	0.856
Performance	4	0.923

The results in table 2B indicates that the instrument had a high degree of reliability, with all Cronbach's alphas for all items greater than 0.8, which according to Amin (2005) is the minimum Cronbach's alpha required to declare the instrument reliable.

4. Data Analysis

Objective one: Descriptive statistics - frequency and percentage distribution was used to analyse data on the profile of the respondents.

Objectives two and three: Means and standard deviation were used to determine the level of motivation and employee performance. The analysis of questions helped to demonstrate the strengths and weaknesses of the responses on employee motivation and the level of performance.

The following numerical values and interpretation was used to interpret the responses based on the mean scores of each item or question:

Mean Range	Response Mode	Interpretation
3.26-4.00	Strongly agreed	Very high
2.51-3.25	agreed	high
1.76-2.50	disagreed	Low
1.00-1.75	Strongly disagree	Very low

Objective Four: T-tests and one-way analysis of variance was used to determine if there was a significant difference in the employees' motivation and the level of performance at 0.5 level of significance and to test the last hypothesis.

Objective five: The Pearson's Linear Correlation Coefficient (PLCC) was used to determine if there was a significant relationship between the level of motivation and employee performance in the Danish Refugee Council (DRC) Nigeria staff at 0.05 Level of significance and to test the last hypothesis.

Ethical Considerations: During the study, the respondents were invited to a place whereby everyone filled the questionnaire in his or her own time. To ensure confidentiality the researcher did not show any respondent's answer to another. The other ethical consideration made included acknowledging all the other academics whose ideas were used during the research, their names, data and issues were fully recognized under the research. Informed consent was sought from all participants and they were free to withdraw from participating in the research at any time if they so wished. All the data collected is being kept in a locked cabinet for a period of 5 years and will be destroyed by burning thereafter.

Limitations of the study: During this study, there were some limitations which the researchers met, and these included: Most of the staff were at work when needed and could not respond to the questionnaire. The researcher had to make time to meet up with them around their living areas and this resulted in higher costs for the researcher. Some of the senior staff did not complete the questionnaires due to pressure of work.

5. Results, Conclusion and Recommendations

Results: The researchers intended to find out the relationship between employee motivation and the level of performance. The study was motivated by four objectives as follows: (1) demographics - determining the profile of respondents in terms of gender, age, highest education qualification and experience (2) determining the level of employee motivation (3) finding out the level of performance (4) determining if there is relationship between employee motivation and the level of performance.

Profile of employees in the Danish Refugee Council in Nigeria: The findings suggested that males (67.6%) dominate the females (32.4%) among the employees of Danish Refugee Council in Nigeria. Marital status, single (39%) Married 54%), Divorced (5.7%) and 1% of them were widowed. Educational level, secondary level (1.9%), diploma (18.1%), degree holders (67.6%), master's degree (11.4%), and Ph.D. was only (1%). Age bracket between 11 to 20 (1.0%), 21 to 30 (57.1%), 31 – 4- (34.3%), 41 – 50 (4.8%), 51-60 (1.9%), 60 and above (1%). Number of years working, below one year (11.4%), 2 to 3 years (68.6%) 4 to 6 years (14.3%), and 7 years above years (5.7%). Department of work, support (36.2%), program (6.0%), and others are (2.9%); location of work, Borno (50.5%), Adamawa (14.3%) Yobe (29%) and Taraba (6.7%).

Extent of employee motivation in the Danish Refugee Council in Nigeria: Overall, the level of the employee motivation was low (mean = 2.50), while that for having access to the information that I need to make a good decision, was also low (Mean = 2.87); rated as the highest item under employee motivation indicators, followed by there is effective promotional opportunity in general (mean = 2.84).

Level of performance in the Danish Refugee Council in Nigeria: In general, the level of performance was high (mean = 3.024), while the level of staff hygiene was very high (Mean = 3.38); and rated as the highest item under performance indicators, followed by the level of trust among the supervisors and staff (Mean = 2.84) which was also very high.

Relationship between levels of employee motivation and level of performance: The relationship between level of employee motivation and level of performance in the DRC in Nigeria was measured using Pearson's linear correlation coefficient and the results indicated that the level of employee motivation was not significantly correlated with the performance with (-0.18) and (sg = 669).

Discussion: The highlight of the above was that the DRC does not practice Gender equity as males far outnumbered the females. The educational levels were also high, this could be interpreted to mean that the staff for the DRC in Nigeria were highly competent or that when this attribute is transplanted into the equation: Performance = Motivation + KSA + Environment as per Beitler (2013), the ability would contribute to high performance. On the level of performance and hygiene, these results were in conformance with Herzberg (1966)'s two factor - motivation-hygiene theory as good hygiene could be correlated with good performance. Though good hygiene is not necessarily a motivator, it facilitates good performance.

From the results, considering the low levels of motivation, the results of this study agreed with Herzberg (1966)'s theory that good hygiene does not necessarily lead to good motivation. Once again when inputted into Beitler (2013)'s equation the good environment - hygiene, would aid performance. One would then ask, if the level of motivation was low as per the research's findings, how come performance was high? The answer would seem to be that the other two factors in the equation far outweighed the motivational factor, resulting in high performance. This would also explain why a lot of staff were leaving the DRC for other NGOs. It was neither because they did not have the ability nor was it because they did not have the right environment, but it could be because they were not highly motivated.

Conclusion: The conclusions of this study are based on the purpose of the study in relation to employee motivation and performance in the Danish Refugee Council in Nigeria. There was no significant relationship between the extent of employee motivation and performance in the Danish Refugee Council in Nigeria. The study also tested hypotheses and concluded that the extent of employee motivation has no significant relationship with the level of performance. The null hypothesis was therefore accepted, and the alternate hypothesis rejected. The study validated that if the needs of employees are satisfied the employee becomes motivated, this was in line with Maslow's hierarchy of needs (1970). Finally, the study significantly contributed to the filling of the literature gap on the relationship between employee motivation and performance in Nigeria.

Recommendations: At the end of the study the researchers came up with a number of recommendations based on the findings of the research on the relationship between employee motivation and the level of performance at the Danish refugee Council Nigeria. These were as follows: -

- The DRC needs to increase staff participation in decision making - it has been observed the decision making is not participative to motivate an increased level of productivity from staff.
- Performance appraisals should enhance staff performance and should not be seen as punitive - the current performance appraisal system is not enhancing the staff performance.
- A proper rewarding system should be put in place.
- The organisation should put in place a system that enhances or encourages promotional opportunities in the organisation.

Areas for Future Research: This study focussed on the relationship between Performance and Motivation. The hypothesis had to do with the testing of whether or not there was a relationship between the two variables. If we go back to Moorhead and Griffin (1998)'s equation: Performance = Motivation + Ability/KSA +

Environment, this research focussed mainly on the relationship between Performance and Motivation. It neither tested the relationship between Performance and Ability nor Performance and the Environment. As such, the researchers could not come up with a conclusive reason on why staff were leaving the DRC and joining other NGOs. This brings out areas for future research. This research was mainly driven by the positivist philosophy and future research could focus in the interpretivist philosophy so as to get the views and opinions of the staff on the reasons for leaving the DRC and also a deeper sense of their levels of motivation, considering that motivation has to do with the inner feeling or the inner drive to do something. One could also look at a mixed method where both quantitative and qualitative studies are carried out and there is triangulation to verify the results of the different methods and see how they relate to each other.

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Management Styles in Southern Africa: The African Management Matrix Model

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Abstract: The adoption of Western management concepts by African organisations has affected the development of management in Africa. This paper examines various management styles practiced in Africa, but more specifically in Southern Africa and introduces a theoretical alternative management concept/model called the African Management Matrix. Data were collected through secondary sources of information by studying literature on global and African management and leadership styles. The findings revealed that African management practice is heavily influenced by culture, apartheid and colonialism. Furthermore, the study found that western based management practices in Africa may need to be discarded and replaced with African management practices such as Ubuntu. The implications are that management practices in Africa need to be redefined while considering the effects of colonialism, apartheid and African culture. The results of this study contribute to the subject of African Management and thus, are expected to further the understanding of organisational management in Southern Africa. This paper is original in that it seeks out the true identity of management in Africa and recommends the African Management Matrix as an alternative African management model which could be studied further to enhance African management practice.

Key Words: *Management Styles, Ubuntu, African Management Matrix*

1. Introduction

There is much literature on leadership, management and organisational leadership. The study of literature on management concepts and practices has revealed three important factors. Firstly, in most pieces of literature, authors refer to managers, organisational leaders and leaders as one and the same (Hofstede, 1983; Lee, 2011; Sheard, A. P. Kakabadse, and N. K. Kakabadse, 2011; Daire and Gilson, 2014; Pihlainen, Kivinen and Lammintakenen, 2016; Yaghi, 2017). The terms are used interchangeably to describe a person who is responsible for the administration, control and coordination of an organisation or a group of people in order to achieve a set of goals (Baumgartner, 2009; Adeoti, George, and Adegboye, 2013). Secondly, most of the management and leadership concepts and theories emphasise management practices based on western countries (Inyang, 2008; Nwagbara, 2011; Adeoti et al., 2013). However, many of these concepts do not necessarily apply to management in Africa, as Africa seems to have their own set of cultural values, beliefs and norms that heavily influence management practices (Firestone and Snyman, 2005; Mayor and Louw, 2011; Duze, 2012; Kan, Anderson, Apista, and Adegbite, 2015; Solansky, Gupta and Wang, 2017). Furthermore, African history is unique in that it involves apartheid, "...colonialism, conquest, neo-colonialism and global capitalism..." (Nwagbara, 2011, p.76). This history heavily impacts African management practices.

According to Oghojafor, Alaneme and Kuye (2013) Africans had their own management philosophies and practices which allowed them to survive slavery, colonialism and economic exploitation. However, after colonialism Western management concepts were introduced and became recognised as standard management practice (Karsten and Illa, 2001; Inyang, 2008; Mayor and Low, 2011; Duze, 2012; Solansky et al., 2017). Management theories and concepts were and still are composed based on studies of managers in the Western world. Therefore, can management and leadership theories and philosophies, manager type, manager competencies and manager characteristic concepts really be applied to management and/or managers in Africa? Or, does Africa indeed have her own unique management theories, manager types, competencies and characteristics which are rooted in African culture and history? This paper explores current management theory both globally and specifically those describing the African context and critically evaluates their

contribution to our understanding of management in parts of Africa and postulates a new model that resonates with the Southern African experience of colonialism and apartheid.

2. Methodology

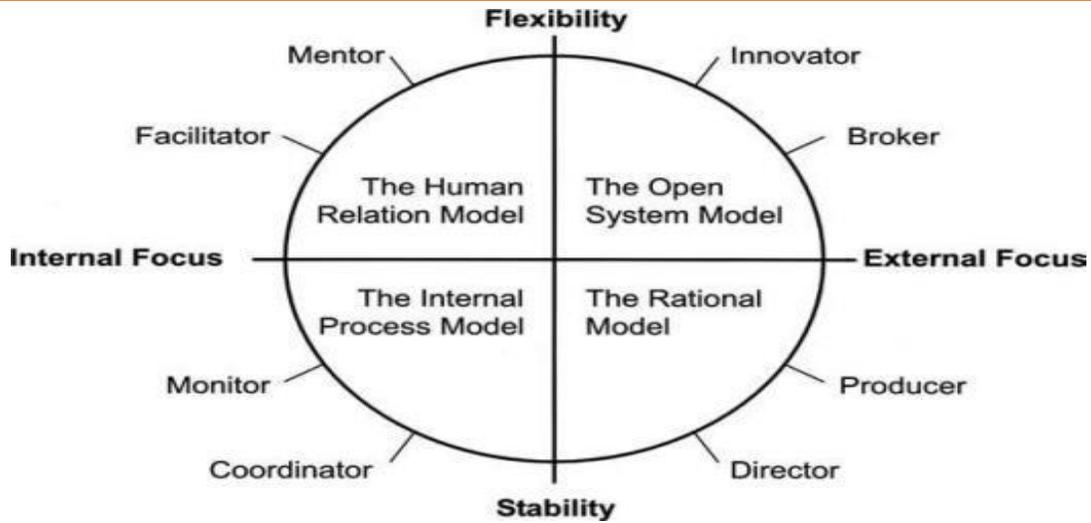
A systematic literature review was employed to identify studies based on management and leadership concepts and styles globally and more specifically in Africa. According to Grant and Booth (2009) a systematic literature review involves gathering data and eliminating the data which is irrelevant to one's study topic. A selective review on African management literature was then conducted to identify management models in post-colonial/post-apartheid Southern Africa. The following key terms, 'Management styles and models', 'management and leadership competencies', 'organisational management and leadership in Africa, management in post-colonial Africa', were used to search for literature from various databases such as, Emeraldinsigt, EBSCO, Sage and Routledge. The search was limited to theoretical and empirical articles as well as case studies in English. After assessing the literature, the search outcome decreased from 80 to 45 articles. Western influenced management practices in Southern Africa. Content analysis was employed to evaluate the data on management and leadership models in various countries in Southern Africa. Numerous literature was reviewed to ensure that the body of knowledge on African leadership and management in organisational studies was well represented.

3. Management and Leadership Styles

Karlof and Loevingsson (2005) state that there are three types of managers. The first is the coach, who motivates and encourages his/her subordinates. The second type of manager is the controller who is constantly concerned with making sure the organisation is efficient. Last, is the strategist who is characterised by a manager who makes decisions in the present aimed at future successes? Lewin, Lippit, and White (1939) suggest that managers typically fall under three types of leadership styles: Autocratic, consultative and laissez-faire. The autocratic manager does not involve workers in decision making and enforces their decisions on their subordinates. In contrast, consultative managers allow subordinates to be involved in the decision making and only act as a guide to workers. On the extreme, the laissez-faire manager appears to show little or no interest in workers. They allow subordinates to do as they please without offering guidance or direction.

In addition, Shim, Lusch & Goldsberry (2002) used a combination of Quinn's (1984, 1988) model of leadership roles and Competing values framework to study the leadership style profiles of retail managers. The model and framework describe managerial leaders as either having a positioning highlighting flexibility or stability. Also, they may display an emphasis which is internal or external, which results in four models of leadership styles. This model of leadership styles classifies managers into homogenous groups. The four models of leadership in Figure 1 consists of the Open System model which focuses on flexibility and external emphasis; the Rational model focuses on stability and external emphasis; the Internal Process model emphasises stability and internal focus; and the human relation model emphasises flexibility and internal focus. This theoretical model identifies eight leadership roles which are mentor, facilitator, monitor, coordinator, director, producer, broker and innovator. The characteristics of each role are expounded in Table 1. The Human Relation model describes managers who are mentors and facilitators.

They are characterised as people-oriented and supportive leaders who focus on participation, openness, commitment and morale. Second is the Internal Process model which consists of managers who can be viewed as monitors and coordinators. These leaders are usually stability-oriented and conservative in their decision making, with primary goals being stability and control. Thirdly, the Rational model describes managers who take on the roles of producers and directors. These leaders are task-oriented and directive and view the organisation as a rational economic tool. Management in this model emphasises productivity, accomplishment, goal clarity and direction. The fourth model is the Open System model. Managers in this model are innovators and brokers whose primary goal is growth and resource acquisition.



**Figure 1: Model of competing leadership roles
(Source: Shim, Lusch & Goldsberry, (2002), p.187)**

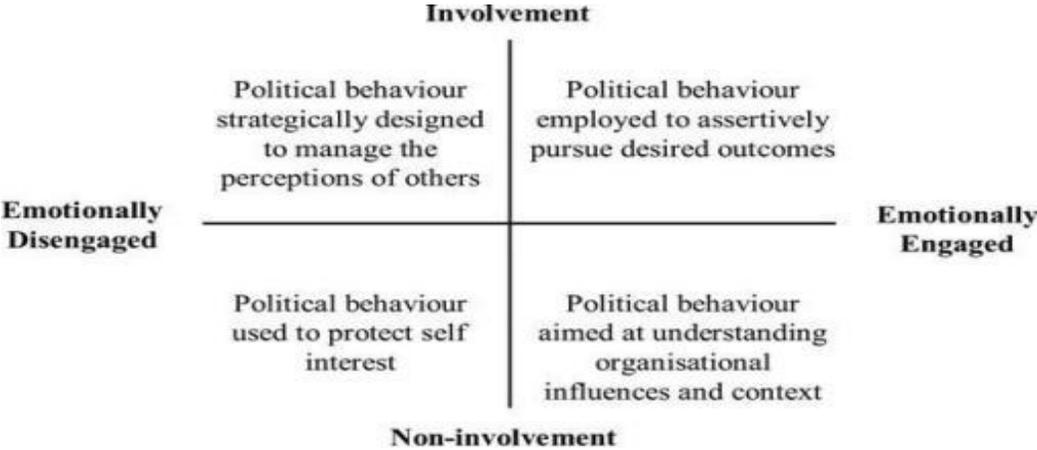
They are considered to be adaptive and inventive. Furthermore, leadership can be divided into clusters and career and demographic characteristics such as education are important factors that differentiate leadership clusters of effective and ineffective managers. This theory together with the “four models of leadership” theory was employed to classify retail managers into three distinct groups. Firstly, there is a Loner/ Internal Focus cluster which is mostly found among managers in the Open System model and partly in the Human Relation Model. Managers in this group are internally focused and tend to make decisions without involving others. Most of them have college degrees but view their management jobs as unprogressive and can thus be cautiously termed as unproductive. The second cluster is Team Builder/Goal Oriented. The managers in this group prove to be highly committed to their job and goal-oriented and belong to the Human Relation Model. This cluster is made up mostly of non-white males and has the lower educational levels compared to the other clusters. They have the highest level of achievement and development among the other clusters. The third cluster is the Conceptual Producer/External-Focused. Managers in this cluster fall under the Open System model and the Human Relation model as brokers and facilitators. This cluster describes managers who are rewarded financially more than the managers from the other two clusters. Managers in this group are mostly males with graduate degrees.

Table 1: Definitions of model of leadership roles

LEADERSHIP ROLES	CHARACTERISTICS
The Open System Model Innovator role Broker Role	Creative, envisions, encourages, facilitates change Politically astute, Acquires resources, Maintains the unit's external legitimacy through the development, scanning and maintenance of network of external contacts
The Rational Goal Model Producer role Director role	Task-oriented, work focused, Seeks closure and outcome oriented Engages in goal setting and role clarification, Sets objectives and establishes clear expectations
The Internal Process Model Coordinator role-Maintains structure Monitor role	Does the scheduling, coordinating and problem solving, Sees that rules and standards are met Collects and distributes information, checks on performance, Provides a sense of continuity and stability
The Human Relation Model Facilitator role Mentor role	Encourages the expression of opinions, seeks consensus, Negotiates compromise Aware of individual needs, listens actively and is fair, Supports legitimate requests and attempts to facilitate the development of individuals

Source: Shim, Lusch & Goldsberry, (2002), p.188

Moreover, Sheard et al. (2011) suggest that leadership or management styles can be influenced by political behaviour in certain circumstances. Some managers adopt politically intrinsic behaviour to enable effective leadership action in time of crisis. By creating a leadership organisational model of organisational politics, they conceptualise political behaviour as the “shadow side” of leadership. Figure 2 illustrates that there are different types of behaviours represented in each quadrant. Different quadrants are applied at different times as managers switch from one situation to another. Usually managers first engage in political behaviour meant to manage the perceptions of others and over time move on to political behaviour to protect their self-interest.



**Figure 2: Leadership behavioural model of organisational politics
(Source: Sheard, Kakabadse, A., Kakabadse, N. (2011), p.94)**

On the other hand, Dulewicz and Higgs (2005) suggest that leaders adopt certain behaviours depending on the context in which they are operating. The behaviours can be grouped into three broad categories. The first category is Goal oriented leadership, which describes behaviour in which the leader establishes the direction in which the subordinates should go and encourages them to fulfil key goals required for performance achievement. This is not authoritarian type leadership but can be described as leader-centric. The second category is the Involving leadership, which describes leaders who allow their subordinates to be involved in setting the direction and determining how key goals are achieved. The final category is the Engaging leadership. The leaders in this category display behaviour which is aimed at assisting and developing the capabilities of others and facilitating subordinates to allow them to achieve the necessary goals.

In addition, Pihlainen et al. (2016) identified three main classifications of management competence in the health care profession which are, health-care context related, operational competence and general competence. These categories are divided into sub-categories. Health-care context-related competence is sub-categorised into social, organisational, business and financial competence. Organisational competence is related to management and leadership which is made up of the managers’ organisational duties and work content. Operational management and leadership competence is made up of operation, process, clinical and developmental competence. This encompasses the ability to manage a ward applying clinical skills and the type of leadership skills that a manager possesses. The final category, being the general management and leadership competence, is made up of various management skills such as time management, human resource management and interpersonal skills and the ability of a manager to maintain interpersonal relationships.

Yaghi (2017) and Taylor, Casey, and Colvin (2014) emphasise transformational and transactional leadership as commonly studied styles of management. They define a transformational leader as “one who raises the followers’ level of consciousness about the importance and values of desired outcomes and the methods of reaching those outcomes” and define transactional leaders as those who approach the followers with a view geared at exchanging rewards and benefits. They give their opinion that there are conflicting theories described by Burns (1978) and Bass (1985). The first author suggests that leaders will exercise either type of leadership depending on the situation, whereby the latter contrasts this by stating that each type is a distinctive

managerial behaviour and so managers are either transactional or transformational leaders regardless of the situation.

In addition, Taylor et al. (2014) add the theory of visionary leaders. They define visionary leaders as those who are able to create and articulate distinct goals in an organisation. They tend to create a personal vision and blend it in with their colleagues to create a shared vision. Dartey-Baah (2009) states that Bales (1950) identifies two types of distinct leader styles. These are the task-oriented style and the interpersonal-oriented style. Managers who are described as using the task-oriented style are those who are focused on making sure that tasks are completed by arranging activities angled at tasks and subordinates are encouraged to follow regulation and procedures. However, the interpersonal-oriented managers are those who are concerned with preserving interpersonal relationships by caring about welfare of subordinates. The author continues to describe that managers could also be described as servant leaders who are defined by serving their workers and work hard to meet the highest needs of their subordinates.

The Role of Culture in Management Practices

Hofstede (1983) stresses that management and organisation are penetrated by culture. Yaghi (2017) states that if leadership is not viewed as a culturally driven organisational phenomenon, the transactional and transformational leadership theories fail to explain managers' behaviour when they operate under unusual or peculiar circumstances. Ghebregiorgis and Karsten (2006) add that a culture of a specific country is expected to impact foreign management practices. Eustace and Martins (2012) corroborate this by stating that cultural paradigms influence the way people perceive leadership, people only see what their cultural paradigms allow them to see.

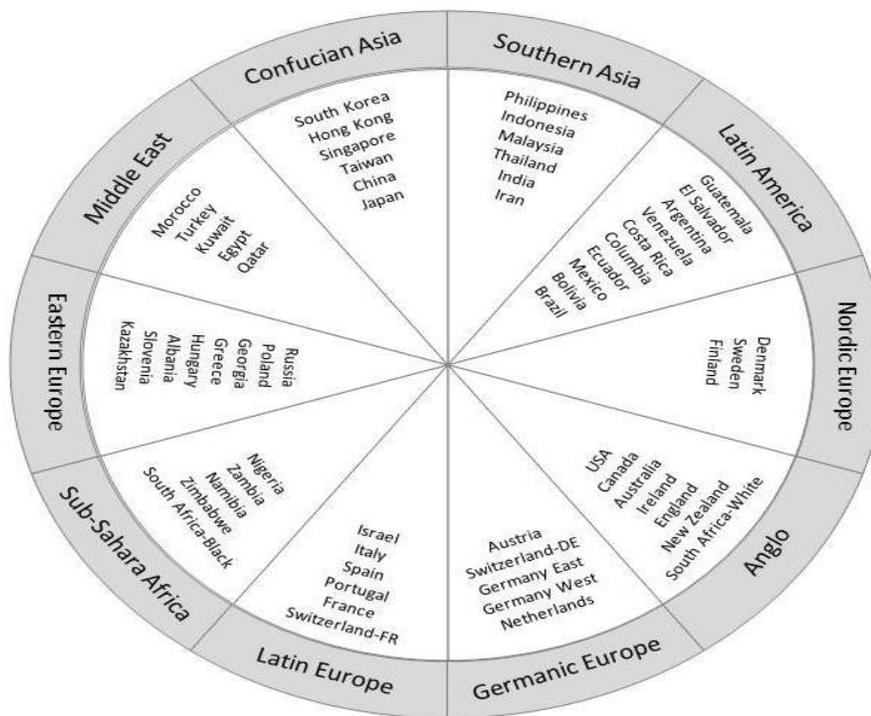
Also, Solansky et al. (2017) give their opinion that due to globalisation, it is imperative to understand leadership across various countries and cultures. Therefore, it is essential to engage in indigenous leadership research which relies on historical, societal and cultural factors. There are perceptions of leaders from various leadership prototypes which influence leader behaviours and expectations and are developed by means of social interactions and past encounters with leaders. Thus, "the universality and specificity of leadership profiles presents a culturally hybrid perspective of leadership" (p.167). The authors continue to propose that a culturally hybrid perspective of leadership suggests that leadership profiles are either universally approved or are culture dependent. A culturally hybrid perspective of leadership is based on the belief that ideal leadership is influenced by both global and local elements. Above all, there are several authors who reviewed the Global Leadership Behavioural Effectiveness (GLOBE) Research Program that was founded in 1991 by Robert J. House. GLOBE conducted a comprehensive study called Culture, Leadership and Organisations: The Globe Study of 62 Societies. Thereafter, a second volume entitled Culture and Leadership across the World: The GLOBE Book of In-Depth Studies of 25 societies which was made available in 2007. Data were collected from managers from the telecommunications sector, food processing sector and financial sector through in-country leadership literature analysis, interviews, focus group discussions and printed media.

According to Hoppe and Eckert (2012) the aim of the GLOBE study was to identify how culture is related to societal, organisational, and leader effectiveness. Baumgartner (2009) who also reviewed the GLOBE study suggests that it focuses on organisational leadership and not leadership in general. Koopman et al. (2010) are among the authors who reviewed the GLOBE study. They state that the objectives of the study were to identify if there are leader attributes, behaviours and organisational practices that are globally recognised and effective across cultures; to discover if there are leader attributes, behaviours and organisational practices that are unique to specific nations or cultures; to determine how cultural differences affect the kind of leader and organisational practices; to identify where each of the studied nations fit in the nine cultural dimensions.

Table 2: GLOBE cultural clusters (Source: Hoppe & Eckert, (2012), p.2)

Power Distance	The degree to which members of a collective expect power to be distributed equally
Uncertainty Avoidance	The extent to which a society, organization, or group relies on social norms, rules, and procedures to alleviate unpredictability of future events.
Humane Orientation	The degree to which a collective encourages and rewards individuals for being fair, altruistic, generous, caring, and kind to others.
Collectivism I (Institutional)	The degree to which organizational and societal institutional practices encourage and reward collective distribution of resources and collective action.
Collectivism II (In-Group)	The degree to which individuals express pride, loyalty, and cohesiveness in their organizations or families.
Assertiveness	The degree to which individuals are assertive, confrontational, and aggressive in their relationships with others.
Gender Egalitarianism	The degree to which a collective minimizes gender inequality.
Future Orientation	The extent to which individuals engage in future-oriented behaviours such as delaying gratification, planning, and investing in the future.
Performance Orientation	The degree to which a collective encourages and rewards group members for performance improvement and

Culture Clusters in the GLOBE Study



**Figure 3: GLOBE nine cultural dimensions
Source: Hoppe & Eckert, (2012), p.1**

The results would then determine if the universal aspects and nation specific leadership and organisational practices can be theorised in relation to the differences among cultures. As stated by Hoppe and Eckert (2012) the results of the study allowed GLOBE to establish nine culture dimensions and ten culture clusters. The cultural dimensions, as seen in Figure 3, allow the differences and/or similarities of norms, values, beliefs and practises among societies to be identified and captured. Whereby, the culture clusters, as seen in Table 4, consist of countries which are similar in culture. It is important to note that the further cultural clusters are apart, the bigger the cultural difference. In addition, Baumgartner (2009) continues to opine that the Anglo

cluster, which is one of the identified cultural clusters, contains South Africa as part of that cluster. However, this sample excludes black South Africans as it only consists of a white sample.

In addition, GLOBES's findings reveal how cultures perceive exceptional leaders as they believe that successful leadership is rooted in societal and organisational norms, beliefs and values of those being led. Furthermore, GLOBE identified 112 leader characteristics which they translated into six leadership styles. Below are the six styles in the order of the least to the most cultural variation.

- Charismatic/Value based style describes a manager with high standards, innovative and with good decision-making abilities. They are self-sacrificing and visionaries who inspire the people around them.
- Team-oriented style managers impart loyalty and co-operation among organisational members. They focus on team work for a common goal.
- Participative style describes organisational leaders who encourage subordinates to take part in decision making and implementation.
- Human style. These are managers who emphasise compassion, supportiveness and show concern for the wellbeing of their team.
- Self-protective managers display face-saving behaviours. They focus on procedures as well as the safety of the individual and the group.
- The autonomous manager is characterised by independence, individualism and self-centeredness.

There are some leader characteristics that are approved by all societies in the GLOBE study. However, these traits may be portrayed and expressed differently within the various societies. Furthermore, Koopman, et al. (2010) use data from the GLOBE study to discuss similarities and differences on culture and leadership dimensions among 21 European countries. They determined that the North-Western and the South-Eastern parts of Europe have contrasting clusters of cultural values which influence the behaviours of managers in these regions. Therefore, it can be determined that there is not only one typical European culture and thus, management style.

4. Management Practices in Different Countries

Yaghi (2017) states that in the UAE, management styles are influenced by the values and norms of the traditional society. Furthermore, managers in Egypt, Jordan, Iran and the Philippines tend to have adaptive management styles, which is a mixture of transactional and transformational management depending on the situation they are dealing with. This is done in accordance with the management traditions in their society. In Egypt, managers tend to put the interests of the group, including those they manage above themselves. This is influenced by the Arab culture which allows the communication between the managers and subordinates to be flexible and informal. These managers also lead by example and are viewed as moral agents. However, in the UAE, Saudi Arabia, Kuwait and Jordan many managers prefer consultative and participatory types of management styles. Most of the managers aim to help others by focusing on the strengths of others, treating others as individuals and by building trust and sometimes avoiding imposing themselves on their subordinates. Some managers even refrain from taking action in fear of damaging kinship ties in the community. In summation, Yaghi (2017) states that basically, "Arab managers in the UAE practice an adaptive style of both dynamic and rigid practices in order to accommodate the cultural norms and values of the society while succeeding in leading and managing organisational change." (p.254)

On the other hand, Solansky et al. (2017) give their opinion that implicit leadership profiles in China are different to those in western societies. Globally, Chinese business managers are perceived to be highly authoritative and benevolent to subordinates. They are also known to exhibit a high degree of moral character in their actions. These management behaviours they exhibit are no doubt highly influenced by the values of Confucian. In addition, they are less likely to participate in decision making when compared to leaders from other countries. This is believed to stem from the Confucian belief of social order based on paternalistic authority.

Meanwhile, Ardichvili and Gasparishvili (2001) express that managers in Russia tend to share power with subordinates by delegating lower-level decision making. However, strategic and executive decision making is not shared with subordinates as managers tend to be autocratic. Also, they appear to be obstinate, animated and were collectivists as opposed to being individualists. The relationships between managers and their subordinates seem to be paternalistic. This is influenced by the paternalistic relationships in the fifteenth century between the Czar and its subordinates when Russia was recovering from an invasion and power had to be centralised. Therefore, managers in Russia are also influenced by history and culture. In addition, Ardichvili and Kuchinke (2002) studied leadership values of managers in four countries of the former Soviet Union, Germany and USA. They discovered that Russian managers appeared to be less individualistic and were less concerned with uncertainty avoidance than their American managerial counterparts. More findings revealed that managers in the countries of the former USSR and Russia ranked low with respect to power distance, whereby Germany and USA ranked much higher.

This could be due to the American and German belief held by managers that positions of social power should be equally distributed or be within reach of everybody. Furthermore, Fukushige and Spicer (2007) conducted a study on organisational leadership practices in Japan and discovered that some management practices in Japan are also influenced by its political history and culture. Although managers in Japan employed culture-specific leadership styles -liberal, trust, after-five, protective and network leadership styles- they also practiced Western influenced leadership styles such as directive, supportive and participative management. In addition, managers were slowly moving away from culturally influenced forms of management, such as from male chauvinism to gender equality, collectivism to individualism and from seniority to mediocrity. Conversely, Yaghi (2017) states that seeing Australia as a western country, managers use adaptive leadership style as per situation. However, according to Javidan and Bowen (2013) not all western countries share the same management styles and concepts. For example, generally an American manager may find it difficult to manage a French team. Also, Spanish managers are seen to be more autocratic than their American counterparts. Therefore, an American manager with their consultative decision-making style may be perceived by the Spanish as too easy going.

Management in Africa: Nonetheless, Ghebrejorgis, and Karsten (2006) have stressed the relevance of context and suitability when studying management in Africa. Management techniques from the West need to be scrutinised when applying them in non-Western societies. Kan et al. (2015) agree with Hofstede (1983) and emphasise that since management practices are culturally influenced, adopting Western management practices is not suitable to African values. This is largely influenced by the fact that African managers' behaviour is based on a humanistic approach while western managers' behaviour is based on a scholastic approach. In addition, Karsten and Illa (2001) give their opinion that "the African manager draws from proverbial, social thought and organises his life in a system of reciprocal social relationships, where family is the core unit" (p.101). This is a very important aspect of African management.

Furthermore, Adeoti et al. (2013) studied management thoughts and philosophies in Nigeria and opine that colonialism created quite a few barriers to the development of African management practices. This is because the transfer of western management practices failed to consider the uniqueness of African culture and its influence on management practices. The uniqueness of African management is characterised by traditionalism, communalism and cooperative teamwork. Also, the authors agree with Inyang (2008) by stating that management in Africa is deeply anchored in traditional and cultural beliefs, as well as in political, social and economic environment. They continue to suggest that the effect of colonialism on African management has resulted in what may be called "Colonised African Management". This term describes a workforce during colonialism which was comprised of the best "African brains" trained in western management principles and practices. They are referred to as foreign-loyalist African managers, who today, make up most of the managers in Africa. In addition, the author proposes that Ubuntu forms the foundation of African management philosophy as it is considered an important value of African culture.

Nwagbara (2011) corroborates this by stating that "...African organisational paradigms consist of people that have colonial education and professionalism. Thus, colonial hangover percolates their organisational management ethos because these trained and elevated brains consists of pioneered groups of Western Management apologists who make up contemporary African management" (p.85). African managers struggle

with a term called learned helplessness. This implies that African managers feel that it is impossible to avoid Western imposed management practices even if they would like to. On the contrary, there are a few authors who believe that African management practices are governed by Ubuntu. Karsten and Illa (2001) state that Ubuntu is common to all African languages and traditional cultures.

It can be defined as “the spirit of unconditional African collective contribution, solidarity, acceptance, dignity, stewardship, compassion and care, hospitality and legitimacy...an African cultural world-view that can be rooted in people’s daily life” (p.104). Kan et al. (2015) agree by stating that Ubuntu seems to be the most visible Afrocentric concept in African management as it reflects the communal nature of African countries. Ubuntu is built on the foundation of ethics, interdependence, totality and the human spirit. Eustace and Martins (2014) accentuate this belief by stating that in African organisations, there is a fundamental concept referred to as the African leadership approach. This describes a style of management that is governed by the African collectivism belief (Ubuntu) and is comprised of accountability, spiritual authority, transparency, and legitimacy. African leadership has six fundamental values which are: Respecting others’ dignity; group solidarity; teamwork as opposed to individualism; peaceful and harmonious servanthood; independence and connectedness; and persuasion. Adeoti et al. (2013) add that Nigerian management philosophy represents the core values of African culture which include human relations, extended family, concern for one another, respect for elders, competition and hero-worship. They conclude that the typical Nigerian management style emphasises a high concern for people and production and decision-making is participatory. In addition, Duze (2012) conducted a study in Nigeria where he researched management values in two steel production companies. Also, the same study was conducted simultaneously at a steel production company in Italy to compare management values between Africa and in the Western world. Data were collected via a structured questionnaire.

The results indicated similar values between the two companies in Nigeria but the company in Italy had contrasting results due to differing cultural values. The author concluded that Western individualist and participative management models are not suitable for African nations. Management theories and behaviours cannot simply be transferred from one cultural society to another due to distinct cultural differences. In addition, the study revealed that the number of managers from the two Nigerian companies who had acquired higher education for more than 15 years was about 78%, whereby, in Italy it was 59%. Also, the total of Nigerian managers who were above 40 years of age was on average 65% and in Italy it was 75%. The number of managers who had been in senior positions for more than ten years in Nigerian companies averaged at 53% which contrasts the number of managers in the Italian company which was 80%.

Also, the amount of nuclear family size and number of dependents of the managers from the Nigerian companies was more than half the amount of that of the managers from the Italian company. This could be attributed to the concept of Ubuntu which is described as the typical management practice in Africa, where Africans feel the need to take care of each other. In addition, it was discovered that in Nigeria, most managers were paternalistic in their style of management, this is also what was most preferred by subordinates. However, in Italy most managers were consultative by style, which was also the preferred management style by subordinates. The author concluded that one of the biggest differences between African management and management in the West is power distance, which is the distance in power between managers and their subordinates. Power distance is much larger in African organisations and in Africa in general. Kartsen and Illa (2001) add by stating that while European managers practice Eurocentrism, individualism and modernity, African managers practice ethnocentrism, communalism and teamwork.

Managers in Eritrea tend to practice different management styles. In a study conducted by Ghebregiorgis and Karsten (2006) to explore the types of managerial styles that are prevalent in Eritrea. They discovered that most managers were participative managers, meaning that they consulted their subordinates before reaching decisions. A significant number of managers were also seen as autocratic managers. Among the managers were also democratic managers and laissez-faire managers. However, the autocratic manager was the most accepted by subordinates. This is influenced by the Eritrean social order and paternalistic structure in the society. Although some of these styles of management can be viewed as Western influenced types they are still influenced by the national collectivist culture and religion of Eritrea. Also, Eritrea has a shortage of labour due to the mobilisation of labour for the military. Additionally, there is a shortage of skills among the Eritreans in middle and top management. Therefore, many managers if they are Eritrean, lack the necessary management

qualifications and are forced to “learn” on the job. Otherwise, expatriate managers who have the necessary educational qualification and skill set are hired.

Bolden and Kirk (2009) state that Namibia, South Africa, Zambia and Zimbabwe rank high in the ‘humane orientation’ value dimension. According to the GLOBE study, the Humane Dimension can be described as the degree to which a collective encourages and rewards individuals for being fair, altruistic, generous, caring, and kind to others. They also preferred the charismatic, value based, team oriented, participative and humane approaches as leadership and management styles. Southern Africa demonstrates a different cultural value profile to West and East Africa which could result in management and leadership practices that vary from those in East and West Africa. Mangena (2011) gives his opinion that pre-colonial leadership and management in Zimbabwe was governed by Ubuntu. However, colonialism and Western Education influenced post-colonial leaders and managers. In Zimbabwe and Swaziland, leadership and management practice has adopted the ‘Machiavelli’ philosophy, which can be described as leaders who act as princes with absolute power and authority. This behaviour is a result of colonisation, as those who struggled through colonialism learned that power is attained through cunning and fraudulent means.

However, Botswana’s management and leadership seems to vary from other Southern African countries due to its ethnic homogeneity which results in a culture that is common to all its citizens (Beaulier, 2003; Adimora, 2016; Mudane, 2017; Beaulier, 2003) continue to suggest that the negative effects of British colonialism was minimal as it did little to extinguish pre-colonial institutions. However, Mhozya (2010) believes that there is an authoritarian-bureaucratic model of management predominantly found across commercial, industrial and educational organisations in Botswana. This model was brought to Africa during the colonial era and was employed by the colonial powers to teach the African ‘subordinates’ the necessary skills to run the colonial administration. Also, management practices are influenced by the traditional political systems which were autocratic, authoritarian and paternalistic.

A study he conducted at a primary school revealed that managers often managed in a collective, participatory and democratic leadership style where they involved their subordinates in decision making. Silva, Caetano and Roque (2015) suggest that management in Mozambique is autocratic and paternalistic which is governed by high levels of power distance, feminism, uncertainty avoidance and collectivism. The high levels of power distance are consistent with other African countries. Contrary to other Southern African countries, the decolonisation process in Angola was slower, more violent and more recent. Thus, over assertiveness may govern management styles which result in dominating leadership, autonomy and self-interest. Managers in Angola avoid confrontational, face-to face interactions with subordinates as they may find it intimidating and power distance is relatively high with huge status differences between managers and subordinates. Managers act autocratically, and decision making is centralised. They also value loyalty and obedience from their subordinates more than productivity. Besides, Lee (2011) suggests that managers in developing countries such as South Africa struggle with effective leadership due to severe skills shortage and historical divides among cultural groups. The fall of apartheid has led to the integration of different cultures and ethnic groups. Mayor and Louw (2011) corroborate this by stating that management in South Africa is heavily impacted by the social, political and economic changes which she has endured. These changes include apartheid, independence and policies such as affirmative action. The socio-political transformation combined with globalisation trends has impacted the values and identities of managers. Also, management issues in the South African context involve inter-relationship between international and culture specific organisational management, historical influences, post-apartheid, post-colonialism and organisational cultures.

Lee (2011) has identified three factors that may mould the perceptions of South African managers, therefore influencing them to manage in a certain manner. The first factor is influenced by apartheid. Due to apartheid, South African managers are required to harness traits such as interpersonal relational skills, open-mindedness and empathy. Secondly, managers are affected by race and gender due to the historical perceived supremacy of males and whites in leadership positions. Blacks and women may have struggled to achieve their current managerial positions and therefore place emphasis on traits such as competence, determination, caring and collectivism, which is in contrast with their western-influenced counterparts. However, the third factor being the skills shortage among managers contradicts the concept of the second factor. The skills shortage reduces competition for management jobs and thus reduces the general weighting of competitive leadership such as

ambition and determination. However, affirmative action which strives to place blacks and females in managerial positions, may lead to competitive management traits among whites and/or males such as ambition and determination.

Daire and Gilson (2014) conducted a study to determine if identity shapes leadership and management practice. Eight primary health care facility managers in Cape Town, South Africa were studied. Six managers were below 41 years of age while the other two were above 41 years of age. All of the six managers had Bachelor of Science degrees, while two had gone on to acquire their master's degrees. Also, three of these managers had less than ten years of work experience, while the other three managers had more than ten but less than 20 years of working experience. Of the two managers above 41 years old, only one had a Bachelor of Science degree, while the other did not have any tertiary qualification. However, these two managers both had over 20 years of working experience. The research revealed that managerial practice is influenced by a range of personal, societal, professional and organisational factors. Personal factors include personal history such as family, environmental, political, and social or childhood experiences. This could also include aspirational values and knowledge skills. Professional factors include work experience and educational training and organisational factors include organisational culture and management support and learning processes.

Above all, Lee (2011) brings to light the Kelly Human Capital Survey which identifies four classifications of managers in South Africa. This is illustrated in Figure 4 where the different classes with reference to age and level of management are displayed in a table. On the top right-hand corner are the long-term achievers who are managers over 40 years of age and are in high-end management. They show high levels of competency, inspiring leadership, forward-looking propensities and determination. However, this is the opposite of the class in the upper left corner which is referred to as the long-term plateau. These are also older managers who are older than 40 years. However, they have not progressed past lower management although they possess the necessary experience and seniority. Also, this class may not be as highly educated as the rest of the classes. This can be concluded because as opposed to the higher educated managers, the lower educated managers usually rank imagination high. Thereafter, are the young/early achievers in the bottom right. The young achievers are characterised by young managers who are younger than 41 years and have progressed to upper management early in their careers. Lastly, in the bottom left corner are the young potentials who are also young managers younger than 41 years. They have not yet progressed to upper management but may do so in time, as they have higher levels of competence than the young achievers.

Furthermore, the study on managerial challenges in South Africa conducted by Mayor and Louw (2011), revealed that one of the management styles that can be found among white males is an authoritarian and directive management style, especially when dealing with subordinates from a different race. This management style is highly influenced by South Africa's apartheid past. However, Karsten and Illa (2001) suggest that the authoritarian, personalised and politicised management styles are prevalent among African managers. In addition, Finestone and Snyman (2005) suggest that there are three dominant styles that can be found practiced by managers in South Africa. These are: Eurocentric approach, which is the traditional dominant western style of management based on individualism, self-centredness, competition and instrumentalism. Second is the Afrocentric approach. These types of managers base their practices on Ubuntu which consists of humanism, supportiveness and solidarity among the community.

		Level of Management	
		Lower	Upper
Age	Older (>40)	Long-term plateau <ul style="list-style-type: none"> • Lowest competence & honesty • Low strategic qualities (forward-looking & inspiring) <ul style="list-style-type: none"> • Very low self control, determination & loyalty • Higher imagination 	Long-term achievers <ul style="list-style-type: none"> • Highest competence & honesty • Highest strategic qualities (forward-looking, inspiring & imaginative) <ul style="list-style-type: none"> • Highest self control • High determination • Very low ambition
	Younger (<41)	Early potentials <ul style="list-style-type: none"> • High competence & honesty • Low strategic qualities (forward-looking & inspiring) • High ambition, self-control, determination & loyalty <ul style="list-style-type: none"> • Low imagination 	Early achievers <ul style="list-style-type: none"> • Moderate competence/honesty • High strategic qualities (forward-looking, inspiring) • Low self control & caring • Fairly low determination <ul style="list-style-type: none"> • Low imagination • Very low ambition

Figure 4: Classifications of managers in South Africa
Source: Lee, (2011), p.227

Last is the Synergistic inspirational approach. These managers carefully integrate western management practices and African management practices. Nienaber (2007) studied the management status of South Africa and concluded that due to the shortage of skills in various industries, once staff members show promising development in technical applications, they are promoted to management positions without being given the necessary management training which is essential as they usually do not possess the necessary graduate qualifications. Asa, Fatoki, and Rungani (2015) studied management skills in the light of SMEs in South Africa. When looking at managers’ characteristics, they found that just over half of the managers had over five years’ experience and only about 16% possessed a bachelor’s degree, while 12% had acquired a postgraduate degree.

In conclusion, Western management concepts and theories have dominated the practices of management in Africa, without having considered the variance in History and culture between the West and Africa. It is clear that at the core of African management practices is culture and this can be seen with the concept of Ubuntu which emphasises the notion that “I am because we are, I can only be as a person through others” (Nwagbara, 2011, p. 79). African management is also influenced by colonialism and apartheid. Colonialism led to the disbarment of African management concepts which were replaced with Western management concepts. Also, apartheid and colonialism have resulted in African managers displaying certain traits and behaviours which are influenced by factors which were bought upon by their personal history of apartheid and colonialism. These factors include skills shortage, oppression, unequal treatment, lack of educational knowledge and affirmative action. Moreover, African management is made up of communalism and collectivism which is contrary to Western management that is Eurocentric and individualistic. Oghojafor et al. (2013) captures the African management practices as unity, respect for the dignity of all, interdependence and team-work. To emphasise this the author speaks of Kofi Anan’s leadership style as described by his advisor. “He runs the UN like an old-fashioned African village with long discussions among the elders, periods of reflection and eventually a decision” (p. 8).

An Alternative view of African Management

Like the approach employed by Oghojafor et al. (2013), the author of this study introduces an alternative perspective of African management based on observation and experience, called the African Management Matrix. This challenging environment in Southern Africa has given rise to four broad categories of managers, illustrated in the two-by-two matrix in Figure 5.

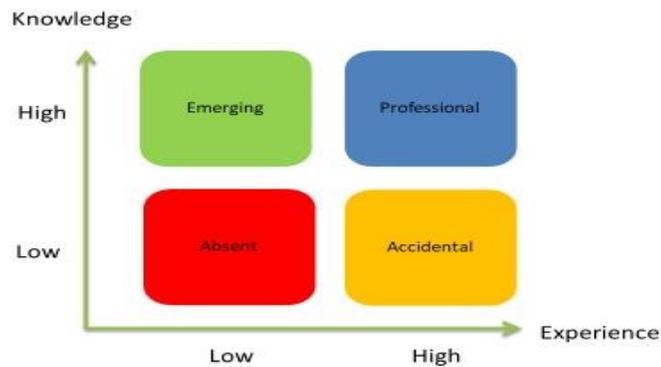


Figure 5: The African Management Matrix
Source: Author (2018)

The African Management Matrix is a model that portrays four types of managers who are classified by their experience (on the horizontal axis), the number of years of relevant managerial experience and their knowledge (on the vertical axis), formal training and education in management disciplines. This theory supports one of the types of organisational management in Africa described by Jackson (2011). The post-colonial management system which is a legacy of colonisation and is comprised of managers who are authoritarian, laid-back, resistant to change and who prefer to reduce or avoid high risk situations. These managers can be found in the lower left quadrant, the Absent manager and the lower right quadrant, the Accidental manager. The Absent manager is typified by a low number of years as a manager (less than 15) and low level of management knowledge (perhaps educated to undergraduate degree or diploma level). In Southern Africa these are managers appointed based on their struggle-credentials or party affiliation. These managers consequently find themselves ill-equipped to handle the complexity of the modern working environment and therefore abdicate some or all their core responsibilities and practices. In a real sense they are absent from their role. Karsten and Illa (2001) and Nienaber (2007) identified this type of manager as authoritative and highly political. Also, they typically lack graduate qualifications and the necessary management skills.

Another prevalent category of manager is the Accidental manager; they lack professional management qualifications but do possess years of experience. In Southern Africa these are apartheid-era managers or in Africa generally, beneficiaries of colonialism. Typically, these managers at some point in their careers experienced some success. Unfortunately, from that point on, they spend the rest of their careers looking for opportunities to reprise that success. To this class of manager every problem can be solved with their solution, in much the same way hammers treat every problem as if it were a nail. This manager can be compared to the group of long-term plateau managers described by Lee (2011) in the South African managers' classification model. They are described as managers over 40 years who have much experience and seniority but are at lower management level as they lack higher level qualifications. Louw (2011) explains that since they are largely impacted by apartheid they are usually authoritative and directive white males. However, Karsten and Illa (2001) suggest that they can also be African managers who practice personal and politicised styles of management.

Refreshingly, the African picture is far from bleak, the new class of Emerging managers are young, hungry and ambitious. These managers are comparable to the young potentials described by Lee (2011) as highly competent managers below 41 years who are usually in lower or middle management but are working their way up the corporate ladder to reach higher management. Another set of Emerging managers are Lee's (2011) early achievers who are also below the age of 41 but unlike the young potentials, they are already in upper management. They are short on experience but recognise that the working environment is complex and uncertain, requiring novel solutions; so, they are busy occupying our business schools seeking to professionalise their managerial practice, with an MBA or other higher management qualifications. Our emerging managers are positioning themselves to become tomorrow's Professionals.

The professionals can be paralleled to Louw's (2011) long-term achievers who are high-ranking managers over 40. They are highly determined, competent and motivating visionaries. In addition, a study conducted by Cheteni and Selemani (2017) on ethical leadership in a government institute in Botswana revealed that 58% of the respondents who occupied various managerial titles were males. The dominant age group was between 34-45 years who also had at least 5-10 years of experience. Most of them also held a degree or diploma. This could mean that the dominant group of managers in Botswana could fall under the emerging managers. The above concepts illustrate management in Africa post-apartheid and post colonisation. Although some authors believe that the concept of Ubuntu is an integral part of the management landscape in Africa, (Inyang, 2008; Nwagbara, 2011; Adeoti, 2013; Oghojafor et al. 2013) it is clearly lacking from management practices. This is corroborated by Finestone and Snyman (2005) who state that, the Eurocentric management style is the most practiced in South Africa. Furthermore, they state that organisations in South Africa operate on varying levels of competency, literacy and experience.

Therefore, managers should be classified according to these levels. However, management structures in South Africa are dominated by white males. This may be due to the fact that there is only a small pool of non-white specialists in certain fields. This supports the theory that management theories in Southern Africa need to be conceptualised by taking into account how apartheid and colonialism impacted the various races as either beneficial and/or detrimental. The different historical experiences determine the management proficiency and knowledge of managers. Hence, the African Management Matrix concept in figure 5. However, it seems that there is an emerging owner-manager model that is also becoming popular. According to Rand Merchant Bank (2018), the owner-manager concept is described as an organisational culture where employees are also owner-managers, meaning that they take personal ownership of their work and accountability for their duties. This results in employee empowerment by unlocking employee potential. "RMB is a place where exceptional people can embrace our collaborative and owner-manager culture and drive their particular lines of business as though it's their own" (Rand Merchant Bank, 2018). However, Takaki (2005) refers to this concept as employee ownership and accountability. Millar (2012) states that when employees are encouraged to practice accountability it results in employees giving more of themselves to the organisation, thus creating a win/win situation.

The task of the "real" manager or the overseer of the owner-manager will be to foster a creative, conducive environment for their subordinates to perform at their peak. Also, they will be required to ensure that the owner-managers' needs are taken care of so that they can do their jobs to the best of their ability. These needs include personal development, career advancement, job satisfaction, family life, mental health and wellness. Millar (2012) corroborates this by suggesting that in order for employees to be engaged in their organisation, they first need to be engaged in their own lives. People need to feel good about their lives and situations in order to be effective at work. Therefore, future managers/overseers will not necessarily be those with the technical knowledge, but those with knowledge and expertise on human and social sciences, or those with "basic human psychology" (Miller, 2012, p.3). These will be overseers with knowledge on how to use the strengths and differences of the individual owner-managers to join forces to create synergy and collaboration and eliminate competition. Rao (2016) gives the opinion that all leaders must learn to work in teams and collaborate to form operative teams. Therefore, as a leader one needs to " identify various personality types of your team members, leverage their strengths, understand their expectations and apply different leadership tools and techniques as per the situation to build an effective team to achieve organisational excellence and effectiveness" (P. 28)The future manager understands that the collective is greater than the sum of its parts and that people should be trusted as owner-managers to perform to the best of their ability for the growth of the organisation.

This theoretical discussion paper has identified culture, apartheid and colonialism as influencers of African management practice. Also, it has identified Ubuntu as a possible future management practice that can be implemented to replace western based management practices in Africa. In addition, a new perspective of African management has been introduced. Therefore, it is recommended that research be conducted on the possibility of Ubuntu being implemented as a successful management concept in African organisations, especially with the emerging owner-manager concept where the overseer should practice the belief that the "collective is greater than the sum of its parts" which is similar to Karsten and Illa's (2001) definition of Ubuntu, "a human being is a human being through human beings".

In addition, research on the process of unlearning learned helplessness should be conducted. Actions and/or processes that need to be taken to unlearn the damaging management concepts and practices that have been engraved into the minds of the African managers because of Apartheid and colonialism need to be explored. Above all, further exploratory research into the proposed alternative African management should be conducted whereby managers from organisations in a Southern African country are studied by collecting first hand data.

5. Conclusion

The data and implications of this study are expected to further the understanding of organisational management in Africa, but more specifically in Southern Africa. This article adds major contributions to the field of African management in two major ways. Firstly, by providing insight on management and leadership theories in Southern Africa by showing via secondary data that culture plays a major role in the success of African management systems that are effective. Secondly, by identifying also from secondary data the impact of apartheid and colonialism on African management practices. Lastly, by proposing an alternative African management concept based on the direct and indirect consequences of apartheid and colonialism. This concept can better help with the understanding of management styles, competencies and behaviours. Therefore, playing a vital role in improving management practices and thus, organisational competitiveness in Southern Africa.

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Shrinkage Risk Management Initiatives in Retail SMMEs Operating in the Cape Town City Bowl

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Abstract: Failure to manage shrinkage risks may have dire consequences on the economic sustainability of any trading business entity. In a South African Small, Medium and Micro Enterprise (SMME) dispensation, shrinkage risks are among the greatest risks faced by these businesses' entities. According to scholarly literature, shrinkage risks are not appropriately managed in South African SMMEs due to the implementation of inadequate and/or ineffective risk management initiatives. Hence, the inference was made that these business entities, particularly those operating in the retail industry, have weak economic sustainability due to their implementation of ineffective risk management initiatives to appropriately manage shrinkage risks. The foregoing was done by means of conducting empirical research which fell within the positivistic research paradigm by collecting data from 56 members of management of South African SMMEs. Stemming from the results, although sampled South African retail SMMEs were found to have limited exposure to shrinkage risks, their shrinkage risk management initiatives were found to be ineffective

Key words: *SMME, sustainability, shrinkage risk, risk management, shrinkage risk management*

1. Introduction

Across the globe, Small, Medium and Micro Enterprises (SMMEs) are key drivers and stimulants of national economies, primarily due to their socio-economic value adding abilities (Yusuf & Dansu, 2013; Siwangaza, 2013; Chimucheka, 2015; Sibindi & Aren, 2015; Bruwer & Van Den Berg, 2017). Particularly in developing economies such as South Africa, SMMEs are critical in relation to the stimulation of the economy (Schmidt et al., 2016; Maziriri, 2016; Barnes et al., 2016) as they are responsible for approximately 91% of all national business transactions (Ngary et al., 2014), contribute at least 45% to the national Gross Domestic Product and provide employment opportunities to an estimated 60% of the national workforce (Bruwer and Siwangaza, 2016; Naicker et al, 2017).

Notwithstanding the foregoing, previous research shows that South African SMMEs have one of the worst sustainability-rates in the world (Fatoki, 2014; Bruwer, 2016) with approximately 75% of these business entities failing after being in existence for less than four years (Kanguru, 2016; Bruwer, 2016; Bruwer and van den Berg, 2017). Often, the latter dispensation can be pinned on the non-management of economic factors (Siwangaza and Dubihlela, 2016); those factors which take on the form of macro-economic factors and micro economic factors (Bruwer and Siwangaza, 2016). Some of the most pertinent economic factors which are believed to adversely influence South African SMME sustainability include inter alia escalating interest rates, rising inflation, excessive red tape, scarcity of resources, poor access to finance, cash flow problems, ineffective inventory management practices, absence of adequate and effective internal controls, poor financial management, ineffective marketing (Kunene, 2008; Bruwer 2010; Olawale and Garwe, 2010; Kadocsa & Francovics, 2011; Siwangaza, 2013). In addition, the economic environment¹ in which South African SMMEs have to operate in can be described as "harsh" since these entities are confronted with a plethora of economic

factors which, in turn, cultivate risks which may threaten the sustainability of SMMEs (Bruwer and van den Berg, 2017; Naicker et al, 2017). Therefore, the inference can be made that South African SMMEs are constantly subject to risks which may adversely and imminently influence their overall sustainability and, consequently, their existence.

If risks are not properly managed, they are likely to transform into loss events (Smit and Watkins, 2012); those risks which have realised with their potential impact being detrimental to the attainment of business objectives (Bruwer et al, 2018). Unfortunately, prior research (Siwangaza, 2013; Sunjka and Emwanu, 2015; Bruwer and Siwangaza, 2016; Bruwer et al, 2018) suggests that South African SMMEs make use of customised risk management initiatives which are deemed to be inadequate and/or ineffective. In fundamental nature risk management initiatives should mitigate risks to such an extent that they have an absolute minimum negative potential impact on the attainment of business objectives, in the foreseeable future (Yusuf and Dansu, 2013; Bruwer et al, 2013; Bruwer et al, 2018). Albeit the latter, the inference can be made that the adequacy and/or effectiveness of risk management initiatives, as utilised by South African SMMEs leave much to be desired – it may be the ultimate cause of their weak sustainability.

A major risk which South African SMMEs face daily, particularly trading business entities, is that of shrinkage (Jere et al, 2014; Kanguru, 2016). The term “shrinkage” is better known as the shortfall of inventory when comparing actual inventory levels/values (on the shelves and in storage) with estimated inventory levels/values (in the financial statements), due to theft, shoplifting, administrative errors and/or supplier fraud (Hudson, 2018; Knego and Mišević, 2016). Considering that trading businesses are reliant on inventory in order to remain in operation for the foreseeable future (Haribhai-Pitamber & Dhurup, 2014), the inference can be made that the proper management of shrinkage in South African SMMEs is of paramount importance. In contrast, previous studies (Marivate, 2014; Kelkar & Emilus, 2016) found that very little is being done by South African SMMEs to address shrinkage. This is quite concerning as the realisation of shrinkage risks into actual loss events could present serious ramifications on the sustainability of a business entity (Xu and Zhao, 2016). Otherwise stated, the mitigation of shrinkage risks is not negotiable.

Using the above as a basis, clear tangent planes emerge that South African SMMEs are adversely influenced by an array of risks, as spurred on by the “harsh” economic environment in which they operate, one of which is that of shrinkage. Since shrinkage risks, in a South African SMME dispensation, are highly likely to transform into a loss events the following questions, inter alia, can be asked: How adequate are shrinkage risk management initiatives in South African SMMEs? How often are shrinkage risk management initiatives used in South African SMMEs? and How important is shrinkage risk management to South African SMME management? In order for these questions to be addressed by future research studies, this particular study was conducted; serving as a “foundation” and placing emphasis on the effectiveness of shrinkage risk management initiatives deployed by South African SMMEs.

Throughout the remainder of this paper, relevant discussion takes place under the following headings: 1) literature review and formulation of hypothesis, 2) research design, methodology and methods, 3) results and discussion, 4) managerial implications, and 5) conclusion.

2. Literature review and formulation of hypothesis

In order to conceptualise applicable terms and develop a hypothesis for this research study, relevant discussion takes place under the following sub-headings below: 1) risks and risk management, 2) shrinkage in South African SMMEs, 3) formulation of hypotheses.

Risks and risk management: The term “risk” can be described as an event which may or occur which, in turn may have an influence on the attainment of a business entity’s objectives, be it favourable or unfavourable (Spekman & Davis, 2004). In fundamental nature, risks are inevitable and can be categorised into four groups, namely that of strategic risks (those risks which may impact on the vision and/or mission of a business entity), operational risks (those risks which may impact on the day-to-day operations of a business entity), reporting risks (those risks which may impact on the integrity of financial- and non-financial information), and

compliance risks (those risks which may impact on the adherence of a business entity to applicable laws, rules, regulations, policies and procedures) (Smit, 2012:47-51; Bruwer et al., 2013; Sin and Ng, 2013).

Pending on the severity of risks they need to be appropriately managed. In quintessence, the term “risk management” can be described as a process which should assist management to identify, assess and address significant risks that could threaten the sustainability (and existence) of a business entity (Miller, 1992; Smit, 2012; Brustbauer, 2014; Bruwer, 2016). More often than not, risks are managed by means of avoidance (risks with high potential occurrences and high potential impacts should be avoided), sharing (risks with low potential occurrences and high potential impacts should be outsourced), mitigating (risks with high potential occurrences and low potential impacts should be reduced), and tolerating (risks with low potential occurrences and low potential impacts should be endured) (Bruwer et al., 2018). Albeit the above, it appears that many South African SMMEs do not sufficiently apply risk management practices due to the limited resources which are available to them (Marcelino et. al, 2014; Schmidt et al., 2016). Moreover, these business entities are believed to make use of informal risk management practices inhibiting the building of risk management capacity within the SMME (Masama, 2017; Masama & Bruwer, 2018; Bruwer et al., 2018). The aforementioned is quite concerning as South African SMMEs are more sensitive to risks when compared to larger and more established organisations (Gilmore et al. 2004).

Shrinkage risks in South African SMMEs: The term “shrinkage” can be described as a phenomenon where there are material differences between actual inventory levels/values (as per stock counts) and estimated inventory levels/values (reported in financial statements) (Kibacia et al., 2017; Potdar et al. 2016; Xu and Zhao, 2016; Van Bommel, 2016). In fundamental nature shrinkage is a major problem which, if not properly managed, may adversely influence on the overall sustainability of a business entity; including its actual existence (Kohne & Pekeur, 2014; Xu and Zhao, 2016). Furthermore, shrinkage may also result in decreases in return on investments (by owners) and increases in the selling prices of inventory (Kelkar & Emilus, 2016; Knego & Mišević, 2016).

Shrinkage can realise from various shrinkage risks, with the most popular being employee theft, shoplifting, vendor fraud and administrative errors (Langner, 2010; Kohne and Pekeur, 2014; Enofe et al. 2015; Beck, 2016; Kanguru, 2016; Kelkar & Emilus, 2016; Xu & Zhao, 2016; Dani & Fassam, 2016; Knego & Mišević, 2016; Kennedy & Benson, 2016; Kibacia, et al., 2017; Farmer & Dawson 2017; Gu, 2018; Mohan and Vijayakumar, 2017). These shrinkage risks are briefly described below:

- **Employee theft:** When an employee intentionally, and without authorisation, take assets belonging to the employer for personal consumption and/or personal gain. A number of factors contribute to employee theft which include, but are not limited to personality clashes among employees, low morale among employees, management’s overall management style, gambling habits and employees having disorders (e.g. bipolar).
- **Shoplifting:** The intentional act of taking and/or concealing assets belonging to a business during official business trading hours by a person who pretends to be shopping. The problem with shoplifting is that it is usually perpetrated by individuals who make living out of it or by people who often regard themselves as ‘experts’ or ‘professionals’ in committing such acts.
- **Vendor fraud:** The international act by a supplier and/or its subsidiaries to defraud a business entity through blatantly causing differences between expected inventory (per purchase order) and actual inventory (per delivery note) and/or over-stating invoice amounts.
- **Administrative errors:** Administrative errors are non-malicious errors which are either intentionally and/or unintentionally made by employees whereby information on inventory is incorrectly captured on business systems. Examples of these errors include but are not limited to incorrect pricelists, point of sale system errors, “bottom of the basket misses” and the use of incorrect product codes.

From the foregoing, it becomes apparent that shrinkage risks should be managed on a proactive basis (preventive) as opposed to a reactive basis (corrective). This view is supported by previous studies (Van der Walt et al, 2016; Mbuvi, et al, 2016; Beck, 2016; Bruwer et al., 2018) where it is recommended that shrinkage risk management methods include the tagging of inventory with security tags, installing closed circuit television (CCTV) camera systems, making use of security guards that are visible on the sales floor, displaying

security signage to warn potential perpetrators about the consequences of being caught, and installing shelf-based devices which prevents items from being removed from the shelf. In the same vein it is also imperative that management sets a clear tone at the top whereby an ethical culture is promoted (Kelkar & Emilus, 2016; Bruwer, 2016) to contribute to the fight against shrinkage.

Unfortunately, South African SMMEs are not exempted from shrinkage risks. According to a local study (Jere et al., 2014) it was found that crime and theft were two of the greatest factors which had an adverse influence on the sustainability of these business entities. In a more recent study (Kanguru, 2016) it was found that South African SMMEs encounter challenges around inventory theft, shortage of inventory, inventory errors and physical inventory not tying up with theoretical records. Moreover, another local study (Van der Walt et al, 2016) found that South African SMMEs are exposed to various shrinkage risks which include employee-related crimes (e.g. pilferage), supply chain-related crimes (e.g. theft of stock in transit), and customer-related crimes (e.g. shoplifting). Thus, it becomes apparent that shrinkage risks are mammoth problems in a South African SMME dispensation, particularly those that are classified as trading business entities.

Notwithstanding the above, South African SMMEs are believed to encounter difficulties during the mitigation of shrinkage risks, mainly due to the fact that intended shrinkage risk management initiatives can be circumvented by the very same people whom they are meant to deter (Kelkar & Emilus, 2016). This is especially true where such business entities employ very few employees – segregation of duties are not always practically possible (Marivate 2014; Bruwer, 2016).

Formulation of hypothesis: Taking the above into account, the inference can be made that South African SMMEs, mainly trading business entities, are adversely influenced by loss events (realised risks) which stem from shrinkage risks. Unfortunately, it does not appear that management of these business entities are doing much to curb shrinkage risks from realising. If risks are not properly managed it may result in potential losses which, in turn, may have an adverse influence on the overall sustainability of any business entity; including its actual existence. Thus, apart from shedding light on the shrinkage risk management initiatives deployed by South African SMMEs, the following hypothesis was also tested in this study:

H1: There is a statistically negative significant relationship between the effectiveness of shrinkage risk management initiatives deployed by South African SMMEs and the exposure of these business entities to shrinkage risks.

3. Research design, methodology and methods

This research study was empirical in nature, taking on the form of survey research. In quintessence, questionnaires were disseminated to a targeted population in a face-to-face-approach. The questionnaire used comprised mostly closed-questions which 10 were multiple choice questions and three were Likert-scale questions (5-point scales); all questions were asked with the intent to obtain primary quantitative data. Moreover, this study was mostly descriptive in nature (shedding light on the shrinkage management initiatives deployed by South African SMMEs) and partially exploratory in nature (testing a relationship between applicable phenomena – see hypothesis H1).

Although the size of the population was unknown to the authors, a total of 80 respondents were targeted in this study of which only 56 were deemed as valid (70% response rate). The chosen sampling methodology for this study was that of non-probability sampling; comprising a mixture of purposive sampling (respondents had to adhere to a list of delineation criteria) and convenience sampling (respondents had to be based in the Cape Town City Bowl), all with the intent to obtain rich data. All respondents had to adhere to the following delineation criteria in order for their responses to be regarded as valid:

- Respondents should have been owners and/or managers of their SMME(s).
- All SMMEs should have been regarded as non-franchised.
- All SMMEs should have been related as trading business entities.
- All SMMEs should have operated in the indicated area in the Cape Town City Bowl (Figure 1).
- All SMMEs should have been regarded as sole traders.

- All SMMEs should have operated in the retail industry.
- All SMMEs should have operated from 08:00 – 17:00 on weekdays.
- All SMMEs should have employed between 1 and 50 employees².
- All SMMEs should have been in operation for at least 1 year.

Figure 1: Area where data were collected in the Cape Town City Bowl (Source: Google, 2017)



All collected data were analysed through means of both descriptive statistics and inferential statistics through SPSS version 24. Throughout this study, relevant ethical considerations were also taken into account.

4. Results and Discussion

Generic results: Out of all sampled retail South African SMMEs, 100% were classified as non-franchised, trading retail sole traders which employed between 1 and 50 employees, while operating from 08:00 – 17:00 (on weekdays) in the Cape Town City Bowl (as per Figure 1); being operational for at least one year. To shed light more on the demographics of both respondents and their respective SMMEs, respondents were asked an array of questions. When respondents were asked what position they fulfilled in their respective retail South African SMMEs, 30.4% were regarded as owners, 42.9% were regarded as managers and 26.8% were regarded as owner-managers. Albeit the fact that all respondents (100%) had decision-making power, 98.2% of respondents were South African while 1.8% of respondents were non-South African. In addition, when respondents were asked about their managerial experience, 26.8% were found to have less than 2 years' managerial experience, 44.6% had between 3- and 5-years' managerial experience, 17.9% had between 6 and 10 years' managerial experience and 10.7% of had at least 10 years' managerial experience. Thus, the inference can be made that the average respondent was a South African owner of a SMME with between 3- and 5-years' managerial experience.

Respondents were also asked to describe their respective South African SMMEs – 71.4% were regarded as retail stores, 12.5% were regarded as wholesale stores, 7.1% were described as liquor stores, 3.6% were described as cafés, 3.6% were described as convenience stores and 1.8% was described as spaza shops. Furthermore, in terms of employment, 64.3% of retail South African SMMEs employed between 1 and 5 employees, 16.1% of

² According to the South African National Small Business Act No. 102 of 1996, in the retail industry, a micro enterprise employs between 0 and 5 employees, a very small enterprise employs between 6 and 10 employees, while a small enterprise employs between 11 and 50 employees (South Africa, 1996).

SMMEs employed between 6 and 10 employees and 19.6% of SMMEs employed between 11 and 50 employees. Alternatively stated, majority of sampled retail South African SMMEs were classified as micro enterprises (64.3%) with the remainder being classified as either very small enterprises (16.1%) or small enterprises (19.6%). Lastly, 51.8% of sampled retail South African SMMEs existed for at least 5 years, while 30.4% of SMMEs existed for between 6 and 10 years; the remaining 17.9% existing for at least 10 years. Therefore, the inference can be made that the average SMME was a micro, sole trading retail enterprise which have been in existence for at least 5 years.

Shrinkage risks and shrinkage management initiatives: In order to understand whether sampled SMMEs were exposed to shrinkage risks, respondents were asked to rate their agreement on statements through means of a 5-point Likert Scale (1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree). The base sentence for each statement was "This SMME is exposed to the following shrinkage risks ...". A summary of the responses received is shown in Table 1.

Table 1: Summary of responses in relation to shrinkage risks faced by sampled SMMEs

This SMME is exposed to the following shrinkage risks ...	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Std Dev
Shoplifting	44.6%	25.0%	25.0%	3.6%	1.8%	1.93	1.01
Waste (expired / obsolete stock)	42.9%	33.9%	16.1%	3.6%	3.6%	1.91	1.03
Incorrect counting of stock	50.0%	23.2%	21.4%	3.6%	1.8%	1.84	1.01
Stock damages	50.00%	33.9%	10.7%	3.6%	1.8%	1.73	0.92
Supplier fraud	62.5%	21.4%	12.5%	-	3.6%	1.61	0.97
Theft of stock	58.9%	25.0%	14.3%	1.8%	-	1.59	0.80

From the results in Table 1, it is apparent that SMMEs were either not exposed to listed shrinkage risks or their exposure thereto was limited to a large extent. This observation is supported by mean-scores which range between 1.59 and 1.93 – translating to an average response which ranges between “strongly disagree” and “disagree”. Albeit the latter, the standard deviation also sheds light that respondents largely had similar perceptions on the statements. It should however be noted that these responses received stem directly from the perceptions of members of management of sampled SMME – responses received may have been biased. Otherwise stated, respondents may not necessarily have been honest in their answers provided. This sentiment is supported when focus is shifted on previous studies where it was found that South African SMMEs, in general, are susceptible to an array of shrinkage risks (see Section 2.2).

Notwithstanding the above, the low exposure to shrinkage risks may be as a result of sound (adequate and/or effective) shrinkage management initiatives however, it may also be the case that respondents were biased when providing their perceptions on the relevant statements. In order to shed some light on the matter, respondents were asked whether they assessed shrinkage risks in their respective South African retail SMMEs. Based on the results, 71.4% of respondents answered “yes” while 28.6% of respondents answered “no”. As a follow-up question, respondents who said yes were asked how often they assessed shrinkage risks in their South African retail SMMEs. A summary of the results are shown in Table 2.

Table 2: Summary of frequency of assessment of shrinkage risks by sampled SMMEs

Frequency	Agreed
Annual	5.0%
Quarterly	12.5%
Monthly	47.5%
Weekly	25.0%
Daily	10.0%
TOTAL	100%

Taking into account that shrinkage risks should be consistently managed, it is concerning that only 10% of SMMEs who made use of shrinkage risk assessment actually assessed their shrinkage risks on a daily basis. Otherwise put, the analogy can be drawn that out of all sampled SMMEs, only 7.1% assessed shrinkage risks every day. In order to understand how sampled SMMEs managed shrinkage risks, respondents were asked to rate their agreement on statements through means of a 5-point Likert Scale (1 = strongly disagree, 2 = disagree, 3 = neither agree or disagree, 4 = agree, 5 = strongly agree). The base sentence which was used for each statement was "In this SMME, the following shrinkage management initiatives are used ..." A summary of the responses are shown in Table 3.

From the results in Table 3, it is apparent that sampled SMMEs made only partial use of listed shrinkage management initiatives. In particular, the shrinkage management initiatives which were mostly used were that of "quality checks on stock sold to customers" (mean score of 3.41), "quality checks on stock delivered from suppliers" (mean score of 3.36), "fire extinguishers and hose reels" (mean score of 3.23), "inventory counts" (mean score of 3.21), "control over keys" (mean score of 3.21) and "staff training and development" (mean score of 3.20). Despite the fact that these shrinkage management initiatives had the highest mean scores, their values ranged between 3.20 and 3.41 – translating to an answer which ranges between "average" and "agree". In the same vein, 15 shrinkage risk management initiatives were found to have mean scores which ranged between 1.59 and 3.00 – translating to an answer which ranges between "disagree" and "average". It may be possible that respondents made use of other shrinkage management initiatives which were not listed as per Table 3 above however it may also be the case that sampled SMMEs did not have a need for shrinkage management initiatives as shrinkage risks were not concerning. Furthermore, it may also be probable that respondents were biased with their answers as they related purely to the perception of respondents.

Table 3: Summary of responses in relation to shrinkage management initiatives used by sampled SMMEs

In this SMME, the following shrinkage management initiatives are used ...	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Std Dev
Quality checks on stock sold to customers	12.5%	12.5%	7.1%	57.1%	10.7%	3.41	1.22
Quality checks on stock delivered from vendors / suppliers	14.3%	7.1%	16.1%	53.6%	8.9%	3.36	1.20
Fire extinguishers and hose reels	16.1%	5.4%	23.2%	44.6%	10.7%	3.29	1.23
Inventory counts	17.9%	8.9%	10.7%	57.1%	5.4%	3.23	1.25
Control over keys	19.6%	8.9%	12.5%	48.2%	10.7%	3.21	1.33
Segregation of duties	16.1%	16.1%	5.4%	55.4%	7.1%	3.21	1.28
Staff training and development	16.1%	14.3%	16.1%	41.1%	12.5%	3.20	1.30
Proper authorisation of transactions	12.5%	12.5%	30.4%	41.1%	3.6%	3.11	1.09
Adequate documents and records (source document design)	19.6%	14.3%	12.5%	42.9%	10.7%	3.11	1.34
Checks upon removal of garbage bags	19.6%	7.1%	23.2%	42.9%	7.1%	3.11	1.26
Access controls at storage points	19.6%	10.7%	16.1%	48.2%	5.4%	3.09	1.27
Independent checks	19.6%	8.9%	23.2%	44.6%	3.6%	3.04	1.22
Counting of stock delivered by vendors / suppliers	25.0%	10.7%	14.3%	37.5%	12.5%	3.02	1.42
Staff supervision	21.4%	12.5%	16.1%	44.6%	5.4%	3.00	1.29
Incident reporting	23.2%	10.7%	14.3%	48.2%	3.6%	2.98	1.30
Staff monitoring	21.4%	12.5%	21.4%	41.1%	3.6%	2.93	1.25
CCTV Cameras	25.0%	16.1%	12.5%	37.5%	8.9%	2.89	1.38

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Current period to prior period comparisons	28.6%	12.5%	7.1%	46.4%	5.4%	2.88	1.40
Access control at entrances	21.4%	17.9%	21.4%	32.1%	7.1%	2.86	1.29
Insurance of inventory	30.4%	10.7%	7.1%	46.4%	5.4%	2.86	1.42
Background checks on prospective employees	32.1%	8.9%	8.9%	41.1%	8.9%	2.86	1.47
Access control at exit points	25.0%	16.1%	17.9%	37.5%	3.6%	2.79	1.29
Alarm system	35.7%	7.1%	14.3%	35.7%	7.1%	2.71	1.45
Shrinkage policies and procedures	35.7%	12.5%	10.7%	35.7%	5.4%	2.63	1.42
Shrinkage measurement	35.7%	7.1%	23.2%	28.6%	5.4%	2.61	1.37
Burglar bars	37.5%	8.9%	16.1%	32.1%	5.4%	2.59	1.41
Surprise visits at vendor / supplier premises	39.3%	10.7%	16.1%	30.4%	3.6%	2.48	1.37
Security guards	46.4%	10.7%	12.5%	28.6%	1.8%	2.29	1.36
Theft detection system at entrances / exit points	50.0%	12.5%	16.1%	16.1%	5.4%	2.14	1.34
Body searches	69.6%	8.9%	14.3%	3.6%	3.6%	1.63	1.09
Hand bag searches	66.1%	14.3%	14.3%	5.4%	-	1.59	0.93

It may be possible that respondents made use of other shrinkage management initiatives which were not listed as per Table 3 above however it may also be the case that sampled SMMEs did not have a need for shrinkage management initiatives as shrinkage risks were not concerning. Furthermore, it may also be probable that respondents were biased with their answers as they related purely to the perception of respondents.

Relationship between the exposure of shrinkage risks and the effectiveness of shrinkage management initiatives: In order to determine whether the effectiveness of shrinkage management initiatives had a statistically negative significant relationship with sampled South African retail SMMEs' exposure to shrinkage risks, multiple regression analyses were performed. The dependent variables constituted the shrinkage risks while the independent variables constituted only those shrinkage management initiatives which had a mean score of at least 3.00. Each regression was tested at the 1% level.

Table 4: Summary of multiple regression analyses performed

Independent variable		Shoplifting	Waste (expired / obsolete stock)	Incorrect counting of stock	Stock damages	Supplier fraud	Theft of stock
		R ²	0.414	0.279	0.396	0.249	0.211
	F	2.066	1.134	1.918	2.305	0.781	0.960
	Sig	0.036	0.360	0.053	0.019	0.682	0.508
Quality checks on stock sold to customers	Std β	0.423	-0.084	0.551	0.401	-0.131	-0.013
	Sig.	0.036**	0.700	0.038**	0.042**	0.567	0.954
Quality checks on stock delivered from vendors / suppliers	Std β	-0.397	-0.175	-0.391	-0.467	-0.386	-0.408
	Sig.	0.056*	0.440	0.064*	0.023**	0.107	0.082*
Fire extinguishers and hose reels	Std β	0.023	-0.017	-0.067	-0.072	0.002	0.058
	Sig.	0.884	0.920	0.672	0.638	0.989	0.744
Control over keys	Std β	0.271	0.076	0.017	0.018	0.396	0.359
	Sig.	0.139	0.703	0.035	0.919	0.065*	0.085*
Segregation of duties	Std β	0.044	0.524	0.848	0.150	0.139	0.202
	Sig.	0.833	0.027*	0.071*	0.460	0.564	0.392
Staff training and development	Std β	0.286	0.203	0.734	0.340	0.351	0.446
	Sig.	0.110	0.300	0.179	0.053*	0.091	0.030*
Proper authorisation of transactions	Std β	-0.343	-0.033	0.318	-0.214	0.012	0.027
	Sig.	0.058*	0.878	0.183	0.259	0.956	0.901
	Std β	0.295	0.055	0.351	0.178	0.098	0.067

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Adequate documents and records (source document design)	Sig.	0.120	0.789	0.208	0.330	0.653	0.751
Checks upon removal of garbage bags	Std β	-0.302	-0.315	0.276	0.035	-0.004	-0.223
	Sig.	0.235	0.264	0.064*	0.887	0.988	0.438
Access controls at storage points	Std β	0.133	-0.063	0.804	0.008	-0.223	-0.075
	Sig.	0.569	0.808	0.057*	0.972	0.412	0.776
Independent checks	Std β	0.102	0.203	0.809	0.199	0.005	0.021
	Sig.	0.615	0.369	0.102	0.318	0.982	0.927
Counting of stock delivered by vendors / suppliers	Std β	-0.215	-0.317	0.621	-0.130	-0.034	-0.026
	Sig.	0.292	0.163	0.114	0.512	0.886	0.911
Staff supervision	Std β	0.188	0.086	0.580	0.217	-0.038	-0.072
	Sig.	0.265	0.641	0.074*	0.189	0.843	0.703

* p-value \leq 0.1 (significant at 10% level), ** p-value \leq 0.05 (significant at 5% level), N = 56

From the results in Table 4 the R^2 ranged between 0.211 and 0.414, meaning that the independent variables which were tested were responsible for variances in the dependent variables of between 21.1% and 41.4%. A total of 84 relationships were tested of which 31 relationships were negative and 53 were positive. Of the positive relationships, 12 were found to be statistically significant³ and of the negative relationships, 5 were found to be statistically significant across all regressions. A summary of these relationships are provided below:

- The risk of shoplifting increased when quality checks on stock sold to customers were performed ($\beta=0.423$); decreased when quality checks on stock delivered from vendors/suppliers were performed ($\beta=-0.397$) and when proper authorisation of transactions took place ($\beta=-0.343$).
- The risk of waste (expired/obsolete stock) increased when segregation of duties were performed ($\beta=0.524$).
- The risk of incorrect stock counting increased when quality checks on stock sold to customers were performed ($\beta=0.551$), when segregation of duties were performed ($\beta=0.848$), when checks upon the removal of garbage bags were performed ($\beta=0.276$), when access controls at storage points were evident ($\beta=0.804$), when staff were supervised ($\beta=0.580$); decreased when quality checks on stock delivered from vendors/suppliers were performed ($\beta=-0.391$).
- The risk of stock damages increased when quality checks on stock sold to customers were performed ($\beta=0.401$), when staff training and development took place ($\beta=0.340$); decreased when quality checks on stock delivered from vendors/suppliers were performed ($\beta=-0.467$).
- The risk of supplier fraud increased when control over keys were present ($\beta=0.396$).
- The risk of stock theft increased when control over keys were present ($\beta=0.359$), when staff training and development took place ($\beta=0.446$); decreased when quality checks on stock delivered from vendors/suppliers were performed ($\beta=-0.408$).

5. Managerial implications

In fulfilling their responsibilities, sampled South African retail SMME management should ensure that the assets of the business are adequately and effectively safeguarded. One of such assets is inventory, which is very much susceptible to shrinkage risks. Due to the negative impact that the realisation of shrinkage risks may have on the sustainability of sampled South African retail SMMEs, it is paramount for the management of these entities to assess their risks on an ongoing basis and ensure that adequate shrinkage management initiatives are in place and working effectively.

Conclusion: The results of the survey analysis revealed that sampled South African retail SMMEs had very little exposure to shrinkage risks. Furthermore, the results of the analysed data indicated that there were not many sampled South African retail SMMEs who were assessing their shrinkage risks on ongoing basis, which raises

³ Statistical significance was tested at the 1% level (p-value \leq 0.01), 5% level (p-value \leq 0.05) and the 10% level (p-value \leq 0.10).

concerns as shrinkage risks must be closely monitored. Moreover, although sampled South African retail SMMEs made use of shrinkage management initiatives, it became apparent that these initiatives are not very widely used in these business entities. Stemming from the results of the multiple regression analyses, there exist more positive statistically significant relationships between the effectiveness of shrinkage management initiatives used by SMMEs and the exposure of these business entities to shrinkage risks when compared to the negative statistically significant relationships. Though the statistical evidence is not enough to accept H_1 , it can be deduced that South African SMMEs make use of ineffective shrinkage risk management initiatives.

Avenues for further research: Using this study as a foundation, it further research can be conducted on inter alia:

- Control activities utilised by SMMEs to mitigate shrinkage risks.
- Adequacy of control activities in SMMEs to mitigate shrinkage risks.
- Effectiveness of control activities in SMMEs to mitigate shrinkage risks.
- Feasibility of control activities in SMMEs to mitigate shrinkage risks.

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The Development and Validation of a Measure of a Comprehensive Personal Brand Among Senior Managers

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Abstract: Personal branding is often presented as a prerequisite for achieving success in the world of work. The literature review undertaken for this study revealed that this link is assumed and not based on empirical research as is most often proposed by authors of popular literature on personal branding. The aim of this study was to compile a questionnaire to measure the extent of personal brand development and which would thus serve as a quantitative measure of the magnitude of implementation of a personal brand. Achieving this aim would be a first step towards testing hypotheses linking personal branding to success in the world of work. The questionnaire was grounded in a previous study, in which six stages common to the development of a personal brand were identified. Ten items per stage were included in the initial questionnaire, based on a pool of 240 items proposed by eight professionals, among them, six industrial psychologists. The questionnaire was administered to convenient sample of 88 middle managers from a large corporation. The internal consistency of the proposed measure was calculated, as was the correlation of the various items with the identified stages. In addition, exploratory factor analysis was performed to test the validity of the proposed six stages. The correlation data as well as the results from several competing factor solutions that were tested were used to identify items which fitted a comprehensive model. The Cronbach's alpha coefficient for the subscales varied from .800 to .978, with .970 for the entire instrument. The correlations between the subscales were also high, ranging from .474 to .788, with more being higher than .700. The exploratory factor analysis of the 60 item questionnaire did not yield the six factors theoretically proposed, with a three-factor solution seeming to fit the data best. Integrating the results from the various analyses, 26 items were proposed for inclusion in the final questionnaire. Content analysis revealed that these 26 items represented four elements namely, Meta-cognition, Authenticity and Internal Consistency, Strategy, and Activity. It was found that this research did not support the stage theory of personal brand development originally proposed, but rather supported the idea of elements to a personal brand. This is in line with previous research, where assessments tested on theoretical stages failed, and yielded simpler integrated solutions. The elements identified through this research represent an important contribution towards understanding the concept of personal branding. The outcome of this process was a questionnaire, consisting of well-constructed items, based on a rigorous process and which may be used by others to test hypotheses which include personal branding. This provides a method to assess personal branding in a manner not previously used and it constitutes a first step towards quantifying personal branding. Indeed, it could be seen as an important step towards specifying personal branding in the academic domain. Once refined, the questionnaire will allow for testing the validity of claims regarding personal branding as a prerequisite for success in the world of work.

Key words: *Individual branding, personal branding, professional branding, leadership branding, self-branding, assessment, measurement*

1. Introduction

Personal branding is often presented as a prerequisite to success in the world of work. However, the literature suggesting this link is seldom based on empirical research and is mostly grounded in the opinions of authors, writing books for popular consumption. The aim of this article was to move personal branding beyond the domain of popular literature and to develop a questionnaire which would measure personal brand maturity. Once the domain (personal branding) can be measured, it is possible to articulate its importance (its effect on career success), as William Thomson so famously advocated (Demmings, 2000). Without such quantification

the important task to moving personal beyond the domain of popular discourse will not transpire. The process followed which was followed to identify the construct to be measured will be presented in the literature review below. This will be followed by the stating of the aim of the study, and then a description the methodology employed. The methodology section will elaborate on how the questionnaire was developed and on the methods used to improve it. Thereafter, the psychometric properties of the questionnaire will be presented, including how the items correlated, and the solutions of different factor analyses. After the results are reported upon, conclusions will be drawn., and this will entail an evaluation of the results and the proposal of the final questionnaire, now based on the results of this study. Lastly, the limitations unique to this study will be presented and recommendations for future research will be made.

2. Literature Review

Personal branding is new to the field of professional development. From an academic perspective, Mohammed and Steyn (2016) found that only a limited number of articles on the topic have been published in the academic domain. In their study, Mohammed and Steyn (2016) used the systematic literature review methodology in order to systematise available literature and thus to understand the current body of knowledge regarding personal branding. This methodology was selected as it minimised the effect of selection, publication and data extraction bias (De Vos, Strydom, Fouche & Delpont, 2011). Based on the search strategy, Mohammed and Steyn (2016) located 56 articles in academic journals. However, only 36 of these were analysed following application of the inclusion and exclusion criteria. Most of those exclusions were made due to the articles concerned not having any empirical basis. Mohammed and Steyn (2016) could not find any widely accepted or coherent model of theory on personal branding in the academic literature scrutinised and, in addition the research methodologies used in the field were also found to be questionable (Mohammed & Steyn, 2016)

Although models and theories of personal branding have not been adequately narrated, and although empirical research on the topic is scarce, popular literature on the topic is abundant. Mohammed and Steyn (2017) undertook a content theme analysis (Bryman & Bell, 2011) of 19 books on the topic. The titles of these books varied from Career Distinction: Stand out by building your brand to Branding yourself: How to use social media to invent and reinvent yourself, and The reputation economy. The analyses were driven by the structure and stated purpose of most of these books: namely the development of a personal brand. Using popular literature, selected mostly on the basis of accessibility, Mohammed and Steyn (2017) identified six steps associated with the development of a personal brand. The primary sources used to create the list were authored by Arruda and Dixson (2007), Bates (2012), Chritton (2012), Clark, Osterwalder and Pigneur (2012), Deckers and Lacy (2011), Del Blenco (2010), Cowley and Handley (2007), Fertik and Thompson (2015), Handley (2009), Linne and Sitkins (2015), Rampersad (2009; 2015), Schawbel (2010; 2015), Webster (2010) and Wilson and Blumenthal (2008). All of these authors refer, in one way or another, to the following as being crucial to the development of a personal brand:

- Understanding the importance of having a personal brand: In this regard, Arruda and Dixson (2007) state that a career distinction mind-set is needed to brand oneself for career success. Bates (2012) refers to the importance of understanding one's brand in a chapter in her book called "Why you need a brand and why your brand matters". A further example of this emphasis placed on personal branding is a chapter called "Why is personal brand important?" which Chritton (2012) presents in her book. Fertik and Thompson (2015), Linne and Sitkins (2015), Rampersad (2009) and Schawbel (2015) all makes similar references.
- Developing self-awareness and awareness of one's environment: Arruda and Dixson (2007) indicate the importance of a person being aware of the unique value proposition that he or she can offer. They also indicate that one needs to "know oneself to grow oneself" as well as to define the brand community within which one functions. Clark, Osterwalder and Pigneur (2012) confirm the importance of awareness and dedicate a chapter in their book to this matter under the title "Reflect". Similarly, Linne and Sitkins (2015) present a chapter in their book called "Who do you and they think you are?" Chritton (2012), Fertik and Thompson (2015), Schawbel (2010), as well as Wilson and Blumenthal (2008) espouse similar views.

- Visualising and conceptualising a personal brand: Clark, Osterwalder and Pigneur (2012) suggest that people should reinvent their own work lives by re-drawing their personal business model. Schawbel (2010), on the other hand, states that one should command one's own career by creating one's own brand. Del Blanco (2010) devotes a chapter in his book to "First steps: Talent, mission and courage", while Rampersad (2009) titles a chapter in his book as "How to define and formulate your personal brand". Arruda and Dixson (2015), Bates (2012), Chritton (2012), Linne and Sitkins (2015) as well as Wilson and Blumenthal (2008) make similar references.
- Developing a personal brand marketing and stakeholder management strategy: Arruda and Dixson (2007) indicate the importance of communicating one's brand to one's target audience. This is confirmed by Bates (2012) through a chapter in her book dubbed "Communicate your leadership brand", and also by Chritton (2012) who devotes a chapter to "Communicating your brand to the world". Deckers and Lacy (2011), too, devote a chapter in their book to "Promoting your brand to the real world", while Handley (2009), Linne and Sitkins (2015), Schawbel (2010) and Wilson and Blumenthal (2008) make similar references in their work.
- Implementing the personal brand: Clark, Osterwalder and Pigneur (2012) name a chapter in their book "Act: Learn to make it happen", while Rampersad (2015) presents a chapter in his book entitled "Implement and cultivate your personal ambition, personal brand, and personal balanced scorecard". Wilson and Blumenthal (2008) devote a chapter in their book to such implementation, naming it "I am ready to commit to my action plan". It is noted, too, that Arruda and Dixson (2007), Bates (2012) and Rampersad (2009) also focus on the requirement to adequately implement the personal brand.
- Measuring, evaluating and improving your brand: Deckers and Lacy (2011) suggest that measurement of the success of the personal brand is important to maintaining and sustaining it. Linne and Sitkins (2015) dedicate a chapter in their book to "Personal brand assessment", while Rampersad (2009) presents a chapter called "How to formulate your personal balanced score-card". Wilson and Blumenthal (2008) also refer to the value of assessing the success of the personal brand.

This synthesis of many sources in stipulating the way a personal brand is developed is beneficial as most literature is embedded in the individual authors' perceptions or experiences. As mentioned earlier, scientific work on this matter is also limited. The aim of this research is to develop a measure of the level of personal branding, based on the fulfillment of the steps of personal branding, as suggested above and comprehensively described by Mohammed and Steyn (2017), and to test the reliability and validity thereof.

3. Methodology

Creating a new measure involves both science and art (Fisher, 1937; Rain, 1990; Wiggins, 1989). The purpose of this section is to discuss the process used to develop the Measure of Personal Brand Development (MPBD) – a process which necessitated a degree of creativity, but which also took into account, the development of the MPBD was directed by the ideas of several authors, including Bliss and Higson (1995), Breakwell, Hammond and Fife-Schaw (2000), Bryman and Bell (2011), Leedy and Ormrod (2014), Gregory (2011), Mc Burney (1994), and particularly Aguinis, Henly and Ostroff (2001). Ideas of the authors considered above presents a broad scope of activities which could be included in the development of an instrument. It was decided to commence with the development of the questionnaire following a seven-step process, aligned to most of the authors mentioned above, but not specifying every detail. The steps were as follows:

Step 0: Decide on the purpose or goal of the measurement. This is marked as Step 0 as this was the initial point of departure which drove the development of the instrument. In this research, the purpose was to develop a measure of personal branding which could be used to test the claimed relationship between personal branding and success, particularly in the workplace. When the research was initiated, no such measures were available, so this represented a worthy endeavour.

Step 1: Specify the nature of the variable to be measured. Ideally this should emanate from some theory regarding the construct, or at least some knowledge gathered from several sources. The variable would be well specified, thus making it clear what is to be included and what is to be excluded when the construct is discussed. In this study, the nature of the variable was ill defined, but this matter was addressed through the literature review.

Step 2: Consider and specify the method which will be used to collect the information. This entails deciding on the nature of the instrument, including the types of items to be created and the administration of the instrument. As mentioned above, there was a wide array of options in this regard, and they were all considered, taking the aim of the instrument into account, but also practicality and conventions in this regard.

Step 3: Write and rewrite the items. In doing this, the theory underpinning the construct needs to be paramount. The theory should assist the writers of items to construct items which refer to all aspects of the variable to be measured. In total, 60 items were developed with full cognisance being taken of the guidelines provided by the authors quoted above.

Step 4: Conduct a pilot study – collect preliminary data. The aim of a pilot study is to gather information on the effectiveness of that instrument which the developers perceive to be valid and reliable. The pilot study should be conducted on a sample similar to that upon which the instrument will be used when operational. In an ideal situation, other measures which could point to discriminate and convergent validity could be administered to provide additional information on validity. A pilot study was conducted.

Step 5: Analyse the pilot study data. The analysis is aimed at establishing the reliability and validity of the instrument, and usually involves the elimination of items which properties did not meet the initial expectations. In the case of this study, it was decided to eliminate half of the 60 items, to end up with 30 items, five per construct. Two separate strategies were followed to eliminate less well-functioning items and to reduce the total number of items.

- The first strategy was optimistic in nature, trusting that the developed items did indeed measure the six steps proposed. The groups of 10 items designed to assess each step of the branding process were analysed separately. The Cronbach reliability coefficients were calculated as measure of internal consistency, as is the custom in this kind of research. Thereafter, items were flagged for possible elimination based on (1) their correlation with the subscale score, and (2) their factorial loading on one latent construct, when a single-factor solution was forced onto the 10 items associated with each subscale. The five items with the lowest correlation and/or loading were eliminated (per subscale). The outcome of this process is reported in the results section of this paper. The Cronbach reliability coefficients for the shorter version of the instrument are also reported as well as the correlation between the subscale scores of the shortened version of the measure. It was expected that means would correlate significantly, given that personal branding was construed as a coherent construct.
- The second strategy focused on exploratory factor analysis. Following the proposed structure of the data (consisting of six stages), the data was forced into a six-factor solution, assuming that items would load as hypothesized. The five items (per step) with the highest and singular loadings would then be retained for the revised instrument. Should the item loadings not materialise as hypothesized (the six-factors solution), the ideal number of factors to be extracted would be determined through inspection of the size of the Eigen values, the shape of the scree plot, and particularly the ability to attach meaningful labels to a group of items loading on a specific factor. The last-mentioned refers to identifying some coherency in the items which load strongest on a particular factor. Initially six factors, then five, then four, three, two and, eventually, a single factor were to be extracted and the coherency of the items loading on them evaluated. The aim was to retain 30 items based on the results of factor analysis – irrespective of whether these results matched the proposed hypothesized “steps of personal brand development” model.

Step 6: Operationalise the instrument. This entails making sure that the administration guide is clear, specifying the purpose of the instrument, as well as details of where it could be administered (possible settings), how it should be administered, and in which setting the present data on reliability and validity was generated. Only after this would the instrument be ready for use.

Participants: The participants of this study can be divided into two categories, namely professionals involved in the design of the questionnaire, and those recruited to participate in the pilot study.

Professional participants: Eight professionals participated in the development of the items of the questionnaire. They were the authors of this document as well as six professionally registered industrial psychologists. The psychologists were all registered with the Health Professions Council of South Africa (HPCSA), the body that is also responsible for the oversight of psychologists. Their participation was voluntary and involved attending a workshop explaining both the purpose of the study and the role that they would play, which was to propose suitable items for the questionnaire, based on the literature collected (see Mohammed and Steyn, 2017), the required item format, and the length of the questionnaire.

Pilot study respondents: The first author of this study is employed as a senior manager in a large organisation and is attached to the learning and development division of that organisation. Middle managers in the division, as well as middle management visiting the division as learners, were recruited to complete the pilot questionnaire. The respondents to the pilot study were treated in accordance with the ethical guidelines set out in the Unisa SBL research ethics guidelines. In total, 88 middle managers took part in the pilot study.

Operationalisation: The study was operationalised as per the six-step process discussed above.

Step 0: Decide on the purpose or goal of the measurement. This was decided on by the first author and is the primary goal of the study. The purpose was to develop a measure of personal branding which could later be used to test the claimed relationship between personal branding and career success.

Step 1: Specify the nature of the variable to be measured. In the case of personal branding, little evidence of empirically grounded theory was found. As such, a systematic review of literature was conducted to describe personal branding and also to specify parts thereof. The findings from the literature review are reported in the introduction to this document. It was hypothesised that personal branding is a six-step process, consisting of Understanding the importance of having a personal brand, developing self-awareness and awareness of one's environment, Visualising and conceptualising a personal brand, developing a personal brand marketing and stakeholder management strategy, Implementing the personal brand, as well as Measuring, evaluating and improving the personal brand. In the process of developing these steps of personal branding, the first and second authors sequentially and repeatedly looked at the source material, and at the themes developing from it, so as to minimize bias when proposing themes. The nature of the variable and its subsections were thus specified subjectively, given the literature and the discussions between the two authors of this document.

Step 2: Consider and specify the method which will be used to collect the information. In the case of the development of the MPBD it was decided to use a 7-point Likert-type scale (Preston & Colman, 2000) and to present it as a questionnaire that could be administered to an individual or to a group of individuals.

Step 3: Write and rewrite the items. Eight authors contributed to writing the items. As stated above, six industrial psychologists volunteered, based on collegiality, to assist in the writing of the items. This followed after they attended a workshop explaining the purpose of the study, their role as co-authors of the items, as well as item format and the length of the proposed questionnaire. They were requested to write five items for each of the six steps extracted from the literature. The eight authors initially created 240 items. These items were considered, per category, by the authors of this document, then reworked and reduced to a total of 60 items, with 10 items per step.

Step 4: Conduct a pilot study. A convenient sample of 88 middle managers of a large corporation was persuaded to complete the 60-item questionnaire. Some questionnaires were completed by the managers as part of a group while some were completed individually. Attention was paid to ensuring that the anonymity of the respondents was respected. This was done firstly, by allowing the respondents to complete the questionnaire without any personal identifiers on the answer sheet. Secondly, allowing the respondents to place the completed questionnaires in a pile and informing them that they were free to place their questionnaires anywhere in the pile -contributed to a safe environment for the respondents. No additional questionnaires were completed as part of the pilot study, as the primary purpose of the pilot study was to select an optimal group of items, focusing on convergence among items within the instrument.

Step 5: Analyse the pilot study data. The data was captured on an Excel spreadsheet and then converted to SPSS. As explained above, the data were then analysed using two strategies. Both strategies were applied and the outcomes thereof are reported in the Results section. Originally, the idea was to use the strategy which revealed the best results for deciding on which items to include in the final instrument. This approach was abandoned, as it became apparent that the first strategy had little explanatory value and added nothing to the pre-set structure of the questionnaire or understanding the concept of personal branding. As such, both strategies were used to reduce the item pool from 60 to 26. The integration of the results of the two strategies is explained in the Discussion section of this document.

Step 6: Operationalise the instrument. The final questionnaire was compiled by organising the 26 items in a sequence that, subjectively, made sense to the first author of this document. The instructions to the questionnaire were revisited and modified, and the entire questionnaire was then submitted again for language editing. The corpus of this document should serve as an instruction guide to those interested in administering the instrument, noting that many parts of the process of developing the items were subjective. As Aguinis et al (2001) note, the process of instrument development is never complete and updates to the questionnaire should be on going as new data becomes available. The authors of this document echo this statement and are in the process of creating such data.

Ethical considerations: The development of questionnaires is informed by several professional guidelines, of which the Standards for Educational and Psychological Testing, of the American Psychological Association (2014) are frequently mentioned. General professional standards set out by local oversight bodies, such as the HPCSA, also provide guidelines (HSPCA, 1998). These guidelines pertaining to the development and administration of questionnaires are very similar to the requirements of the Unisa Policy on Research and Ethics (2013). Participants were informed about the purpose of the study, confidentiality, procedures, potential risks and discomforts, potential benefits, payment for participation, participation and withdrawal, and the general rights of research participants. The ethics as proposed in the consent form were not breached when conducting the research.

4. Results

Firstly, some demographics of the respondents will be provided. Then limited central statistics for the 60-item questionnaire will be given (see Table 1; Column 1 & 2), as well as the reliability coefficients of the anticipated subscales of the 60-item questionnaire, along with the correlations between the different projected subscales (see Table 2 – to the left of the diagonal). Then the results pertaining to following strategy one will be presented, where the extent of the overlap between the different statistics (see Table 1; Column 3 & 5) resulted in the selection of 30 items. The items found most appealing when applying strategy one is then presented (see Table 1; Column 0). To specify the results of the first strategy, the correlation coefficients between the subscales of the resulting 30-item questionnaire is presented as well as reliability coefficients of the subscales and the questionnaire as a whole (see Table 2 – to the right of the diagonal).

The second strategy to identify items for inclusion in the final questionnaire involved factor analyses. First data is presented on the appropriateness of applying the factor analyses technique. Then the results of several factor analyses conducted on the data are reported, focusing on the amount of variance declared and the themes which emerged from labeling of the factors. Lastly, the items which featured most often in the different factor solutions is presented, and these were used to select items for the proposed questionnaire. The final questionnaire comprised of items which overlapped when applying both strategy one and two. As this was an evolutionary process, the results reported below do not mirror the methodology set out above. This is discussed in greater detail in the discussion part of this document.

Demographics of respondents: Demographic information on the respondents to the pilot study was not collected. This decision was taken in order to respect their privacy, to minimize any need they might feel to respond in a socially desirable manner, and to solicit voluntary participation in the study. However, organisational data reveals that the average middle manager cohort typically consists of 65% men and 35% women, with ages varying between 30 and 45 years, with a mean of around 37. In total, 88 middle managers completed the questionnaire.

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Central statistics: Means (Column 1) and standard deviations (Column 2) were calculated for the 60 items used in the pilot study. These are presented in Table 1. Other results also presented in Table 1 are discussed later.

Table 1: Descriptive statistics, correlations with total scores, and single-factor loadings, for the pool of 60 items

0	1	2	3	4	5	6
Item / Scale	Mean	Standard Deviation	Correlation with subscale mean	Correlation with total mean	Loading on a single subscale factor	Loading on a single total scale factor
1	5.875	1.275	.647	.554	.603	.565
2	4.386	1.896	.498	.197	.347	.188
3	5.875	1.275	.699	.636	.760	.646
4	6.034	1.385	.757	.691	.827	.701
5	6.215	1.334	.803	.684	.868	.697
6	5.818	1.326	.629	.698	.671	.710
7	5.579	1.411	.722	.540	.762	.546
8	5.818	1.119	.667	.557	.698	.553
9	4.840	1.831	.289	.075	.083	.054
10	5.806	1.404	.520	.303	.529	.303
11	5.568	1.229	.731	.706	.759	.711
12	5.113	1.272	.560	.527	.536	.515
13	5.397	1.309	.651	.512	.663	.507
14	6.136	1.166	.725	.691	.762	.707
15	5.602	1.160	.678	.659	.702	.669
16	5.556	1.267	.697	.675	.718	.670
17	5.238	1.339	.634	<u>.610</u>	.648	<u>.598</u>
18	4.227	1.873	.661	.474	.600	.457
19	5.079	1.634	.671	.596	.634	.592
20	5.545	1.507	.661	.584	.655	.598
21	5.875	1.346	.792	.772	.786	.783
22	5.420	1.491	.662	.618	.633	.617
23	5.625	1.383	.845	.793	.852	.798
24	5.715	1.123	.837	.735	.846	.751
25	5.329	1.229	.781	.659	.788	.662
26	5.636	1.242	.744	.685	.740	.693
27	5.715	1.258	.830	.756	.830	.769
28	5.590	1.237	.852	.789	.862	.800
29	5.352	1.295	.815	.771	.819	.772
30	5.625	1.280	.748	.668	.749	.676
31	5.761	1.241	.768	.765	.783	.757
32	5.647	1.322	.811	.738	.829	.742
33	5.545	1.133	.822	.803	.852	.808
34	5.954	1.329	.613	.643	.645	.656
35	5.602	1.300	.774	.725	.807	.734
36	5.397	1.434	.730	.656	.757	.653
37	5.818	1.273	.806	.727	.853	.735
38	4.829	1.456	.630	.545	.558	.531
39	4.113	1.663	.417	.274	.287	.254
40	4.693	1.563	.685	.495	.653	.473
41	5.511	1.553	.728	.728	.731	.720
42	5.681	1.160	.618	.515	.624	.514

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0	1	2	3	4	5	6
Item / Scale	Mean	Standard Deviation	Correlation with subscale mean	Correlation with total mean	Loading on a single subscale factor	Loading on a single total scale factor
43	4.715	1.477	.741	.669	.738	.657
44	4.511	1.553	.529	.271	.471	.247
45	5.431	1.371	.644	.540	.654	.545
46	4.465	1.589	.605	.415	.565	.393
47	5.977	1.312	.696	.683	.727	.688
48	5.636	1.332	.753	.736	.781	.740
49	4.784	1.614	.720	.585	.716	.578
50	5.386	1.409	.794	.782	.812	.783
51	5.647	1.277	.754	.823	.772	.828
52	5.772	1.266	.815	.763	.821	.773
53	6.056	1.216	.690	.793	.709	.798
54	5.784	1.139	.675	.583	.685	.582
55	5.329	1.379	.785	.649	.786	.645
56	5.011	1.586	.789	.639	.773	.637
57	5.250	1.323	.756	.720	.763	.717
58	5.375	1.358	.792	.647	.793	.636
59	4.909	1.419	.779	.565	.764	.550
60	4.681	1.601	.725	.548	.700	.529
S1	5.625	0.864	-	-	-	-
S2	5.346	0.915	-	-	-	-
S3	5.588	1.016	-	-	-	-
S4	5.336	0.953	-	-	-	-
S4	5.210	0.980	-	-	-	-
S6	5.381	1.028	-	-	-	-
T	5.414	0.836	-	-	-	-

Note: In the table, S1 to S6 represent the different subscales (each with 10 items) and T the total score, for all 60 items.

From Table 1 we can observe that the mean scores per item were relatively high at 5.414 (on a 6-point scale), with a standard deviation of .836. Statistics not reported here shows that the data was negatively skew. The rest of the statistics presented in this table are discussed below.

Reliability: The reliability statistics for the 60-item scale is presented in Table 2, Column 2. Other results, also presented in Table 2, are discussed later.

Table 2: Cronbach alphas and inter-subscale correlations for the pool of 60 items

0	1	2	3	4	5	6	7	8	9
Sub-scale	Cron-bach alpha	S1	S2	S3	S4	S5	S6	T	Cron-bach alpha
S1	.800	1	.748	.717	.747	.647	.652	.846	.854
S2	.854	.703	1	.759	.721	.771	.745	.889	.823
S3	.931	.708	.788	1	.730	.783	.788	.903	.917
S4	.978	.647	.760	.765	1	.791	.750	.885	.900
S5	.870	.474	.715	.750	.753	1	.767	.901	.857
S6	.915	.530	.722	.782	.751	.785	1	.881	.965
T	.970	.768	.895	.918	.894	.863	.882	1	.967

Note: In the table, S1 to S6 represent the different subscales and T the total score. The correlations between the subscales of the 60-item instrument are presented to the left of the diagonal line, while the correlations for the 30-item instrument are presented to the right of the diagonal line. It can be observed that the Cronbach alpha values for all the subscales are acceptable, with .800 being the lowest observed coefficient. The alpha for the total scale was .970.

Results pertaining to strategy one for refining the questionnaire: To refine the questionnaire, and assuming that items which correlate higher with the total score are more reflective of the measured construct, the five items which correlated highest with the subscale total score were highlighted (see Table 1, Column 3). Also highlighted are the five items which loaded strongest on a single factor, when considering the 10 items of each subscale (see Table 1, Column 5). Secondary consideration was given to the correlation between the individual items and the total score for all 60 items (see Table 1 Column 4) and the factor loadings of the items on a single factor presented by the entire questionnaire (60 items) (see Table 1, Column 6). In most cases the correlation strengths on the subscale totals and the factor loadings corresponded, and these items were selected for inclusion in the shorter version of the questionnaire. In the cases where items for the correlation and factor analysis differed, the item which correlated highest with the total score (the 60-item score) and the highest with the combined factor were selected. Using the abovementioned process, 30 items were identified for inclusion in the shorter version of the instrument (See bolded items in Table 1 Column 0). As can be observed from the above, the analyses deviated from the proposed methodology. However, this is not seen as a limitation, but rather as an effect of engaging with the material.

In Table 2 (Column 9), the Cronbach alphas of the 30-item instrument can be observed and are consistently acceptable. Also observable in Table 2, to the right of the diagonal line, are the correlation between the constructs in the 30-item questionnaire. These are high, with the lowest value at .674, and most of them higher than .700. These coefficients are even higher than those in the initial questionnaire, as can be expected, as items were selected based on their relatedness to the total construct. The high correlation between the subscales may suggest that a single dimension is measured with the questionnaire (Smit, McCarthy & Zapolski, 2009).

Results pertaining to strategy two for refining the questionnaire: The next step was to assess whether the presumed theoretical structure was replicated in the collected data. As this was a pilot study, exploratory factor analysis was the preferred method of analysis. The data displayed acceptable properties to allow factor analysis (Floyd & Widaman, 1995; Kink, 2014), with the Kaiser-Meyer-Olkin Measure of Sampling Adequacy at a low-but-acceptable .811, and Bartlett's Test of Sphericity having an Approximate Chi-Square of 5024.942 (degrees of freedom = 1770), which was significant ($p < .001$). Twelve components had Eigen values greater than one, but very few items loaded significantly on these factors. As proposed in the methodology, it was decided to test the theorised six-stages model, extracting six factors. The Scree plot, not presented here, shows a small dip around the sixth factor. Six factors declare 63.701 percent of the variance in the dataset. Five factors declare 60.606 percent of the variance in the dataset, four 57.063 percent, three 52.981 percent, two 48.537 percent and one 41.012 percent. A factor solution declaring more than a minimum of .40 percent of the variance in the data could be deemed as acceptable (Beavers, Lounsbury, Richards, Huck, Skolits & Esquivel, 2013).

As planned, firstly, and as planned the replication of the theorised six-component model was tested. Thereafter models with five, four, three, two and one components were tested. In the six component model six items loaded predominantly on each of factor one to five, with only three loading on factor six. The items did not load on factors as expected, and the data did not mirror the hypothesized model. This necessitated the labeling of the factors which emerged from the analyses. With the six factor solution, the themes identified based on the item content were "active focus", "integrated authenticity", "active strategic positioning", "cognitive buy-in", and "strategic alignment". With one factor the items seemed not to relate, and it was labeled "residual". With a five factor solution the items which loaded on factor one was "targeted actions", factor two "authentic branding as a success enabler", factor three "considered strategic positioning", factor "pleasant persona" with the last factor labeled "residual". With a four factor solution the items which loaded on factor were labeled "informed authenticity", "directedness", "active stakeholder management" and "residual". With a three factor solution the items which loaded on factor were well defined, and labeled as "reflective authenticity", "targeting" and "active directed interaction".

When only using two components, the factors were labeled as “considered authenticity” and “targeting”. When aiming to produce a one-factor solution, 12 items loaded highly on the factor. This was obviously labeled “personal branding”. Interesting to note that several items emerged in the one factor solution which did not emerge in the other solutions. However, the content of the items was not unfamiliar. Inspection of the 12 items reveals three major themes a clear vision of the future, an appreciation of the importance of actively getting involved in the branding process and reflection. The labeling of the factors revealed some clear similarities and possible overlaps. These similarities may also point to a single latent variable, linking all the items. In the aforementioned analysis, several items were loaded more regularly than others on factors. Out of a possible six appearances, 22 items of the 60 items appeared in three or more of the calculated solutions. These items could be central to the construct of personal branding. These 22 items represent the outcome of strategy two. However, it was decided to combine the results of the different analyses to come up with a final list of preferred items. This integration is presented in the discussion section presented below.

Discussion: In the discussion, the results are integrated and the final questionnaire is proposed. The integration of the results entailed considering the outcomes of the two strategies used to refine the item pools and making judgments as to which items to include.

Comparing strategy one with strategy two: Strategy one for identifying suitable items was purely quantitative, and resulted in the identification of 30 items. The reliability coefficient of the 30 items is high, and the reliability of all the different subscales acceptable. This suggests an improvement on the 60-item questionnaire. The primary drawback of the reversed measure is that the correlations between the different sub-scales are very high ($r > .60$) (Samuel & Okey, 2013). In the case of both the 60-item and 30-item questionnaires the correlation between the subscales was around or above .70, suggesting that they all may measure the same construct. Strategy two focused on factor analysis. The proposed theoretical six-factor solution did not fit the hypothesised theoretical model and the items loading on the factors were subsequently named.

This entailed a qualitative approach (content analysis) to data (items) grouped together based on a quantitative process. The labels assigned to the six-factor solution were “active focus”, “integrated authenticity”, “active strategic positioning”, “cognitive buy-in” and “strategic alignment” (one factor was not named). Similar themes (“targeted actions”, “authentic branding as a success enabler”, “considered strategic positioning”, “pleasant persona”, “informed authenticity”, “directedness”, “active stakeholder management”, “reflective authenticity”, “targeting”, “active directed interaction”, “considered authenticity”, “targeting”) were identified when fewer factors were extracted, and three time factors were labeled “residual” as the content of the different items was disparate. This labeling process was insightful, as the emergent themes presented different nuances that were not presented when applying Strategy one.

The three-factor solution, which did not have residual items, and which declared 52.981 percent of the variance in the dataset, declared an adequate amount of variance (see Beavers, Lounsbury, Richards, Huck, Skolits and Esquivel, 2013), was accepted as the optimal model, particularly as the items loaded in a very coherent manner. The one-factor solution was also deemed as important, as it was possible that a single factor may be underpin all the items, as is observable in the high correlations reported in Table 2. Given all the complexity of the different optimal solutions, following Strategy one and Strategy two, the item that emerged was representative of four groups (the 30 items selected on the basis of Strategy One, the 18 items which loaded in the three factor solution, the 12 items which loaded on a the single factor solution, and the 22 items which loaded on three or more factor solutions). Items which appeared in in three of these groups were included in the final questionnaire. This resulted in a list of 26 items.

Theme theory of personal branding: It was decided to abandon the original developmental stages theory of personal branding as these stages did not clearly materialise during the pilot study. The items which loaded on a six-factor solution did not match the development stages as proposed. As such a theme theory of branding, based on the themes which emerged from naming the factors, is proposed. Abandoning a developmental model for a theme model, or a single construct model is not uncommon in explanatory research such as this (see De Jong and Den Hartog (2010) and Kleysen and Street (2001)).

After many hours of deliberation between the authors, and considering all the information presented above, the following four themes were identified and proposed as central elements of personal branding:

- Meta-cognition-/clear vision of the future: Meta-cognition refers to thinking about processes and how the world works while a clear vision of the future relates to ambition and a defined ideal future state.
- Authenticity and internal consistency: This refers to the ideal of presenting the real self (Rogers, 1980) and the avoidance of cognitive dissonance (Festinger, 1957).
- Strategy / Awareness of environment: This entails being mindful of the environment and specific individuals being able to influence a person's career.
- Activity / Working on brand: This element deals with being active in implementing your brand. It goes beyond thinking or strategising and deals with actively pursuing these plans.

The items, as well as their proposed theme that each represents, are presented below. From Table 3 and the labeling of items it will become apparent that multiple labels could be given to each item. However, an effort was made to consider all the items in a very literal manner, focusing on the direct meaning associated with the particular item, and not what could have preceded it or what will flow from it.

Table 3: Selected items and themes

Item	Content	Theme
1	I am increasingly aware that a good reputation and unique personal attributes are necessary for career success.	Meta-cognition / Clear vision of the future
2	It is important for me to be thoroughly honest with the brand that I am presenting.	Authenticity and internal consistency
3	All people have blind spots. Asking feedback in this regard is to one's own benefit.	Authenticity and internal consistency
4	My personal brand is an authentic reflection of who I am as a whole, taking into account my values, career specialisation, personality and appearance.	Authenticity and internal consistency
5	I have a clear vision of my future.	Meta-cognition / Clear vision of the future
6	I know my strengths and weaknesses and how each relates to my future.	Meta-cognition / clear vision of the future
7	The best way to progress is by offering specific, related, relevant, consistent and credible content.	Strategy / Awareness of environment
8	I know exactly what I believe in and feel passionate about, what my brand is selling, and what value my brand offers to my customer or target audience.	Meta-cognition / Clear vision of the future
9	I have a clear vision on how to approach the future and the demands it may place on me.	Meta-cognition / Clear vision of the future
10	I need to position myself competitively and comparatively to improve my chances of success.	Strategy / Awareness of environment
11	Stakeholder interaction is an ongoing process aimed at staying on top of the needs, wants and desires of those who are influential in my life story.	Activity / Working on brand / Strategy / Awareness of environment
12	My brand needs to be operationalised and, therefore, the development of an individual marketing and stakeholder management strategy is necessary.	Activity / Working on brand / Strategy / Awareness of environment
13	My personal offering should be true to my own values and goals rather than being aimed at the accumulation of perceived success.	Authenticity and internal consistency
14	My own evaluation of my key competitors in the workplace is critical if I am to differentiate myself from them.	Strategy / Awareness of environment Activity / Working on brand
15	I need to stay connected and relevant to sustain my personal brand.	Strategy / Awareness of environment

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Item	Content	Theme
		Activity / Working on brand
16	In order to make sure that the content of my value proposition stands out from the crowd, my social media voice needs to be well developed.	Strategy / Awareness of environment Meta-cognition
17	Mastering and maintaining my personal brand is a significant undertaking which takes time and effort.	Activity / Working on brand
18	I am strategically placing my brand message across various platforms and using various networks to implement my personal brand.	Activity / Working on brand Strategy / Awareness of environment
19	Emotional intelligence is an essential component in those who lead and influence using strong personal branding.	Strategy / Awareness of environment
20	I am mindful of my personal brand and how I actively display my vision, values, mission and strength of character.	Meta-cognition / Clear vision of the future
21	Measurement of the success of personal branding is important.	Meta-cognition / Clear vision of the future
22	I take ownership and control of my brand.	Activity / Working on brand
23	I can learn valuable lessons from individuals who have become experts at building their own personal brands.	Meta-cognition / Clear vision of the future
24	I have developed specific measures of my short, medium, and long-term targets and goals as they relate to my personal branding.	Activity / Working on brand / Clear vision of the future
25	I evaluate my brand by involving my target audience and testing their response to my brand.	Activity / Working on brand Strategy / Awareness of environment
26	I have an active development plan in place for each of my brand objectives and goals.	Activity / Working on brand

The themes are well represented across the different items, and it was decided to include retain all 26 the items, despite the overrepresentation of some themes. Using the development data, the Cronbach alpha for the 26 items was .968. The mean score of 144.750 and a standard deviation of 34.951. Only items 16 ($r=.449$), 25 ($r=.579$), and 26 ($r=.532$) had corrected item-total correlations lower than .60. The same items (item 16, 25 and 26) emerged with lower loadings (.518, .584 and .546) when performing a principal component analysis – when “forcing” all items into a single factor. The final questionnaire is thus presented as an uni-dimensional measure of personal branding. It is proposed that a seven point scale be used when administering the questionnaire, responding to each items with strongly disagree, Disagree, Somewhat disagree, Neither agree or disagree, Somewhat agree, Agree or Strongly agree.

5. Conclusion and Recommendations for Practice

Literature on personal branding is limited and is largely contained in popular, non-academic articles. Very little is known about the nature of the concept, and less about the measurement thereof. Based on a review of popular literature, a six-stage personal branding model was proposed. The following stages were identified: Understanding the importance of having a personal brand; Developing self-awareness and awareness of one’s environment; Visualising and conceptualising a personal brand; Developing a personal brand marketing and stakeholder management strategy; Implementing the personal brand; and Measuring, evaluating and improving your brand. The identification of these stages amounts to a significant contribution to the body of knowledge but was also the focus of a previous study.

Based on this six-stage model of brand development, 60 items were developed by a panel of professionals in order to assess the level of the development of personal branding. The data collected in the 60-item questionnaire were analysed in different ways, and the results were very informative. The data did not fit the six-stage model well and it was concluded that the stage model of personal branding should be shelved and that an alternative model was needed. This resulted in the creation of an element model of personal branding. The elements making up this model were derived subjectively from during the labeling of different factor

solutions extracted from the data. A relative consistent pattern of themes emerged, even when different numbers of factors were extracted. The elements which are finally proposed are as follows: Meta-cognition / clear vision of the future; Authenticity and internal consistency; Strategy / Awareness of environment; and Activity / Working on brand. This research thus defines personal branding in a manner not previously. This outcome entails a refinement, and ultimately, a reworking of the stage model initially proposed. The product is a simpler but empirically sounder model of personal branding. This constitutes an important contribution to the body of knowledge.

The final 26-item instrument developed is proposed as a comprehensive measure of a well-developed personal brand. By linking the elements of a personal brand to items, and compiling a questionnaire, theory (the element model) is operationalised (the questionnaire), and this also contributes to the development of personal branding as a subject of academic interest. This further serves as a first step towards quantifying the level of personal branding and, once refined, the use of the questionnaire will allow for testing the validity of claims regarding personal branding as an antecedent to success in the world-of-work.

Limitations of The Study: This research could have been conducted in many other ways, but this would have been a matter of preference, and only some aspects will be addressed in this regard. This relates to the use of factor analysis and specifically exploratory versus confirmatory factor analysis. Firstly, it would in most cases be inappropriate to undertake factor analyses with such a small group of respondents. Factor analysis was, however, performed here as it does provide some data helpful to exploring the present data – even if not in a perfect manner. There seems to be a preoccupation amongst researchers to use confirmatory factor analysis. This was not done in this instance as the research was exploratory in nature. The data was explored and, without this exploration, the development of the themes which eventually emerged, would not have been possible. The authors thus do not apologise for not using confirmatory factor analysis.

A second limitation to this study may be the pool of items used in the first questionnaire. The concept of “garbage in and garbage out” (Mellin, 1957) may apply here, and the authors are aware of this. However, rigorous plans were put in place to minimise this risk. Although the development of the long list of items (240) was subjective, as it was developed through a content analysis, the short list of items (60) was development and refined by six industrial psychologists. As industrial psychologists regularly work with psychometric instruments, it was assumed that employing their services contributed to quality of the proposed items. Though not perfect, it was deemed that this approach would reduce bias. Furthermore, no data was collected on variables which may correlate with personal branding, and as such no test on concurrent or discriminate validity could be performed. The lack of knowledge – as assessed with this questionnaire and as to how personal branding relates to other concept, limits the credibility and use of the instrument. In addition, and particularly data on how personal branding relates to career success, is absent. Given the way in which personal branding is presented and marketed in popular literature, testing the link between personal branding and career success will be of paramount importance. The authors hope to address this gap by collecting such data.

Suggestions for Future Research: Researchers are encouraged to refer to both the stage model and the elements model when discussing the concept of personal branding. Both models have merits, although this research suggests that the elements model may be better represented by the data collected. Researchers are also encouraged to use the questionnaires developed in this research, particularly to assess the relationship with career success as anticipated by the popular literature consulted. It would also be interesting to test hypotheses regarding the relationship between personal branding and self-esteem, self-image, narcissism and similar constructs.

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Service Exchange Model: A Framework for understanding Service Quality in Africa

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Abstract: Concepts and theories in service quality have been studied and developed over the past thirty-five years. Researchers and scholars are constantly reviewing service quality models in order to understand them better and for some, to improve. The methods, dimensions and scales used to measure service quality have become of huge importance as scholars and business executives alike understand the importance of good customer service for customer retention and market growth. Thus, increasing profits. This paper is a theoretical discussion paper which analyses various service quality models and introduces a new model called the Service Exchange Model. The data collection method employed secondary sources of information by reviewing some of the most popular service quality models and concepts. An exploratory research design was used to identify prevalent schools of thought and emerging service quality models and theories. The findings uncovered that the accepted and mostly reviewed concepts of service quality is dominated by the Nordic and American schools of thought. Furthermore, the study found that service quality is a complex term to measure and define. Hence, the many different models being created to measure service quality. Furthermore, service quality perceptions may vary between industries, cultures and countries. In addition, service quality is a process and involves the consumer as much as it involves the service provider. The implications are that service quality models that are culture, country and industry specific need to be developed and with the development of the SEM, more quality service studies that are specific to Southern Africa need to be conducted. The results of this study contribute to the subject of service quality and customer service and satisfaction and can be employed in various industries to improve the entire customer service experience, especially in Africa where quality customer service seems to be lacking. This paper is original in that it reviews literature on service quality and seeks to introduce a new model that could be applicable to developing countries as part of the model is formulated based on results from a study on service quality in Namibia.

Key Words: *Service Quality, Customer Satisfaction, Service Quality Model, Service Exchange Model*

1. Introduction

This paper reviews the perceived concepts on service quality and customer satisfaction. It examines and analyses the existing service quality models according to the Nordic Grönroos (1984) and American Parasuraman, Zeithaml and Berry (1985), schools of thought and introduces a new model entitled the Service Exchange Model (SEM). Over the years, researchers have developed service quality concepts and models. While others have developed models to improve the existing ones. (Cronin and Taylor, 1992; Zeithaml, Parasuraman and Malhotra, 2002; Sureshchander, 2010; Whyte and Bytheway, 2017). The concept of quality customer service is a broad multidimensional concept, thus, defining it becomes tricky. (Getty and Getty, 2003; Al-Allak and Bekhet, 2011; Nunko et al., 2017) Especially seeing that service and quality differs between cultures, countries, ethnicities and across time. (Al-Allak & Bekhet, 2011)

Furthermore, it has been discovered that customers are so diverse that they may rate quality differently based on the various perceptions they have due to their backgrounds, values, beliefs, attitudes and experiences (Al-Allak & Bekhet, 2011). Although Parasuraman et al. (1985) suggest that service quality is an undefinable concept and can only be understood as the relationship between the customer's performance perceptions and his/her service expectations. Lewis and Booms (1983), define service quality as the process of measuring the customers' expectations to how well it meets the level of service delivered. Voorhees et al. (2017) conceptualise service quality as three encounters which take place in three phases during a service experience. They continue to define the service experience as "the period during which all service encounters relevant to a core service

offering may occur. This concept comprises pre- and post-core encounters, as well as the encounters built into the core service provision as “moments of truth” that influence customer outcome” (p. 270).

During every service encounter, customer perception of and satisfaction with the service provider accumulates and this could take place during pre-core service encounters, core service encounters or post-core service encounters. The pre-core service encounter period is the period prior to the core service encounter. It is the first stage of the service experience and encounter, where the customer is encouraged and led to engage with the service firm in the core-service encounter. Following is the core service encounter where the customer receives the actual service as stipulated by the service provider. It is then followed by the post-core service encounter period which is the period in which the consumer evaluates their experience based on the prior service encounters and makes a decision based on those encounters. Gilmore and McMullan, 2009; Voorhees et al., 2017)

The post-core service encounter is equally as important as the two previous encounters as it is during this period that the firm tries to retain customers and enhance the customers' future service experience. These results flow into the pre-core service encounter which prolongs the experience loop. Thus, we define service experience as the period during which all service encounters relevant to a core service offering may occur. This concept comprises pre- and post-core encounters, as well as the encounters built into the core service provision as “moments of truth” that influence customer outcomes Thus, we define service experience as the period during which all service encounters relevant to a core service offering may occur. This concept comprises pre- and post-core encounters, as well as the encounters built into the core service provision as “moments of truth” that influence customer outcomes. Thus, we define service experience as the period during which all service encounters relevant to a core service offering may occur. This concept comprises pre- and post-core encounters, as well as the encounters built into the core service provision as “moments of truth” that influence customer outcomes.

2. Methodology

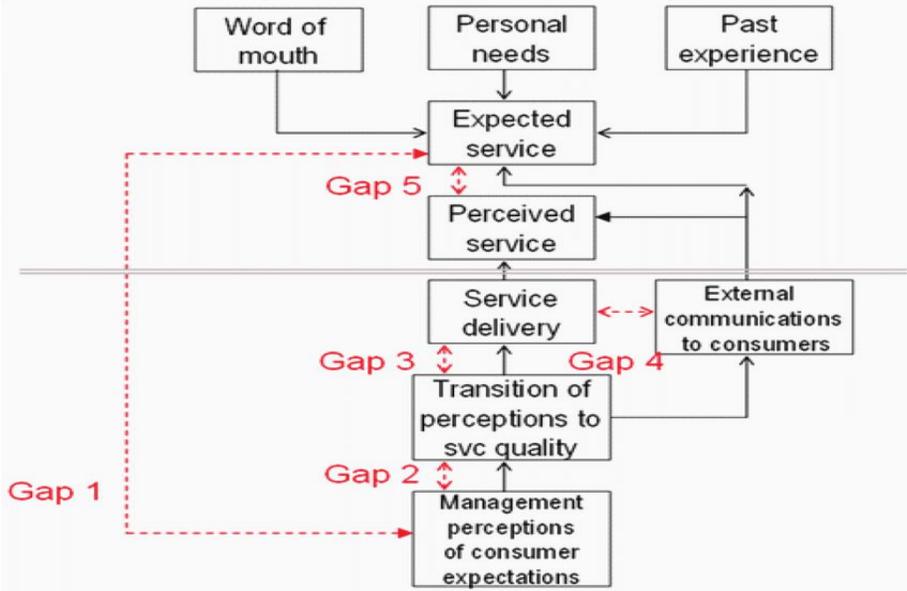
This paper is a conceptual discussion paper based on a theoretical literature review. According to University Libraries (2018). The purpose of a theoretical literature review is to distinctly examine the models and concepts that have accrued surrounding a specific topic. It helps identifying existing theories and the relationships between them. It is also used to establish the extent to which these theories have been investigated in order to establish new or emerging concepts and theories. It is constructed on secondary data on service quality, customer service and explores various service quality models. Secondary data were collected and reviewed in order to identify the most popular service quality concepts and models. An exploratory research design was employed in order to generate insight on the various service quality models and theories. According to Dudovskiy (2018), this method purposes to investigate particular aspects of the research field. It does not necessarily aim to provide conclusive answers to a research question and evidence and information gained during the research process determines the outcome of the study. A selective review of data on service quality, service quality models, customer care and service quality measurements was conducted, especially the most prevalent service quality concepts and models. Various databases such as Emeraldinsight, Scencedirect, Routledge and Google scholar were employed to collect data. The data collected was then analysed by means of content analysis and separated into various themes such as the American School of Thought, the Nordic School of Thought and emerging service quality concepts and models which are presented in this paper.

3. American service quality school of thought

SERVQUAL Model: This model was established by Parasuraman et al. (1985) as a tool to effectively measure service quality, especially for the service industry. This model is defined by five major quality dimensions which are employed to measure service quality. These qualities are: tangibles, reliability, responsiveness, assurance and empathy, which are measured by identifying the perceptions and expectations of customers. It is based on the concept that the difference between expectation and performance along the mentioned dimensions are what form service quality. (Abdullah, 2006; Gilmore and McMullan, 2009; Rosenbaum and Wong, 2009; Al-Allak and Bekhet, 2011; Whyte and Bytheway, 2017)

Furthermore, Parasuraman et al. (1985), developed a GAP Model illustrated in Figure 1. This model is an outline for measuring service quality and was developed with results gained from in-depth research based on service quality. GAP 1 to GAP 4 indicate the perceptions of service quality from the marketer or service provider's perspective and GAP 5 illustrates the perceptions of service quality from the consumer's perspective. Gap 1 is the knowledge gap, which describes the difference between the customers' expectations and what management perceives are the expectations. GAP 2 which is the policy gap, explains the difference between what management perceives is the customer expectations and the service quality specifications. Whereby, GAP 3, the delivery gap, describes the difference between the service quality specifications and the service that the firm essentially delivers. GAP 4 is the communication gap. This gap describes the difference between the service delivery and how this service delivery is communicated to consumers. Lastly is GAP 5, which is the service quality gap. This gap is the difference between the consumers' expectations and the actual service perceived. (Dhanalakshmi et al., 2010; Yarimoglu, 2017).

Figure 1: Parasuraman GAP model (Source: Parasuraman. et al, 1988)



According to Al-Alak and Bekhet (2011) and Jain and Aggarwal (2015), this model has a few discrepancies, such as the fact that customer expectations do not stay constant all the time; it fails to provide management with enough data to create and implement strategies aimed at customer satisfaction; it has not been recorded to have measured customer satisfaction to a great extent; the quality dimensions vary across countries, cultures and ethnicities; it is not applicable across all industries. Gilmore and McMullan (2009) agree by proposing that this model is highly complex, presents administration problems and cannot be applied to just any context.

SERVPERF Model: As strong critics of the SERVQUAL model, Cronin and Taylor (1992) conducted a study investigating the measurement of service quality and the relationships between customer satisfaction, service quality and purchase intentions. They discovered that service quality can be better measured by employing a performance-based measure; service quality is a precursor of consumer satisfaction; consumer satisfaction has a noteworthy influence on purchase intention and; service quality has less influence on purchase intention than does customer satisfaction. This study resulted in the establishment of the SERVPERF model. They developed their model based on Performance Model Satisfaction over the Disconfirmation Paradigm used by the SERVQUAL scale (Abdullah, 2006; Gilmore and McMullan, 2009; Al-Alak and Bekhet, 2011; Polyakova and Mohammed, 2015). It is like the SERVQUAL model except that it is only based on actual performance.

However, both these SERVQUAL and SERVPERF were originally tested in developed countries and the measures are not dynamic as they fail to consider the service history (Al-Alak & Bekhet, 2011). In addition, this model does not take into account how various cultures and people from different countries views' may influence the service quality perception. Thus, it is not universally friendly (Jain & Aggarwal, 2015).

The Human Societal Elements Model: According to Al-Alak and Bekhet (2011), this model was developed by Sureshchander et al. (2010) in order to overcome the shortcomings of the drawbacks of the scales used in the SERVQUAL and SERVPERF, since both models lacked certain elements of service quality. The Human Societal Elements Model is based on customer perception of service quality centred on specific dimensions. These dimensions include service product, human element of service delivery, systematization of service delivery, tangibles of service and social responsibility. However, the authors assert that this model is not suitable for profit-oriented service organisations.

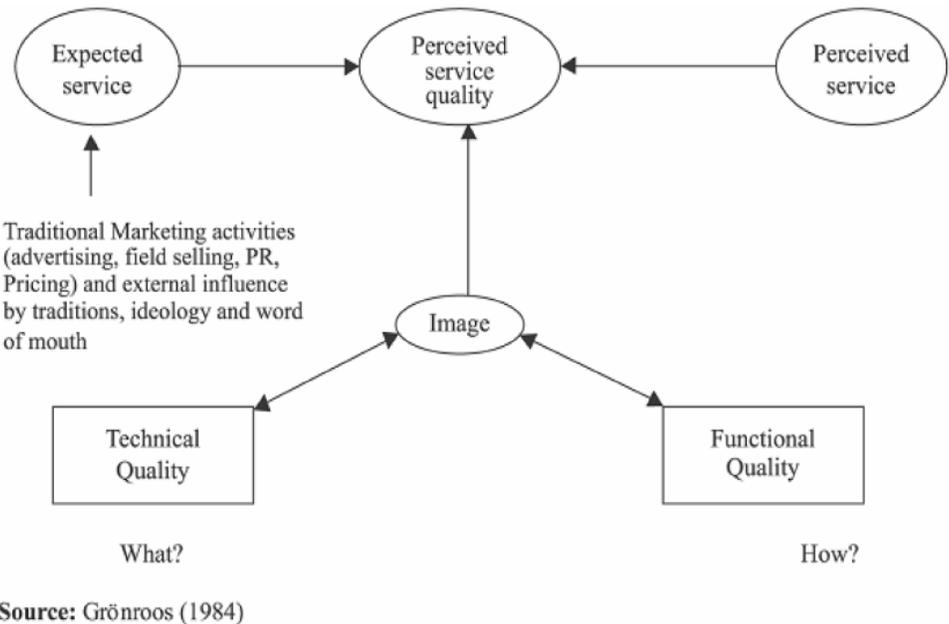
Attribute service quality model: This model was developed by Haywood-Farmer (1988) and is based on customer preferences and expectations. If a service provider continuously meets customer preference and expectation, it is said to be of high service quality. Service is made up of physical facilities and processes, human behaviour and professional judgement (Dhanalakshmi et al., 2010; Yarimoglu, 2014). Jain and Aggarwal (2015) argue that this model is flawed in that it lacks data on the measurement scale and it fails to direct management on possible methods that can effectively identify service quality issues.

HEDPERF (Higher Education PERFORMANCE-only): This model was designed by Firdaus (2005; 2006) as a new and comprehensive performance based measuring scale to measure service quality within the higher education sector. It is made up of a 41 item scale, of which 13 scales are derived from SERVPERF and the rest are comprised of results from literature reviews and primary data such as interviews and focus groups, which are purposed to show the different service offerings of tertiary institutions.

European/nordic service quality school of thought: The service quality model in figure 2 developed by Grönroos (1984; 1988) is based on how consumers view service quality as well as how it is influenced. Grönroos (2001) continues that determining the quality of services depends on expected and perceived service. The most significant attribute of services is that they are to be seen as processes and not 'things'. In addition to this perspective, this model is based on the 'disconfirmation theory'. This theory states that the level of service quality can be paralleled to the level of expectation. Hence, service quality can be either better or worse than expectations or can even be equated to expectations (Polyakova & Mohammed, 2015). "A service firm has no products, only interactive processes. Whereas the consumption of physical products can be described as "outcome consumption", the consumption of services can be characterized as "process consumption". In this context, describes the development of the perceived service quality concept" (Grönroos, 2001, p.150). Therefore, a product variable cannot be part of a service marketing model. As a service is a process that results in an outcome during a production and consumption process happening simultaneously. Since service firms do not provide physical tangibles, they depend on a collection of resources such as, customers, employees and technology which are administered by a system that combines these resources when a customer requests a service Grönroos (2001).

This service quality model is made up of three qualities, which are: technical quality, which is the quality of service received while interacting with the service provider. This service is important as the customer evaluates their service quality on this experience. Second is the functional quality. This is important to the customer's perception of quality as it describes how the customer receives the technical outcome of the service. Lastly, is the image of the service provider, the image is enhanced by the technical and functional qualities (Dhanalakshmi et al., 2010; Yarimoglu, 2014; Polyakova and Mohammed, 2015). In addition, Polyakova and Mohammed (2015) explain that the above-mentioned qualities are each comprised of sub-dimensions. The professionalism and skills sub-dimensions fall under the technical qualities. Whereby, the attitudes and behaviour; accessibility and flexibility; reliability and trustworthiness and recovery contribute to the functional dimensions. Lastly, reputation and credibility create and maintain the image of the service provider. Furthermore, according to these authors the model is conceptual and not operational, in that it lacks a pragmatic measurement instrument. (Jain and Aggarwal, 2015; Polyakova and Mohammed, 2015).

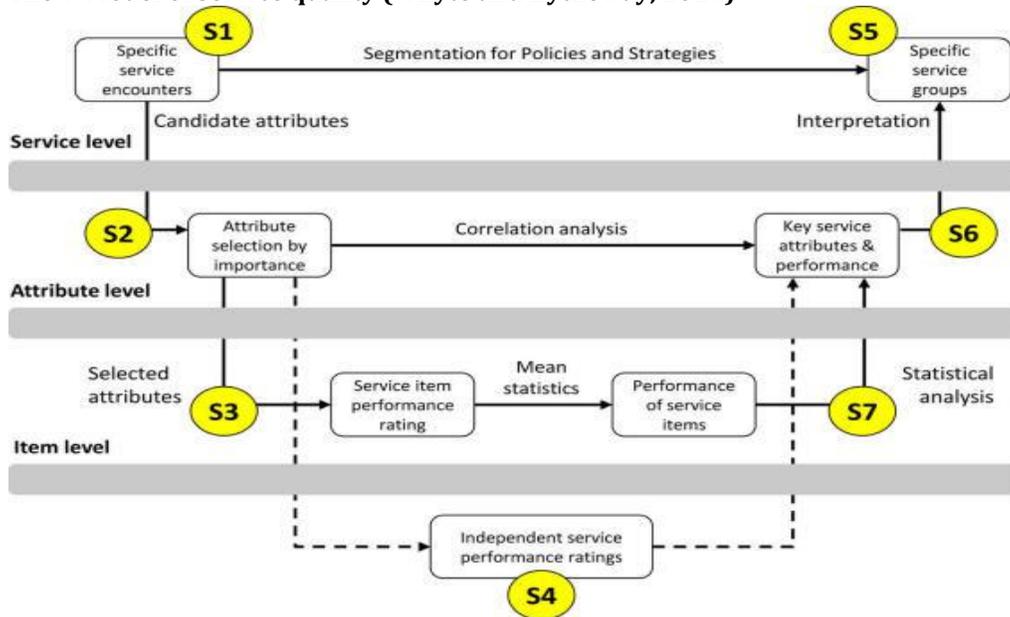
Figure 2: Grönroos Service Quality Model



4. African service quality an alternative approach

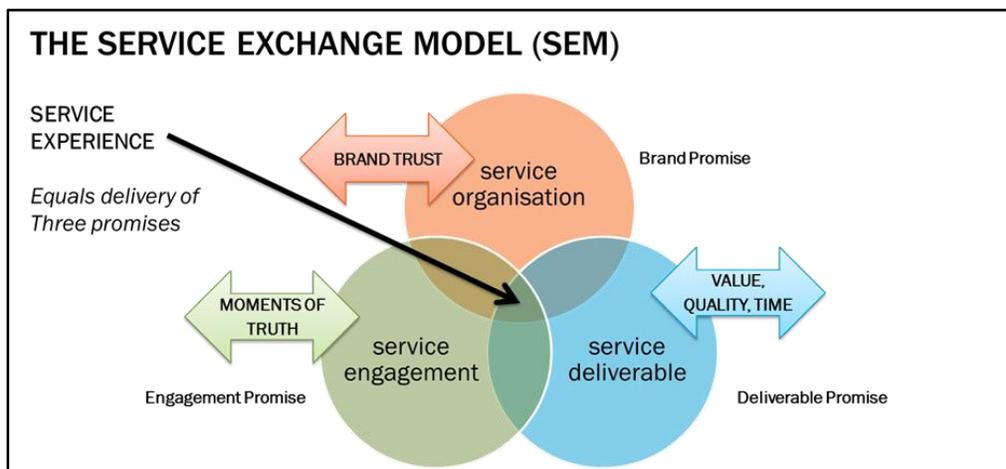
The V-Model of service quality (VMSQ): This is a model of service quality developed by Whyte and Bytheway (2017) (Figure 3) which is based on the concept that service management needs to be recognised at three different levels and if it is handled at these three levels, it can be seen as a 'V'. This notion is backed by Gilmore and McMullan (2009) who argue that service management is of such a complex multi-dimensional nature consisting of varying stages during the service process where customers' expectations and perceptions need to be considered in different contexts. The first level of the 'V' model is the variety of circumstances that may be encountered during service management. This is due to the fact that service encounters will vary in perception from person to person due to differing needs, expectations and varying cultural ideas. Second is the dependencies and relationships between the attributes of service quality. These are complex and cannot be confined to just one set of attributes. Different scenarios of service quality may be made up of varying combinations of attributes which could be measured at different levels. The third level is the service quality measurement level. This level should be carefully considered while using the best technology and information management techniques available. In addition, this model is designed on the idea that as a service model, it needs to be made up of a service stage, attribute stage and item stage. The service stage is the process of identifying the service engagement and all those who are involved. The attribute stage has to do with selecting which attributes will be part of the engagement. Lastly, the item stage describes how the analysis of the data should be designed around the attributes that were identified as being valuable to the engagement. It is imperative that information is gathered and critically analysed at all three stages.

Figure 3: The V-Model of service quality (Whyte and Bytheway, 2017)



Service exchange model (SEM): Whyte and Bytheway (2017), have demonstrated how the VMSQ is a robust tool for measuring service quality and provides management with incisive direction on failings (and strengths) in the services they provide to their customers. However, the VMSQ does not address exactly what happens in a service encounter. The importance of the tangibles of service was overlooked such as the service product, the price paid and the physical aspects of service delivery, which is particularly important in a self-service environment. The authors developed the SEM which attempts to demonstrate the whole customer service experience. It is built on the concept that a service encounter can be characterised as an exchange between customers and suppliers containing three key dimensions all contributing to the exchange to a greater or lesser degree. This model coincides with the opinion given by Polyakova and Mohammed (2015) stating that consumers do not only receive service quality passively, but they also actively co-construct the service quality experience. These dimensions are illustrated in the model below.

Figure 4: The Service Exchange Model (SEM)



A service can be viewed as a network of exchanges between the customer, the service agent (public or private sector staff) and the service organisation (the commercial business, or Government department). The idea of an exchange demonstrates that the customer’s attitude and behaviour is an essential component of the service

experience. This interaction is often referred to as the co-creation process that happens between the customer and supplier in the service process (Polyakova & Mohammed, 2015).

The customer service experience is determined by three implicit and explicit service promises. These promises set the customer's expectations which are either lived up to by the service experience or disappointed.

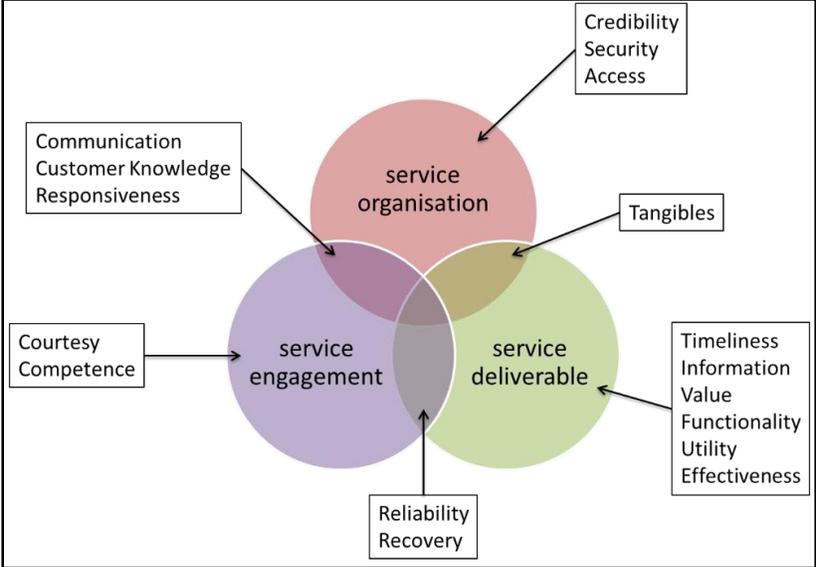
- (i) The service deliverable (or delivery promise) is the main reason why the customer approaches the private sector business i.e. to buy a specific product like buying a car, or the government department to acquire a service. This promise could be seen as part the technical quality and functional quality conceptualised by Grönroos (1984; 1988) which describes the quality of service the customer receives while visiting the service provider and how they perceive the technical outcome of the service.
- (ii) The service organisation (or brand promise) communicates that the business is a reputable organisation in which the customer can have confidence. This brand promise can be viewed as Grönroos (1984; 1988) image quality of the service provider which is directly impacted by the technical and functional qualities.
- (iii) The service engagement (or engagement promise) is the process the customer undergoes when he/she interacts with the business, the promise is that staff are competent, courteous and willing to supply the deliverables required by the customer. This is corroborated by Durvasula, Lysonski and Mehta (2005), and Mattila and Enz (2002) who refer to this attribute as the service encounter and state how it influences the customer's perception and satisfaction.

It is evident from this framework that the customer perception of the service experience will be influenced by attributes (or competencies) relating to the service deliverable, organisation and engagement. For the manager of the private sector business or Government department, all three areas have to be managed to provide an optimal service experience. (Durvasula et al. 2005).

Having a framework in which the VMSQ sits is important for two reasons:

- (i) Service quality measures on their own can be fragmented and leave the researcher uncertain whether the results are complete or that important areas are not being overlooked.
- (ii) This uncertainty then has a knock-on effect when trying to implement remedial actions or training. A high-level framework in which the results sit is therefore useful for overcoming this uncertainty.

Figure 5: Mapping service quality attribute to the SEM



To get a sense of the comprehensiveness of the SEM we mapped the service quality attributes from the Parasuraman et al. (1985) and Whyte (1994) models to the SEM and the results are shown in Figure 4. The first thing we observe is that all the attributes fit comfortably onto the model offering some support for the idea that the model is comprehensive. Service attributes do not fit neatly within each dimension of the SEM. This concurs with our experience that service attributes are fuzzy and complex concepts with a great deal of overlap. Therefore, arranging the dimensions of the SEM as a Venn diagram makes sense. This view supports the assertion by Mahmoud, Hinson and Anim (2018) that service innovations are multi-dimensional and overlap one another. Therefore, any changes made to any of the service innovations influences the other.

Taking the service organisation, here we are primarily concerned with the reputation of the organisation (Credibility), its ability to deliver (Access) the service expected without overselling (Communication) in a secure (Security) and appropriately comfortable environment (Tangibles). We also expect the organisation to be responsive to the needs of its customers. Deliverables of the service are often influenced by the surroundings in which it is delivered (Tangibles), the service or product itself must be well designed (information) and fit for purpose (Effectiveness/Utility), provide value to the customer (Value), work properly (Functionality) and delivered in a reasonable timeframe (Timeliness). The service should be delivered consistently (Reliability) and should things go wrong, corrected quickly (Recovery). This conception is constructed using the ten dimensions of the SERVQUAL identified by Parasuraman et al. (1985) that can be used as criteria to evaluate delivered service quality.

The service engagement is predominantly about engaging with the customer either through staff or machines, this engagement must be Courteous and Competent, it should be Responsive and Reliable. The Communication needs to be clear and there should be an appropriate level of Customer Knowledge. Finally, there should be sufficient flexibility to enable the service to Recover should things go wrong. This statement is congruent with Polyakova and Mohammed's (2015) explanation of the (Grönroos 1984; 1988) model as they suggest that the technical, functional and image qualities of service are each made up of sub-dimensions. The professionalism, and skills sub-dimensions, which can be compared to courtesy and competence, fall under the technical qualities. Flexibility, reliability and recovery contribute to the functional dimensions.

Another advantage of the SEM framework is that it assists with service management interventions, enabling managers to focus their interventions in the correct places when receiving feedback using the VMSQ.

- Service organisation failures usually require the manager to look at the physical aspects of the organisation and the marketing messages. Are they overselling expectations that they can't meet? Confirming the findings of Mahmoud et al. (2018) suggesting that managers need to create effective marketing strategies to win the market.
- Service deliverable failures usually require the manager to make process improvement changes to ensure that the correct deliverables are actually delivered correctly. This correlates with findings by Mahmoud et al. (2018) stating that Managers should maintain a constant process of improving service innovation in order to establish quality customer service.
- Service engagement failures usually require retraining of front line staff in the basics of customer service. This statement is buoyed by Durvasula et al. (2005) who state that service firms need to be prudent in how they recruit, train and motivate staff who deal with customers so that they are appealing to the customers and can contribute to a positive customer service encounter. It is also confirmed by Mattila and Enz (2002) who suggest that frontline employees should be trained on how to conduct themselves while delivering a service.

These models and concepts demonstrate that at the core of service is people and the interactions between people. Studies that have been conducted over the years have been done to help researchers and business management understand the concept or philosophy of service management better, so as to improve relations between customers and employees and to improve the service encounter. The purpose of this is to maintain market share and profit maximisation. It is evident that it is not adequate to borrow scales from already existing models and simply apply them to any service encounter. But, rather to use the advances in technology to develop new service quality models that are culture and/or country specific. Service quality models need to consider that service is a process which consists of a pre-service stage, a service stage and a post service stage. (Gilmore & McMullan 2009). Also, it is difficult to set service standards that all industries can follow and

therefore models that cater for specific industries with dimensions and scales meant only for those industries should be developed. Ghotbababi et al. (2015)

This report reviewed the common service quality concepts and models and introduced a model that explains the process of a full-service encounter process. Data on service quality that has been conducted over the decades illustrates just how important this subject is. The Nordic (Grönroos 1984; 1988) and the American (Parasuraman et al. 1985) concepts of service quality are among the most popular and studied concepts. The vast research and models on service quality show that it is such a complex subject and has become difficult to define. Furthermore, service quality is a dynamic process which involves the consumer, the employees and the physical place where the service is taking place. The SEM gives a concise illustration of what occurs during a service encounter. It displays and at the same time explains how the service process or service experience is an exchange between the service deliverable, the service organisation and the service engagement. In addition, it illustrates how the elements involved in a service encounter overlap at a point and are able to form a pleasant service experience for the customer.

According to Halas (2017) automated solutions play a vital role in service quality and will increase their role in the future. However, it has been discovered that automated solutions cannot replace personalised approach and distance reduction. These two attributes are imperative in good service quality and customer satisfaction as machines do not have the emotions or ability to connect with customers on a human level. Therefore, it is recommended that service quality models adapt the above-mentioned attributes for future research on service quality and customer satisfaction. Also, industry specific service quality models, such as the HEDperf, should be developed, as “one size fits all” cannot be applied to measuring service quality across industries. Above all, the SEM, which has been introduced in this study should be employed to further study service quality in more Southern African countries.

5. Conclusion

The data and implications of this study are envisaged to advance the field of quality customer service globally, but more specifically in Africa. This report contributes to service quality in Africa, by providing insight on popular service quality concepts and models acquired from secondary literature; by identifying via secondary data the shortcomings that are found in various service quality models and how to improve them; by discovering also through secondary data that perceived service quality could be culture specific, country specific as well as industry specific. Lastly, a major contribution to service quality in Southern Africa is made by introducing an alternative Service Quality Model, the SEM, based on the idea that the customer service experience is determined by three implicit and explicit service promises and that service quality dimensions and attributes are dynamic, complex concepts that overlap each other. This model can assist in measuring service quality in Southern Africa. Therefore, playing a vital role in improving the quality of service provided to customers. Thus, contributing to customer retention and profit maximisation.

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Strategic Financial Management and Performance of Small and Medium-Scale Enterprises in Nigeria: An Empirical Evidence

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Abstract: This study empirically examined the extent of strategic financial management (SFM) practices among small and medium-scale enterprises (SMEs) in Nigeria and investigated the impact of SFM practices on the performance of SMEs. To achieve this, the study relied on primary data which were obtained through structured questionnaires. The population for the study consisted of 7,035 viable SMEs in the Southwestern Nigeria which harbours more than 75% of SMEs in the country. Using Yamane's formula, the sample size of the study was 378 SMEs. To account for non-response the sample size was round up to 400 SMEs. Purposive sampling technique was employed to select the respondents such as SME owners/chief executive officers or financial managers who have wealth of experience in strategic financial management practices of the companies. Data collected were tested for validity and reliability using Cronbach's Alpha coefficients and Factor Analysis. Employing correlation analysis and multiple linear regression technique to analyse the data, the results showed that strategic financial management practices such as cash management ($\bar{x} = 3.30, s = 1.18$), receivables management ($\bar{x} = 3.20, s = 1.22$), inventory management ($\bar{x} = 3.27, s = 1.18$), investment decision ($\bar{x} = 3.24, s = 1.18$), and financing decision ($\bar{x} = 3.103, s = 1.26$) were fairly practised among SMEs in Nigeria. However, the SFM practices have significant impact on both the operational performance and financial performance of the SMEs. Therefore, this study recommended that SMEs should adhere strictly to SFM practices highlighted in this study as these will strengthen the long-term success of the business.

Key Words: *Strategic financial management practices, profitability, SMEs, strategic planning*

1. Introduction

Small and medium-scale enterprises (SME) play an important role in the development of any country. They create employments, nurture a culture of entrepreneurship, open up business opportunities, help in the introduction and diffusion of new technology, and generate skilled workers for industries. They are recognised worldwide as a significant contributor to economic growth and development (Normah, 2007; Asaolu, Agorzie & Monday 2012). SMEs now represent over 85% of private businesses on the African continent and contribute to more than 50% of employment and gross domestic product in most African countries (Sriram & Merasha, 2010). In Nigeria, there are about 36 million micro, small and medium-scale enterprises with the potential to create job opportunities and contribute meaningfully to gross domestic product (National Policy on MSMEs, 2013). The rapidly changing nature of today's business environment continuously creates a need for effective financial management strategies. SMEs are currently being faced with many serious difficulties such as shortage of capital for expanding, insufficient equipment and technology, low productivity and competitiveness, lack of experience in terms of marketing, production management and financial management (Okpara & Wynn, 2007). The success or failure of SMEs is contingent on their financial viability and one of the most common problems facing such firms is their inability to secure cash flow and working capital to remain profitable. A major failure factor of SMEs is poor business and financial management competency (Obokoh, Monday & Ojiako, 2016).

The need for strategic financial management (SFM) in achieving SMEs' sustainability cannot be overemphasised. SFM which is central to the success of any business is the study of finance with a long term view considering the strategic goals of the enterprise. SFM can be described as the allocation of scarce resources to identify possible strategies among competing opportunities and taking necessary actions to monitor the progress of the chosen opportunity so as to achieve set objectives. This consists of the aspect of

the overall plan of the organisation that concerns financial managers. It includes different parts of the business plan such as marketing and sales plan, production plan, personnel plan, and capital expenditure which have financial implications for the financial managers of organisations. SFM ensures that the organization remains on track to attain its short-term and long-term goals, while maximizing value for its shareholders.

Strategic financial management supports management in making informed decisions and thus, it plays an indispensable role in the prosperity of any business. Despite the significant roles of SFM, there is little empirical studies on SFM in extant literature as well as its impact on the profitability and sustainability of small and medium-scale businesses. These therefore necessitated this study. Lack of proper SFM practices among SMEs poses great obstacle of getting funding and hence put their sustainability at risk. Sound strategic financial management practices help to improve the profitability of an organization. The ultimate success of a firm is invariably rooted in its strategic financial management which is crucial for the long-run survival of any business. This study therefore examined the extent of strategic financial management practices among SMEs; and investigated the impact of SFM practices on the operational and financial performance of SMEs in Nigeria. In this view, the study formulated and tested the following hypotheses:

H₁: Strategic financial management practices do not have significant impact on operational performance of SMEs in Nigeria.

H₂: Strategic financial management practices do not have significant impact on financial performance of SMEs in Nigeria.

2. Literature Review

Financial Management: Financial management is concerned with raising the funds needed to finance the enterprise's assets and activities, the allocation of these scarce funds between competing uses, and with ensuring that the funds are used effectively and efficiently in achieving the enterprise's goal (McMahon et al., 2008; Kilonzo & Ouma, 2015). Financial management refers to that aspect of management which involves planning and controlling the financial affairs of an organisation to ensure that the organisation achieves its objectives - particularly its financial objectives (ICAN, 2014). Financial management involves decisions about how much finance the business needs for its day-to-day operations and for longer-term investment projects; whether the finance should be obtained from (debt or equity) and whether it should be long term (long-term debt equity) or short term (trade suppliers and bank overdrafts); how to manage short term cash surpluses and short term cash deficits; amounts to be paid out as dividends; and how to protect the organisation against financial risks (ICAN, 2014).

Strategic Financial Management (SFM): Strategic financial management is one of the most critical and important activity for the Business Manager. Basically, financial management is concerned with managing an organization's cash flow, assets, liabilities, profitability and revenues, and strategic financial management ensures that the organization remains on track to attain its short-term and long-term goals, while maximizing value for its shareholders. The Chartered Institute of Management Accountants (CIMA) of UK defines strategic financial management as "the identification of the possible strategies capable of maximising an organisation's net present value, the allocation of scarce capital resources between competing opportunities and the implementation and monitoring of the chosen strategy so as to achieve stated objectives" (ICAN, 2009). According to Varghese (2012), SFM is an approach to management that relates financial techniques, tools and methodologies to strategic decisions making to have a long-term futuristic perspective of financial wellbeing of the firm in order to facilitate growth, sustenance and competitive edge consistently. It is an approach to management that applies financial techniques to strategic decisions in order to help achieve the decision-maker's objectives.

Strategic financial management refers to both, financial implications or aspects of various business strategies, and strategic management of finances. It is concerned with bigger decisions than financial management and those decisions might have a profound effect on the organisation. SFM encompasses the full range of a company's finances including: setting out objectives; identifying resources; analysing data; making financial decisions; and monitoring performance to identify problems (ICAN, 2014). According to Liu (2010), SFM refers to financial management theories which show that financing should be conducted in the most efficient way, the

collected capital should be utilized and managed in the most effective way in enterprises and decisions on the reinvestment and distribution of profits should be made most reasonably. His definition identified three basic elements of strategic financial management, namely: financing strategy, investment strategy, and profit-distribution strategy.

Strategic Financial Management Practices: Hill (2008), Liu (2010), and Varghese (2012) highlighted strategic financial management practices to include the following:

- Cash management
- Receivables management
- Inventory management
- Investment management
- Financing decision
- Dividend management

Cash Management: Cash management is concerned with the management of cash flow in and out of the firm, within the firm, and cash balances held by the firm at a point of time by financing deficit or investing surplus cash (Varghese, 2012). Cooley and Pullen (1979) and Burns and Walker (1991) used indicators such as cash forecasts and cash balance as basis for determining cash balance and frequencies of cash shortage and cash surplus to measure cash management practices. Belt and Smith (1991) and Grablowsky (2008) used some other indicators like frequency of cash budget preparation, the rate at which goods and services are sold on credit, the rate at which cashbook and bank balance are reconciled, policy regarding minimum and maximum cash balance and the rate at which surplus cash are invested in marketable securities to measure cash management practices.

Receivables Management: According to Nair (2015), receivable management is the process of making decisions relating to investment in trade debtors. It is thus the collection of procedures required to properly weigh the costs and benefits attached with the credit policies. Credit policy includes credit standards, credit terms and collection efforts. The efficiency of accounts receivable management measures the rate at which goods and services are sold on credit, level of control over credit sales to employees, the frequency at which sales are reconciled regularly with inventory change, the frequency at which percentages of bad debts are reviewed, the level of control over collection of written-off receivables, the frequency at which credit policy are reviewed, and the level of application of computer-assisted software in managing receivables.

Inventory Management: Inventory management refers to the process of ordering, storing and using a company's inventory which includes raw materials, work-in-process, finished goods, stores and spares (supplies). The efficiency of inventory management practices relates to level of physical safeguard against inventory theft, policies adopted in determining inventory level, the frequency at which inventory usage rate are prepared and summarized, control over purchases of inventory, frequency at which stock-taking is carried out, whether inventory requisition note is used or not, the amount of safeguard against fire, level of competence of people in charge of warehouse, whether economic order quantity model is adopted or not, the frequency at which inventory turnover ratio is calculated and used for decision making, and whether the business uses computer-assisted software in recording inventory.

Investment Decision: Investment management refers to the selection of optimum portfolio of investment opportunities that maximize anticipated net cash inflows at minimum risk (Hill, 2008). The efficiency of investment management concerns the efficiency of capital budgeting practices and fixed asset utilization after acquisition. This can be done using indicators like the rate at which fund is made available for long-term projects, level of investment in non-current assets, the rate at which non-current assets are utilized, whether proper investment appraisal techniques are used to assess investment, the frequency at which investment projects are reviewed, whether or not the business invest in shares on Stock Exchange, and the extent to which computer-assisted software is used in fixed asset management.

Financing Decisions: According to Hill (2008), finance policy identifies potential fund sources (equity and debt, long or short) required to sustain investment, evaluates the risk-adjusted returns expected by each and then

selects the optimum mix that will minimise their overall weighted average cost of capital (WACC). Financing decisions refer to decisions on how funds are raised for investment purpose. This relates to capital structure management practice of how debenture and equity are combined in the capital structure of the business. The indicators for measuring efficiency of financing decision are the extent to which internally generated funds are used, the business' accessibility to external sources of fund, policy adopted in setting capital structure level and the manager's level of awareness of the effect of capital structure on level of business risk. Dividend Decisions: Dividend decision has to do with the disbursement of the profits of a firm and there are two alternatives ways of doing it: they can be distributed to the shareholders in the form of dividends or they can be retained in the business itself. It depends on the dividend-pay out ratio, that is, what proportion of net profits should be paid out to the shareholders. Dividend decisions depends upon the preference of the shareholders and investment opportunities available within the firm (Varghese, 2012).

Small and Medium-scale Enterprises in Nigeria: The National Policy on MSMEs (2013) in Nigeria adopts a classification for small and medium-scale enterprises based on dual criteria, employment and assets as shown in Table 1. Small Enterprises are those enterprises whose total assets (excluding land and building) are above five million naira but not exceeding fifty million naira with a total workforce of above ten, but not exceeding forty-nine employees. Medium enterprises are those enterprises with total assets excluding land and building) are above fifty million naira, but not exceeding five hundred million naira with a total workforce of between 50 and 199 employees. Therefore, small and medium-scale enterprises (SMEs) are those enterprises whose total assets (excluding land and building) are above five million naira, but not exceeding five hundred million naira, with a total workforce of between 10 and 200 employees.

Table 1: Classification of Micro, Small and Medium Enterprises in Nigeria (National Policy on MSMEs, 2013)

Size Category	Employment	Asset - excluding Land & Building (₦ Million)
Micro enterprises	Less than 10	Less than 5
Small enterprises	10 to 49	5 to less than 50
Medium enterprises	50 to 199	50 to less than 500

The success of SMEs has shown a direct positive impact on the economic growth and development in both developed and developing countries and almost economies of all countries are influenced by performance of SMEs (Normah, 2007). In a developing economy like Nigeria, SMEs play tremendous role in reengineering the socio-economic landscape of the country. Monday and Agorzie (2014) highlighted that besides being the seedbed for wealth creation, employment generation and poverty reduction, SMEs have been acknowledged as critical breeding and nurturing grounds for domestic entrepreneurial capacities, technical skills, technological innovativeness and managerial competencies for the development of a vibrant and productive economy. However, SME sector in Nigeria is bedevilled by several factors militating against its growth and leading to an increase in the rate of SMEs failure. These factors include the unfavourable economic conditions resulting from unstable government policies, gross undercapitalisation caused by the difficulty in accessing finance from banks and other financial institutions, inadequacies resulting from the highly dilapidated state of infrastructural facilities, astronomically high operating costs, poor financial management capabilities; and inadequate support for the SMEs sector by government authorities (Ihua, 2009; Obokoh, Monday & Ojiako, 2016).

Performance of SMEs: According to Chong (2008), a business firm could measure its performance using the financial and non-financial measures. The financial measures include profit before tax, return on investment, and turnover while the non-financial measures focus on issues pertaining to customers' satisfaction, delivery time, waiting time, market share, productivity, and employees' turnover. Although financial measures are objective and easy to understand and compute, they are sometimes not readily available in the public domain and also suffer from being historical in most cases and thus may not reflect the quality of the firm's performance (Carton, 2004). On the other hand, non-financial measures which are sometimes refer to as operational performance (Samson & Terziovski, 1999) are subjective in nature. Recognizing the limitations of relying solely on either the financial or non-financial measures, owners-managers of the modern SMEs have adopted a hybrid approach of using both the financial and non-financial measures (Chong, 2008). The combinations of these two measures (financial and non-financial) help the owners-managers of SMEs to gain a wider perspective on

measuring and comparing their firm performance, in particular the extent of effectiveness and efficiency in utilizing the resources and competitiveness.

3. Research Methodology

Research Design and Data Sources: This study utilized the cross-sectional survey method to obtain data. The arguments for the adoption of survey research design are in two-fold. Firstly, survey provided quick, efficient and accurate means of assessing information about the population under study. The second reason was that surveys are more appropriate in cases where there is little or no secondary data. The data needed in this study to answer the research questions were gathered from both primary and secondary sources. Questionnaire was used to generate the primary data, while secondary data was generated using contents analysis of documents presented by the small and medium business owners. Other secondary sources of data were documents of government agencies supervising and monitoring the activities of SMEs in Nigeria such as Central Bank of Nigeria (CBN), Small and Medium Enterprises Development Agency of Nigeria (SMEDAN), National Directorate of Employment (NDE), Small and Medium Industries Equity Investment Scheme (SMIEIS), and Small-Scale Industries Credit Scheme (SSICS).

Sample: The target population for the study consisted of all owner-managed and agent-managed SMEs in South-West geopolitical zone of Nigeria. The zone consists of six states which are Lagos, Oyo, Osun, Ogun, Ondo and Ekiti States. As indicated in the report of the National Collaborative Survey on Micro, Small and Medium Enterprises conducted jointly by the National Bureau of Statistics (NBS) and Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) in 2013, South-Western Nigeria has a total of 7,035 viable SMEs – 3,864 in Lagos State; 1,465 in Oyo State; 181 in Osun State; 593 in Ogun State; 646 in Ondo State; and 286 SMEs in Ekiti State. The SMEs are in different sectors of the economy: agriculture, mining, manufacturing, building and construction, trading, hotel businesses, transport, financial intermediation, estate and renting, education, health, and others. In determining the appropriate sample size of SMEs for the study, and securing representative response, the size of the sample used was based on statistical estimation theory considering the degree of confidence that was expected from the type of research selected. For the purpose of this study, the sample size for a population (N) of 7,035 SMEs was determined using Yamane’s formula at 5% margin of error (e) and the formula gave the sample size as 378 SMEs which was round up to 400 in order to compensate for non-response (Israel, 2012). To ensure proportional representation, the sample size of 400 enterprises was distributed among the six states in the study area on the basis of number of SMEs in each state. Thus, 220 of the selected SMEs came from Lagos State, 83 from Oyo State, 10 from Osun State, 34 from Ogun State, 37 from Ondo State, and 16 from Ekiti State.

Purposive sampling technique was employed to select respondents who have wealth of experience in financial management practices of the firms. The respondents were basically the owners or financial managers of the SMEs. Therefore, 400 respondents participated in the survey. This survey was actually carried out between January and May, 2018. Out of 400 copies of the questionnaire administered, 354 copies were completely filled and returned, and this gave a response rate of 88.5%. From the survey, 33.9% of the respondents were owners of the SMEs, 63% were the financial managers, while 3.1% were others. Demographics shows that 24% of the respondents were between the age brackets of 21 and 30 years, 37.9% were between 31 and 40 years, and 38.1% were more than 40 years of age. Majority of the respondents were highly educated as about 55 percent had at least first degree or its equivalent. In addition, more than 50% of the respondents had good knowledge of strategic financial management practices in the selected firms since they had spent not less than five years in the organisations.

Model Specification: The independent variable of the study was the strategic financial management practices which was measured by cash management, receivables management, inventory management, investment decision, and financing decision. Dividend decision was excluded because SMEs in Nigeria hardly partake in it. “Performance” was the dependent variable which was measured using operational performance and financial performance of SMEs. The relationships between strategic financial management practices and the two types of performance measures of small and medium-scale enterprises were captured as follow:

$$OPP_i = \alpha_0 + \alpha_1 CM_i + \alpha_2 RM_i + \alpha_3 IM_i + \alpha_4 IVD_i + \alpha_5 FD_i + e_i \dots\dots\dots (1)$$

$$FNP_i = \beta_0 + \beta_1 CM_i + \beta_2 RM_i + \beta_3 IM_i + \beta_4 IVD_i + \beta_5 FD_i + \theta_i \dots\dots\dots (2)$$

Where: OPP = Operational Performance, FNP = Financial Performance, CM = Cash Management, RM = Receivables Management, IM = Inventory Management, IVD = Investment Decision, FD = Financing Decision, α_0 and β_0 = constants, α_i and β_i = slopes of estimated parameters, and e_i and θ_i = error terms.

Survey Instrument and Validation: Since the study used survey approach, the instrument of data collection was a structured questionnaire. The questionnaire elicited information on the extent of implementation of SFM practices among SMEs in Nigeria, and the impact of strategic financial management practices on operational and financial performance measures of the SMEs. The extent of implementation of SFM practices was measured by the five-point rating scale ranging from 'Not at all' (1) to 'Extensive' (5). The impact of strategic financial management practices on operational and financial performance of the SMEs were measured by a 5-point rating scale ranging from 'Very Low' (1) to 'Very High' (5).

The survey instrument was validated using appropriate validity and reliability tests. The validity test for this study comprised face validity, content validity and construct validity while the reliability test was Cronbach's Alpha coefficient. Information about construct validity and reliability coefficient were needed in order to determine whether the five constructs of SFM, and performance constructs were stable and accurate, and whether they truly measured what they set out to measure. This provided assurance that the findings reflected an accurate measure of the underlying constructs. For Face validity, the questions were framed in line with similar study and were given to experts to view it in line with the research objectives. The content validity was carried out by viewing the questionnaire items in accordance with extant literature. The construct validity was carried out by conducting a factor analysis using the principal components extraction with varimax rotation. The analysis in Table 2 shows that all scale items load significantly on their variables and have a loading of 0.5 or better depicting good construct validity. Also, the analysis shows that all the extracted factors account for more than 50% of the variance. The Kaiser-Meyer-Olkin test (KMO) for the various scales presented a value of above 0.5, revealing that the samples are appropriate (Hair et al., 2010). This implies that the loadings can be considered to be significant; thus indicating that the various questionnaire items load in the appropriate construct.

For reliability, Cronbach's Alpha coefficient which measures the internal consistency of the variables was obtained to establish the reliability of the instrument. From the analysis in Table 2, the results showed that the values of Cronbach's Alpha obtained from the construct was between 0.727 and 0.885, which indicates a high internal consistency reliability of the measurement scales of the research instrument (Hair et al., 2010).

4. Results

Strategic Financial Management in SMEs: The analysis in Table 3 shows the extent of implementation of SFM among small and medium-scale enterprises in Nigeria. From the analysis, cash management recorded a mean score of 3.30 out of a possible maximum score of 5.00, depicting that cash management was practiced to a moderate (66.0%) extent among the SMEs. Receivables management had a mean score of 3.20, suggesting that the SMEs engage the practice of receivables management to a moderate (64.0%) extent. Also, the mean scores of 3.27 and 3.24 for inventory management and investment decision respectively, indicated that these two activities were moderately practiced. In addition, finance decision recorded a mean score of 3.10, depicting a moderate (62%) extent of implementation of finance decision among the SMEs. These results showed that SMEs in Nigeria fairly engage SFM practices in their business operations.

Table 2: Validity and Reliability Tests

Construct	Factor Loading	% of variance	Alpha Coeff.	KMO
Cash Management				
The business has a bank account	0.761	35.297	0.868	0.888
Firms normally experience cash shortage	0.782	9.087		
The business sells goods or services by cash	0.727	6.982		
Owner-manager is involved in preparation of cash budget	0.697	6.331		

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Cash budget is utilized in decision making	0.506	5.809		
The firm sets minimum cash balance based on experience	0.483	5.126		
The business sets fixed minimum cash balance	0.54	5.054		
There is monthly reconciliation of cashbook with cash balance	0.419	4.323		
Temporary cash surplus is invested in marketable security	0.691	4.111		
The business reviews cash budget regularly	0.679	3.492		
The business maintains internal control on cash	0.674	3.46		
There is separation of cashier personnel from accounting duties	0.578	3.251		
Firms set minimum cash balance based on historical facts	0.697	2.8		
Firms set minimum cash balance based on a theory	0.702	2.628		
Firms use computer assisted software in preparing cash budget.	0.684	2.25		
Receivables Management				
The business sells goods/services on credit	0.658	38.239	0.818	0.831
There is control over credit sales to employees	0.762	11.918		
Quantity sold are reconciled regularly with inventory change	0.691	10.667		
There is periodic preparation of aging schedules	0.618	7.267		
Firms review regularly the level of percentage of bad debt	0.667	6.544		
There is control over collection of written-off receivables	0.709	6.35		
The business has a set of credit policy in place	0.764	5.881		
The business applies set of credit policy to customers	0.658	5.077		
The business regularly reviews the level of accounts receivables	0.816	4.461		
Firms uses computer assisted software in managing accounts receivables	0.846	3.596		
Inventory Management				
There is physical safeguards of inventory against theft	0.736	35.377	0.885	0.896
Inventory levels are determined based on owners' experience	0.776	8.473		
The business uses standard costing technique for materials	0.63	7.036		
There is periodic review of overhead rate	0.67	5.504		
Periodic summaries of inventory usage rate are prepared	0.414	5.043		
There is proper authorization of purchases of inventory	0.549	4.721		
There is regular inventory stock-taking	0.669	4.433		
There is use of inventory requisition	0.685	4.089		
There is physical safeguard of inventory against fire	0.758	3.785		
The business investigates discrepancies in inventory regularly	0.635	3.633		
The business review inventory level regularly	0.447	3.112		
The business computes and uses inventory turnover rate	0.555	3.015		
The business uses economic order quantity (EOQ) model	0.641	2.652		
Inventory levels are determined based on historical data	0.648	2.481		
Inventory levels are determined based on theory of inventory	0.765	2.405		
Personnel in charge of warehouse have the necessary skills	0.622	2.214		
Firms use computer assisted software in recording inventory	0.466	2.027		

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Investment Decision				
The business has funds for investment in long term projects	0.785	38.666	0.800	0.828
The business invests in non-current assets	0.795	15.627		
The business fully utilizes the non-current assets	0.73	9.103		
The business uses net present value to assess investment	0.573	7.262		
The business uses payback period to assess investment	0.615	7.064		
The business invests by evaluating investment	0.724	6.425		
The business invests in real estate	0.762	6.043		
The business reviews investment projects after a certain period	0.693	5.134		
The business invests in shares on Stock Exchange	0.658	4.676		
Financing Decision				
The business uses internally generated cash sources only	0.401	49.215	0.727	0.739
The business has easy access to bank loans	0.82	18.212		
Firms use internally generated cash & borrowed funds together	0.801	15.527		
The business set the capital structure level based on theory	0.783	10.311		
The business uses borrowed funds only	0.611	6.735		
Operational Performance				
Market share	0.791	53.057	0.82	0.832
Customer satisfaction	0.756	15.3		
Effective use of firm's resources	0.77	9.518		
Productivity	0.74	8.476		
Liquidity	0.671	8.807		
Sustainable investment decisions	0.63	5.562		
Financial Performance				
Profit margin	0.85	45.162	0.75	0.763
Growth in profit	0.82	18.41		
Return on investment (ROI)	0.662	12.005		
Growth in ROI	0.456	8.937		
Return on asset (ROA)	0.123	8.479		
Growth in ROA	0.061	7.007		

Table 3: SFM Practices in Nigerian SMEs

SFM Construct	Mean	Standard Deviation
Cash Management	3.300	1.176
Receivables Management	3.202	1.224
Inventory Management	3.272	1.180
Investment Decision	3.236	1.184
Finance Decision	3.103	1.259

Strategic Financial Management and Operational Performance of SMEs: Bivariate correlation was conducted to determine whether a statistically significant linear relationship exists between pairs of continuous variables. The analysis in Table 4 shows the bivariate correlation matrix on the relationship between the five constructs of SFM. The results showed that there was statistically significant linear relationships between pairs of the independent variables (SFM practices). Thus, the five independent variables of SFM were significantly correlated with one another. This revealed that there existed some multicollinearity among the SFM practices, which suggested that a company that is advanced in one SFM practice tends to be also advanced on other practices.

Table 4: Correlation Matrix of Independent and Dependent Variable Construct Factor Scores

	CM	RM	IM	ID	FD	OPP
CM	1					
RM	.166 ^a	1				
IM	.167 ^a	.145 ^a	1			
IVD	.220 ^a	.265 ^a	.234 ^a	1		
FD	.213 ^a	.198 ^a	.272 ^a	.305 ^a	1	

^a Correlation is significant at 0.01 level (2-tailed).

Having established the linearity among the independent variables (SFM practices), a multiple regression analysis was further carried out to investigate the impact of SFM practices on the operational performance of the SMEs as depicted in model 1 of this study. The analysis in Table 5 shows the multiple regression of the impact of SFM practices on operational performance of SMEs in Nigeria. The results revealed that each of the SFM practice was positively related to the operational performance of the SMEs. Also, financing decision ($\beta = 0.162$, $p < 0.01$) and receivables management ($\beta = 0.135$, $p < 0.05$) were found to be significant to the operational performance of the SMEs. This depicted that financing decisions had the greatest influence on the SMEs' operational performance and was closely followed by receivables management practice. The overall impact of SFM practices on the firms' operational performance was significant ($F = 6.979$, $p < 0.05$). In addition, the multiple coefficient of determination (R^2) revealed that SFM practices explained about 9.1% of variation in the SMEs' operational performance.

Table 5: Multiple Regression of Effect of SFM Practices on Operational Performance of SMEs

Analysis of Variance:					
Source	Sum of Squares	df	Mean Square	F	Sig.
Regression	44.347	5	8.869	6.979 ^a	.000
Residual	442.286	348	1.271		
Total	486.633	353			
Coefficients:					
Independ. Variable	Beta	t	Sig.	TOL.	VIF
CM	.076	1.388	.166	.913	1.096
RM	.135	2.499 ^b	.013	.903	1.107
IM	.045	.819	.413	.891	1.123
IVD	.044	.801	.424	.830	1.204
FD	.162	3.040 ^a	.003	.840	1.190
Correlational Statistics:					
Dependent variable	Multiple R	R ²	Adjusted R ²	S.E of Estimate	DW
OPP	.302	.091	.078	1.127	1.798

^{a, b} Significance at the 0.01 and 0.05 levels respectively.

The effect of multicollinearity needs to be taken into account for the process of model estimation and interpretation, because multicollinearity can have substantive effects on the estimation of the regression coefficients and their statistical significance tests (Hair et al., 2010). The effect of multicollinearity was assessed by conducting the tolerance (TOL.) and/or Variance Inflation Factor (VIF) of each independent variable. The analysis in Table 5 showed satisfactory values for TOL and VIF as each independent variable was greater than 0.10 for TOL and less than 10 for VIF. Furthermore, the value of the Durbin Watson (DW) was satisfactory (approximately 2.00), indicating no autocorrelation between the residuals from the regression. Therefore, the model 1 expressed fitness.

Strategic Financial Management and Financial Performance of SMEs: The analysis in Table 6 shows the multiple regression analysis of the impact of SFM practices on the financial performance of SMEs as depicted in model 2 of this study. The results revealed that, although each of the SFM practice was positively related to the financial performance of the SMEs, only cash management ($\beta = 0.151$, $p < 0.01$) was statistically significant to financial performance, suggesting that cash management had significant influence on SMEs' financial

performance. However, the overall impact of SFM practices on financial performance of the SMEs was also significant ($F = 3.836$, $p < 0.05$). Furthermore, the multiple coefficient of determination (R^2) revealed that SFM practices explained about 5.2% of variation in the financial performance of the SMEs.

The regression assumptions were also checked for autocorrelation and multicollinearity. The result of the Durbin Watson (DW) was satisfactory (approximately 2), indicating no autocorrelation between the residuals from the regression model. The multicollinearity of the variables in the model was verified by the TOL which showed satisfactory values (all greater than 0.10) and outcome of the VIF which was less than 10 for all variables. These showed the fitness of model 2 of the study.

Table 6: Multiple Regression of Effect of SFM Practices on Financial Performance of SMEs

Analysis of Variance:					
Source	Sum of Squares	df	Mean Square	F	Sig
Regression	24.957	5	4.991	3.836 ^a	.002
Residual	452.820	348	1.301		
Total	477.777	353			
Coefficients:					
Independ. Variable	Beta	t	Sig.	TOL.	VIF
CM	.151	2.737 ^b	.007	.913	1.096
RM	.098	1.784	.075	.903	1.107
IM	.054	.976	.330	.891	1.123
IVD	.011	.193	.847	.830	1.204
FD	.035	.656	.512	.840	1.190
Correlational Statistics:					
Dependent variable	Multiple R	R ²	Adjusted R ²	S.E of Estimate	DW
FNP	.229	.052	.039	1.141	1.695

^{a, b} Significance at the 0.01 and 0.05 levels respectively.

Discussion of Results: The results of this study showed that strategic financial management practices are highly correlated, so increasing the intensity of one may boost the intensity of others. Also, cash management, receivables management, inventory management, investment decision, and financing decision play significant roles in enhancing SMEs' operational performance in terms of productivity, liquidity, customer satisfaction, market share, efficient use of resources, and sustainable investment decision. Therefore, the hypothesis H₁ was rejected as strategic financial management practices had significant impact on the operational performance of SMEs in Nigeria.

The study further found that SFM practices such as cash management, receivables management, inventory management, investment decision, and financing decision had significant impact on the SMEs' financial performance in terms of profit margin, growth in profit, return on investment, return on asset, and growth in ROA. Therefore, the hypothesis H₂ was rejected as strategic financial management practices had significant impact on the financial performance of SMEs in Nigeria. The failure of the multiple coefficient of determination (R^2) to explain higher proportions of variance in SME performance (both operational and financial) may come from the variance in implementation effectiveness. Our study showed that the effectiveness of implementation of SFM practices among SMEs could only be described as fair.

5. Conclusion and Recommendations

The findings of this study established that SFM practices are moderately done among Nigerian SMEs. Nevertheless, these practices were found to have positive significant impact on both the operational performance as well as the financial performance of the SMEs. This study therefore recommended that the management of small and medium-scale enterprises in Nigeria should adhere strictly to SFM practices highlighted in this study as these will strengthen the long-term success of the business. Also, they should

increase the intensity of the application of SFM practices in their business endeavours. This will go a long way in making SMEs gain sustainable competitive advantage.

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Entrepreneurship & Economics

Analysis of Owner-Manager Perception of the Challenges of SMMEs in The Manufacturing Sector in South Africa

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Abstract: The purpose of this quantitative study is to provide an analysis of the owner-manager perception of the challenges of small, medium and micro enterprises in the South African manufacturing sector. This paper used a sample of 66 SMMEs which were selected purposefully from the Small Enterprise Development Agency's database. Elucidating the challenges faced by small, medium and micro enterprises, this research reveals from survey data and in-depth interviews analyses conducted; that the significant challenges faced by manufacturing SMMEs include maintaining global competitiveness, limited access to advanced technology and machinery and complying with the environmental sustainability and green economy agenda. In order to minimise the challenges faced by SMMEs in manufacturing and to address these challenges, this study recommends that government in collaboration with key role players in enterprise development, channel sufficient funding and research towards the development of customised enterprise development programmes for manufacturing SMMEs in a holistic and cross-cutting manner.

Key Words: *SMMEs, Challenges, Manufacturing Sector, Entrepreneurship*

1. Introduction

There is a growing recognition of the importance of manufacturing SMMEs towards economic development, growth and employment creation, particularly those in the manufacturing sector. SMMEs in the manufacturing industry is the most important creators of value-added employment in both the developed and developing economies (Duate, 2004), (NCR, 2011). Nonetheless, the manufacturing sector has continued to decline, both in contributing to growth and employment. Low labour costs, reliable electricity supply and government support, have in the past helped South Africa's manufacturing sector to succeed and all which are now gone (Williams, Cunningham, and De Beer, 2014). In order to unlock the growth, the potential of manufacturing SMMEs, it is imperative to understand the small manufacturer's perspective on their key challenges. Despite the role played by SMMEs in the growth of the economy, in South Africa over 70 per cent of new ventures fail. They fail due to the many challenges they face such limited access to networks, limited technical skills and insufficient funding (Chimucheka and Mandipaka, 2013:309).

The paper, therefore, attempts to provide an analysis of owner-managers perception on the difficulties of SMMEs in the manufacturing sector in South Africa. The paper is structured into six sections. The first section provides an introduction and background to the study to provide context. The second section deals with the nature of SMMEs in the manufacturing sector and overview of the importance of SMMEs in the South African economy. Section three focused on a detailed methodological approach to the study. The fourth section provides the analysis of the research findings regarding the challenges and; lastly, the paper offers conclusions and recommendations for the research findings.

2. Review of Literature

Definition of SMMEs: Globally there is no specific uniform definition of SMMEs in literature; that can be a reference from all countries, statistical agencies and researchers (Khan, 2014). SMMEs are defined differently in legislation across the world, according to the (OECD, 2017) this is because of the dimension of small and medium of a firm is relative to the size of the domestic economy. (Khan, 2014), (OECD, 2017). The inconsistent definition of SMMEs; poses challenges in researching SMMEs, for preparation of statistics, monitoring of the

sector over time and cross-country comparison studies and benchmarking against other economies (Berisha and Pula, 2015). In South Africa, the definition of SMMEs remains contested, with many organisations and agencies having their interpretation to serve their purpose or mandate. An International Labour Organization study in 1992 revealed that over 50 definitions in 75 countries with considerable ambiguity in the terminology used were identified Berisha and Pula (2015).

SMMEs are generally defined using different criteria, usually with reference either to the total number of employees, turnover or value of total assets which allows for variation according to industry sector (National Small Business Act, 1996). South Africa's National Small Business Act of 1996 formally defines a small business as "a separate and distinct business entity, including co-operative enterprises and nongovernmental organisations, managed by one owner or more which, including its branches or subsidiaries, if any, is predominantly carried on in any sector or sub-sector of the economy." (Soni, and Karodia, 2015:16). Microenterprises are those with fewer than five employees, 'small businesses have 6 to 20, small businesses have 21 to 50, and medium businesses have fewer than 200 employees. Not having a consistent and standard definition of SMMEs makes it challenging to identify SMMEs across sectors and poses a challenge for more effective SMME policy formulation and implementations of development programmes and provision of financial and technical assistance (National SME Council, 2005).

Overview of SMMEs in the Manufacturing Sector in South Africa: The role of SMMEs in the manufacturing sector on socio-economic development in the both the developed and developing countries is well acknowledged (Tambunan, 2013), (Siyabola, 2015). This sector is seen as a driving force in many countries as well as South Africa's social and economic development and has attracted increasing attention because of their labour-intensive capacity and potential to grow and stimulate economic growth (Voeten and Marais, 2016). According to Morgan (2017), SMMEs in the manufacturing sector are vital for economic growth and development. These enterprises are seen to be having the ability to help grow high wage jobs for the economy, especially for those workers who would have earned low or no wages. The manufacturing sector presents a locus for stimulating the growth of other sectors, such as services and achieving specific results, such as employment creation and economic empowerment. This sector contributed 15.2% to South Africa's GDP in 2013, making it the third-largest contributor to the nation's economy after finance, real estate and business services at 21.5% (Voeten and Marais, 2016). However, in the first quarter of 2018 South Africa's economy has recorded a disappointing decrease of 2.2%, even with the hopeful 3.1% growth in the fourth quarter of 2017.

The main sectors that contributed to this slowdown are the agriculture, mining and manufacturing. The manufacturing sector failed to make a positive contribution to economic growth, dropping by 6, 4% (Seda, 2018). Despite the contraction in the manufacturing sector; South Africa's economic growth is still rooted in manufacturing as a critical sector. The manufacturing sector provides the potential for stimulating the growth of other activities, such as services, and achieving specific outcomes, such as employment creation and economic empowerment particularly in the small business sector (Brand South Africa, 2014). Recent studies shows that a critical factor affecting the high failure rate of manufacturing SMEs can to some extent be ascribed to lack of financial support, lack of access to appropriate equipment and technology, limited innovation and product differentiation, insufficient opportunities for training staff, shortage of technical skills, difficulty in competing with large and reputable manufacturers, and competition from imports (Siyabola, 2015). Addressing the needs and requirements of small business manufacturers in this country is vital. These needs range from financial assistance, support to develop industry-specific skills and knowledge, assistance to comply with industry standards, regulations and accreditation requirements, training and technical skills development, support to access raw materials and support to strengthen supplier relationships with large enterprises (Seda, 2012).

SMMEs in the manufacturing industry is viewed as the most important creators of value-added employment in both the developed and developing economies. Several large companies growing the economy at present started as small businesses. Hence, it is critical for the government and its agencies to give more attention to the SMME sector and provide much-needed support for these enterprises to grow and graduate into large companies. Nonetheless, South Africa's manufacturing sector has experienced increasing pressure since 2008 during the global financial downturn. Recent trends, however, show that since the global economic crisis the

economic growth rates within the manufacturing sector and throughout the economy began to collapse. A period of recovery occurred between 2009/10; however, since 2010 average growth has tended to stagnate across the economy. In order to unlock the growth potential of manufacturing SMMEs, it is imperative to understand the small manufacturer's perspective on their needs and challenges.

The paper, therefore, attempts to provide an analysis of owner-managers perception on the difficulties of SMMEs in the manufacturing sector in South Africa. The paper is structured into six sections. The first section provides an introduction and background to the study to provide context. The second section deals with the nature of SMMEs in the manufacturing sector and overview of the importance of SMMEs in the South African economy. Section three focus on a detailed methodological approach to the study. The fourth section provides the analysis of the research findings regarding the needs and the challenges and; lastly the paper offers conclusions and recommendations to the research finding.

Overview and Importance of Manufacturing: The SA manufacturing sector experienced a severe contraction during the international financial crisis of 2008/9. (Seda, 2012). The manufacturing industry contracted with 10.4% in 2009, losing almost R31 billion in GDP contributions (measured in 2005 constant prices, or 3% and R10.3 billion at current prices). The sector has also lost more than 200 000 job opportunities during the crisis (including formally and informally opportunities). In the first quarter of 2017, the manufacturing sector contracted by 3, 7%. StatsSA (2017), Seda (2012). In the first quarter of 2018, South Africa's s economy disappointed everyone by contracting by 2.2%, even with the hopeful 3.1% growth in the fourth quarter of 2017. The main sectors that contributed to this slowdown are the agriculture, mining and manufacturing. The manufacturing sector failed to make a positive contribution to economic growth, falling by 6, 4%. Despite the contraction in the manufacturing industry; South Africa's economic growth is still rooted in manufacturing as a critical sector. The manufacturing sector provides the potential for stimulating the growth of other activities, such as services, and achieving specific outcomes, such as employment creation and economic empowerment (Brand South Africa, 2014).

Recent research shows that a critical factor affecting the high failure rate of manufacturing SMEs can to some extent be ascribed to lack of financial support. The manufacturing sector strong potential to grow the economy and create employment. Through the MSP review, Seda intends to find out how best to support manufacturing SMEs. Findings from the Global Entrepreneurship Monitor report of 2016/2017 revealing a decline in the Total Entrepreneurship- Activity (TEA) in South Africa from 9.2 in 2015 to 6.9 in 2016 (Herrington and Kew,2017). This study was prompted by these concerning findings, which necessitate a deeper understanding of the challenges faced by manufacturing SMMEs. This study recognises the critical role of SMMEs and the manufacturing sector to the growth of the South African economy. In order for manufacturing SMMEs to, and help address South Africa's key challenges of poverty, unemployment and poverty; it is essential to understand better the barriers inhibiting their continued growth.

3. Methodology

The purpose of this research is to analyse the owner-manager perspectives on what the critical challenges for manufacturing SMMEs are. The research method selected intends to gain an in-depth understanding of the owner-managers perspective of the significant challenges they are faced with; as well as collect accurate data for evidence-based enterprise development programmes in the future. To this end, both the quantitative and qualitative research methods were adopted for this research. The manufacturing SMME population used was from the Seda's client database. Purposive sampling was applied to a population of active Seda clients in the manufacturing sector from for the financial years 2016/17 and 2017/18 in Seda's Clients Relationship Management (CRM) database.

A semi-structured questionnaire, containing 15 questions was distributed electronically to SMME Seda clients in manufacturing; which included open-ended questions designed to assess the perceptions of business owners and managers on what their vital needs and challenges are. A total of 530 Seda clients were sent the survey was distributed by e-mail to a sample of 530 SMMEs. The survey was live online for 30 days with periodic reminder e-mails were sent every ten days. Parallel to the survey, a similar was administered through in-depth interviews with four manufacturing SMMEs that were readily accessible. 66 completed questionnaires were

received from the e-mail survey, yielding a 12.4% response rate. The in-depth interviews produced four responses, with a response rate of 4%. The result from the survey are presented in the following section along with a brief analysis.

4. Results and Discussion

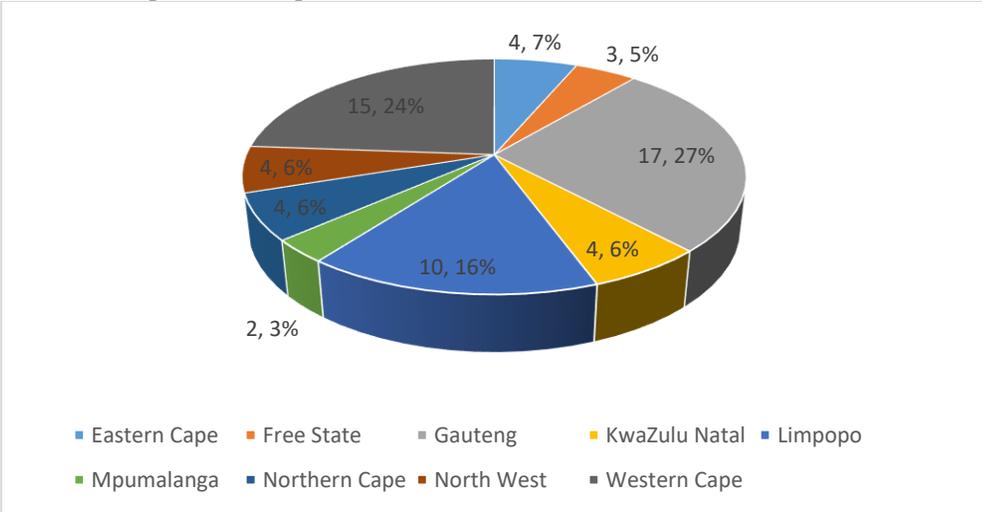
This section below explains the findings of the study

Research Design: The first step in attempting to understand and analyse the critical challenges of manufacturing SMMEs from the owner-managers perspective; is to find out their basic profile. Although they operate in the same manufacturing sector, there exists differences and factors that influence what challenges these SMMEs face. Factors such as the manufacturing activity/sub-sector they are involved in, the location of the SMME, the number of years in operation, the number of employees and the average annual turnover generated by the SMME (Vuren, and Grownwald, 2007 cited in Mapila, Chiliya, and Chiliya, 2014). Understanding the profile of the respondents puts the challenges into context, and these differentiating factors can serve as signals for policymakers and business development practitioners for the specific areas that require intervention and where to target the enterprise development support.

Age of Business: SMMEs face several challenges that negatively affect their growth and survival. Age of the business offers the entrepreneurs with more experience and provides more exposure to various obstacles that occur at different phases of the business cycle. It reflects experiences and affects its ability to grow and further penetrate the market. “Many SMMEs fail at the infancy stage, and some fail a few years after start-up. It is estimated that 50 percent of all start-ups fail in their first year, while 75 percent fail within the first three to five years” (Brijlal, Naicker, and Peters,2013:856). 61% of the respondents from the survey have only been in operation for 0-3 years; 25% have been in operation for 4-7 years, 9% in service for 8-15 years and 5% in service for 15 years or more. The national data from the third quarter of 2017 suggests that five years of operation is a crucial hurdle for SMMEs, if an SMME survives five years, chances are good it will continue to do so for the following 10 to 15 years (Seda, 2018:13). Respondents are microenterprises at a very critical development phase; it is at the start-up phase the enterprise support is most needed and most effective towards growth. Manufacturing SMMEs are essential regarding productivity considerations.

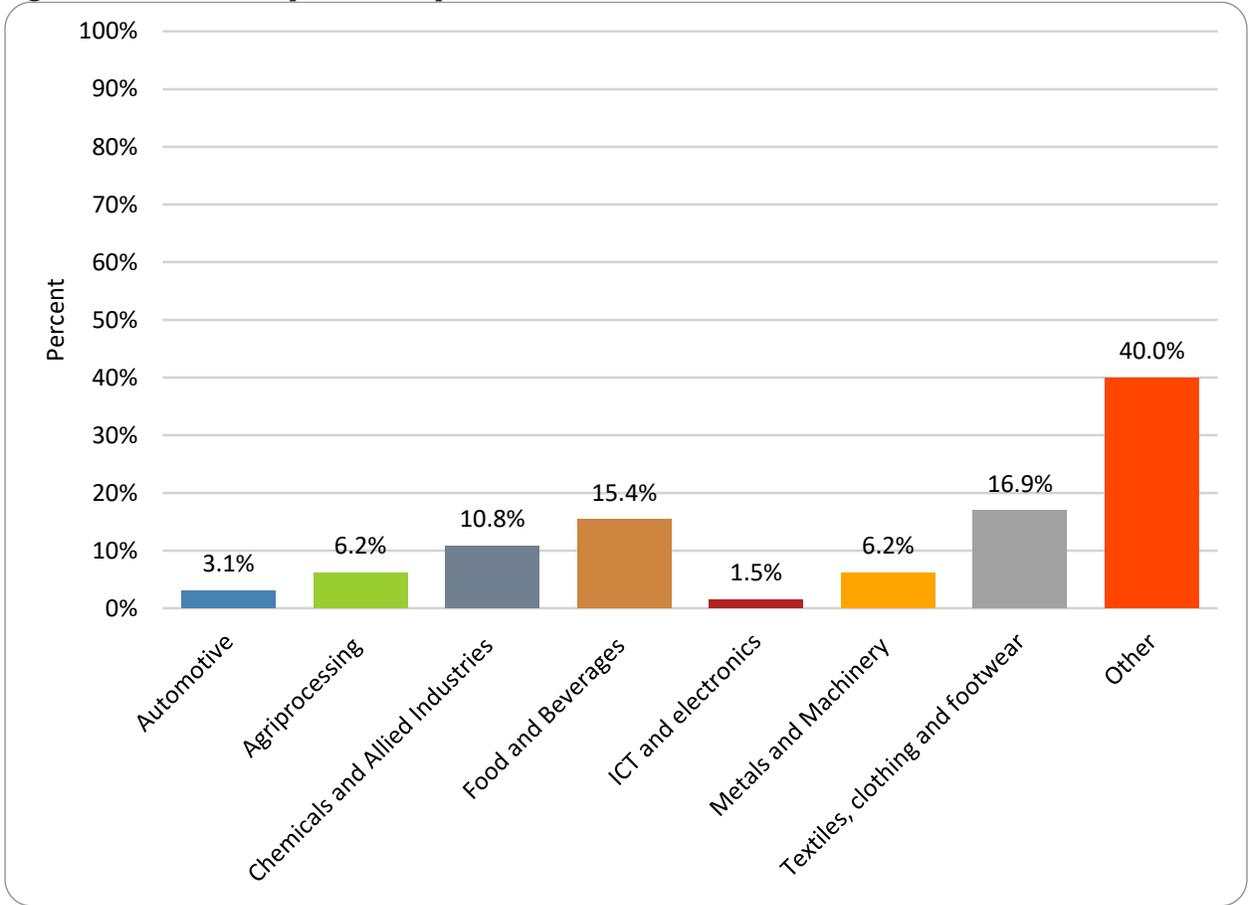
Provincial and Sectoral Spread of Respondents

Figure 1: The Provincial spread of respondents



Most of the respondents have businesses located at the economic hub on South Africa, Gauteng at 27%, closely followed by the coast in Western Cape at 24%.

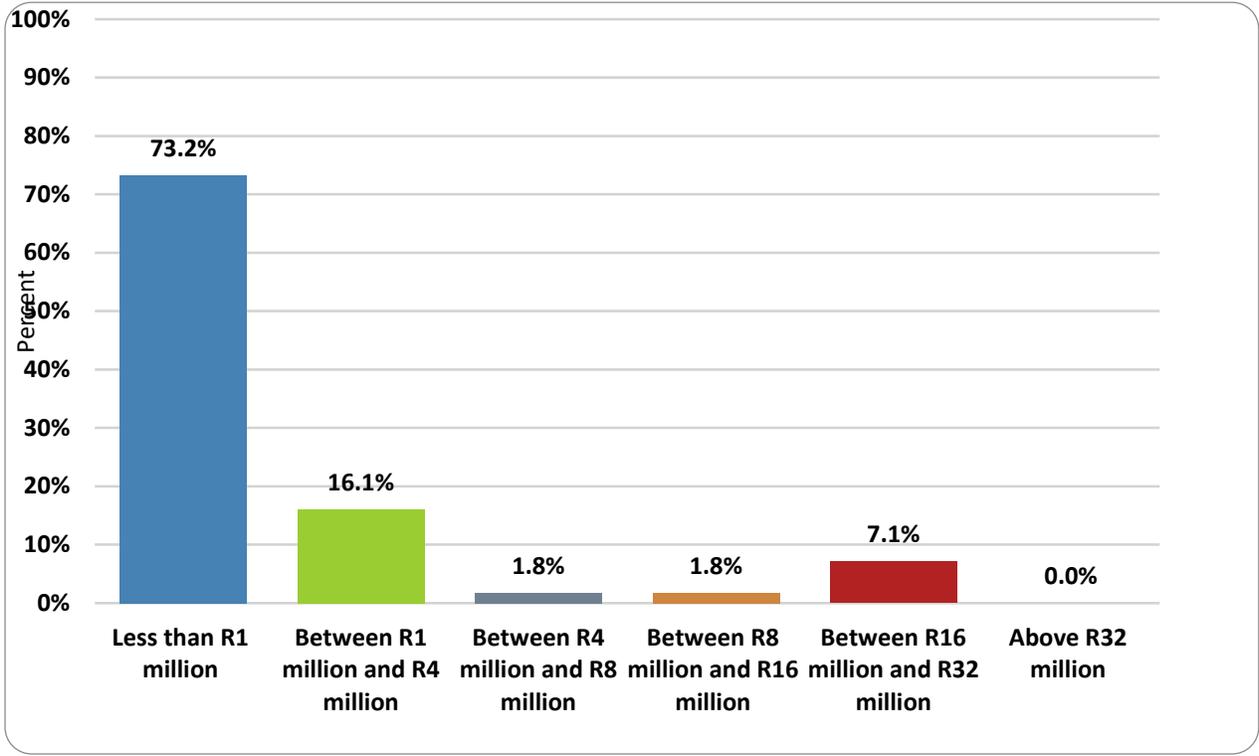
Figure 2: The Sectoral spread of respondents



The SMMEs are in the manufacturing involved in various aspects of the manufacturing sector are engaged in multiple activities such as textiles, clothing and footwear, metals and machinery, ICT and electronics, food and beverages, chemicals and allied industries, agro-processing and automotive among others. In cases where the response is other, the SMMEs were asked to specify what activities in manufacturing these are that they are involved. These range from manufacturing of furniture, toilet paper, tombstones, and construction. Through further discussions with the respondents, it became clear that the respondents participate in a variety of manufacturing activities from agro-processing, to textiles to furniture to leverage the various government or government agency incentives and support programmes available to them at the time.

Number of Employees and Average Annual Turnover

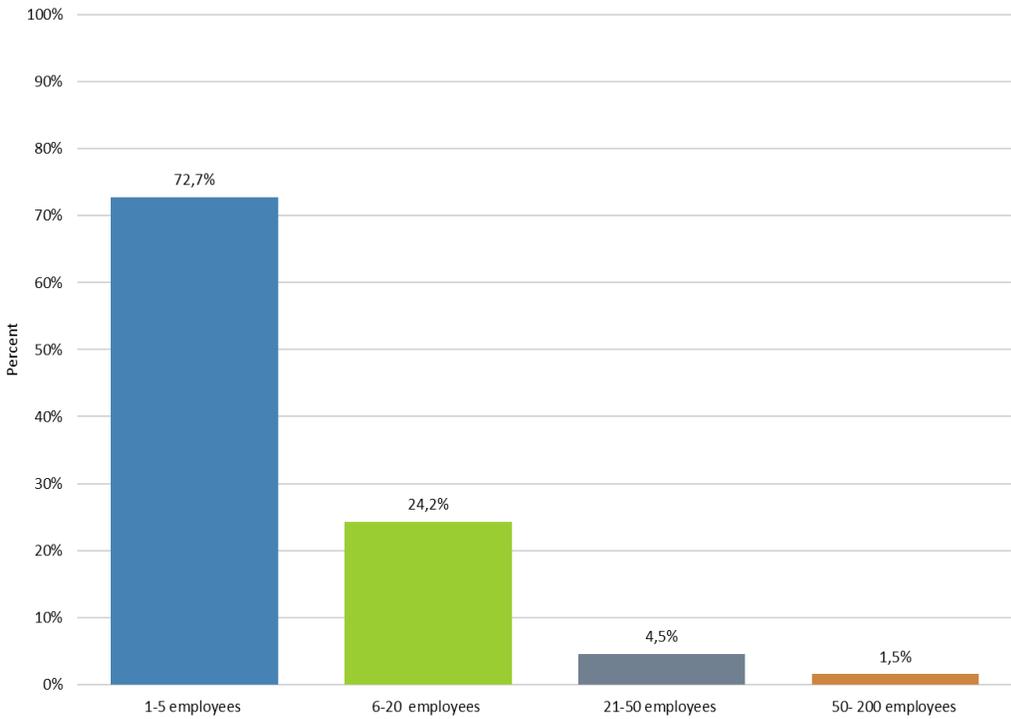
Figure 3: Average annual turnover



In the third quarter of 2017, the SMME sector employed nearly 9.1 million people in South Africa. Of these, only 2.25 million jobs were for the SMME owners themselves, while the balance of 6.9 million jobs (or 75%) were those of SMME employees. 63% of the SMME employment is in the formal sector (Seda, 2018). 72% of the survey respondents employ 1-5 employees, 24,2 % employ 5-20, 4,5% employ 21-50 and only 1,5% employ 50-200. Businesses in the informal sector are small, micro and survivalist in nature with very few employees and very low turnover. These SMMEs often benefit from low labour costs. The drawbacks, however, are that there is a high turnover rate for employees and it is difficult to get trained employees. Particularly for manufacturing SMMEs, the respondents invest time, energy and money in training employees to use a particular machine only to lose the employee and have to train a new one again (Smit and Watkins,2012). The SMMEs tend to be stagnant and not able to inject any invest towards growth.

Despite the low employment and the low turnover, the entrepreneur shared that they are hopeful about being able to graduate from micro to small, to medium and then large with adequate support addressing their key challenges. Several large companies growing the economy today started out as small businesses. SMMEs are the engine for economic growth and essential for efficient for a competitive and thriving economy. Despite their critical role in fighting poverty, statistics show that 80% of start-ups in South Africa fail within the first three years of start-ups (Mafoyane, 2015).

Figure 4: Number of employees

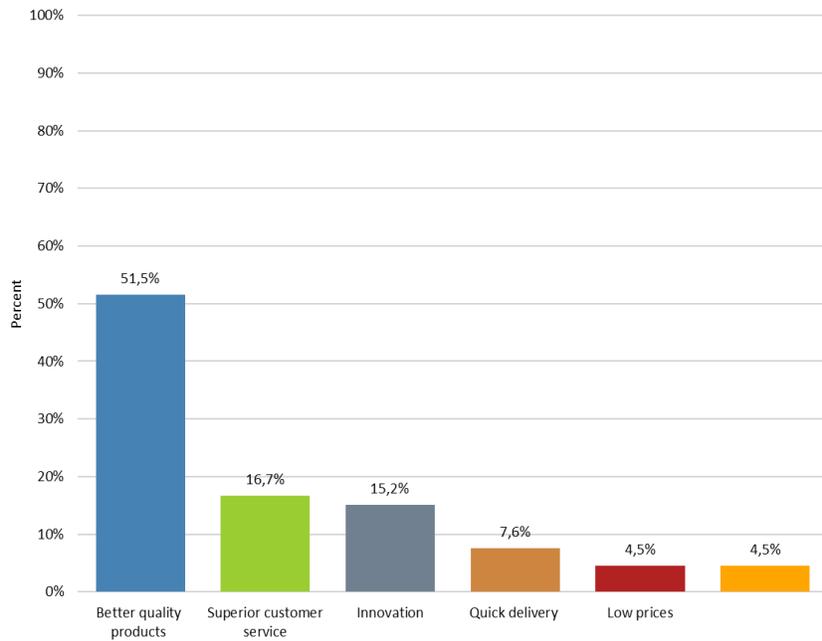


The average turnover is also largely less than 1 million, with over 77,3% of the respondents reporting less than a million and only 6,1% report an annual turnover of between 8 million and 16 million. In the third quarter of 2017, the SMME sector employed nearly 9.1 million people in South Africa. Of these, only 2.25 million jobs were for the SMME owners themselves, while the balance of 6.9 million jobs (or 75%) were those of SMME employees. 63% of the SMME employment is in the formal sector (Seda, 2018). 72% of the survey respondents employ 1-5 employees, 24,2 % employ 5-20, 4,5% employ 21-50 and only 1,5% employ 50-200.

Business Strategy: Identifying and developing a competitive advantage is a critical success factor for small and emerging businesses. In the case of SMMEs, most entrepreneurs neglect the development of a strategy this makes it difficult for them to penetrate the market successfully (Bressler, 2012). Resulting in low survival rates for SMMEs as they struggle at a crucial start-up phase to access the market and to compete with larger firms.

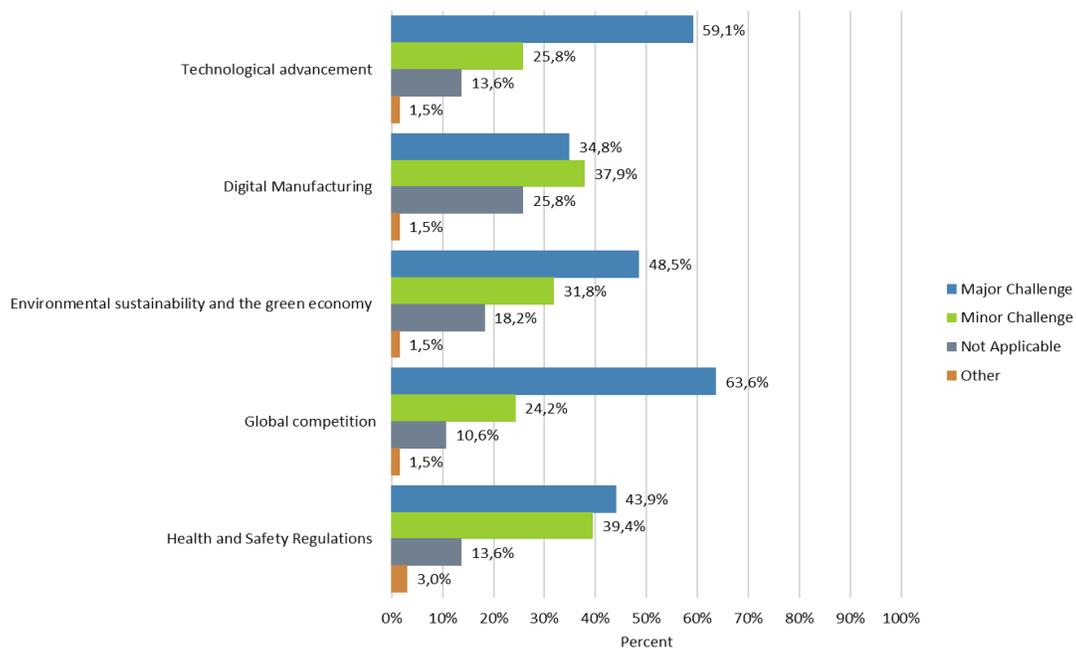
The ability to deliver products with higher quality than the competition is the most common strategy as shown in Figure 1 below at 51, 5% followed by superior customer service at 16, 7% and innovation at 15, 2 %. In the early 2000s an effective quality management system was a key differentiator for a company to be competitive; now they are merely a basic requirement. These systems have been globalised and commodified and are easily accessible and regarded as a basic requirement (Iowa State University, 2016). As a result, small manufacturers need to find new ways to create customer value in order to raise profits. Detailed discussions with manufacturing respondents during the interviews also reveal that the Quality Management Systems (QMS) require intensive financial investment and are difficult for the small manufacturers to access. SMMEs struggle to get financing and often try to obtain the funding from informal sources pushing them into debt and back into the uncertainty of the informal sector (Mutoko, and Kapunda, 2017).

Figure 5: The Business strategy of respondents



Key Challenges of Manufacturing SMMEs: A central aspect of the research was to get an intimate understanding from the perspective of the owner-manager regarding what the key challenges they face as manufacturing SMMEs. To this end, the in-depth interviews with entrepreneurs were very helpful. Post understanding what their business strategies are, the survey respondents, both in the discussions and survey respondents were asked what the key obstacles are towards the implementation of their business strategy are. Challenges faced by South Africa SMMEs persist despite receiving much attention from the government through policy and the establishment of support agencies (Chimucheka,2013).

Figure 6: Key challenges of respondents (Researcher's data, 2018)



Global Competition: 63,6% of our SMME respondents believe that the most troubling challenge they face is a global competition, unlike to Soni et al. (2015)'s findings on high competition and global integration which reveals that only 14.4% of the SMMEs saw increased competition and global integration as a minor challenge. However, this research further showed that the Ethekewini Municipality had been unofficially forced to cease the influx of cheaper imports in the region. SMMEs are essential for delivering more inclusive globalisation and growth. In many developing countries the SMMEs are facing challenges such as low growth, weak trade, low investments and rising inequality, which pull SMMEs further away from participating in the global markets (OECD, 2016a). Detailed discussions with the SMME owners/manager made it clear that the increased presence and integration of foreign entrepreneurs is a significant challenge.

The respondents expressed difficulty in competing with the several factories springing up in the outskirts of the cities as well as the cheaper Chinese imports. Since early 2001 when China returned to the World Trade Organization (WTO) the size and structure of South African manufacturing and its capacity to create jobs have weakened especially in the textiles, footwear and leather industries. According to South Africa, Labour Research Institute employment fell by 39 per cent between 2006 and 2010. The leading cause of these job losses has been the continued high levels of cheap imports, both legal and illegal (Moyo and Jose, 2015). Manufacturing SMMEs are aware of the global challenge, they, however, expect the government to do more to protect infant industries to boost growth and protect jobs. Hence the need to create conditions that enable the benefits of open markets and technological progress to be enhanced and shared more broadly across the economy and society (OECD, 2017).

Technological Advancement: The fourth industrial revolution is changing the manufacturing sector and distorting the lines between the physical, digital and biological spheres of global production systems. The business environment is the most dynamic in recent decades, failing to adapt technologically results in reduced competitiveness (WEF, 2017:6). Digital technologies enable SMEs to improve market intelligence. Policy-makers everywhere must keep track of the changes that come with the 4th industrial revolution to prepare the many sectors it will affect to maintain their competitiveness (World Economic Forum, 2017). The SMMEs in our survey are however lagging far behind in the digital transition. 59, 1% of them identified technological advancements as a significant challenge. They have old machinery it is old and outdated, while others rent it out at high costs. Soni et al., (2015) 's findings show that only 36% of the surveyed SMMEs use computers for their business activities. This finding is corroborated by results from Farsi and Taghi (2014) which revealed that technological advances posed a significant challenge to small business in Iran. Even with the progress regarding the affordability of broadband services, high prices remain a barrier to accessing telecommunications service and are often a key indicator of lack of competition in African markets (Storck, Calandro, and Gamage, 2013). Poor physical and ICT infrastructure prevents South African SMMEs from operating efficiently and accessing international markets at competitive costs. The government should invest more in broader access to ICT, and digital support undermines the ability of SMMEs to participate fully in global markets.

Environmental Sustainability and the Green Economy: A critical factor in manufacturing is the new environmental regulations and the green economy, 48, 5 % cited this as a significant challenge. Interview discussion revealed that a lot of the SMMEs are very lost and uncertain about the regulations in this area and only discover the laws after unknowingly having broken them. The environmentally friendly approach is prevailing across all sectors and becoming more entrenched in consumer culture. The collective environmental footprint of small businesses can in some cases be more significant than that of big companies. Thus, reducing the environmental impact of SMMEs by achieving and going beyond environmental compliance with existing rules and regulations in both manufacturing and services, is a crucial factor for success in the green transformation (OECD, 2017). The green transition also comes with business opportunities for SMMEs as essential suppliers of green goods and services; with the right skills and education. SMMEs are exceptionally well positioned to seize opportunities of greener supply chains in local cleantech markets, which may be unattractive or impenetrable for large global firms, including in emerging economies and low-income countries (IBRD, 2014). There is, however, a lot that needs to be done to enable SMMEs to take advantage of the opportunities that come with green entrepreneurship. SMMEs are often held back by lack of skills, funding and knowledge.

Discussion of Findings: Despite the ongoing interventions SMMEs in the manufacturing still face challenges that threaten their growth and survival; some of which have already been discussed in this paper, these challenges include access to markets, financial issues and competitiveness (Mutoko, 2014). The implications of this continued challenge are dire particularly for a developing country such as South Africa that is facing double digits' unemployment high levels of inequality. The benefits associated with a strong and growing manufacturing sector would assist in addressing these problems. The manufacturing sector is undergoing some of the most significant changes in years with high tech machinery and digitalised methods of production. High skills are required for this, and this is the best time to start understanding that the improvement of the sector cannot be a one-dimensional approach. The findings on what the key challenges are are reflective of the times; as well as the uniqueness of the manufacturing sector. Neigh begging for a sector-focused approach to responding to these effects. Hence the recommendations below.

5. Conclusion and Recommendations

This study aimed to provide an analysis of the owner-manager perception of challenges small, medium and micro enterprises (SMMEs) in the South African manufacturing sector. The research shared an extensive literature review highlighting the challenges faced by manufacturing SMMEs from the town manager's perspective. An in-depth analysis of the survey results was provided, and based on those findings the following recommendation is put forward towards addressing these challenges. There is much effort made by researchers, policy-makers, government agencies and the private sectors towards addressing each of the above challenges faced by the manufacturing industry. These efforts, however, are taking place in silos and often resulting in duplication. The situation is further compounded by the lack of a dominant industrial policy approach in South Africa. In order to curb some of the challenges highlighted in the findings as revealed by the study; government agencies in enterprise development should review their approach towards implementing enterprise development. This paper recommends addressing global competition by strengthening and focusing on the Africa domestic market. South Africa's position as a powerhouse in Africa can be exploited by having the manufacturing SMMEs building their strength through increased links with the Africa market and encourage diversification as well finding a niche at various stages of the value chain. A comprehensive industrial policy approach would be helpful.

SMMEs in manufacturing should be encouraged more and more to embrace technology not only in their factory floors but their communication, information and procurement to leverage on the benefits of the World Wide Web to access global markets. Government funding or subsidy regarding this will be necessary. The government should provide education and better awareness of the current regulation surrounding environmental sustainability and the green economy to SMMEs for them to be assured they are not contradicting these relations. A cross-cutting perspective is necessary for manufacturing SMMEs development and support. There are many drivers and disparities in firm performance; governments focus needs to be cross-cutting and inter-departmental to address all the challenges. Even with this approach government should still be able to prioritise certain sectors based on their growth potential as well as their potential to reduce unemployment and inequality.

The costs associated with acquiring technologically advanced equipment can be shared among various government enterprise development agencies. A coordinated administrative approach towards the support of manufacturing SMMEs would be ideal for such challenges. There is a consensus among policy-makers, researchers, practitioners and government that the growth of the manufacturing sectors is possible through growing SMMEs. The above-discussed challenges faced by the manufacturing sector, focus on the sector itself and not just SMMEs in general. As a result, the research uncovers more sector-specific challenges that need to be addressed for this sector to grow.

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The Socio-Economic Challenges Faced by Women Entrepreneurs in South African Townships

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Abstract: Women entrepreneurship in South Africa is characterised by high failure rate. Additionally, there is scarcity of studies on women entrepreneurship in South Africa townships. This quantitative study explores the gender specific socio-economic challenges faced by women as entrepreneurs. From a sample of n=52 women entrepreneurs operating at Mankweng and Seshego Township Business Centres, Limpopo Province, South Africa. A survey was conducted to establish the social and economic challenges faced by female entrepreneurs in establishing and operating their entrepreneurial ventures. Reliability was measured using Cronbach alpha. Data generated by the 5-point Likert scale survey questionnaire administered by the researcher was collated and analysed utilising SPSS version 24, with data presented primarily as frequencies, percentages, mean and standard deviation. Significantly, the study found that economic factors such as access to finance and lack of business experience and training are the main economic challenges faced by women entrepreneurs operating at Mankweng and Seshego Township Business Centres. Furthermore, lack of mentorship and advice was the main social challenge faced by women entrepreneurs. Overall, access to finance was identified by respondents as the key challenge to women entrepreneurs. This paper recommends that the local municipality which services the centres, consider offering seed funding to encourage and further develop female entrepreneurs in the community, and providing basic business training and mentorship to female business owners in the community.

Key words: *Women entrepreneurs, socio-economic challenges, townships, South Africa*

1. Introduction

Over the past ten years, there is a growing interest in assessing the challenges experienced by women entrepreneurs. The growth of women entrepreneurship in developing countries is debatable by academics (Vossenberg, 2013). Globally, the emergence of women as entrepreneurs may be described as one of the most significant socio-economic developments in the world at the moment (Sbp, 2013 & Vossenberg, 2013). Literature shows that at least 45% of all small enterprises in Africa are owned by women (Ali & Ali, 2013). Furthermore, women as entrepreneurs play a significant role in the South African economy and according to Akhlwaya and Havenga (2012), female entrepreneurs are critical to both income and employment generation in South Africa. Witbooi and Ukpere (2011) point out that black women represent the single largest group of self-employed people in South Africa, however, their significance to economic development and the South Africa economy is not reflected in current industrial development activities by the South Africa government. Akhlwaya and Havenga (2012) express a similar view and argue that female entrepreneurs in South Africa are on the fringe of South Africa's nationwide economy. Unfortunately, in the South Africa context, entrepreneurship by women is concentrated in less significant economic activities such as crafts, hawking, sewing, gardening, personal services and retail sector (Small Enterprise Development Agency, SEDA-2016; Department of Trade & Industry, DTI-2015; Akhlwaya & Havenga, 2012; Mandipaka, 2014).

While business may be considered to be a critical vector for poverty alleviation for African women, women all over the world struggle to enter the marketplace as entrepreneurs in Africa. This however, does not mitigate the fact that in the African context women are considered to be the backbone of most rural economies in developing countries, ensuring the socio-economic wellbeing of families (Singh, 2012). However, as the DTI (2015) concedes, there are insufficient studies conducted on female entrepreneurs in Africa, owing to lack of appropriate measurement instruments and the limited access researchers have to African female entrepreneurs. Witbooi and Ukpere (2011) determine that research on female entrepreneurship is imperative

in the South African context, while according to the Sbp (2013) as well as Brush and Welter (2009), much of the available data on women as entrepreneurs is based on studies conducted in developed countries. Additionally, Irene (2017) pointed out that the failure rate of female owned businesses in South Africa is high. The fact that there is paucity of studies on women entrepreneurs in South Africa especially in the townships and the failure rate of female owned businesses in South Africa is high necessitate this study. It is from this point of view that this paper is contextualised, particularly the challenges women face in the establishment and operation of entrepreneurial activities.

With these issues in mind, the aim of this study is to establish the socio-economic challenges faced by women entrepreneurs operating at Mankweng and Sesehego Township Business Centres, Limpopo province, South Africa. The objectives of the study are: first, to determine the economic challenges township-based female entrepreneurs encounter in their entrepreneurial activities. Second, to determine the social challenges township-based female entrepreneurs encounter in their entrepreneurial activities and third, to identify the key challenge township-based female entrepreneur's encounter in their entrepreneurial activities. To achieve these objectives, the following research questions are addressed: What are the economic challenges township-based female entrepreneurs encounter in their entrepreneurial activities? What are the social challenges township-based female entrepreneurs encounter in their entrepreneurial activities? Which challenge is considered to be the most significant to the entrepreneurial activities of female entrepreneurs operating at Mankweng and Sesehego Township Business Centres, Limpopo Province, South Africa? The next section provides a discussion on the review of literature related to the study.

2. Literature Review

Innovation Theory: This study is guided by innovation theory. Joseph Schumpeter an economist was the founder of innovation theory. Schumpeter pointed out that innovation can be viewed in stages namely invention, innovation, diffusion as well as imitation and reinforced that for a business to make profit it has to innovate (Śledzik, 2013). Joseph Schumpeter pointed out that entrepreneurship is expected to have a positive effect on economic growth (Acs, Estrin, Mickiewicz & Szerb, 2018). Knowledge intensive innovative entrepreneurs create, diffuse, utilise knowledge, bring together resources, ideas, new products, technologies and introduce change in the society (Malerba & McKelvey, 2018). Godin (2018) classified innovation into three, first, the input side, this is made up of research and development and entrepreneurs. Entrepreneurs are expected to act as an agent of change by carrying out research and developing new products for the business to be profitable and sustainable. Second, the output/outcome side consist of progress, development, growth and change.

Entrepreneurs are expected to grow and expand their businesses for example by increasing annual turnover, asset value and numbers of employees. Third, is technology which lies between the input and output side, technological innovation is important for entrepreneurs. Furthermore, Godin (2018) also pointed out that the key dimensions of innovations are novelty (something new: new ideas, things, behaviours and practices), the second dimension are the consequences (innovation is revolutionary, radical, violent and destructive). Aghion, Bergeaud, Lequien, Melitz (2018) found a positive impact of export shock on innovation in high productive firm and a negative impact of export shock on innovation in a low productive firm. Positive relationship exists between research and development expenditure and innovation of businesses (Voutsinas, Tsamadias, Carayannis & Staikouras, 2018). In addition, positive relationship exists between government support and innovation of businesses. Li, Xia and Zajac (2017) pointed out that the higher the level of government support the higher the innovation of the business. This theory is relevant for this study because the more the government support for female owned businesses, the more innovative the women owned businesses will be with their products and operations and the higher their profit and survival rate in the market place.

Entrepreneurship: Entrepreneurship refers to the creation of new businesses to exploit opportunities, albeit the perception of risk. It follows then that an entrepreneur may be described as an individual who creates a new business, takes risk to achieve set objectives with the purpose to make profit and achieve growth by identifying important market opportunities (Burdus, 2011). Additionally, entrepreneurship is characterised as a way of thinking and reasoning and ceasing opportunity by entrepreneurs to create goods and services for customers with the intension of making profit while bearing the inherent risk (Nieman & Nieuwenhuizen,

2009; Allen, 2012). Farlie and Fossen (2018) viewed entrepreneurship in two ways the opportunity entrepreneurship (pro-cyclical: these are individuals that are employed and receive salary before starting a business) and necessity entrepreneurship (counter-cyclical: these are individuals that are unemployed before starting a business). For the purpose of this study entrepreneurship will focus only on female owned businesses, which is women that create businesses based on opportunities and exploit those opportunities by satisfying customer to make profit.

Female entrepreneurs: Ukonu and Tafamel (2011) categorise female entrepreneurs into three namely; (1) Conventional Entrepreneurs – these are women entrepreneurs that are extremely dedicated to both business ideas and their orthodox gender role. (2) Innovative Entrepreneurs - these are women entrepreneurs that hold solid belief in business ideas but have fairly little affection to conservative gender roles and (3) Domestic Entrepreneurs – these are women entrepreneurs that plan their business life around their family situation and have a solid belief in the conservative gender role as well as little connection to business ideas.

From these categorisations it is evident that female entrepreneurs have critical socio-economic decisions to make when considering entrepreneurial activities, mainly the business versus family relationship. For the purpose of this study the female entrepreneurs are the owners of businesses with over 51% of female shareholding in the spaza shops, catering, hawking, tailoring and hairdressing. The next sub section discusses the challenges faced by women entrepreneurs.

Challenges faced by women entrepreneurs: Women in particular face significant challenges when establishing and operating entrepreneurial ventures. A review of the challenges faced by women entrepreneurs is highlighted below. Extant studies pointed out various challenges that affect women entrepreneurs. These challenges are faced in developed and developing countries. Some of the studies in developed countries found lack of education, age, low and poor control of income, lack of access to finance and poor technical skills as major challenges limiting women entrepreneurs (Dilibkumar, 2017; Bhuvaneswari, 2016; Malik & Jeyalakshmi, 2016).

Panda (2018) pointed out that the challenges faced by women entrepreneurs in developing countries are discrimination, work family conflict, lack of capital, lack of infrastructure, unstable business, economic and political environments, lack of training and education and personality differences. Similarly, a study conducted amongst Somali female entrepreneurs found that female entrepreneurs faced the following challenges; finance; violence against women; lack of sufficient knowledge and family related problems (Ali & Ali, 2013). Other constraints amongst Somali women identified by Afza, Hassan and Rashid (2010) included gender-based discrimination; lack of communal support; limited access to information; inadequate education and training and facilitation and access to resources. Based on a study on Zimbabwean female entrepreneurs by Mushanguri (2011), factors such as the lack of collateral is identified as a major challenge for female entrepreneurs, inhibiting women's access to enterprise finance. Similarly, in Kenya, a study by Mwobobia (2012) pointed out that the major challenge women entrepreneurs face is access to finance.

In addition, the study also found challenges such as discrimination, multiple duties, poor access to justice and lack of education among factors that affect women entrepreneurs in Kenya. A recent study in Kenya by Kyalo and Kiganane (2018) found that demographic factor such as education and number of social networks as well as social network composition of role model influence women entrepreneurs in starting a business. In Nigeria, access to finance, family commitments, problem of gaining acceptance and access to networks were the major constraints that hinder the growth of female entrepreneurs (Mordi, Simpson, Singh & Okafor, 2010). A recent study by Adom, Asare-Yeboah, Quaye, Ampomah (2018) using a qualitative approach with a sample of 25 women entrepreneurs interviewed in Ghana found that work-family life affects the business performance and growth of female entrepreneurs in Ghana.

Bimha, Dlamini, Ndwandwe, Sridhar, Mhlanga, Nkambule and Sbisi (2018) using a quantitative approach found that cultural factors, funding and lack of information are the major challenges that hinder women entrepreneurs in Swaziland. In South Africa, Akhalwaya and Havenga, (2012) as well as Ukonu and Tafamel (2011) pointed out that access to capital, labour issues, inadequate education and training, as well as discrimination are factors that affect the establishment and expansion of South Africa women's entrepreneurial

activities. Similarly, lack of finance, access to market, work life balance, family support, training and education as well as gender are important factors limiting women entrepreneurs in South Africa (Mboweni, 2015; Chinomona & Muzariri, 2015). For the purpose of this study, Wube's (2010) broad categorisation of the factors affecting entrepreneurship are adopted for data generation purposes; a) Social Factors – lack of social acceptability; lack of family support; female prejudice and lack of mentorship and advice and b) Economic Factors – access to capital, access to loans, lack of business experience and training, access to market, access to production/storage space and access to adequate infrastructure. The next sub section explains the methodology adopted for this study.

3. Methodology

This study utilised a quantitative approach. This quantitative approach to research was suitable for the study as this allowed the researcher to adequately address the research questions at a reduced cost (time and money). The quantitative approach also generated objective data which could be used to determine the socio-economic challenges faced by female entrepreneurs amongst the target population and numerically (frequency) establish the key challenges faced by the sample population of the study. The study was conducted at Mankweng and Seshego Township Business Centres, these are two small business centres located in the townships of Limpopo province, South Africa. Criterion sampling was utilised to establish the final sample frame for the study, where only female entrepreneurs could participate in the study. As a result, all women operating within the Mankweng and Seshego Township Business Centres were sampled, resulting in a population of n=52 for the study.

The survey method was adopted for the study, with a closed question questionnaire as the data generation instrument. Primarily, a 5-point Likert scale was utilised to record responses with responses ranging from Strongly Agree (SA) to Strongly Disagree (SD) in the categories identified as Economic and Social Factors. Reliability was measured using Cronbach alpha. The Cronbach alpha for the social factors and economic factors are both above 0.7, this shows the scales are reliable. Responses were then collated and analysed utilising Statistical package for Social Sciences (SPSS) version 24. Data were presented utilising descriptive statistics (frequency, percentages, mean and standard deviation).

4. Results and Discussion

The following results are based on the data generated from the sample of n=52 surveyed female entrepreneurs operating at Mankweng and Seshego Township Centres.

Table 1: Demographic Profile

	Frequency	Percentages (%)
Age		
<20 years	2	3.85
21-25 years	6	11.54
26-30 years	8	15.38
31-35 years	8	15.38
36-40 years	16	30.77
>40 years	12	23.08
Total	52	100.00
Type of Business		
Spaza	12	23.08
Catering	24	46.15
Hawking	8	15.38
Tailoring	2	3.85
Hairdressing	6	11.54
Total	52	100.00

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Years in Operation		
<1 Year	18	34.62
2 -3 Years	26	50.00
4 - 5 Years	6	11.54
>5 Years	2	3.85
Total	52	100

Table 1 summarises the demographic profile of women entrepreneurs in Mankweng and Seshego Township Centres. The majority of respondents (30.77%) were women aged between 36-40 years of age while the minority were women less than 20 years (3.85%). Most of the surveyed women operated a catering business (46.15%), while 23.08% operated a spaza (retail) shop. 15.38%, 11.54% and 3.85% of women at the centre operated hawking, hair dressing and tailoring businesses respectively. With regards to years in business, most businesses (50%) had been in operation for 2-3 years at the time of the survey, while 34.62% had been operating for less than a year, 11.54% for 4-5 years and 3.85% for more than 5 years.

Table 2: The Descriptive Statistics of Social Challenges

Social factors	Mean	Standard deviation
Lack of social acceptability and female prejudice	2.45	1.05
Lack of family support	2.05	1.00
Limited contacts	2.00	1.01
Lack of mentorship & advice	3.85	1.02
Scale mean	3.01	
Cronbach Alpha	0.85	

Table 2 shows the result of the descriptive statistics of the social challenges facing women entrepreneurs. The most important social challenge facing women entrepreneurs is lack of mentorship and advice with a mean of 3.85. This shows that women entrepreneurs usually struggle to get a leader to guide them and provide good advice about running a business and making strategic decisions. In addition, the lack of mentorship and advice for women entrepreneurs implies that the women entrepreneurs will not benefit from the mentor with regard to the following: knowledge sharing, experience, expertise and skills, networking, a good role model, constructive criticism, encouragement and opportunity for personal growth and development. The other factors such as lack of social acceptability and female prejudice that is concerned with the problem of gaining acceptance such as discrimination, rejection, violence against women, patriarchy and exclusion of women entrepreneurs from business opportunities recorded a mean of 2.45.

Although this factor affects the business operations of women entrepreneurs but it is not an important social factor because it is below the scale mean of 3.01. Similarly, the lack of family support for women entrepreneurs in terms of moral and financial support from immediate and extended families such as husband, children, siblings, parents and relatives affects the business operations of women entrepreneurs however it is not an important social factor as it recorded a mean of 2.05 which is below the scale mean of 3.01. Furthermore, limited contacts that is concerned with the personal and business networks affect the business operations of women entrepreneurs but is not an important social factor because it recorded a mean of 2.00 which is below the scale mean of 3.01.

The result of the standard deviation depicts that all the four social factors: lack of social acceptability and female prejudice, lack of family support, limited contacts, lack of mentorship and advice with standard deviations above 1.00 indicate that they all have a significant variation in the opinions of the respondents. This result is consistent with Wube (2010), Hassan and Rachid (2010), Kyalo and Kiganane (2018), Panda (2018), Adom et.al. (2018) and Bimha (2018) that found social factors such as lack of mentorship and advice, lack of social acceptability and female prejudice, lack of family support and limited contacts as variables affecting women entrepreneurs' operations.

Table 3: The Descriptive Statistics of Economic Challenges

Economic factors	Mean	Standard deviation
Access to Finance	4.89	1.01
Lack of business experience & training	4.40	1.02
Access to the market	2.46	1.00
Access to production/storage space	2.49	0.95
Access to adequate infrastructure	2.48	1.03
Scale mean	3.40	
Cronbach Alpha	0.88	

Table 3 depicts the result of the descriptive statistics of the economic challenges faced by women entrepreneurs. The most important economic factor faced by women entrepreneurs is access to finance with a mean of 4.89. This shows that women entrepreneurs find it difficult to obtain access to finance from financial institutions. This can be attributed to lack of knowledge and awareness of the women entrepreneurs about the offerings of development financial institutions. Another issue that could have contributed to access to finance include the challenge of women entrepreneurs not qualifying for credit from commercial financial banks because of lack of collateral. In addition, one more obstacle with regard to access to finance is that women entrepreneurs do not know how to get adequate information about the various financial support offered by government. This is buttressed by the point that women entrepreneurs in South Africa townships do not have sufficient information about the funding grant for small businesses by the Department of Trade and Industry, Department of Small Business and Development, National Empowerment Fund, National Youth Development Agency, Industrial Development Agency and Small Enterprise Finance Agency.

Without access to finance and financial support it will be difficult for the businesses of women entrepreneurs to start, grow and survive. The next important economic factor is lack of business experience and training that recorded a mean of 4.40. This result shows that female entrepreneurs do not have the required education and technical skills to be able to navigate their business operations. Skills such as general business management skills, human relations skills, marketing skills, administrative skills and financial management skills are vital for the successful running of a business. The other factors such as access to production or storage space (2.49), access to adequate infrastructure (2.48) and access to market (2.46) are not major economic factors because they are all below the scale mean of 4.40. The result of the standard deviation depicts that access to finance, lack of business experience and training, access to market and access to adequate infrastructure with standard deviations above 1.00 indicate that they all have a significant variation in the opinions of the respondents apart from access to production or storage with a standard deviation of 0.95. This result is consistent with Wube (2010), Ukou and Tafame (2011), Mushanguri (2011), Mwobobia (2012), Aslam, Latif and Mahummad (2013), Chinomona and Muzariri (2015) and Mboweni (2015) that found lack of finance and business experience training as major factors that affect women entrepreneurs.

5. Conclusion and Recommendations

This study is guided by the following objectives: first, to determine the economic challenges township-based female entrepreneurs encounter in their entrepreneurial activities. Second, to determine the social challenges township-based female entrepreneurs encounter in their entrepreneurial activities and third, to identify the key challenge township-based female entrepreneur's encounter in their entrepreneurial activities. With these objectives in mind and based on the findings of the survey this paper concludes that economic factors such as access to finance and lack of business experience and training are the main economic challenges faced by women entrepreneurs operating at Mankweng and Seshego Township Centres. While, the lack of mentorship and advice was the main social challenge faced by the women entrepreneurs in the two townships. Importantly this paper may conclude that amongst the surveyed entrepreneurs, the top 3 challenges for the female entrepreneurs surveyed were lack of access to finance, lack of business experience and training and lack of mentorship and advice.

Based on these findings this paper recommends the following:

- The local municipality as part of local economic development may need to offer seed funding to female entrepreneurs operating within their municipality to encourage more women to start businesses and expand their existing operations. In addition, the turnaround time between loan application, approval, and disbursement should be shortened to a maximum of 30 days to increase access to finance by women entrepreneurs in townships.
- Local political and business leaders must as a priority consider initiating business training and mentorship programs particularly aimed at female entrepreneurs seeking to establish of grow businesses. Furthermore, Higher Education Institutions should provide training that cater for the unique needs and realities of township women entrepreneurs.
- Mentors preferably female mentors should be provided by the local municipalities to female entrepreneurs. This will allow the mentors to guide and provide useful advice to female entrepreneurs whenever they are experiencing problems with running a business. The mentors will be able to provide knowledge, experience, expertise and skills, networking, constructive criticism, encouragement and opportunity for personal growth and development of women entrepreneurs.

Further research is also recommended involving formal women entrepreneurs from other business centres and shopping malls to further explore gender-specific challenges faced by women as entrepreneurs in the Mankweng and Seshego townships. This will contribute to the growing body of knowledge in the field of entrepreneurship, and previously disadvantaged community- related research in South Africa.

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Conceptualizing Financial Literacy and Its Economic Importance Towards Personal Savings Knowledge among South Africans

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Abstract: The emergence of credit economy in South Africa, gave birth to an environment where most households spend a great percentage of their earnings and even beyond on immediate satisfactory goods and services. As such, debts are being created over a continuous period of time, given room to little or no savings. It was ascertained from previous literature that most South Africans have several bank accounts, credit cards, debit cards and the like of it, which makes it difficult to understand their financial position most times. Accordingly, financial literacy has been identified among other variables as a determinant of household savings behaviour through financial knowledge acquisition. Although, the findings from the literature provides that, financial literacy variables have not been conceptualized to improve personal savings knowledge. As such, this study employed a literature-based analysis by evaluating the concept of financial literacy and personal savings knowledge. Accordingly, the evaluation of these concepts (financial literacy and savings knowledge) was used to build a conceptual framework of financial literacy towards improved personal savings knowledge. Thus, this study has succeeded to conceptualize financial literacy as a mechanism that will improve personal savings knowledge in order to enhance their savings behaviour. Hence, the conceptual framework will assist policy makers in their savings campaign programmes by delivering the right knowledge required by individual to improve in their savings behavior.

Key words: *Financial Literacy, Personal Savings Knowledge, Personal Savings Behaviour*

1. Introduction

The recent competition and sophisticated market situation caused by the global economic reform has raised serious concern among different stake holders and academia around the world on how consumers ought to be acquainted with the new developments and save to salvage their future financial well-being (Refera et al., 2016, Lusardi & Mitchell, 2014). Accordingly, there is evidence of a fast growing economic trend among most developing countries, known as emerging market; these are countries which social and business activities complements the process of rapid growth and industrialization. Thus, the advent of this rapid evolution on emerging market brought into existence some sophisticated economic system, such as credit economy (the economic system that allows individuals to increase consumption on credit basis) which has informed a consumption driving economy like the situation in South Africa (SASI, 2015, 2010, Prinsloo, 2000). However, households are left to make individual choices regarding their financial well-being.

Accordingly, it is important to ascertain how equipped South Africans are with regards to financial knowledge, to make informed financial decisions by controlling immediate consumption and save for the future. Indeed, it is noteworthy that individual financial choices regarding savings today determines their future financial well-being and also their contribution to save at present ultimately reflects positively in the national gross domestic product (GDP). As such, there are still no empirical study that can link these facts together, reconcile the existing contradictions and provide a communication bridge between financial literacy and personal savings knowledge among South Africans. Hence, it is endeavoured to demonstrate that this study will identify and reveal the positive association between financial literacy and personal savings knowledge that will help in integrating and reconcile the most uncertainty surrounding the continuous decrease in saving rate of South African households.

Research Motivation: The issue of being broke by most working-class South Africans days after pay day has become a subject that needs critical study to ascertain its actual causes. Indeed, different academic works has identified a continuous decrease rate of savings among South Africa household given room for future imbalance in individual financial wellbeing (Mahlo, 2011). Secondly, South African economy has been classified by most researchers as a consumption economy, were most households spend a great percentage of their earnings on immediate consumption goods. Thirdly, the adoption of credit economy in South Africa (which gives individuals access to spend beyond their credit status on goods and services) has also contributed greatly to the current situation in South Africa were individual save less and live more on debt.

Hence, it is on this note, that the motivation of this study was engineered to identify and reveal the positive correlation between financial literacy variables and personal savings knowledge of South Africans. This will address the cloud surrounding the low savings rate and identify what actually is required (knowledge) to boost South African household savings behaviour as indicated by previous scholars. In essence, it is ascertained from the previous literatures that there is a positive correlation between financial literacy and savings knowledge which boost individual savings rate in turn contribute greatly to economic growth (Lusardi & Mitchell, 2014, Beckmann, 2013).

Background: There are numerous variations across individuals in terms of what determines their rate of savings, both with those that earns similar amount of disposable incomes. It was identified from previous studies that these variations cannot easily be evaluated by “chance” events or by asset allocation choices (Bernheim et al., 2000, Venti & Wise, 2000). Indeed, the knowledge of savings among individuals is believed to be the cure determines of these variations in individual saving rate (Lusardi & Mitchell, 2014). As such, the fundamental question; as what area of financial literacy is needed by an individual to strengthen their saving habit emanated.

Although, there are other determinants of individual saving behaviour such as income, demographic variables, government policies to mention but few (Mahlo, 2011), but this study focuses on identifying financial literacy variables and ascertain their level of association with personal savings knowledge which on the other hands informs individual savings rate. It is obvious that for an individual to save, he or she must have been equipped by different variables that inform savings (Refera et al., 2016). As such, financial literacy has been identified as a core determinant of individual savings behaviour among other factors (Lusardi & Mitchell, 2014, Van Rooij et al., 2012). In view of this, it is noteworthy that for stakeholders to attain to the issue of low saving rate in South Africa, a research has to be done to align financial literacy variables with personal savings knowledge as to complement other determinants of savings rate. Thus, Refera et al. (2016) identified the potentials of financial literacy as;

“Not just convenience, but an essential survival tool because of the fact that lack of financial knowledge leads to poor financial choice and decisions, which could result in undesired financial and economic consequences to individual, financial system and entire economy”.

As a result of recent developments in the global economy, most South Africans are caught up in the web of spending their income on consumption rather than saving (Darley, 2011). This is contrary to the aged established conventional microeconomic approach to saving and consumption decisions as propounded by Friedman (1957) and Modigliani and Brumberg (1954) which established that any rational individual will consume less than his income in times of high earnings and save to support consumption when income falls. The concept of financial literacy education enhances individual awareness, knowledge, skills, attitudes and behaviour that are required to make sound financial decisions to achieve personal financial wellbeing (Atkinson & Messy, 2012). The absence of right financial knowledge among individuals often leads them into spending income on less priority items that will not necessarily benefit their families (Lusardi & Mitchell, 2014) and this causes their living expenses to exceed their income thereby leading to more debt for the household (Refera et al., 2016, Symanowitz, 2006). Such atmosphere of debt does not give room for savings.

Households are solely responsible for their own financial security after retirement. However, the extent to which they are prepared to make an informed saving decisions and plan for retirement strongly depend on their level of their financial literacy (Lusardi, 2008). Thus, there are increased necessities of financial

knowledge for individuals to make use of different facilities such as machine for payments, manage risk, credit, loan, save and invest for old age (Demirguc-Kunt & Klapper, 2013). Indeed, financial literacy education has raised an increased concern at the national level to increase awareness to equipped consumers with the right knowledge to suit the complexity of the recent emerging market (Struwig & Plaatjes, 2013). Jonubi and Abad (2013) emphasised the need for the government to promote financial literacy education among households by implementing various campaign programmes of financial education, this will further enhance the individual awareness to save. A global financial literacy rating shows that South Africa scored 42% on par with a number of developed countries and higher than many contemporary developing nations (Klapper et.al, 2015). A representation of financial literacy level among the major emerging economy is shown in table 1 below.

Table 1: Financial Literacy of Major Emerging Economies (Adapted from Klapper et al., 2015)

Major Emerging Economies	Rate of Financial Literacy
Brazil	35
China	28
India	24
Russian Republic	38
South Africa	42

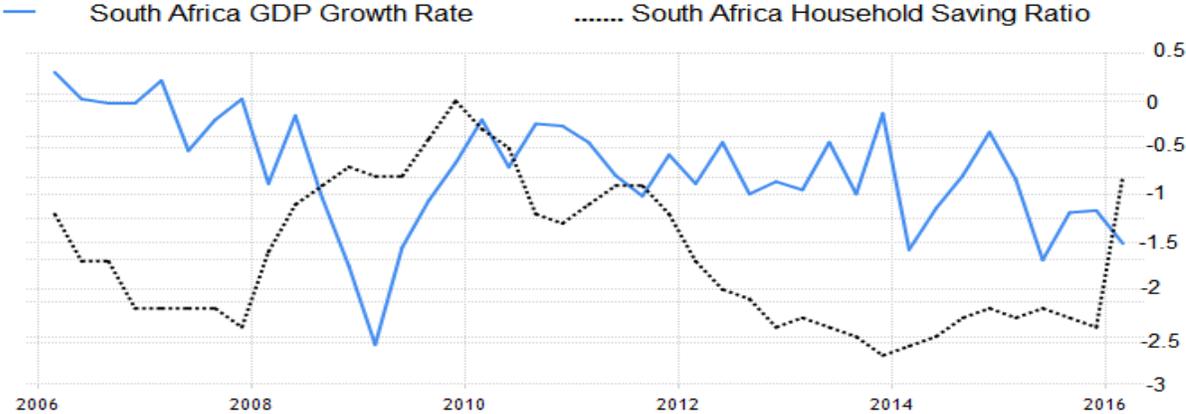
Table 1 afore, shows the survey of the rate of general financial literacy among the major emerging markets. Adults in South Africa who participated in the survey showed a grasp of financial literacy compared to other countries of emerging market. However, this fact has not reflected in South African household savings culture as supported by previous literatures. It is evident that there still exists a gap in the marriage between financial literacy and savings behavior of South African households (Symanowitz, 2006). According to Lusardi (2008) and Mandell and Klein (2007) it was evident that an individual who acquires the personal financial management course in high school have the attitude to save more than those who did not. An increase in household savings which is informed by proper financial management has been ascertained as a great contributor to economic growth and development (Amusa & Busani, 2013). Thus, for some years now, South African households' savings rate has faced a continuous decline (SASI, 2015, Mahlo, 2011), making the South African government and non-governmental organisations to continually embark on campaigns on the obligation for all South Africans to save (Cronjé & Roux, 2010). A decrease in savings rate implies an increasing dependency on foreign capital inflows (Aron & Meullbauer, 2000). However, in comparison with most of the BRICS peer countries in the world, South Africa ranks very low in gross savings rate (World Bank, 2015). A simple illustration of South Africa savings rate compared to some selected countries in the world is represented in the table 2 below.

Table 2: Gross Savings of some selected BRICS peer countries to South Africa a % of Gross Domestic Product (Adapted from Data.worldbank.org/indicator)

Countries/dates	1998	2000	2002	2004	2006	2008	2010	2012	2014	2016
Australia	22	21	22	22	22	22	23	25	24	22
Botswana	42	39	34	34	44	35	35	34	48	44
Brazil	12	13	15	18	17	17	19	17	16	14
China	40	36	40	46	50	52	51	50	49	46
India	23	25	26	33	35	34	34	32	31	31
Russian	17	36	29	31	31	32	27	28	23	26
South Africa	16	16	17	16	16	17	18	15	15	17

Table 2 afore, gives evidence on the growth rate of South African gross savings compared to some countries in the world, indicating a crawling pace in the savings culture of South Africans. Theoretically, the higher the savings rate the higher the economic growth (Odhiambo, 2009), this implies that countries with higher savings rates tend to have higher growth rates as well (Prinsloo, 2000). However, looking on financial literacy and economic growth of 50 richest and 50 poorest countries in the world, proxied by gross domestic product (GDP) per capital, financial literacy tends to be higher in countries with high GDP rate (Klapper et al., 2015). It is evident that there is a positive relationship between financial literacy, increase savings rate and economic growth, as such, lack of financial literacy results to low saving behaviour (Jappelli & Padula, 2013, Lusardi, 2008), this in return causes a decreasing level of national economic growth (Bonham & Wiemer, 2012). The growth of individual investment which is a result from savings in every country, reflect an increase in the country's GDP Thus, household savings drives the growth of investment in the long run (Amusa, 2014, Sithebe, 2014). A great challenge exists in the South African situation, where domestic saving ratio is on a continuous decrease trend for some years now, causing a corresponding decrease in the GDP in the same period. A great demonstration of the relationship between GDP growth and South African household savings ratio is represented in figure 1 below.

Figure 1: South African GDP Growth Rate and Household Saving Ratio



(Tradingeconomics.com/statistics of South Africa, 2016)

Figure 1 afore, provides the relationship between South Africa GDP growth rate and household saving ratio between the periods of 2006-2016. The trend shows that both the saving ratio and GDP has been in the negative territory for a continuous period, this have generated a negative implication on the national economic growth and development. However, Prinsloo (2000) emphasis on how to attained an improved rate of economic productivity and growth, by indicating that aggregate saving rate have to increase up to 20 percent and above of GDP to stabilized a sustainable growth rate in real incomes from productivity more than 3 percent per year.

Indeed, South African Saving Institute (SASI) believe that if individual invest savings productively, it will improve job creation and that the future prosperity of South Africa depends on individual contribution towards investment. Every production industry, factories or structural project needs an amount of capital to convert it from an idea into reality. The more household save, the greater amount of investment capital for production. Thus, more investment capital informs a potential economic growth as well as creating jobs (SASI, 2015). Thus, it is evident that the correlation between financial literacy and personal savings knowledge do not only benefit the individual savers but also favours the economic growth of a nation.

Research Objectives: The objective of this study is divided into three main points:

- To review related literatures and determine the key financial literacy variables that enhance personal savings knowledge.
- To conceptualize financial literacy as they relate to personal savings knowledge.

- To make recommendation based on the conceptualized framework to households and policy makers on how financial literacy can be used to improve personal savings knowledge.

Problem Statement: A number of studies including among others Refera et al. (2016); Klapper et.al. (2015); Lusardi and Mitchell (2014); Jonubi and Abad (2013); Struwig and Plaatjes (2013); Atkinson and Messy (2012); Van Rooij et al. (2012); Lusardi (2008), have identified financial literacy as a crucial factor that enhances individual savings behaviour through education. Although, most of these studies focused more on the importance of financial literacy to individual savings behaviour, with no consideration on identifying and aligning the financial literacy variables that actually enhance personal savings knowledge that will in return enhance personal savings behaviour especially in South Africa. Hence, it was ascertained that financial literacy variables have not been conceptualized as it provides individual with required savings knowledge especially in South Africa. Therefore, a study is required to be carried out in this context to identify and align the necessary financial literacy variables that enhance the personal savings behaviour of South Africans.

2. Literature Review

This part of the study will evaluate previous study and information within the ambit of financial literacy as it relates to improved personal savings knowledge. Thus, the review will provide clarifications and direction which the researcher plans to focus on. In essence, the focus of this part of the study will be on the definition and the concept of financial literacy as well as the concept of personal savings knowledge.

Financial Literacy: This part of the study will deal with identifying the proper meaning of financial literacy and also the dimension of its concepts. Identifying the appropriate meaning of financial literacy will assist in the process of conceptualizing the important concepts of what financial literacy is all about (Van Nieuwenhuyzen, 2009). Although, there have been challenges in the debate of a suitable definition of financial literacy (Fernandes et al., 2014; Remund, 2010). Hence, table 3 presents the summary of financial literacy definition by different scholars.

Table 3: Authors and Conceptual Definition of Financial Literacy (Adapted from Wingfield, 2016; Hung et al., 2009)

Authors	Conceptual Definition
Hilgert et al., (2003)	Understanding the knowledge of finance.
FINRA (2003, p.2)	“Understanding investment market principles, instruments, organizations and regulations”.
Moore (2003, p. 29)	“Individuals are considered financially literate if they are competent and can demonstrate they have used knowledge they have learned. Financial literacy cannot be measured directly so proxies must be used. Literacy is obtained through practical experience and active integration of knowledge. As people become more literate they become increasingly more financially sophisticated and it is conjectured that this may also mean that an individual may be more competent”.
National Council on Economic Education (NCEE) (2005)	“Familiarity with basic economic principles, knowledge about the U.S. economy, and understanding of some key economic terms”.
Mandell (2007, p. 163-164)	“The ability to evaluate the new and complex financial instruments and make informed judgments in both choices of instruments and extent of use that would be in their own best long-run interests”.
Lusardi and Mitchell (2007, p. 36)	[Familiarity] with “the most basic economic concepts needed to make sensible saving and investment decisions”.

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Lusardi and Tufano (2008, p. 1)	Focus on debt literacy, a component of financial literacy, defining it as “the ability to make simple decisions regarding debt contracts, in particular how one applies basic knowledge about interest compounding, measured in the context of everyday financial choices”.
ANZ Bank (2008, p. 1), drawn from Schagen (2007)	“The ability to make informed judgements and to take effective decisions regarding the use and management of money”.
Lusardi (2008a, 2008b, p. 2)	“Knowledge of basic financial concepts, such as the working of interest compounding, the difference between nominal and real values, and the basics of risk diversification”.
Huston (2010, p.306)	“Measuring how well an individual can understand and use personal finance related information”
Buckland (2010, p. 4)	“...having the appropriate knowledge, skills and attitude about daily and longer-term finances to maintain or promote one’s financial wellbeing”
Remund (2010, p.279)	“...conceptual meaning of financial literacy deals with five different categories namely; (a) knowledge and understanding of financial concepts; (b) ability to communicate about financial concepts; (c) ability to managing personal finances; (d) skill in making informed financial decisions and (e) confidence in planning effectively for future financial well-being”
Fornero and Monticone (2011, p. 3)	“...the level of their financial knowledge, their ability to deal with financial decisions...”
Atkinson and Messy (2011, p.4), (2012, p. 14)	“financial literacy is a combination of awareness, knowledge, skill, attitude and behaviour necessary to make sound financial decisions and ultimately achieve individual financial wellbeing”
Fernandes et al. (2014, p. 83)	“...the understanding of core concepts of personal finance with regards to borrowing/debt and saving/investments that leads to appropriate financial decision-making”.

The presentation in table 3 revealed that the meaning of financial literacy includes everyone with respect to the value of knowledge. Nonetheless, there is still debate on a suitable definition of financial literacy (Wingfield, 2016, Van Nieuwenhuyzen, 2009). It is important to note that the definitions of financial literacy implies a continuous process in knowledge, meaning that financial literacy is not a one-off activity to achieve the expected output (Van Nieuwenhuyzen, 2009). Perhaps, having understood the meaning of financial literacy, the effort of OECD’s initiatives on providing financial education is to improve individual financial literacy which ultimately enhances household savings knowledge (Lusardi & Mitchell, 2014).

Concepts of Financial Literacy: The summary as presented in table 2.1 reveals the contributions of different scholars in defining financial literacy. As stated in the financial literacy definition, the concept brings together knowledge, understanding, skills and competence, and the ability to manage financial choices and planning for the future financial responsibilities. As such, OECD, (2013) gave a definition that properly covers these ideas, as it involves the “awareness, knowledge, skill, attitude, and behaviour needed to take inform financial decisions and the ability to achieve individual financial well-being”. Thus, table 4 provides a proper illustration of the concepts and dimensions of financial literacy.

Table 4: Dimensions of Financial Literacy and its Concepts (Adapted from Potrich et al., 2015)

Authors	Dimensions	Financial Literacy Concepts
Criddle (2006)	Effective choice	The choice of numerous alternatives for establishing financial goals.
Hung et al. (2009)	Financial knowledge and skills	The ability to use acquired knowledge and skills to have better financial management.
Robb and Sharpe (2009)	Financial knowledge	The most specific human capital that is measured by financial literacy issues.
Huston (2010)	Knowledge of finance and its application	Financial knowledge and the application of that knowledge, with self-confidence in making financial decisions.
Norvilitis and MacLean (2010)	Knowledge, behavior and attitude	It deals more than the primary idea of financial education, which focus on the relationship between financial knowledge on behavior and attitudes.
Remund (2010)	Financial decisions	Making informed financial decisions.
Atkinson and Messy (2012); OECD (2013)	Financial knowledge, behavior, and attitude	Financial literacy is embodied into three dimensions: financial knowledge, financial behavior, and financial attitude.
Robb et al. (2012)	Understanding and decision-making	The ability to understand financial information and make effective decisions, by using this information.
Lusardi and Mitchell (2014)	Financial knowledge	Ascertained through a set of questions that measure primary financial concepts, such as capitalization of interest, inflation, and risk diversification.

The reason for identifying the concepts of financial literacy as inter useable for financial knowledge or financial education by several authors emanates through their construct of measurement (Potrich et al., 2015). Although, financial knowledge as mostly used in place of financial literacy it involves the ability of consumer to understand financial products and concepts thereby given them the ability to identify risks and opportunities in finance, make sound choices as well as identify where to go for assistance on issues of financial, and to decide on the actions to improve their financial well-being (Roberts et al., 2012, Xu, L. & Zia, 2012). It is an antecedent to various healthy financial behaviours; perhaps one of the major findings from previous literature is that financial literacy is a cognitive factor, in the sense that it enhances individual financial preparedness for savings against retirement (Fernandes et al., 2014)

Personal Savings Knowledge: Savings knowledge is the economic awareness of an individual to reserve a portion of their disposable income as savings, other than spending it on immediate consumption (Atandi et al., 2017). Indeed, a share of disposable income not spent on immediate consumption of goods but invested directly on capital equipment or purchase of securities is regarded as savings. According to Lusardi and Mitchell (2014) savings knowledge is economical essential for individual to identify the necessity of saving a proportion of their income. The elements of savings knowledge, involves the philosophical ideas of savings that is necessary to equip every individual on savings capability (Precious & Asrat, 2014).

Thus, English oxford living dictionaries define savings philosophy as an individual behavioural guiding principle towards savings attitude. Since philosophy about savings deals with individual attitude in different ways, it is important to properly examine the motive behind this attitude that varies from one individual to another. On economic terms, variation in savings behaviour across persons are in relationship with differences in preferences (Cronqvist & Siegel, 2013). Examining the impact of saving motives on saving decisions has created difficult challenges to applied researchers in recent years (Mastrogiacomo & Alessie, 2014). Hence, the elements of savings knowledge are detailed below.

Household Savings Philosophy: There are variations in behavioural guiding principle (philosophy) of savings among individuals with regards to wealth accumulation at retirement age and those with relatively similar lifetime incomes (Lusardi et al., 2017). Accordingly, this behavioural phenomenon's raised a fundamental question; as what make a person a "spender" while the other person with very similar income and other socio-economic features saves larger part of his or her earnings (Cronqvist & Siegel, 2013).

For a proper understanding of household savings philosophy, individual attitude and behavioural approach towards savings need to be reviewed. Accordingly, to examine the saving behaviour of an individual, it therefore, it is important to put into consideration attributes of each saving goal and the factors affecting human needs on the likelihood of saving (Alkhiary, 2015, Lee & Hanna, 2015). Savings goals are those variables or purposes that lead households to save and can be attained by ascertaining the most important reason to save. Thus, household goals such as basic needs, emergency, safety, retirement, security, love, family, esteem, luxuries and self-actualization are attributes that informs household savings behaviour (Cho, 2009, Lee & Hanna, 2015). Thus it was revealed that most South Africans do not use formal savings mechanisms, instead, they save money informally, such as saving money at home, in a wallet, in a stokvel or giving money to a family member to save (Precious & Asrat, 2014, Roberts et al., 2012).

Savings Motives: Saving is important in today's society, and it improves both the life of an individual saver and for the country for sustainable economic growth and development (Fredrik, 2013). What actually motivate an individual to spend less of their immediate income and save for the future has to deal with philosophy and principles of life. Thus, one should not consider savings motive in place of determinant of savings, the review of saving literature, established that there is a positive correlation between saving motives and actual saving behaviour (Fredrik, 2013). Accordingly, Kasilingam and Jayabal (2011) argued that the saving behaviour of an individual is informed by both their ability to save and their willingness to save. Their ability to save is determined by their knowledge, income and expenditures, while their willingness to save is the saving motives of the individual. It is identified that the level of motives has an effect on the size of saving. Thus, the clarification of the saving motive of an individual will enhance the understanding of how individual are saving and for what purpose (Fredrik, 2013).

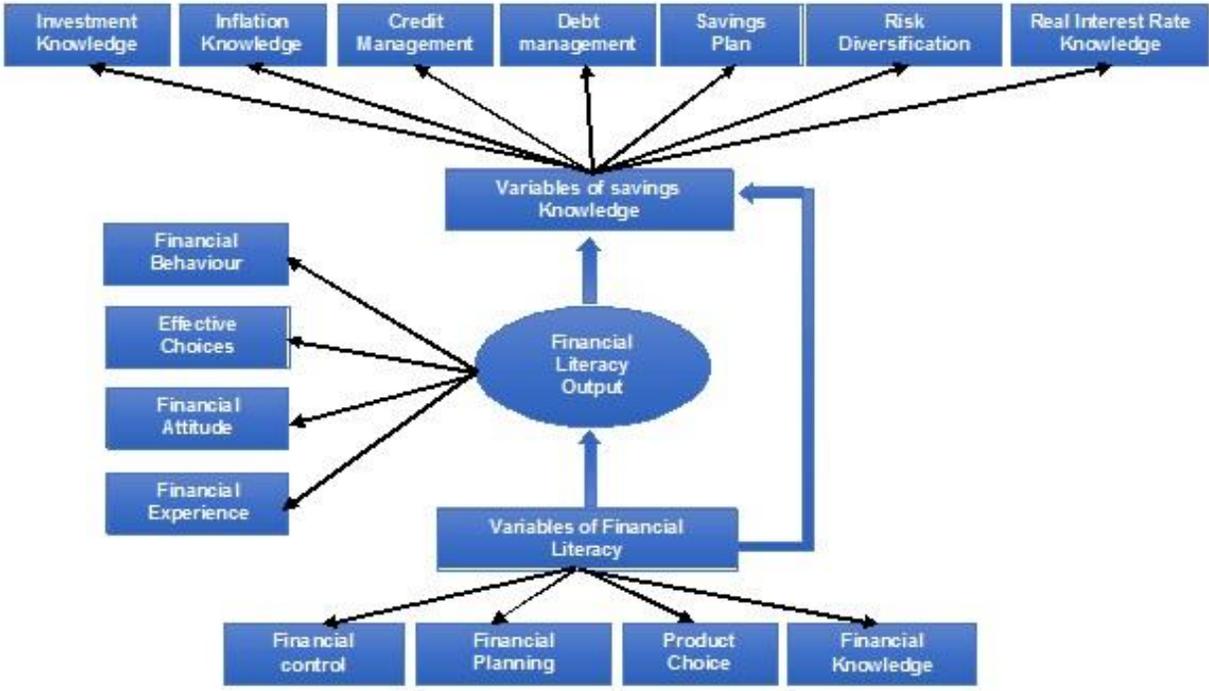
Researchers have grouped saving motives into different names and categories. But for the benefit of this study, Mahlo (2011) gave a comprehensive summary on the motives of household saving. Firstly, Permanent Income Hypothesis (PIH) suggest a motive where individual save to build up reserve against uncertainty such a decline in future income. Secondly, the life-cycle motive where individual saves to balance future income and expenditures. Thirdly, intertemporal substitute suggests a saving motive that informs enjoyment of wealth appreciation and interest rate. Furthermore, more saving motives were identified such as improvement motives (where individual save in order to enjoy a gradual increase in future needs); Enterprise motive (where individual save in order to carry out transactions, speculative or business projects) and finally, individuals save to create future fortune (bequeath motive) for generation to come, in desire to add to the estate of their beloved.

Environmental Inter-play on Household Savings Decision: Choices of savings decisions are sometime been affected by environmental characters that surrounds our domain. Issues such war, economic shutdown, political issues and environmental disasters greatly contribute to individual attitude and motives towards savings. The reality of getting old is inevitable and planning for retirement is crucial if an individual attitude to enjoy the later years without continuing to work (Lusardi & Mitchell, 2007). So, it is necessary for one to make saving a priority by adding an amount from each pay into the private savings account plus the amount employers contractually transfer into employee retirement account. Thus, financial security is not a function of what you make or earn, but from how much money you save (Symanowitz, 2006).

Conceptualizing Financial Literacy and Personal Savings Knowledge: The focus of this section is to develop a conceptual framework of financial literacy towards improve personal savings knowledge. In essence, a conceptual framework as detailed by Ravitch and Riggan, (2012) is an analytical tool with different variations and contexts which is used to make conceptual distinctions and organize ideas. Thus, it is the idea of the researcher that the framework will serve as a guide for both individual and policy makers towards understanding the mechanism through which the financial literacy knowledge can enhance personal savings behaviour. As such, this part of the study provides a knowledge based relationship between financial literacy

and personal savings. However, the conceptual framework of financial and savings literacy provides a knowledge based relationship between financial literacy and savings literacy variables. Although, understanding the nature of household savings in formulating policies to promote savings and investment has been a critical engagement to policy makers. Given the differences in economic advancement and industrialized country like South Africa. Indeed, individuals needs proper financial knowledge to make inform savings decision (Lusardi & Mitchell, 2014). Thus figure 2 conceptualized financial literacy as a mechanism that will enhance personal savings knowledge.

Figure 2: Conceptual Framework of Financial Literacy towards Improved Personal Savings Knowledge



In consistence with the argument that supports the positive impact of financial literacy on personal savings behaviour, figure 2 demonstrate the theoretical analysis on how the knowledge of financial literacy can improve personal savings decision. However, the framework is divided into three sections as evaluated below.

3. Variables of Financial Literacy

In accordance with the definition of financial literacy, which deals with the ability to read, analyse, manage and communicate about personal financial terms and concept that affect material well-being; it is noteworthy to evaluate the core financial literacy variables that enhances individual savings knowledge (Lusardi & Mitchell, 2014). Such variables which include the ability to manage financial choices, discuss money and financial issues with confidence, plan for the future and respond actively to life events that affect every day financial and savings decisions (Ohio’s learning standard 2016). Financial control involves the behavioural capability of a household, which is needed to manage and track household expenses, it includes but not limited to household financial budget, self-discipline and control towards monitoring household expenses (Lusardi et al., 2017). However, it is important for every individual to have basic money management skills like living within a budget and handling credit and debt, this will in return balance off their future financial well-being (Agarwal et al., 2015). The structure of the survey carried out by Human Science Research Council (HSRC), on the level of individual financial control underpins variables such as; household strategic planning, household budgeting and accountability (Roberts et al., 2012:104).

In other word, financial planning as emphasised by Anderson et al. (2017) and Roberts et al. (2012:104) informs setting up financial goals and working hard to achieve them, having the right knowledge of the need to provide for the future, preferring saving over spending, making provision for savings and emergency funds in place. However, financial product choice as a variable of financial literacy, involves the knowledge and broad awareness to select different kind of financial products like banking credit, loan, savings, investment, and insurance products (Chu et al., 2017). Finally, financial knowledge and understanding involves the ability of individuals to understand financial concepts (Lusardi & Mitchell, 2014). It implies that financially literate individuals will be able to allocate their time, money, labour and knowledge resources effectively (Shuttleworth, 2011). As such, sound familiarity of financial concepts is informed by the level of financial knowledge and understanding of basic financial terms and concept such as real interest, compound interest, effects of inflation and risk diversification (Klapper et al., 2012).

Nevertheless, it was revealed that financial literate investors, holds more stock, anticipate earnings and portfolio volatility and could choose between high and lesser risk portfolio (Curran & Velic, 2017). Hence, financial literacy is understood to improve the set of financial knowledge, skills, and behaviours among individuals. This includes the ability to deal with everyday financial matters and make the right choices for one's own needs (Lusardi & Mitchell, 2005).

Variables of Savings Knowledge: Personal savings includes what an individual have as a leftover when consumption is subtracted from personal disposable income over a period of time (Keynes, 1936). There has been growing interest among scholars and practitioners alike to diligently find solutions to the seemingly inevitable low personal savings rate that have cause great impact on both the life of the saver and the economy at large. In light of the above developments, many countries are now more than ever, realising the enormous impact of low savings burden, such as, low economic growth and continuous dependence on foreign loans. However, for those individuals that are financially prudent, the amount of money left over after personal consumption have been attended to can be positive. As such, personal financial prudence is greatly informed by financial knowledge which provides the required experience, attitude and behaviour towards setting aside a portion of ones income for future financial well-being (Rootman & Antoni, 2015).

From literature review, some variables of savings knowledge such as investment knowledge, knowledge of inflation, credit and debt management knowledge, savings planning, knowledge of real interest rate and risk diversification was identified. Accordingly, the conceptualizing of financial literacy towards savings knowledge provides the educational background that improves the savings knowledge of individuals. According to (Refera et al, 2016), financial literacy does not only provide households with the required knowledge towards financial concepts, but also enhances their ability to act on that knowledge. Furthermore, personal financial decision is a duty of every individual. As such, making a responsible decisions related to goals for lifestyle and financial want, enhances financial success and security (Agarwal et al., 2015). Individuals should be accountable for managing money in order to satisfy their current economic choices and save for the future. Hence, financial planning is a critical component for financial success. It is wisely said that when you fail to plan, you plan to fail.

Financial Literacy Output: The definition of financial literacy that was given by previous scholars are driven by the concepts of financial knowledge, financial attitude and financial behavior (Atkinson & Messy, 2012). However, some authors measured it through other aspects, such as financial behavior, financial attitude, and financial experiences, among others. As such, the output of financial literacy has been identified as a great antecedent towards personal savings knowledge (Potrich et al., 2015). Indeed, the concept of financial literacy output was addressed by OECD (2005) and Lusardi and Mitchell (2007) as the process by which individuals improve their understanding of financial products and concepts, through information, instruction, skill development and confidence to become more aware of financial risks and opportunities to make sound financial and savings decisions. Accordingly, it will make them to know where to go for help, and to take other effective actions to improve their financial well-being.

4. Recommendations and Contribution of the Study

The campaign of financial literacy among individuals is essential as financial literacy has become a survival tool for individuals to balance their future financial well-being (Hung et al., 2009). Accordingly, financial literacy improves one's attitude towards saving, budgeting and planning for future financial balance (Perry & Morris, 2005). As such, this study has succeeded in conceptualizing financial literacy as an educational background that informs a productive savings knowledge. In other words, the conceptual framework will serve as a mechanism to improve individual savings knowledge which will in return enhance their savings behaviour and improve individual attitude towards cultivating a savings and investment culture. Thus, this study recommends the financial literacy conceptual framework to;

- SASI to build their programmes and initiatives towards improving household savings behaviour
- Individuals to get proper understanding of financial concepts and
- Private organizations for campaign towards knowledge and understanding of financial terms.

The findings of literature review provide an acceptable definition of financial literacy as well as identified the positive correlation between financial literacy and savings knowledge. As such, variables of financial literacy were ascertained and was used in building the conceptual framework of financial literacy towards improved personal savings knowledge. Hence, the conceptual framework is recommended to individual, government and policy makers as a mechanism to improve both personal financial literacy and savings knowledge. In conclusion, this study will add to previous body of knowledge on how to improve household savings behaviour by adhering to the financial literacy conceptual framework that produced in this study.

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Investigating knowledge gained and workplace implementation of work-integrated learning in the graduate's workplace

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Abstract: Interest in work-integrated learning is growing in the higher education agenda and is widely considered significant in getting graduates ready for the working environment. This study investigated whether graduates gained knowledge from work-integrated learning projects and whether this knowledge was implemented in the workplace. The graduates' experience and understanding of work-integrated learning was also analysed. This research paper used ten questionnaires with open ended questions and a qualitative approach. The opinions of working graduates were utilised in the deductive content analysis. The results indicate that the graduates have gained knowledge and are able to implement their learning successfully – gained from their work-integrated learning project in their relevant disciplines – in the workplace. Managers should consider hiring graduates who had work-integrated learning as part of their curriculum. These students are employable, function effectively in the workplace, and are able to experience and understand their working environment better. This paper mainly contributes on a theoretical level by adding to the literature on a graduate's learning and workplace implantation of such knowledge gained from work-integrated learning. Empirically, it provides evidence that work-integrated learning projects improve graduates' implementation of learning as well as their understanding, thus increasing business confidence levels.

Keywords: *Work-integrated learning (WIL); knowledge gained; WIL implementation; cone of learning; deductive content analysis.*

1. Introduction

Work-integrated learning (WIL) is generally considered to equip new graduates with the required employability skills to function successfully in the work environment. Work experience in the chosen subject discipline whilst still studying is a great way to impart knowledge that students can implement in the workplace after graduation. Undergraduate degrees are no longer considered by industry to be a sufficient requirement for entry into the workforce, unless some form of work experience is part of the curriculum (Jackson 2017). Jackson et al. (2017:36) believe that the main purpose of WIL is to develop a coherent approach to building workforce capabilities, skills and individual prospects. WIL is recognised as a valuable tool for developing graduates' knowledge and skills, ensuring they are suitably prepared to perform successfully in the workplace. This learning enables students to gain insight into their chosen career and may improve understanding of professional conduct. These benefits derived from WIL culminate to assist students in the transition from higher education (HE) to the workplace, which can be a daunting process. This study draws on the theoretical framework based on the research of Dr Edgar Dale, the originator of the 'cone of learning', which subscribes to the confusion principle of 'I see and I forget, I hear and I remember, I do and I understand'. The 'cone of learning' posits that active learning, wherein students can participate in real-world simulations, is the most effective way of learning (Northwest Center for Public Health Practice 2015:15).

Although the application of WIL takes on various forms in HE – such as job shadowing, practical work experience, field work and internships, each with the overall aim of better preparing undergraduates for entry into the workforce – limited research has been done on the graduates' knowledge gained and workplace implementation of such projects (Freudenberg, Brimble & Vyvyan 2010; Jackson 2017; McNamara 2013; Smith & Worsfold 2015a:1070; Sykes & Dean 2013). Smith and Worsfold (2015b) state that there is a need for comprehensive evaluation and outcomes studies to fully understand WIL. Therefore, the research aim of this

study is to investigate the knowledge gained and workplace implementation of WIL in the graduates' workplaces, exploring the following aspects:

- the graduates' experience of WIL as an educational tool;
- the learning that graduates gained from the WIL project;
- how graduates applied this learning in the workplace;
- the graduates' understanding of their workplace improvement through the WIL project; and
- whether graduates' business confidence levels improved through the WIL project.

The contribution of the article is mainly on two levels. Firstly, theoretically, by adding to the body of knowledge on the graduates' learning, especially on the creation of knowledge and the workplace implementation of such knowledge gained from WIL in a South African context. Secondly, it provides empirical evidence that WIL projects improve graduates' implementation of learning as well as their understanding, thus increasing business confidence levels. This introduction provides a general background to the research topic and is followed by a literature review on context for discussion, WIL as an educational tool, retention of learning, workplace implementation of learning, and the development of students for the workplace. The research methodology, which used ten questionnaires with open-ended questions and a qualitative deductive content analysis, is then explained. Thereafter, the results are presented and discussed, followed by the managerial implications and a conclusion.

2. Literature Review

The key research issues that will be addressed in the literature review involve the following:

- Context for discussion – a snapshot of the WIL project in which this study took place will be presented.
- WIL as an educational tool – the overall importance of WIL in the HE curriculum.
- Knowledge gained from learning – the cone of learning will be introduced.
- Workplace implementation of learning –when learning can be transferred to the workplace.
- Development of students for the workplace – the issue of student confidence will be addressed.

Context for discussion: The context for the discussion in this study are two undergraduate subjects, namely Personal Selling and Sales Management, in which students in the University of Johannesburg's Department of Marketing Management's diploma programmes have to complete one year of WIL. These students are tasked with selling products for companies affiliated with the Direct Selling Association (DSA) of SA, UJ's industry partner in this project. Students are taught the subject theory during normal lecture time and are expected to apply this knowledge in the real world by doing practical sales and achieving a set sales target. The final assessment is based on the success of achieving the target. This project is referred to as the DSA-UJ Project, where the specifications are annually reviewed and codified in the DSA-UJ Agreement (Wait 2014).

WIL as an educational tool: There has been a range of definitions of WIL. This term is loosely used to describe situations where students spend time in a workplace as part of the learning process (McNamara 2013:184). Jackson (2017:350) states that WIL is the practice of combining traditional academic study with exposure to the real working world in the students' chosen profession and this experience must be authentic, where students can apply their skills and knowledge. WIL is a very important vehicle to assisting students' development of professional skills, knowledge and attributes that can enhance their employability. From the student's perspective, WIL is regarded as the most influential factor in advancing his/her career trajectory. Within the institutional agenda, it is argued that WIL programmes should consider the development of global competence and the skills required by multinational companies, given the popularity of the global workplace (Jackson et al. 2017; Tran 2016:1268; Tran & Soejatminah 2016:3). WIL has been considered as an alternative or complimentary platform to the successful development of career competencies.

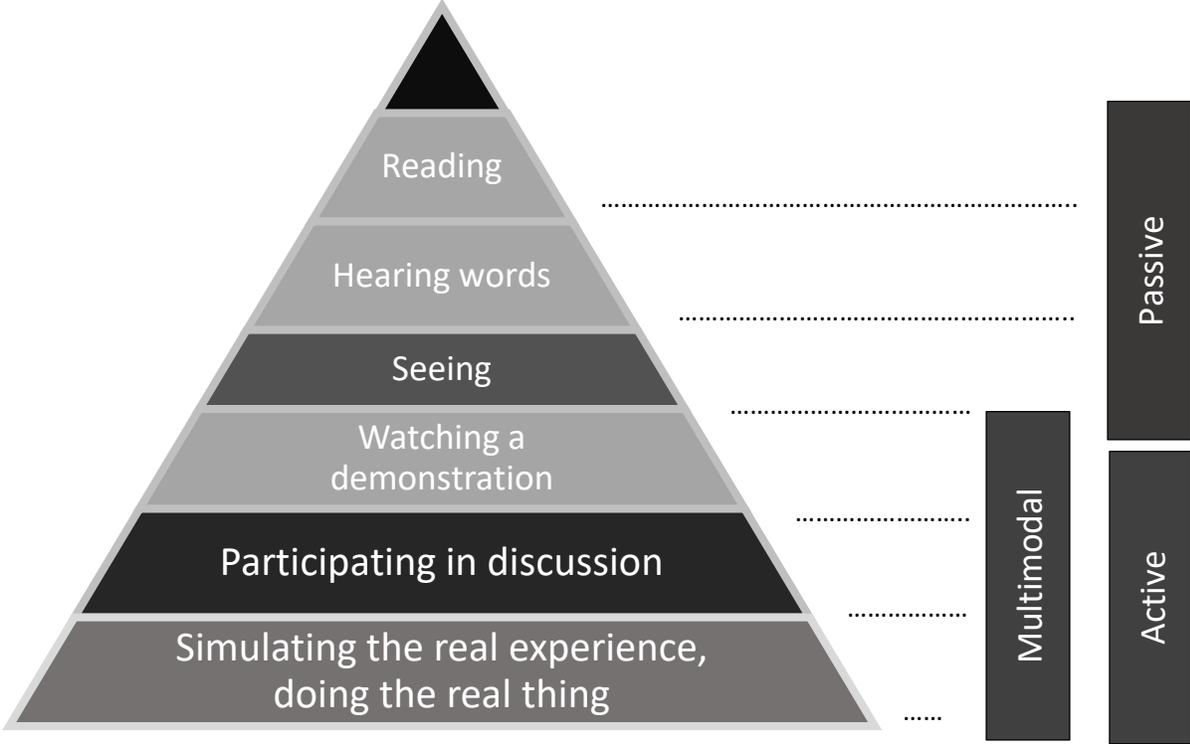
This learning represents the intersection between university and industry. In the HE landscape, WIL provides students with the opportunity to integrate academic learning with the real-world experience (Jackson & Wilton 2016:267). According to Hall et al. (2017) students gain the following four attributes or traits from WIL experiences: communicative ability, global citizenship, discipline-specific knowledge, and professionalism. These traits are essential especially when youth unemployment is so high in South Africa, and nine out of ten

businesses would rather hire people with experience than those without (Blom, 2015; Taylor and Govender, 2017). WIL in South Africa does not differ much from WIL internationally (Reinhard, Pogrzeba, Townsend & Pop 2016) and is described as the workplace practice that accompanies theoretical or classroom learning.

Knowledge gained from learning: Eckhaus, Klein and Kantor (2017:43) define learning as ‘the process whereby knowledge is created through the transformation of experience’. Dalgarno, Kennedy and Bennett (2014:311) cite two types of learning, discovery learning and traditional academic learning. Traditional academic learning involves instructions given by the lecturer in the classroom, while discovery learning happens when the student explores, discovers and ‘finds out for oneself’. The discovery approach of learning leads to greater retention of knowledge, and Pratt and Hahn (2015:10) state that innovative learning methods have moved away from traditional models of instruction to approaches where students have a more active role in learning. This focus represents a shift away from the ‘learning by listening’ model to the ‘learning by doing’ model. This ‘learning by doing’ model – also called experiential learning, WIL, cooperative education and work-based learning – has an integrated perspective on learning that combines experience, perception, cognition and behaviour. This approach can assist in solving real problems.

Learners remember more when they practise or use the learning, compared to when they just read or hear the information. The amount of information remembered is in direct proportion to the level of involvement in the learning process (Northwest Center for Public Health Practice, 2015:15). Adams and Ewen (2009:3) say that the retention of learning material is systematically related to ‘how sure’ students are about the correctness of their answers. That is, if students are ‘not sure’ whether their answer is correct, they will retain and apply only about 25% of the learning one week later. If students are ‘extremely sure’ about their answer, they will retain and apply about 91% of the learning. The cone of learning, as presented in Figure 1, shows that we tend to remember less of what we read and more of what we do.

Figure 1: The cone of learning (Northwest Center for Public Health Practice, 2015:15)



Learning obtained from WIL is different from that acquired in the classroom. The classroom context is also important, but to support students’ learning and knowledge in ways that are commensurate with the workplace context (Sykes & Dean 2013:190).

Workplace implementation of learning: Kum, Cowden and Karodia (2014:76) refer to workplace implementation of learning as a transfer of learning from the classroom to the workplace, and mention several factors that can prevent this. These include the following:

- Whether working graduates see any value in applying the new skills, or if there is no reward as a result of implementation or the value of the reward is low.
- Whether working graduates have little room to change work tasks. That is, whether the job is too tightly controlled.
- Whether the working graduates' line managers are in favour of training. Line managers exert a powerful influence over employees and may control rewards as punishment.
- Whether fellow working graduates view workplace changes with scepticism.

Furthermore, Kum et al. (2014:78) state that the workplace implementation of training must lead to an increase in quality goods and services, and fewer mistakes. Accordingly, accuracy, effectiveness, good work, safety practices and good customer service can be expected.

The development of students for the workplace: Adams and Ewen (2009:1) lament that one of the most important questions in education is how to enable students to apply the learning to perform tasks quickly, confidently and reliably. Retention of learning is systematically related to 'how sure' students are about the correctness of their knowledge when they obtain it. In other words, confidence and knowledge are correlated and both should be determinants of future performance. The more confident students are in their knowledge, the more likely it is that they will display confidence. High confidence levels are associated with true knowledge. Bell and Loon (2015:121) state that simulations like WIL provide the opportunity to develop higher-order thinking skills through the development of critical and strategic thinking skills, which are useful in teaching general management skills. Pando-Garcia, Periañez-Cañadillas and Charterina (2016:1732) state that such processes enable the simulation of decision-making that is involved in managing a business, thus strengthening the participants' management skills. Better confidence levels improve employees' motivation and morale, which are key to retaining staff. Plenty of research has been done on the advantages of WIL in the curriculum and it has many definitions, but the basis of this educational tool is the integration of theory and practice with the assistance of an industry collaborator (Jackson et al. 2017; Tran 2016:1268; Tran & Soejatminah 2016:3). The purpose of WIL should be to provide employment-ready graduates with learning that can be implemented in the workplace. This study used the cone of learning's principle of 'simulating the real experience by doing the real thing' to determine if WIL is implemented in the workplace and used the methodology discussed in the next section to achieve this.

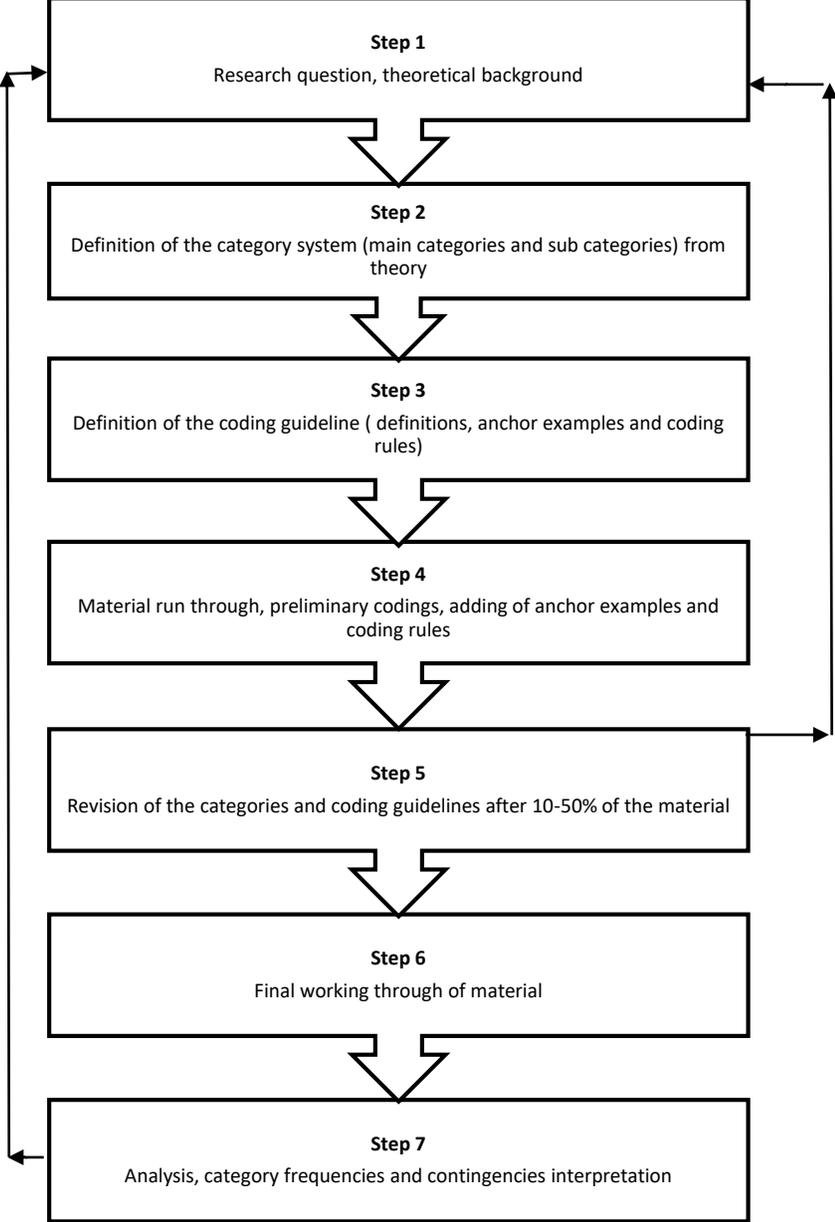
3. Research methodology

Research instrument: This study used deductive content analysis as its research instrument. This type of analysis is most central to qualitative research and aims to extract certain structures from the text. The categories under investigation are deduced from theory, models – in this case, the cone of learning – and previous studies. Research aspects are taken to the research data and coded accordingly (Mayring 2015:97).

Target group and sample decision: The five research objectives formed the basis of the questionnaire. The questionnaires were sent to an undergraduate alumni cohort, a year after graduation, with a qualifying question requesting the participation of working graduates only. Ten questionnaires were returned and analysed, which constituted a 33% participation rate. The data was analysed for frequencies and saturation was reached very quickly. The units of analysis were the answers to the open-ended questions. Fusch and Ness (2015) posit that the number of responses in qualitative research is determined by when data saturation is researched, and when further coding is no longer feasible. However, data saturation must fit the qualitative research design, which depends on the sample size of the population. Researchers should aim for rich and thick data – rich in terms of quality and thick as in quantity. Rich data is layered, intricate, detailed and nuanced. Data saturation is not about numbers, but about the depth of the data. Elo et al. (2014:8) state that the trustworthiness of content analysis depends on the availability of rich, appropriate and well-saturated data. Trustworthiness also depends on the manner in which the data is collected.

Research analysis: This study used a descriptive design, working through text with a deductively formulated category system, and it utilised the deductive content analysis procedural model of Mayring (2014:96), as illustrated in Figure 2.

Figure 2: Procedural model of research methodology followed (Mayring, 2015:96)



Step 1 – Research question. Formulate a clear research question and describe the theoretical background. The theoretical underpinning must fit the ongoing deduction. For this study, the research aim is ‘to investigate the knowledge gained and workplace implementation of WIL in the graduates’ workplace’. This step is covered in the introduction and literature review sections.

Step 2 – Definition of categories. The research question has to be operationalised into categories or research aspects that are taken to the research sample. The state of the research subject and previous studies and/or models on the topic must be analysed to get a theoretical foundation. Not all categories may be found in

literature, but categories have to be grounded with theoretical arguments. For this study, the research objectives are to explore:

- the graduates' experience of WIL as an educational tool;
- the learning that graduates gained from the WIL project;
- how graduates applied this learning in their workplace;
- the graduates' understanding of their workplace improvement through the WIL project; and
- whether graduates' business confidence levels improved through the WIL project.

Step 2 is covered in the introduction and literature review sections, and in the open-ended questionnaires.

Step 3 – Coding guidelines. The various categories – in this case, the five research objectives – are defined and explained to ease text coding. The coding guidelines and rules are set. This step is needed to ease the matching of text to categories. Steps 3 to 6 were done on the feedback of the questionnaires, each time improving on the previous step.

Step 4 – Coding. The text is read and the relevant sections coded. Text that matches the category definition is coded and recorded. When text is found that does not match the categories accurately or that is unclear, a new coding rule should be considered.

Step 5 – Revision. This step is done after 10– 50% of the text has been coded. The coding rules and category definitions are checked.

Step 6 – Final work-through. The text is examined and coded into categories.

Step 7 – Analysis. The frequencies of codes are statistically analysed. This step revealed the results of the study, which are presented below.

4. Results and discussion

The views below have been derived from the analysis of the answers from the open-ended questionnaires and are formulated to reflect the main themes that emerged. All of the participants remembered the WIL project in their undergraduate studies, even after a year, and their experience from this was beneficial. The ten participants, with direct quotations, will be distinguished by referring to them as P1 to P10.

When the graduates were asked what their experience of the WIL project was, they gave positive feedback, with three main themes emerging: beneficial, building confidence, and challenging. P1: 'It was very beneficial in building confidence'; P2: 'It was hard, but helpful when it came to practical selling skills'; and P9: 'The experience was good and challenging.' Freudenberg et al. (2010:44) state that students' experiences of WIL have included the recognition of the relationship between theory and practice, with the practice making the theory intelligible. This deeper understanding of the knowledge is important as the industry has identified a difficulty where graduates are theoretically good but struggle to take the second step in the application of this theory. WIL helps with the transferability of this knowledge.

On the issue of learning gained from the WIL project, the graduates felt that many aspects of the sales process can be recalled. Communication is another theme that emerged. P4: 'I have learnt selling skills, interacting with consumers and the importance of meeting targets'; and P3: 'I have learnt to communicate more effectively with people.' Tacit knowledge includes excellent verbal, written, technological, presentation and other communication skills as a fundamental toolkit for graduate employment. Peer support, collaboration and collegial professional learning are innovative future talent skills. These contribute towards talent self-development and strengthen inherent personal qualities, such as leadership, social and interpersonal skills (Simon et al. 2018). Freudenberg et al. (2010:44) believe that WIL programmes are used to develop students' competences and have been shown to contribute substantially to personal development.

When the graduates were asked how they have applied this learning in the workplace, they all affirmed that it is much easier to approach and sell to a customer now. P1: 'I now work in sales and the approaches I used to talk to customers, I am benefiting from now'; and P2: 'I used it on a golf day I was organising for corporates. It helped me to sell slots to companies.' This finding ties in with that of Sykes and Dean (2013:179), who state that students are encouraged to think about the application of their classroom learning in the workplace context. This kind of learning is said to help students consider the transition from the classroom to the workplace, and support students' professional development and disciplinary competence. Jackson (2017:351)

reports that there is a documented improvement in graduates who have completed WIL, which is evident in skills like teamwork, problem-solving, communication, information literacy and professionalism.

On the issue of whether graduates have a better understanding of the workplace, all of the participants agreed. P1: 'Yes, I am comfortable with the jargon and with the pressure of chasing targets'; and P6: 'Most definitely, because I am doing something similar.' Career management competencies offered by WIL include informed career goals, labour market understanding, job search skills, the identification of relevant learning opportunities and networking (Jackson & Wilton, 2016:267). WIL also encourages individuals to understand the expectations of their chosen profession.

All of the participants felt that their business confidence levels had improved after the WIL project. P5: 'Yes, I am now able to understand consumer purchasing behaviour and sales meetings.' Freudenberg et al. (2010:44) mirror this finding, saying that the benefit of WIL includes: increased discipline thinking; improved learning; taking responsibility for learning; learning how to acquire new skills; improved problem-solving, analytical thinking and performance; and increased commitment to goals. Jackson (2017:350) concurs and says that WIL builds student confidence in the workplace, providing better understanding of the nature and standard of the industry's required skills.

In summary, the findings from the graduates' feedback were encouraging and the participants expressed that they have gained a lot from the WIL project. It is interesting to note that unanimous responses were received on two of the research questions, those being whether the graduates have a better understanding of their workplace through the WIL project, and whether graduates' business confidence levels improved through the project. Smith and Worsfold (2015b:23) corroborate this finding and state that 'research into learning at work, suggests that the most effective and valuable learning for people in work is often that which occurs through the medium of work, or is prompted in response to specific workplace issues, as opposed to formal training or off-job programmes.'

5. Managerial implications and recommendations

This study indicated that the learning was retained and could be implemented in the workplace even after a year, and that participants could apply their learning practically. Managers should employ graduates who had WIL as part of their curriculum as it offers the following benefits:

- The graduates will have a better understanding of their workplace.
- The graduates can integrate their learning obtained from WIL and their undergraduate studies better in the workplace.
- The graduates will fit into the workplace better.
- Students gain workplace experience of theoretical concepts
- Educators enhance student learning through practical, workplace exposure;
- Businesses gain potential future talent. Ultimately graduates-to-be gain the skills, competencies, values and personal attributes that empower them to find and engage in meaningful paid work that benefits their careers.

Limitations: This study was conducted in just one industry sector – sales – and took place in Johannesburg, South Africa. For this reason, the results cannot be generalised.

Conclusion: WIL has a great educational value. It offers learning benefits to the students, allowing them to retain knowledge better and implement this knowledge in the workplace. This study supports the literature on the importance of WIL in the learning gained and its implementation in a working environment. The workplace builds on the groundwork of the learning obtained in the classroom and enhances the graduates' confidence and experience in the application of this knowledge. Graduates acknowledge the greater benefit of WIL as providing opportunities to practice, apply and refine their skills in a real setting. Professional competence is described as the ability to use professional knowledge and skills in the workplace. WIL is uniquely placed in the university context to facilitate the development of professional competence. This study supports the

theoretical framework of the cone of learning, where the simulation of doing the real thing leads to better understanding. This in turn leads to better implementation.

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Business Value of Adopting Cloud Computing: A Systematic Review

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Abstract: The introduction of cloud-computing models brings about a paradigm shift in the management of enterprise-information technology. Cloud computing promises economic advantages, but more significantly, it improves the competitive strength of organisations by augmenting organisational speed, enhancing agility, and providing flexibility and infinite elasticity. Despite the importance of cloud computing, there are limited studies aimed at investigating the business value of cloud computing. This paper is an attempt to critically analyse empirical studies in the literature that examined the business value gained by adopting cloud computing. A systematic literature review methodology was adopted to identify appropriate studies that traced the relationship between cloud computing and business value. Three major academic databases (EBSCO, ProQuest and IEEE) covering a wide range of fields were consulted. The findings revealed that only 14 articles tracing the relationship between the adoption of cloud computing and business value were identified. Cost savings and transparency, flexibility, faster time to market, innovation and collaboration were documented as key benefits of adopting cloud computing. Other benefits of adopting cloud computing found in the literature include operational effectiveness and efficiency, improved service value, mobility, resilience, reliability and secure high-performance computing. This study provides consolidated insights for researchers and technology practitioners about the importance of adopting cloud computing and the benefits derived from doing so.

Keywords: *Cloud computing, business value, competitive advantage, systematic review*

1. Introduction

Value is a key metric by which technology will rise or fall (Ghosh, 2017). The increasing complexity and management costs of enterprise-information technology forces organisations to find innovative ways to fulfil their computing needs (Căţinean & Căndea, 2013). As a result, cloud computing is considered by academics and information technology (IT) professionals as a technology innovation that allows customers to consume computing resources via the internet (Ratten, 2015). Cloud computing is a new computing method based on the internet, which provides consumers with on-demand access to computing through the internet (Du, 2016). In other words, cloud computing materialises the vision of utility computing (Azodolmolky, Wieder, Yahyapour & Gottingen, 2013).

The introduction of cloud-computing models brings about a fundamental change in the management of enterprise-information technology (Truong, 2010). The main cloud-computing models discussed in the literature are Infrastructure as a Service, Platform as a Service and Software as a Service, generally referred to as IaaS, PaaS and SaaS respectively. Although each type of model targets different consumers, they all have a common business model (Lin & Chen, 2012). In a cloud computing business model, computing resources such as applications, infrastructure and platforms are rented out to consumers. As a result, consumers of cloud computing can reap the rewards, which include, among others, increased reliability and cost savings resulting from economies of scale (Goldstein, 2010).

Cloud computing has the potential to bring about competitive advantage (Truong, 2010). According to Berman, Kesterson-Townes, Marshall and Srivathsa (2012), companies that adopt cloud-computing technology can potentially generate a need that was not previously a requirement for consumers, which in turn can create a new market and ultimately attract new segments, leading to a new revenue stream. Despite the importance of understanding business-related issues surrounding cloud computing, very few studies are designed to trace the competitive advantage of adopting cloud computing by examining the value proposition thereof. This study

explores the relationship between the strategic constructs cloud computing and business value by systematically reviewing the available scholarship.

2. Background

Cloud computing: The term “cloud computing” has dominated IT in recent years, yet it does not have a standard definition (Li & Ding, 2011). The National Institute of Standards and Technology defines cloud computing as a model in which computing resources are shared to provide immediate access to technology infrastructure, platform or software services with minimal effort or interaction, thus enabling abundant, convenient and on-demand access to resources when required (Ray, 2016). In other words, cloud computing is viewed as a utility-driven business model which can be described as on-demand pay-as-you-use with zero capex and zero ownership. Most importantly, it is self-service, location independent and elastic in nature (Iyer, Krishnan, Sareen & Panda, 2013). As such, cloud computing promises economic advantages, but above all, it improves the competitive strength of organisations by augmenting organisational speed, enhancing agility, and providing flexibility and infinite elasticity. Perhaps it is with the above in mind that the McKinsey Global Institute argues that cloud computing has the potential to disrupt the entire business model, making way for a new organisational approach that is asset-light and highly mobile (Căţinean & Căndea, 2013). As previously stated, cloud-computing models referred to in the literature are SaaS, PaaS and IaaS. In the SaaS model, the service provider is responsible for installing, provisioning, releasing and operating software in a cloud platform and the consumer accesses the software from the cloud (Rana, 2013). It is in this context that Pearlson and Saunders (2009) argued that the SaaS model aims to provide cloud consumers with a smooth, trouble-free operation and allows them to free-up their skilled IT resources.

In the PaaS model, software developers can access computing resources for software development remotely from the cloud (Mathur & Nishchal, 2010). In other words, in a PaaS model, software developers are empowered to collaborate with one another online without having to worry about computing resources and poor performance. According to Rana (2013), in the PaaS model, the service provider typically provides a computing platform, which includes the middleware, operating system, server, virtualisation, web server storage and networks. IaaS, on the other hand, offers virtualised on-demand computational resources as a service, but the cloud consumer is responsible for managing the middleware, the operating system, data and the applications (Rizou & Polyviou, 2012).

Depending on ownership, cloud-computing resources are classified broadly into four categories, namely, public, private, community and hybrid (Mell & Grance, 2011). On the public cloud a service provider owns and manages the infrastructure while cloud users access slices of shared hardware resources via the internet (Reynolds, 2016). On the private cloud, however, cloud-computing services are established and hosted by an organisation on its internal network, which is only available to employees and departments within the organisation (Haag & Cummings, 2016). In contrast, the community cloud is owned by a group of organisations with shared goals (Ray, 2016) and the hybrid cloud is a combination of both public and private clouds integrated through networking (Reynolds, 2016). Adopting cloud computing therefore requires careful deliberation and coherence in terms of organisational strategy and cloud offerings (Ray, 2016). Perhaps it was with the aforementioned in mind that Weinman (2012) argues that cloud computing is like an unstoppable tsunami for technology transformation, demonstrating Schumpeterian creative destruction by disrupting business models and ecosystems.

Business value: The Oxford Dictionary defines the term “value” as the amount of money that can be exchanged for goods (Hornby, 2010). At the organisational level, the value of a company is not the sum of individual values, but the entire value chain that affects the business advantage (Brlčić Valčić, 2016). According to management theory, business value is broadly described as all the values and factors that determine the future well-being and health of an organisation (Singhal, 2014). At industry level business value expands to cover other sub-elements such as customer value, shareholder value, societal value, managerial value, and supplier value (Devraj & Kohli, 2001). It is important to note that the scope of business value is no longer confined to economic value and profitability, but instead to the development and well-being of an organisation (Singhal, 2016). The creation of business value through IT is described as the relationship between IT and organisational structures, strategy and business processes. As such, the business value of IT is defined as the overall performance of IT in

the organisation by improving the efficiency and competitive position of an organisation from a process level to an organisation-wide perceptive (Melville et al., 2004).

3. Methodology

In this study, a systematic literature review was adopted. According to Denyer and Tranfield (2009), a systematic review is a process in which the literature is reviewed using a pre-planned strategy to identify the key contributions relevant to the topic in order to evaluate, analyse, synthesise and to report on key findings on what is known or unknown and reach a substantiated conclusion. A systematic literature review originates from the medical sciences and differs from a traditional literature review as it aims at synthesising prior studies in a systematic and transparent manner, but in particular, it can be easily reproduced (Tranfield et al., 2003). Advocates of a systematic literature review state that it uses an explicit and comprehensive method to identify, select and appraise a set of studies in a well-defined manner (Robson et al., 2007).

Search strategy: The keywords “cloud computing” (cloud*) and “business value” (business* or value*) were used in the search. The keywords “competitive advantage” (competitive*) and “business value” are sometimes used interchangeably in the literature, thus the keywords competitive advantages were also included. Three major academic databases, namely, EBSCOhost (all databases), ProQuest (all databases) and IEEE were searched. Full text, peer-reviewed and scholarly were selected as criteria to identify only academic journal articles. With no time limit, articles targeted had to have both cloud and value in the title. The methodology of the articles that met the first level of inclusion criteria was further analysed to establish if cloud computing and business value are viewed as independent and dependent variables. Ultimately, only 14 articles (presented in Table 1) met these criteria, and these were used in the analysis.

4. Results and Analysis

As presented in Table 1 below, only 14 articles that investigated the business value of adopting cloud computing were retrieved. These findings illustrate the lack of scientific studies on the benefits of adopting cloud computing.

Table 1: Articles that investigated cloud computing and business value

Article	Year	Author(s)	Business value of cloud computing
1	2010	Truong	<ul style="list-style-type: none"> • Innovation • Collaboration
2	2011	Li & Deng	<ul style="list-style-type: none"> • Flexibility • Cost saving • Real-time collaboration capability
3	2011	Marston, Li, Bandyopadhyay, Zhang & Ghalsasi	<ul style="list-style-type: none"> • Cost saving • Faster time to market • Innovation (Scale up and down; Big-data analytics)
4	2011	Wu & Gan	<ul style="list-style-type: none"> • Cost saving • Faster time to market • Innovation (Scale up and down; Big-data analytics)
5	2012	Rizou & Polyviou	<ul style="list-style-type: none"> • Value-based pricing • Value-based resource provisioning
6	2012	Von Solms & Viljoen	<ul style="list-style-type: none"> • Service value <ul style="list-style-type: none"> ○ Utility computing ○ Warranty
7	2013	Qiu, Zhou & Wang	<ul style="list-style-type: none"> • Cost-effectiveness • Operational effectiveness • Strategic value for application development • Resilience • Scalability and accessibility

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8	2013	Kanwar, Modi & Tanwar	<ul style="list-style-type: none"> • Agility • Efficiency • Flexibility
9	2015	Gumbi & Mnkandla	<ul style="list-style-type: none"> • Cost-effectiveness
10	2015	Goel	<ul style="list-style-type: none"> • Cost saving • Speed and timeliness • Flexibility and scalability • Agility (on-demand service) • Ease of integration
11	2015	Janusz	<ul style="list-style-type: none"> • Improved business efficiency • Cost saving • Faster innovation cycle • Accelerated time to market
12	2015	Bieber, Grivas & Giovanoli	<ul style="list-style-type: none"> • New billing models • Cost transparency • Accessibility • Cost savings (no Capex) • Short-term access • Scalability • Technology access • Ability to concentrate on core business • Faster time to market • Increased security and service quality • Mobility • Sustainability
13	2016	Owunwanne & Goel	<ul style="list-style-type: none"> • High-performance computing • Cost saving • Accessibility and scalability • Freedom from maintaining hardware • Mobility • Capacity on demand

From the 14 articles identified, ten distinct benefits of cloud computing (cost saving and transparency, innovation and collaboration, faster time to market, flexibility, service value, operational effectiveness and efficiency, agility, mobility, resilience, reliability and high-performance computing) were identified. The articles are analysed and discussed according to the popularity of the benefits of cloud computing identified.

Benefits of adopting cloud computing

Cost saving and transparency: Although there is consensus that the benefits of cloud computing are extensive, various scholars (Articles 2, 3, 4, 6, 7, 10, 11, 12 and 13) regard cost saving as the main reason for adopting cloud computing. With cloud computing most of the hardware and software required by enterprises is provided by vendors and shared among different customers, which results in cost savings due to economies of scale (Articles 2, 3, 4, 6, 7, 11 and 12). Cloud computing treats IT as an operational expense (OPex-model) as opposed to traditional capital expense (CAPex-model), which helps reduce upfront costs in corporate computing (Article 3). It is suggested that the estimated cost saving for adopting cloud computing is around 30% (Article 13). The primary key value proposition of cloud computing is the ability for customers to procure IT resources on demand, billed either as a utility or a subscription service, based on the service used (Article 10).

Innovation and collaboration: In five of the 14 articles (Articles 1, 2, 3, 4 and 11) innovation and collaboration, or both, are mentioned as benefits of adopting cloud computing. Following the resource-based-view (RBV) theory, Truong (2010) systematically argues that innovation and collaboration act as mediators that enable cloud-computing-related resources to create a sustainable advantage (Article 1). For instance, innovation can be influenced by the customisability and inter-connectivity of cloud-computing resources and these customised resources can enhance the innovation process. In other words, inter-connectivity with partners allows the exchange of ideas, which in turn can improve innovation. Similarly, collaboration can be influenced by the alignment of cloud-computing resources (Article 2). Online applications such as Facebook, YouTube, TripIt and Mint provide evidence that cloud computing can lower IT barriers to innovation (Articles 3 and 4). In line with the arguments mentioned earlier, the survey conducted by KPMG using 800 global technology-industry leaders revealed that 11% agreed that cloud computing provides a faster innovation cycle (Article 11).

Faster time to market: Of the 14 articles identified and analysed, five studies (Articles 3, 4, 8, 10, 11 and 12) highlight faster time to market as one of the key benefits for adopting cloud computing. Cloud computing provides on-demand access to both software and hardware resources with no upfront capital investment, which in turn leads to faster time to market (Articles 3, 4, 11 and 12). In other words, cloud computing offers a competitive advantage that is primarily derived from cloud computing speed and agility (Articles 8 and 10). For instance, small and medium enterprises (SMEs), which have relatively small investments tied to legacy computing resources, can adopt cloud computing quickly (Article 8).

Flexibility: Five studies (Articles 2, 8, 10, 12 and 14) cite flexibility of cloud computing as a key benefit. Cloud computing provides on-demand computing services through service level agreements (Article 2). Computing resources are virtualised to provide agility and flexibility (Article 8). For instance, customers are billed on a pay-as-you-use basis and on the volume of resources consumed (i.e. utility computing); therefore the cost is only associated with the activity based on usage (Article 12). In particular, flexibility refers to the customers' ability to make changes to the environment without disrupting the business. For public entities, benefits include the flexibility of not having to set up their own IT infrastructure, thus reducing costs and upfront expenses (Article 14).

Operational effectiveness and efficiency: Of the 14 articles analysed, three studies (Articles 7, 8 and 11) mention operational effectiveness and efficiency as one of the key advantages for adopting cloud computing. Cloud computing is touted by many to increase operational efficiency by allowing businesses to concentrate only on their mission-critical or core operations (Article 7). More importantly, the majority of the costs of IT management, maintenance and support are moved from the cloud consumer to the service provider. Cloud-computing architecture is designed in such a way that it allows for multiple applications or resources to run on the same machine (i.e. virtualisation), which in turn drastically improves computing resources' utilisation and ultimately results in a substantial reduction in the number of computing resources required by businesses (Article 8). Virtualisation does not only provide efficiency, but it also lowers costs in terms of capital structure and infrastructure space and power. More significantly, it is considered to be greener technology. The survey conducted by KPMG (2014) on technology innovation among almost 800 global technology industries reveals that 37% of the respondents believe that the benefits of cloud computing include improved business efficiency and productivity (Article 11).

Agility: Three studies (Articles 8, 10 and 13) specify agility as one of the business values of adopting cloud computing. Agility refers to the ability of cloud computing to facilitate the immediate access of shared computing resources that can be scaled to meet customer's computing needs and requirements (Article 10). In other words, on-demand self-service refers to computing capabilities (i.e. storage, server time and applications) that can be scaled up and down rapidly. As the demand increases, cloud computing allows for resources to be scaled up and when the demand decreases customers have the option to free-up some computing resources and not having to pay for unused resources (Articles 8 and 13).

Resilience, reliability and secure high-performance computing: Of the 14 articles identified and analysed, three studies (Articles 12, 13 and 14) highlight resilience, security, reliability and high-performance computing as key benefits of cloud computing. Cloud computing can provide on-demand, secure, cloud-based computing

services that can be used for software development and testing (Articles 12 and 13). One of the most significant benefits of cloud computing is the ability to provide more bandwidth and disk space in a flexible manner (Article 13). Stated differently, this is the ability to scale either up or down. However, as capacity increases or decreases, it is crucial that performance and reliability are not impacted. The reliability provided by cloud computing is mentioned as another key benefit of cloud computing (Article 14). In this case, reliability refers to the ability of an overall IT system to achieve its envisioned functionality with expected performance. Simply put, reliability involves ensuring a high quality of service to the consumer with minimal errors and fast recovery, but most importantly, with an acceptable transmission rate.

Service value: One study (Article 5) mentions value-based pricing and resource provisioning as key advantages of adopting cloud computing. Value-based pricing refers to evaluating and pricing a service according to the perceived value it creates for the consumer. Similarly, value-based resource provisioning refers to an architecture that is flexible to allow provisioning of resources based on value. The architecture for value-based resource provisioning consists of two layers, that is, a pricing layer and a resource-provisioning layer. In the resource-provisioning layer, the value of a service offered to the consumer is calculated. In the pricing layer, the perceived consumer value of resource provisioning layer is quantified. In another study (Article 6) the benefit of cloud computing is summarised as a service value where value is defined as the combination of utility and warranty. Utility is referred to as fitness for purpose; whereas warranty ensures that the utility of the service is available as needed, and with sufficient capacity.

Mobility: Of the 14 articles identified and analysed, two studies (Articles 12 and 13) name mobility as a central benefit of adopting cloud computing. Cloud computing allows users to connect even without using their own computers, which means that one can work from anywhere in the world, using any device, as long as an internet connection and computer access are available (Article 13). In other words, cloud computing allows employees to take their work anywhere – at home or even on vacation.

5. Discussion and conclusion

The aim of the study was to explore the relationship between cloud computing and business value using a systematic literature review. Overall, ten distinct advantages of adopting cloud computing were identified. In assessing the 14 articles retrieved, it was found that cost saving and transparency are ranked as the main reasons to adopt cloud computing, with a staggering nine studies (64%) mentioning these as a benefit. Cost saving and transparency are followed by innovation and collaboration, faster time to market and flexibility, each mentioned as benefits for adopting cloud computing in five studies (36%). In three studies (21%), operational effectiveness and efficiency, resilience, reliability and secure high performance were mentioned as benefits of cloud computing. Service value and mobility are also important, but they were mentioned in only two studies. This study has a significant implication for both academics and technology practitioners. First, the study demonstrates that it is true that cloud computing is redefining how businesses are using technology to gain a competitive advantage, but most importantly, firms are looking at the cloud computing to reduce the costs associated with IT without disrupting their IT services. Second, the findings show that there is no one-size-fits-all when assessing the benefits of cloud computing. These findings are in line with Ray's (2016) argument that adopting cloud computing requires careful deliberation and coherence in terms of organisational strategy and cloud offerings.

In conclusion, the findings support Weinman's (2012) argument that cloud computing is like a tsunami of technology transformation, exhibiting Schumpeterian creative destruction, and amassing immense wealth for companies such as Google, Facebook, Amazon and Salesforce.com. This aforementioned companies did not exist a few years ago, but they managed to increase their revenue by disrupting business models and ecosystems, including publishing, advertising, television, and telecommunications, to name but a few. In other words, the cloud computing value proposition and the attitudes of companies towards the adoption of cloud computing are key metrics by which companies will rise and fall.

Direction for future research: Although the findings explicitly state the benefits of adopting cloud computing, it is not clear how some of the benefits are derived. For instance, the literature reveals innovation as one of the key benefits of adopting cloud computing. However, it is not clear how innovation is achieved by adopting cloud

computing. As such, future research should consider tracing the causal relationship between the adoption of cloud computing and innovation.

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Liberty Breach: An exploratory usage case of NodeXL Pro as a social media analytics tool for Twitter

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Abstract: Social media analytics uses data mining tools, platforms, and analytics techniques to collect and analyse infinite amounts of social media data. Social media analytics tools extract patterns and connections from data, for insight into market sentiments and requirements, to enhance business intelligence. 'Network Overview, Discovery and Exploration for Excel Pro' (NodeXL Pro) is a social media analytics tool that simplifies basic network analysis tasks and supports the analysis of social media networks. NodeXL Pro does sophisticated 'crawling' (extracting data) across a range of social media platforms. Through a qualitative case study design, this study explores and describes the use of NodeXL Pro through empirical and multimodal analysis and social network visualisation of social media data of the Liberty Holdings Ltd data breach crisis case in June 2018. The hashtag '#Liberty breach' resulted in 10 000 data sources ('tweets') from the social media platform Twitter. This study is unique on two levels. Firstly, it appears to be the first study in the South African marketing literature to use NodeXL Pro in social media analytics. Secondly, it presents the case study as a usage case to describe, in a step-by-step way, the functionalities of NodeXL Pro through social network analysis. The main finding of the paper focuses on the usability and manifold features (including the integrated visualisation tool) of NodeXL Pro. This social media analytics tool can open doors for marketing scholars and practitioners alike to measure, map, and model collections of connections.

Keywords: *Social media analytics; NodeXL Pro; social network analysis; Twitter*

1. Introduction

Social media analytics has emerged as an advanced research field after years of rapid and augmented adoption of social networks by consumers and organisations alike. As early as 2010, scholars indicated that there are opportunities for theoretical and practical inquiry to create new knowledge and scientific possibilities by leveraging data, technology, analytics, business, and society (Culnan, McHugh & Zubillaga, 2010). This argument for theoretical and practical inquiry into social media analytics was based on the richness and the dynamic nature of social data.

More recently there has been growing evidence that social media analytics provides a broader view of consumers, groups, and society, and creates business value by identifying new patterns and opportunities (Batinca & Treleaven, 2015; Moe, Netzer & Schweidel, 2017). These developments in the realm of social media analytics provide opportunities for innovative, non-traditional research. Chen, Lu, Chau and Gupta (2014) support this notion, arguing that the pervasive impact of social media as a source of information has triggered renewed interest in social media analytics research. Wamba, Akter, Kang, Bhattacharya and Upal (2016) agree that the power of social media remains on the increase, but that, similarly, its measurement continues to be a challenge.

To achieve this goal, advances in social media analytics tools could be more effectively applied if scholars constantly explored these tools in different contexts, methodologies, and disciplines. One such social media analytics tool, NodeXL, has recently received considerable scholarly attention (Batinca & Treleaven, 2015; Salge & Karahanna, 2018; Feng, 2016; Platt & Soens, 2018; Bokunewicz & Shulman, 2017). More specifically, the use of NodeXL in social media analytics has related to Twitter usage during various crisis situations. Examples of these studies include Ferrá and Nguyen (2017), who studied #migrantcrisis during the European migration crisis; Ahmed's (2018) study, which used Twitter data to provide qualitative insights into pandemics and

epidemics; Brummette and Fussell Sisco (2018), who used Twitter data to frame the Chipotle restaurant chain crisis; and a study by Keib, Himmelboim and Han (2018) of the #BlackLivesMatter controversy in the United Kingdom. NodeXL Pro is a licence-based, technologically driven social media analytics tool that uses advanced 'crawling' capabilities over a number of social media platforms. It also supports the capturing, analysis, and social network visualisation of available public information. Against this backdrop, the following research objective guides this paper: To explore and describe the usage case of NodeXL Pro (a social media analytics tool) to conduct an empirical and multimodal social media network analysis of '#Liberty breach' on Twitter.

The significance of this paper is, firstly, that, according to available data, this is the first study in the South African marketing literature to explore the use of NodeXL Pro as a social media analytics tool; and secondly, that the methodological design of the paper is unique, in that it is presented as a usage case of the functionalities of NodeXL Pro. The paper starts with a literature review, consisting of a brief discussion of social media in general, and of Twitter as one such social media platform. Subsequently, 'social media analytics' is defined, which leads to a discussion of social network analysis. In the methods section, the methodological choices of the study are presented, including a description of the Liberty Holdings Ltd data breach crisis case. This is followed by a discussion of the use and features of NodeXL Pro as an innovative social media analytics tool. The results and discussion are followed by the conclusion and recommendations.

2. Literature Review

The meanings of the concept 'social media' are manifold. Defining it is widely argued, and views abound about which tools, platforms, and social phenomena can be regarded as 'social'. Yet its integration into daily life at grassroots level is unquestionable (McCay-Peet & Quan-Haase, 2017). The broad social media definition presented by McCay-Peet and Quan-Haase (2017), which has the potential to include numerous technologies with fundamental social elements, is accepted for the purpose of this paper: "Social media are web-based services that allow individuals, communities, and organisations to collaborate, connect, interact, and build community by enabling them to create, co-create, modify, share, and engage with user-generated content that is easily accessible" (McCay-Peet & Quan-Haase, 2017:17).

Gruzd, Staves and Wilk (2012) present a variety of social media technologies, including Skype, Flickr, Twitter, Facebook, and Academia.edu. Pinterest, YouTube, Yelp, Weibo, Snapshot, and LinkedIn could also be added to the list of Gruzd et al. (2012). McCay-Peet and Quan-Haase (2017) argue that scholars have tended to favour Facebook and Twitter in social media research, and state that Twitter, specifically, has transformed the diffusion of information and news around the world. Consequently, Twitter is discussed in the next section.

Twitter as a social media technology platform: As more people use Twitter to communicate with one another, there is an urgent need to look into methodologies to study this interaction, in order to understand better the patterns, influences, and meanings of communication in that setting. Sanawi, Samani and Taibi (2017) argue that Twitter is one of the most dominant and persuasive social media platforms. Evidence from Statista (2018) supports this notion: it states that Twitter remains one of the most popular social networks worldwide (averaging 336 million monthly active users at the end of the first quarter of 2018), as a result of (a) the ability of users to follow any other user with a public profile, and (b) enabling users to interact with entities who regularly post on the social media site. These could include, for example, Twitter users, news agencies, governments, and organisations, depending on the context.

Social media technology platforms focus on idiosyncratic groupings of content creators and content consumers. Lee, O'Donnell and Hust (2018) regards Twitter as a real-time information network that connects users and followers to the latest stories, ideas, opinions, and news. Twitter is a social networking and micro-blogging platform (McCay-Peet & Quan-Haase, 2017) that empowers registered users to read the views of others and to express their own views in the form of 'tweets' (Pujari, Pujari, Bhat & Dixit, 2018). Micro-blogging, according to Liu, Min, Zhai and Smyth (2016), focuses on information diffusion and interactivity among open-platform users, whereas social network sites (such as Facebook) enable users to advance social relationships with their social networks. Another key feature of Twitter is that it differs from traditional blogging in that its content is typically briefer. The social network's original text limit of 140 characters per message was set at the company's launch in 2006. This was changed late in 2017 to a limit of 280 characters (Larson, 2017). Beyond text

characters, Twitter engagement also allows users to upload photos or short videos. Three types of tweets are found on Twitter: original tweets, replies, and retweets (Chae, 2015).

In recent years, these tweets (Twitter data) have become one of the most popular information sources for academic research and practical applications alike. However, the key to using tweets as an information source is that intelligence and knowledge should be extracted from them. Therefore, the next section discusses social media analytics as a whole, and then focuses on two types of social media analytics that are widely used in Twitter analytics.

Defining 'social media analytics': The term 'social media analytics' is defined for the purpose of this study predominantly on the basis of the descriptions of He and Xu (2016) and Zeng, Chen, Lusch and Li (2010). It is the development and evaluation of informatics tools and frameworks, in order to gather, scrutinise, condense, and visualise social media data to enable dialogue and connections, and so to derive useful patterns and intelligence. Chen, Chiang and Storey (2012) adopt a slightly different perspective: they define social media analytics more from a customer perspective, as an approach to revealing what customers think and feel through the analysis of both structured and unstructured online data from online sources. Stieglitz, Dang-Xuan, Bruns and Neuberger (2014) focus on the purpose of social media analytics, concluding that it aims to combine, extend, and adapt methods for the analysis of social media data.

Some confusion appears in the literature in relation to social media analytics, especially when referring to big data analytics. Therefore, for the purpose of this paper, the interpretation of Wamba et al. (2016) of the concepts of big data analytics and social media analytics is supported. Their view is that social media analytics share similarities with big data analysis. Their argument is based on the work of Kiron, Ferguson and Prentice (2013), which refers to big data analysis as "accumulated traces of consumers' online activities". Thus both social media analytics and big data analytics involve the analysis, management, and visualisation of similar types of datasets, and both seek to understand the fundamental relational and interactive components of consumers' social media activities.

Akter, Bhattacharya, Fosso Wamba and Aditya (2016) and Wamba et al. (2016) describe eight types of social media analytics: topic modelling, opinion mining, sentiment analysis, social network analysis, trend analysis, popularity prediction, customer engagement analysis, and visual analytics. As indicated in the introduction to this article, it will focus on only one social media analytics type related to the functionalities of NodeXL Pro and Twitter analytics – namely, social network analysis. Social network analysis is used to model relations and associations, developments, and dynamic forces in networks and activities on social media platforms. Social network theory and analysis builds on and uses concepts from the mathematics of graph theory (Hansen, Schneiderman & Smith, 2011; Lee, 2018). It is the process of studying the structures of social networks, and seeks to explain how networks organise and analyse the complex set of relationships inside a social network of individuals or organisations (Scott, 2012; Wasserman & Faust, 1994).

In these social networks, 'nodes' are the individual actors and 'ties' are the relationships between the actors (Lee, 2018). Social network analysis produces a mathematical and visual analysis of the actor relationships within a network. This is done by modelling the social network dynamics and developments – for example, network density, network centrality, and network flows. Nodes and ties – both strong and weak – are important in diffusing information (Brown & Reingen, 1987; Datta, Chowdhury & Chakraborty, 2005). Social network analysis further uses a range of techniques to give insight into the structures of the network (Scott, 2012). Fan and Gordon (2014) maintain that these techniques range from uncomplicated methods (for example, counting the number of edges a node has, or calculating path lengths) to more sophisticated methods (for example, computing eigenvectors to determine key nodes in a network). Therefore, in social network analysis, complex sets of relationships of connected symbols are visualised as maps (such as graphs or sociograms), but precise measures of the size, shape, and density of the network as a whole and the positions of each node within it are also calculated. It is argued, therefore, that social network analysis enables researchers to see phenomena as a collection of interconnected pieces, using relationships to create emergent patterns of linkages between individuals, not within individuals.

3. Methodology

This qualitative study uses an exploratory, descriptive, single case study design. The choice of a qualitative case study design is based on Basseys’s (1999) argument that the case study approach provides not only a mechanism for theory-seeking and theory testing, but also for storytelling – in this case, the account of the NodeXL Pro usage case, through the empirical and multimodal analysis of 10 000 #Liberty breach tweets. However, Meyer (2001) maintains that the case study is a rather loose design, and therefore cautions that a number of choices need to be addressed in a principled way. For the purpose of this study, these choices are outlined in Table 1.

Table 1: Methodological choices for the purpose of this study

Methodological consideration	Methodological choice
Research paradigm	Qualitative research
Research design	Exploratory, descriptive, single case study
Sampling strategy	Case selection
The case	Liberty Holdings Ltd IT security breach crisis
Data sources	10 000 tweets: #Liberty breach
Data collection	Social media mining approach NodeXL Pro API
Data analysis	NodeXL Pro social network analysis NodeXL Pro advanced network metrics

The next section provides a brief explanation of the Liberty Holdings Ltd IT security breach case, followed by an overview of NodeXL Pro as a social media analytics tool.

The case: Liberty Holdings Ltd IT security breach crisis: On Thursday, 14 June 2018, South African financial services provider, Liberty Holdings Ltd, fell victim to an IT systems breach. Specifically, the breach occurred in one of Liberty Holdings Ltd’s subsidiaries, Liberty Life. In a Fin24 article on 19 June 2018, it was reported that the CEO of Liberty, David Munro, confirmed that the data breach was limited to Liberty’s insurance clients, and that none of its other businesses was compromised (Niselow, 2018). The company informed their clients about the incident on Saturday evening, 16 June 2018, via email and text message, that it had suffered “unauthorised access to its IT infrastructure”.

According to a report in the Sunday Times on 17 June 2018, the hackers demanded millions of Rands from Liberty, threatening to make the data public unless they were paid (Afrika, 2018). In a statement on IT Web on 18 June 2018, a cyber security expert stated that “the news, of course, has sent ripples through the insurance, finance and cyber security industry” (Ukuvuma Security, 2018). Amid these ‘ripples’, Liberty CEO David Munro affirmed at a media briefing on Sunday 17 June 2018 that “investments remained uncompromised and that an investigation was underway” (Seeth, 2018). Despite the assurances given by Liberty, calls were made for transparency about exactly how Liberty was breached, why no-one detected the breach until the hackers themselves informed Liberty, how the hackers acquired access, why Liberty was slow in communicating to its stakeholders during the crisis, and the like, across a broad range of media platforms (Ukuvuma Security, 2018; McLoughlin, 2018). As a result of the data breach, Liberty Holdings’ share price fell almost five per cent – from R124 to R119,16 – on Monday, 18 June 2018 (Seeth, 2018).

NodeXL Pro as social media analytics tool: NodeXL (Network Overview for Discovery and Exploration in Excel) was developed by the Social Media Research Foundation (<https://www.smrfoundation.org/>). It consists of two main options: NodeXL Basic (open source), and NodeXL Pro (licence-based). Both are plug-ins for Microsoft Excel, and support social network and content analysis. Smith, Shneiderman, Milic-Frailing, Mendes Rodrigues, Barash, Dunne and Gleave (2009) state that NodeXL was intended to be easy for existing Excel users to adopt. This was done by using the common spreadsheet capabilities in Excel, and expanding the spreadsheet into a network analysis and visualisation tool by incorporating a library of basic network metrics (for example, degree, centrality measures, elementary clustering) and graph visualisation facets.

Node XL uses a highly systematised workbook template that includes multiple worksheets to keep all the information needed to represent a network graph. Network relationships (referred to as 'graph edges' in NodeXL) are represented as an 'edge list'. The 'edge list' contains all pairs of entities that are connected in the network. Corresponding worksheets comprise information about each vertex and cluster. The visualisation features in NodeXL display a range of network graph depictions and chart data attributes to visual properties, including shape, colour, size, transparency, and location (Hansen, Rotman, Bonsignore, Milic-Frayling, Rodriques, Smith & Shneiderman, 2012).

The Social Media Research Foundation (2018a) describes NodeXL Basic as being positioned as a free browser for files created with NodeXL Pro, which offers more advanced features. These advanced features build on the features in NodeXL Basic to include the following, among others (Social Media Research Foundation, 2018b):

- Advanced network metrics, which include, among other functions, determining betweenness centrality, closeness centrality, and Eigenvector centrality.
- Content analysis, which includes text analysis, sentiment analysis, time series analysis, and top items (words, word pairs, URLs, and hashtags).
- Access to the social network application programming interfaces (APIs) of Flickr, Facebook, YouTube, and Twitter, as well as third-party graph data importers.

The features in NodeXL Pro used for the purpose of this study included (a) network visualisation, (b) social network analysis, (c) social network APIs, (d) data import, (e) data export, and (f) task automation.

4. Results and Discussion

To address Meyer's (2001) concern about the 'looseness' that is sometimes evident in case study designs, this section is presented according to the eight-step system description and workflow for NodeXL and NodeXL Pro, as suggested by Smith et al. (2009). This workflow moves from data import through processing, calculation, and refinement, before creating a network graph that "tells a useful story" (Smith et al., 2009:4).

Step 1: Import data: As this paper focuses on exploring NodeXL Pro as a social media analytics tool to examine the information of the Liberty Holdings Ltd IT security breach crisis, only the most popular hashtag identified by Twitter was used – namely, '#Liberty breach'. The NodeXL Pro Twitter data import feature was used to extract networks for '#Liberty breach'. The collection of the '#Liberty breach' data was performed on Tuesday, 19 June 2018. NodeXL Pro allows for data from the past seven days and/or 18000 tweets. For this study, 10000 tweets were extracted.

The data was then automatically entered into the NodeXL Pro template in the 'edges' and 'vertices' worksheets. These two concepts are central to network analytics theory (Chae, 2012). Firstly, Hansen et al. (2009) argue that vertices (also referred to as 'nodes', 'agents', 'entities', or 'items') can include (a) individuals, (b) social structures (such as workgroups, teams, organisations, institutions, states, or countries), (c) content (such as web pages, keyword tags, or videos), or (d) even locations (physical and virtual) and (e) events. Attribute data of vertices are also available in NodeXL Pro, which could include demographic data, data that describe the vertices' use of a system (for example, number of logins, messages posted, and edits made) or location. However, for the purpose of this paper, attribute data were not considered. Secondly, 'edges' (also known as 'links', 'ties', 'connections', or 'relationships'), on the other hand, can be said to occur if they have a particular official status, if they are recognised by the participants, or if they are observed by exchange or collaboration between them (Hansen et al., 2009). Alhajj and Rokne (2014) regard these edges as social interactions, organisational structures, physical proximities or abstract interactions such as hyperlinks. In essence, therefore, an edge connects two vertices together.

According to Hansen et al. (2009), edges can be divided into two type of connection: directed or undirected. Directed edges (or asymmetric edges) have a distinct source and end-point. These edges are represented on a graph as a line with an arrow pointing from the source vertex to the recipient vertex (the end-point). However, undirected edges (or symmetric edges) only occur between two people or things, with no clear source or end-point in these mutual relationships. These edges are represented on a graph as a line connecting two vertices,

with no arrows. In the '#Liberty breach' case, a total of 1015 edges (including 847 unique edges and 168 edges with duplicates) and 767 vertices were identified through NodeXL Pro. The edges in this study were all presented as directed edges.

Step 2: Clean the data (if required): This step entails the elimination of duplicate edges. Smith et al. (2009) argue that, in some instances, network measures cannot be accurately determined if multiple edges exist between the identical pair of entities in a single data set. Then the redundant edges may be aggregated into a single edge with a weighting, reflecting the number of original instances. For the purpose of this paper, data cleaning was done, resulting in 168 edges after duplicates had been merged.

Step 3: Calculating the graph metrics: The third step in the eight-step system description and workflow for NodeXL and NodeXL Pro calculates the graph metrics. NodeXL Pro calculates several network graph metrics to capture the size and internal connectivity of a network, and also the attributes of each vertex, based on in- and out-degree, betweenness, closeness, and eigenvector centrality (Hansen et al., 2009). The data from the '#Liberty breach' case in relation to each of the graph metrics are discussed below.

The degree of a vertex (sometimes referred to as 'degree centrality') is a count of the number of unique edges that are connected to it (Hansen et al., 2009). Kim and Hastak (2017) explain it similarly, in that 'degree centrality' refers to the number of edges a vertex has that connect to other vertices. In the '#Liberty case', which analysed a directed graph, this single degree metric is split into two metrics, in- and out-degree centrality. Figures 1 and 2 illustrate the in- and out-degree centrality metrics for the '#Liberty breach' case.

Figure 1: '#Liberty breach': In-degree centrality

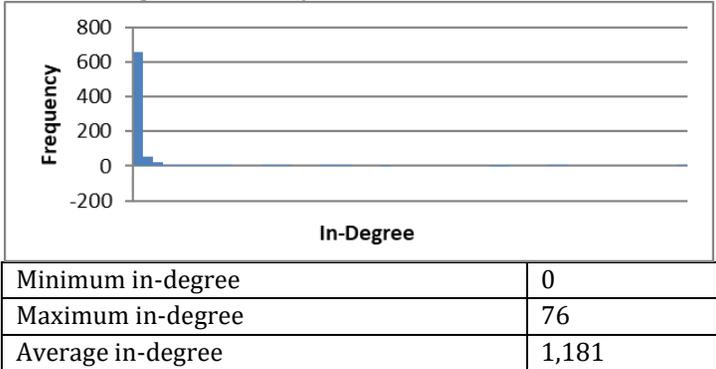
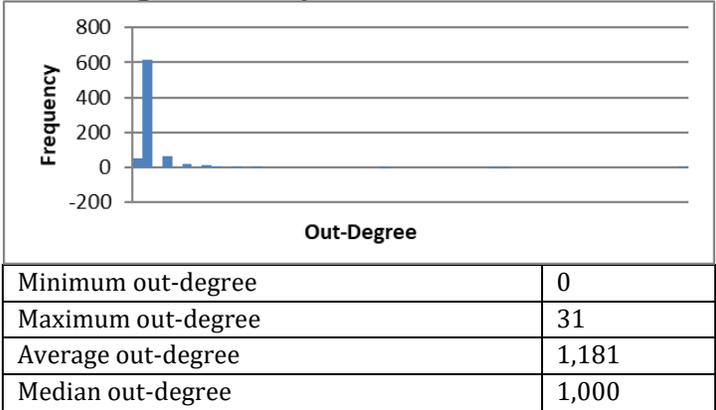
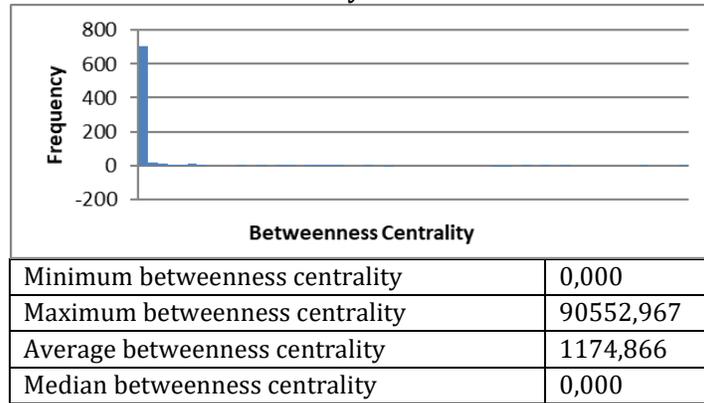


Figure 2: '#Liberty breach': Out-degree centrality



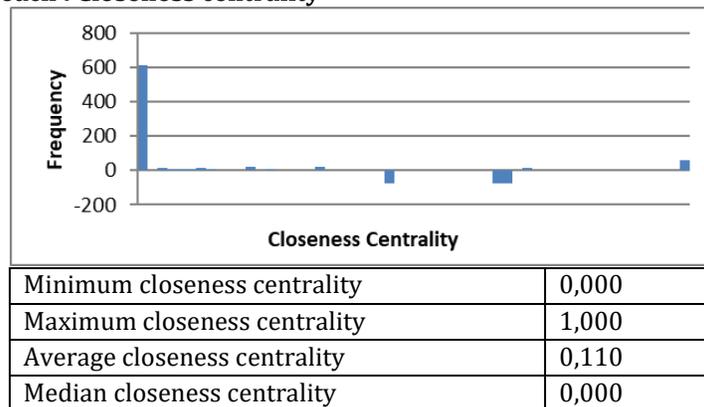
From Figure 1, therefore, it can be deduced that the average number of edges that point toward the vertex of interest is 1 181, and from Figure 2 that the out-degree centrality for '#Liberty breach' has an average of 1 181 and a median of 1 000 edges towards which the vertex of interest points.

Figure 3: '#Liberty breach': Betweenness centrality



From the social network perspective, Wasserman and Faust (1994) described the significance of high betweenness: “interactions between two nonadjacent actors might depend on other actors in the set of actors, especially the actors who lie on the paths between the two”. Wasserman and Faust (1994) refer to ‘actors’, which should be read as ‘vertices’ in the NodeXL Pro context. From Figure 3 it can be deduced that, in the case of ‘#Liberty breach’, the betweenness centrality was very high, which means that these high betweenness vertices played the role of what Kim and Hastak (2018) refer to as ‘gatekeepers’ in handling the information flow between Liberty Holdings Ltd and other communities.

Figure 4: '#Liberty breach': Closeness centrality



For Hansen et al. (2009), closeness centrality is viewed differently from the other network metrics. Closeness centrality captures the average distance between a vertex and every other vertex in the network. Assuming that vertices can only pass messages to or influence their existing connections (vertices), a low closeness centrality means that a person (vertex) is directly connected to, or “just a hop away” (Hansen et al., 2009) from, most other vertices in the network. By contrast, vertices in very peripheral locations may have high closeness centrality scores, indicating the number of vertex ‘hops’ they need to take to connect to distant others in the network. In the social media ‘#Liberty breach’, it is significant that the average closeness is very localised, as seen in Figure 4 above. This might be because the vast majority of tweets in this case were sent by media houses, which use content across news channels and other media.

Much like degree centrality (depicted in Graphs 1 and 2), eigenvector centrality favours vertices that have high correlations with many other vertices. However, in contrast to degree centrality, eigenvector centrality specifically favours vertices that are connected to vertices that are themselves central within the network (Lohmann, Margulies, Horstmann, Pleger, Lepsien, Goldhahn, Shloegl, Stumvoll, Villringer & Turner, 2010). Thus it takes the entire pattern of the network into account. Hansen et al. (2009) agree, and state that the eigenvector centrality network metric takes into account not only how many connections a vertex has (i.e., its degree), but also the degree of the vertices to which it is connected. The eigenvector centrality for the ‘#Liberty

breach' was especially low. This indicates that there were very limited influences over other vertices in the network. Also, the vertices in the '#Liberty breach' analysis were not well connected, and had limited links to other vertices through the network.

Steps 4 to 8 in the eight-step system description and workflow for NodeXL and NodeXL Pro application to the '#Liberty Breach' case are combined in the discussion under Step 8.

Step 4: Creating clusters: In network analysis, vertices can share attributes. Therefore, NodeXL Pro allows for the creation of clusters and cluster vertices worksheets in the fourth step. This clustering algorithm of NodeXL Pro is useful to group and analyse these vertices together. Hansen et al. (2009) encourage the use of these algorithms, as each cluster can have its own display features with a distinctive shape, colour, size, transparency, or image.

Step 5: Creating sub-graph images: Whole graph images can, in some cases, be too dense to reveal details about individual vertices or clusters. In this step of the eight-step system description and workflow for NodeXL, therefore, sub-graph images are created. Sub-graph images are useful depictions of the range of variation in the group vertices of the population in the network. This, according to Hansen et al. (2009), produces confined networks that focus on each vertex at a time, containing only the vertices with which that vertex is directly associated.

Step 6: Preparing edge lists: Vertices and edges hold attributes that can be used to order the data (for example, ordering vertices by the number of connections to other vertices). In Step 6, 'lay-out order', which directs the presentation of vertices in the graph display, is carried out in the whole graph visualisation.

Step 7: Expanding the worksheet with graphing features: In this step, NodeXL Pro allows for columns to be auto-filled to plot data in order to present different features. Hansen et al. (2009) provide the following suggestions:

- Graphical features of vertices and edges (their shape, colour, opacity, size, label, and tooltip) can be improved to suggest supplementary information in the network visualisation.
- Images in the 'images' worksheet can replace the shapes used to represent the vertices.
- Additional numerical attributes of each vertex could be added in adjacent columns and then, by design, scaled to present characteristics.

During this step, the layout features simplify the creation of multiple networks for a consistent presentation.

Step 8: Showing the graph: In the final step of the eight-step system description and workflow for NodeXL and NodeXL Pro, the social media analytics tool presents a visualisation of the network. Figure 5 below presents the 'whole graph', illustrating the network according to the Fruchterm-Reingold layout (the default layout of NodeXL Pro).

Figure 5: The social networks of '#Liberty Breach'

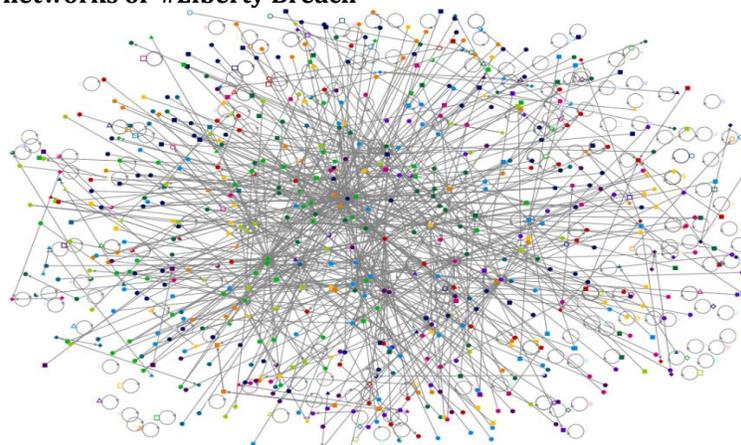
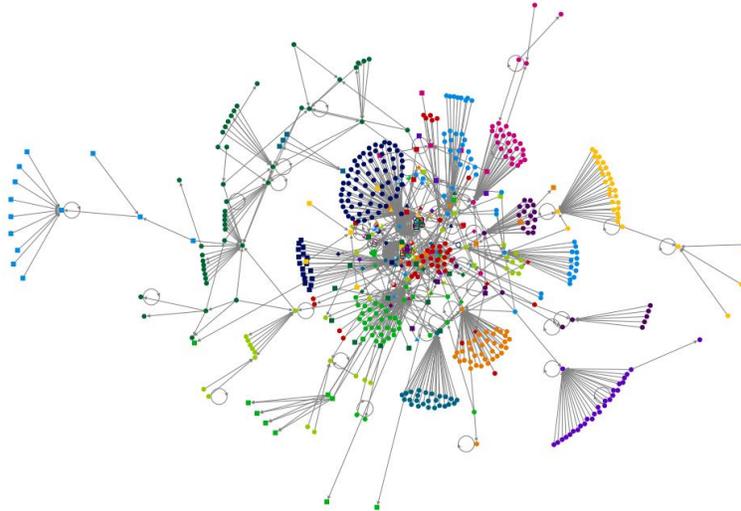


Figure 6 below also presents the 'whole graph', illustrating the network according to the Harel-Koren multiscale layout algorithm. In this layout, the clusters are more visible, clearly indicating the number of influencers in the social network.

Figure 6: The social networks of '#Liberty Breach' by clusters



In concluding this section of the NodeXL Pro '#Liberty breach' usage case, it should be noted that the workflow is not rigidly prescribed. The NodeXL Pro analysis and visualisation of the network can constantly be refined.

5. Conclusion

The purpose of this paper was to explore and describe the usage case of NodeXL Pro in conducting a social media network analysis of '#Liberty breach' on Twitter. The data set included 10 000 tweets, based on the most popular hashtag, '#Liberty breach', in the Liberty Holdings Ltd IT security breach in June 2018. From the results of the paper, it can be concluded that NodeXL Pro enables scholars and practitioners to interpret and create meaningful representations of complex social media networks, using big data, within a fairly short timeframe. The significance in the exploration and description of NodeXL Pro as a social media analytics tool in the usage case of '#Liberty breach' is based on the tool's close combination of spreadsheets, worksheets, and graph visualisations, as well as the variety of ways in which it allows for metrics and attributes to be mapped on to graphs. The result is a deeper understanding of the connected structure of the world.

Recommendations: Future studies are needed to delve deeper into all the features of NodeXL Pro. These range from the ability to use data from a variety of social media platforms in a single study, to the more sophisticated features of NodeXL Pro, to advance marketing intelligence for scholars and practitioners alike.

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Mobile Technology as A Learning Tool: A Case of UKZN-School of Economics at The University of Kwazulu Natal, South Africa

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Abstract: Education in South Africa is not equally accessible, and the quality of education is not the same across all educational institutions. Students from low-income societies are scoring lower marks in contrast to students from higher income societies. The influence on this is the unavailability of efficient educational resources and infrastructure. This study uses a focus group of 300 students from the University of KwaZulu-Natal (UKZN) School of Economics. It attempts to examine and explain the effect of the use of mobile technology in academic activities within the school of economics at UKZN. The study divides the sample size in to two groups, half is given mobile technology and the remaining group is deprived of mobile technology. The data is recorded in two educational production functions, namely Ordinary Least Squares and Logistic Regression Model. The cumulative distribution function examines the probability, in form of Logit, that a student passes economic if using mobile technology for academic activities or studying. Study findings indicate that it is imperative that institutions invest in mobile technology as their learning tool to improve throughput rate and it allows efficiency in all academic activities. This study adopts a linear logistic educational production function approach, where many factor determinants of education are incorporated in order to predict students' pass rate. Educational inputs are independent variables and educational output will be a dependent variable. For this study, permission is received from the Head of Economics School before any questionnaire is distributed to the students. Students are not obliged to participate in this study.

Keywords: *M-Technology; production function, students' academic performance, M-Learning, Mobile Access*

1. Introduction

South Africa has 25.54% of unemployment (Trading economics 2018). A larger percentage is those who did not completed secondary education. Research shows that the youth that obtained both secondary and tertiary education stands better chances of getting employment (South African Development, 2008). Education has become the priority for government and companies. Education enables youth to get employment and those that are employed to remain employed. The government facilitates the accessibility of education by providing free education for all and investing in improved level of education (Dwolatzky 2014). Research reveals that previously disadvantaged schools are still performing lower than expected (Nkosi 2012). Most of these schools are situated in low-income societies where there is inadequate resources and infrastructure.

The University of KwaZulu-Natal is the biggest university in the KwaZulu-Natal province. It is situated in the province which is rated the third biggest rural area in the country. Most of the schools from the KwaZulu-Natal province are feeder schools for the University of KwaZulu-Natal. The University of KwaZulu-Natal enrolls approximately 56 079 students per year (depending on the availability of space) (Mike 2014). The University of KwaZulu-Natal has many libraries across its different five campuses, namely Westville, Edgewood, Pietermaritzburg, Nelson R Mandela school of Medicine and Howard College. Students at the University of KwaZulu-Natal are provided with a vast pool of information. The university conducts library orientations to help students understand how to use library and online library tools (UKZN 2016). Students mostly use the library as their social gathering place and for reading lecture slides. Some second and third years students experienced hassle to locate books around the library. The students use the library to search for books and journals when they had assignments. It remains a hassle for them to acquire all the required information using

library systems. This negatively affects their academic performance and has the potential to disadvantage them in the working place (Baran 2014).

Issues in the educational environment: Tertiary education is viewed as the solution for severe economic, political and social problems like unemployment, inflation and poverty. Therefore, the higher failure rate and dropout rate hinders the students' and the country's economic progress. The government of South Africa together with the private sector are investing a lot of money in education but the outcome is not appealing (Bokana 2011). The University of KwaZulu-Natal takes this as a serious matter and conducted research around this issue. A lot of research has been done around this topic and the observed trend has been characterised by the number of graduate students at the minimum prescribed time for a degree. During the period from 2004 to 2012, a total of 42% of students graduated at the minimum prescribed time for the degree, 19.45% was academically excluded, 6.98% taken drop with good academic records and 31.39% is still studying (Mike 2014).

The broadness of the transition between high school (Grade 12) education and university education (first year) also contributes to failure rate and drop out of the first year's students at the University of KwaZulu-Natal (Essack 2014). The issues regarding first-year students at the University of KwaZulu-Natal have become the core area of research for the past ten years. All the studies conducted in this research area show that there is higher failure and dropout rates at first year (Essack 2014).

The University of KwaZulu-Natal School of Science has experienced a student drop out of two-fold in a row; this adversely affects the graduation rate. First year's student's failure rate links back to high schools' education as high schools are required to provide the best education to their learners (Essack 2014). Most of the secondary schools are under resourced and some of the teachers are under qualified, thus their problems are being shifted to the universities. Students are required to meet the minimum requirements in order to be accepted at the university. Those students who are from low-income societies work hard to meet these minimum requirements and still find it hard to cope at the university level and adapt to the university teaching style.

The objectives of the study are as follows

- To analyse the role played by mobile technology in secondary and tertiary institutions.
- To assess the degree of UKZN economics students' exposure to educational mobile technology.
- To assess the extent to which economics students use Learning Management System in UKZN.
- To examine economics student's attitude towards the use of mobile technology for educational purposes.

Data Control: This study uses a quantitative research method; data was monitored to ensure validity and reliability. Validity is very important to make sure that data addresses what it supposed to address. To ensure correct measure of the objectives, all questionnaires were closed questions. Reliability test was conducted to ensure that same results are yield at any time under similar conditions (Clark and Creswell, 2007:350). This is discussed in Chapter one.

Research Problem: The University of KwaZulu-Natal is faced with financial problems and high failure rates; as in many other South African universities (Bokana, 2011). The adoption of m-technology is an attempt to solve both financial issues and failure rates simultaneously. This technology has the potential to reduce the amount of money the university spends on papers and printers (UKZN, 2016). Shifting from hard copies to soft copies is good for the environment, as less pollution will be produced. This study investigates if the introduction of mobile technology in UKZN will help improve the students' pass rate in the school of economics.

Academic performance in the school of economics: The University of KwaZulu-Natal experienced challenges within its various schools relating to throughput rate (Essack 2014). The many schools within the University of KwaZulu-Natal make it impossible for this study to analyse each and every school's performance. The focus will be narrowed to the School of Economics in the University of KwaZulu-Natal Westville Campus. The University of KwaZulu-Natal is experiencing high dropout and failure rates in the economics modules. The gatekeepers for a range of different degree programmes and qualifications in the Faculty of Law and Management Studies are now concerned about this low throughput rate. The blame for this poor performance

is linked to many factors, including poor secondary education, larger transition between university and secondary education. Other researchers' opinion based upon this matter is that economics is a difficult subject hence high failure rate is expected (Bokana 2011).

This study will analyse Economics 102 and Economics 201. The pass rate for Economics 102 module from 2013, 2014 and 2015 is 69.20%, 67.48% and 80.36% respectively. Economics 102 module shows an upward trend, but in 2014 there is a slight decline which is offset by the outstanding performance in 2015. The performance for Economics 201 module from 2013, 2014 and 2015 is 65.68%, 65.26% and 78.53% respectively. Economics 102 module and Economics 201 module, both have upward trends but Economics 201 module is relatively below Economics 102 module. The higher the failure rate for Economics 102 module and Economics 201 modules is the higher the chances of the university taking fewer new entrant students who want to study economics. This is an issue of concern, not only for UKZN but for all tertiary institutions. Improving the quality and equity of students' academic performance remains therefore the top priority for the South African Higher Education (Vithal 2015).

2. Mobile technology as a solution

The invention of portable technological devices like personal computers, smartphones, tablets and internet access has altered the social and economic lifestyle of modern people (EL-Hussein 2010). People are using these mobile technologies and the internet to get access to emails, news, financial information (Danylova O., Manako A., Synytsya K. And Voychenko O. 2004). These devices are popular to people because of their mobility and wireless functions (EL-Hussein 2010). M-learning is used to provide education in different organisations. It may be used for content delivery or specific training intended for a job training, performance support or an extra access to learning material for secondary and higher education institutions for students (EL-Hussein 2010). Health professionals are using podcasts as a form of mobile learning which is lately an important technological tool (Kalludi 2015). The advancement of technology has encouraged the use of technology by all range of ages and in everyday life activities. This may be due to its portability and affordability (Baran 2014). Researchers have invested their time researching on how mobile technology can be integrated with the learning system. There are some challenges like the lack of theoretical and pedagogical outlining sustainable interlink with formal education context and unavailability of teachers support and training (Baran 2014).

The development of Mobile Applications (Apps) and mobile services have made the use of technological devices very popular (Danylova, Manako et al. 2004). These mobile devices are designed such that they are user-friendly. In the past, technological limits made technology limited for educational purposes. Challenges like limited internet access, expensiveness, insufficient memory space, are now resolved to enable maximum utilisation of technology for mobile learning (Danylova, Manako et al. 2004). Mobile learning (M-Learning) has however become the platform to provide many educational activities. It is used for different purposes and for different needs, it may be used to deliver content or focus on training for jobs. It can also be in the form of learning application, performance support, to access learning materials by secondary institutions' students and higher educations' students.

The continuous advancement of technology is positively influencing life from all spheres. Most researchers are interested in the impact of the changing technology in education (Kim 2013). The society that is technological sound gives rise to new opportunities for learning. Not many years ago the learning environment evolved into e-learning and m-learning environment (Kim 2013), students are utilising all the different kinds of technology to learn. Common learning technological devices are Personal Digital Assistant (PDA), Ultra Mobile PC (UMPC), PC etc. Each device is developed for its different purpose, many applications and software are created to make these devices more usable. The differences are highlighted in the purpose for which these devices are created for, they come in different sizes with regards to mobility and portability. Researchers have not yet come up with the definition for mobile learning that includes the added benefits of it (Baran 2014). Different fields of study, for instance Engineering, Information systems and Healthy science define mobile learning in a way that suits their specific field. The definition of mobile learning highlights mobility, access, immediacy, stativity, ubiquity, convenience and (Baran 2014). Most of the mobile technology has been limited to social communication, thus fewer tertiary institutions regarded mobile learning as a core pedagogical activity (EL-Hussein 2010). Although these technologies are used to support learning such as lecturing and doing

assignments, it is not a core way of knowledge delivery in most institutions of higher learning (EL-Hussein 2010).

The value of mobile learning and e-learning is that it expands classroom discussions to be in other places through the network connection. The newly developed technology like cameras, imbedded sensors, location awareness, motion detection, social network, web searching and augmented reality, shows the need to upgrade learning and enable it to take place at different remote places, conceptual and social spaces, outdoor and indoor (Baran 2014). Mobile learning allows both lectures and students to have unlimited access to information, expediency, convenience, immediacy and these features are valuable to lectures and improve students' learning. Such features offer a chance for individualisation, collaborative, situated, and informal learning exclusive of classroom context limits (Baran 2014).

Quinn and Stein (2013) have called for attention to the important impact of e-learning on building the future education for both traditional and online schools. Maysami (2015) says there is direct instruction from traditional classes which is directed to the whole class, the speed of learning is monitored by a lecturer and they follow the textbook curriculum. The availability of e-tools that are applicable for both face-to-face and online formats, enable students to take a lead in the learning programmes and play a more preemptive part. Maysami (2015) disputes the definition of e-learning, stating that students should be the centre of their own learning, so technological systems must be designed to assist their learning progress.

Technology shifts education making it digital and reachable to everyone. E-learning allows adults, all nations and different race groups to gain learning openings through it multiple space capability and elastic times (Maysami 2015). Online courses satisfy the students provided that other attributes like lecture slides, online assessment, bulletin boards and other tools are available for them. Some students may prefer traditional learning and search online for extra help (Quinn & Stein 2013). To make online educational tools more usable, online courses are structured well and interactive to create a user-friendly environment (Tucker 2012). Open Australia University is regarded as the pioneer of e-learning. It experienced a doubled amount of student enrolment after fully introducing e-learning (Johnson 2015). Above 70% of the universities at the United State of America are providing e-learning programs (Johnson 2015). Full e-learning students are self-controlled and much disciplined because they have to set their learning goals, identify a proper learning strategy and put it into place (Johnson 2015). The University of KwaZulu-Natal recently adopted mobile technology for its learning purposes. The integration of mobile technology and teaching and learning gives hope that the pass rate at the University of KwaZulu-Natal will improve (UKZN 2016). The implementation of these technological tools goes together with certain challenges, which if disregarded may defeat the purpose of the implementation of m-technology (Ramorola, 2013). The challenges may include the attitude and usage of these tools by academic staff and students, affordability of these technologies, unavailability of technology policy, lack of teachers/lecturers qualified in technology integration and maintenance of these technologies (Baran, 2014). It is against this background that this study set out to find if the introduction of m-learning at UKZN can improve economics students' pass rate.

Location and Mobile Technology: University of KwaZulu-Natal is located in the KwaZulu-Natal province which is rated the 3rd province in the country that has the most rural areas. Most of the students that are admitted at the University of KwaZulu-Natal are local students (Mike, 2014). Students from low income rural areas are normally underperforming compared to students from high income societies (Vijay Reddy, 2012). Rural area is coded 1, zero otherwise (urban area =0), so the relationship between the location and students' academic performance is expected to be a negative relationship. The value of mobile learning and e-learning is that it expands classroom discussions to be in other places through network connection. These devices created attraction through their portability and mobility. Open Australia University is regarded as the pioneer of e-learning. It experienced a doubled amount of student enrolment after fully introducing e-learning (Johnson, 2015). Above 70% of the universities at United State of America are providing e-learning programs (Johnson, 2015). Fully e-learning students are self-controlled and much disciplined because they have to set their learning goals, identify a proper learning strategy and put it into place (Johnson, 2015). The relationship between mobile technology and students' performance is expected to be positive.

3. Methodology

The data used in this study was collected at the University of KwaZulu-Natal (Westville-Main Campus). The School of Economics has 2119 students that are currently registered for Economics 101 and Economics 201 modules. A simple random sampling was used to extract a sample size of 300 students. The sample size of 300 students was then divided in two groups. The first group was those that have personal computers based on the new university entry requirement that requires first year students to have personal computers. The remaining group of students was deprived to have technology. 62.40% of the students come from families where members of their families use mobile technology.

The University of KwaZulu-Natal is subjected to theories of production function like any other educational enterprise. In an educational enterprise, inputs are technologies, policies, resources, finances etc. and these inputs are used to educate students. Output would be the improved retention, higher graduation rate, more research output etc. This study adopts a linear logistic educational production function approach, where many factor determinants of education are incorporated in order to predict students' pass rate. Educational inputs are independent variables and educational output will be a dependent variable. The application of economics methods will assist in determining the efficiency of educational input to improve educational output (Horn et al. 2011). Previous studies used performance of students in each module (subject) taken, an average mark achieved in a year, a number of credits obtained in a year and a ratio of passed examinations over attempted examinations to determine output (Bokana 2011).

The University of KwaZulu-Natal grades students' academic performance from 0–100 percent, marks above a 50% are regarded as a pass. A student that obtains a mark ranging from 40%–49% is granted with a supplementary examination. Students that are granted with a supplementary examination, their main examination marks are disregarded. Supplementary examination mark would be considered for that specific module that a student is granted a supplementary examination on. Pass marks enable the students to progress to the next level or major in those particular modules. A test and final examination mark is a continuous variable, taking any value ranging from 0-100, depending on a performance of a student. Bokana (2011) says in order for a test mark or final mark to be treated as a dependent variable, it must be a discrete variable. A test or final examination mark can be considered as a continuous variable and in other case considered as a discrete variable, where final examination mark or test mark is changed into probability of getting a pass or fail.

Students' academic performance is influenced by qualities of staff members (administrators, lectures, Academic Development Officers and others), qualities of the university (in this case it's UKZN) and qualities of a student.

For this study, permission is received from the Head of Economics School before any questionnaire is distributed to the students. Students are not obliged to participate in this study. It is outlined in the questionnaire form that participation is completely voluntary and anonymous. Those students that are willing to participate in the survey will have to complete a consent form which comes with the questionnaire form. The researcher will make sure that all the participants remain unknown and any information they provided is kept safe and will not be given to a third part for whatever reason. Below is Educational Production Function

$$P_{ij} = f(A_{ij}, I_{ij}, S_{ij}, U_{ij}) \dots\dots\dots (1)$$

Where,

P_{ij} – Educational output, in terms of i^{th} student' marks, obtained in j^{th} module (continuous dependent variable takes values from 0 to 100)

A_{ij} – is the qualities of the staff members (Administrator, Lectures and ADOs) of i^{th} student in j^{th} module

I_{ij} – is the qualities of the academic institution (UKZN) used to elaborate i^{th} student' achievement for j^{th} module.

S_{ij} - i^{th} student' qualities that explain his achievement in j^{th} module.

U_{ij} - error term

The error term in the above production function acknowledges that there are many other factors that influence educational output, so it incorporates them.

Equation (1), states that, qualities of academic staff, qualities of academic institution and qualities of a student jointly relates to students’ academic performance, ceteris paribus.

Specifications for educational production functions are subjected to changes. Previous studies say that, a bond between educational output and educational inputs do not correspond in the exact form of functional relationship (Horn et al., 2011). To account for the incoherencies in the educational production function, this study adopts a linear educational model.

$$P_{ij} = \beta_1 + \beta_2 A_{ij} + \beta_3 I_{ij} + \beta_4 S_{ij} + U_{ij} \dots \dots \dots (2)$$

Where,

P_{ij} – Educational output (final examination or test marks), in terms of i^{th} student’ marks, obtained in j^{th} module (continuous dependent variable takes values from 0 to 100)

Factors influencing educational output

A_{ij} – is the qualities of the staff members (Administrator, Lectures and ADOs) of i^{th} student in j^{th} module

I_{ij} – is the qualities of the academic institution (UKZN) used to elaborate i^{th} student’ achievement for j^{th} module.

S_{ij} - i^{th} student’ qualities that explain his achievement in j^{th} module.

U_{ij} - Error term

β_1 – Constant

β_2, β_3 and β_4 – are unknown variables that need to be estimated.

Equation (2), states that, qualities of academic staff, qualities of academic institution and qualities of a student are linearly and jointly related to students’ academic performance, ceteris paribus.

Qualities of academic staff and qualities of institution changes greatly if students’ academic performance is compared across different HEIs. In a single HEI, one lecture could teach same class and that class be subjected to the same administrator. Information regarding I_{ij} and A_{ij} is usually not collected and kept at UKZN. Students’ data is only kept for one year, therefore it is important to keep I_{ij} and A_{ij} constant. Equation (2) is now left with the qualities of students. All the other factors are now constants. Qualities of students (S_{ij}) are further broken down into students’ demography represented by S_d , students’ abilities represented by S_b etc., ceteris paribus. Equation (3) incorporates the above mentioned change and it is tailored specifically for UKZN-CLMS-School of Economics.

$$P_{ij} = \beta_1 + \beta_2 S_{dij} + \beta_3 S_{bij} + U_{ij} \dots \dots \dots (3)$$

Where,

P_{ij} – Educational output (final examination or test marks), in terms of i^{th} student’ marks, obtained in j^{th} module (continuous dependent variable takes values from 0 to 100)

Factors influencing educational output

S_d – Students’ demography qualities like age, gender, race, location etc.

S_b - Students’ abilities. Hours of study, class attendance, tutorial attendance, studying using mobile technological.

U_{ij} – Error term

β_1 – Constant

β_2 & β_3 – unknown variables, need to be estimated.

4. Results and Analysis

All the data was recorded on Google Spread Sheet (google excel) and transferred into statistical software for a detailed analysis. Errors that might have occurred in the transcribing process were checked and corrected accordingly. STATA 14 software package was used to analyse data. This quantitative study uses a Likert scale as the measurement tool. It is a 4-points Likert scale, one-sided starting from strongly disagrees to strongly agree. The questionnaire forms have 7 sections, the first section contains information regarding the researcher, supervisor, definitions, message to the participants and a consent form. The second section asks information concerning participants’ demography, the third section focuses on participants’ academic characteristics. Section four to the last section asks questions based on the objectives of this study. The questionnaire form asks a total number of 26 questions, 16 questions are based on the objectives of the study and the remaining 10 questions ask about the participant’s demography and academic information.

Two regression models were conducted to examine the effect of mobile technology towards students' academic performance. The first regression model includes all the variables and the second regression model excludes mobile technology variable. The difference between these two regression models is the effect of mobile technology towards the students' academic performance.

P_{ij} = SAP (Students' Academic Performance)

Where, $SAP = \beta_1 + afr\beta_2 + ind\beta_3 + col\beta_4 + males\beta_5 + rural\beta_6 + m-tec\beta_7 + ca\beta_8 + ta\beta_9 + hours\beta_{10} + u$

Dummy variables : Race (Africans, Indians, Coloureds and Whites), Gender (Male & Female), Location (Urban & Rural), m-technology (1:Never to 3:Always), class attendance (1:Never to 3:Always), tutorial attendance (1:Never to 3:Always) and hours of study (1 to 7 hours).

Race, Gender and Location variables has reference categories "White", "Female" and "Urban" respectively whereas for other variables reference categories is set as highest value.

Table 1: Regression Model 1

Independent Variables	Coefficients	Std. Error	t-value	p-value	95% Confidence Interval	
					Lower Bound	Upper Bound
Intercept (Constant)	1.386X10 ⁻¹³	2.83X10 ⁻¹⁴	4.894	<0.001	8.28 X10 ⁻¹⁴	1.94 X10 ⁻¹³
Afr	-3.3X10 ⁻¹⁴	9.39 X10 ⁻¹⁵	-3.509	<0.001	-5.1 X10 ⁻¹⁴	-1.4 X10 ⁻¹⁴
Ind.	-3.18X10 ⁻¹⁴	1.04 X10 ⁻¹⁴	-3.045	0.003	-5.2 X10 ⁻¹⁴	-1.1 X10 ⁻¹⁴
Col.	-3.29X10 ⁻¹⁴	1.06 X10 ⁻¹⁴	-3.101	0.002	-5.4 X10 ⁻¹⁴	-1.2 X10 ⁻¹⁴
Males	-3.03X10 ⁻¹⁵	5.22 X10 ⁻¹⁵	-0.580	0.562	-1.3 X10 ⁻¹⁴	7.25 X10 ⁻¹⁵
Rural	5.333X10 ⁻¹⁵	4.71 X10 ⁻¹⁵	1.133	0.258	-3.9 X10 ⁻¹⁵	1.46 X10 ⁻¹⁴
M-Tec	5	4.39 X10 ⁻¹⁵	1 X10 ¹⁵	<0.001	5	5
C.A	5	5.03 X10 ⁻¹⁵	1 X10 ¹⁵	<0.001	5	5
T.A	5	6.08 X10 ⁻¹⁵	8 X10 ¹⁵	<0.001	5	5
Hour.S	5	1.80 X10 ⁻¹⁵	3 X10 ¹⁵	<0.001	5	5

Table 1 shows that hours of study (Hour.s), tutorial attendance (T.A), class attendance (C.A) and mobile technology (m-tec) are significant variables to predict student academic performance (p-value <0.01). Africans, Indians and Coloureds have significantly more influence on academic performance as compared to White students. Gender and Area of the students do not have significant influence on their academic performance (R² value for the model= 1).

Table 2: Regression Model 2

Independent Variables	Coefficients	Std. Error	t-value	p-value	95% Confidence Interval	
					Lower Bound	Upper Bound
Intercept	14.485	1.688	8.579	<0.001	11.162	17.808
Afr	-1.337	0.622	-2.149	0.032	-2.562	-0.113
Ind.	-2.243	0.684	-3.279	0.001	-3.591	-0.897
Col.	0.078	0.708	0.110	0.912	-1.316	1.472
Males	0.010	0.349	0.029	0.976	-0.676	0.697
Rural	0.627	0.312	2.010	0.045	0.013	1.242
C.A	5.265	0.335	15.702	<0.001	4.605	5.925
T.A	4.473	0.404	11.061	<0.001	3.677	5.269
Hour.S	5.054	0.120	42.081	<0.001	4.818	5.291

$SAP = \beta_1 + afr\beta_2 + ind\beta_3 + col\beta_4 + males\beta_5 + rural\beta_6 + ca\beta_7 + ta\beta_8 + hours\beta_9 + u$

Table 2 shows regression model 2 which includes every variable but not mobile technology variable. This regression model examines the students' academic performance in the absence of mobile technology (R^2 value for the model is 0.945).

Mobile technology is positively affecting the students' academic performance by increasing their academic performance. The standard error of the regression is used as the measure the goodness of fit for regression line. The smaller the value of the standard error reflects better fit of the model. Thus, smaller the standard error of independent variable, the more reliable variable is as an estimator. In both tables 1&2 the standard errors are relatively small.

$$SAP = \beta_1 + \alpha fr\beta + ind\beta + col\beta + males\beta + rural\beta + m-tec\beta + ca\beta + ta\beta + hours\beta + u \dots \dots \dots 4$$

$$SAP = \beta_1 + \alpha fr\beta + ind\beta + col\beta + males\beta + rural\beta + ca\beta + ta\beta + hours\beta + u \dots \dots \dots 5$$

Subtraction of equation 5 from equation 4 gives following generalized equation....

$$SAP = m-tec\beta$$

Therefore, the coefficient on m-tec is 5. On average, as the use of mobile technology increase by 1%, the students' academic performance incline by 5% everything else kept constant.

Logistic regression model: It is used to determine the success of the economics students in UKZN-CLMS-School of Economics. The dependent variable is now treated as binary. It only take two values, 1 means pass and 0 means fail. Nonlinear probability model varies the marginal effect of independent variables (SAP) on dependent variables (P_{ij}) as the values of the independent variables are increasing. This feature makes nonlinear probability models a better model of actual behaviour than linear probability models.

Table 3: Logistic regression

SAP	Coefficient	Std. Error	Z-value	p-value	95% Confidence Interval	
					Lower Bound	Upper Bound
Hours	1.3.88	0.619	2.24	0.025	0.175	2.601
ta	0.127	0.681	0.19	0.852	-1.208	1.463
ca	1.433	0.761	1.88	0.060	-0.057	2.925
mtec	3.624	2.066	1.75	0.079	-0.443	7.673
Constant	-10.583	6.127	-1.73	0.084	-22.591	1.425

Log likelihood for this regression model is -13.398. The coefficient for m-tec is positive, therefore the larger the number of students using mobile technology in their academic activities, the higher the probability of their academic performance improve.

When more students attend their tutorials (ta), the higher the probability that students' academic performance improves.

When more students attend their classes (ca), the higher the probability that students' academic performance improves.

5. Conclusion and Recommendations

This study reveals that technology can be used in the educational environment and can benefit the users. Technology is able to reach all the corners of the country because it is rapidly developing and more people are reliant on it. Technology is quickly responding to the needs of the market and can address the issues regarding education as outlined above. Those issues included the limited access to educational resources and the higher failure rate. Technology is able to reach many places, mobile technologies can be used to spread out education at a cheaper cost. Majority of the students came from families where members of their families use mobile technology. This is an evidence of technological acceptance by the youth. These students are eager to use mobile

technology for their studies. The positive acceptance of mobile technology by students show that students believe that mobile technology can improve their academic performance.

Limitations and future research: The challenge in this study was the fewer respondents who initially participated in the survey. This was an anticipated challenge, thus the researcher had to visit the students during their lectures and during tutorials to encourage them to participate in the survey. The Academic Leader for economic, administrators and tutors played a huge role in encouraging students to take part in this survey. Another limitation was that the survey questions were sent using google forms; students who did not have an account with google were required to open one to facilitate their participation in the study. This study was only focused on the college of a university. This restricts the derivation of conclusions beyond this entity. The study attempts to evaluate students' success, this is a building block on which junctures of interventions and further steps can be taken to enhance efficiency, quality of teaching, effectiveness, research setting of a college and learning. Future research can possibly generalise across more than one university.

This study's objectives were to use only a cross-sectional data, not longitudinal. Where a good set of longitudinal data is available, a preferable approach would have been to use longitudinal data. The study would have created a pooled regression analysis to accommodate for a longitudinal evaluation of what explains different levels of students' performance in the same modules over time. Applying the same methodology, this study would have included a longitudinal examination across the universities of South Africa. For example, what explains the different performance in the same module between universities that have same assessments. This study opened the door and encouraged better research using sufficiently robust longitudinal data.

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The Effect of Smartphones on Students' Academic Life: A Perceptive from A South African University

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Abstract: A smartphone is an advanced mobile phone device that has improved considerably in the 21st century with the accommodation of many features such as accessing emails, biometrics, online shopping, social media, and many more. The smartphone has also made students' lives easier, as they can access their school information on the gadget through electronic learning (e-learning), and mobile learning (m-learning). This study aimed to investigate the effects of smartphone usage on university students' learning processes in a developing country. To achieve the main aim, the objectives of the study are: to determine the advantages and disadvantages of students' usage of smartphones, to assess how students use their smartphones in expanding their educational career, and to determine factors that motivate students to use smartphones. A quantitative research methodology was used, while data collection was done through questionnaires comprising a sample size of 375 respondents. The study found that smartphone usage has a positive effect on students' academic progress, as they can access their academic material; it has improved their academic results and also improved their social networking.

Keywords: *Smartphones, Internet, Academic, Education, Learning*

1. Introduction

The inception smartphones can be traced back to mid-90s; this was the first advanced mobile phone with computer functionality (Lundquist, Lefebvre & Garramone, 2014; Alson & Misagal, 2016; Alfawareh & Jusoh, 2014). Ever since then, smartphones have become a device highly in demand due to its power to perform basic and advanced computer functions. A smartphone is a small handheld device that can be kept in a pocket or a handbag. Some smartphones have sophisticated applications such as biometrics, cameras, and scanners (Alfawareh & Jusoh, 2014), and as human lives keep evolving, so has this technology too in making people's lives easier.

The use of smartphones provides high quality performance and quick access to information and entertainment, such as mobile audio and video calls, mobile teleconferencing, sending and receiving emails, and easy access to the internet for different kinds of people, including students (Ebiye, 2015). The researcher further regards smartphones as a smart device used for fast access to knowledge geared towards students achieving their teaching and learning and academic research objectives. Achieving these academic objectives involves an effective usage of smartphones by students. However, there are as yet insufficient empirical studies that cover the effective application of smartphones by students in achieving their academic learning journey. Based on the lack of empirical facts, the objectives of the study are: to determine the advantages and disadvantages for students using smartphones, to assess how students use their smartphones in expanding their educational journey, and to determine factors that motivate students to use smartphones in developing countries.

2. Literature Review

Technology impacts student lives daily pertaining to their academic work and personal engagement with peers and lecturers (Mofikoe, 2015). There are many ideas about how smartphones could be integrated in learning processes. Students can make good use of their smartphones anytime, to listen to music, play videos and many more; the technology is characterised as 'always on' portable devices, which encourage spontaneous interaction (Sedighi & Soyooof, 2013). The most common reported uses of smartphones and other mobile

devices include finding information and taking notes, as well as searching and reading academic materials (Boruff & Storie, 2014).

Background: The North-West University, Mafikeng Campus, consists of middle- to low-income students (Chukwuere, Mbukanma & Enwereji, 2017), and they are given the opportunity to connect to the internet via their smartphones, which assists them in accessing academic contents and social networking. With the aid of these devices, students learn in and out of the classroom by having quick access to the internet and easy retrieval of information on the University's e-learning platform and any other web portal. According to Alfawareh and Jusoh (2014), smartphones are in the category of mobile phones with data processing capacity similar to personal computers. They run on a complete operating system application, similar to a traditional computer, which offers advanced computing abilities and connectivity. With advanced computing capacity and other features, smartphones have quickly gained popularity (Olivier, 2011).

Smartphones play a very important role in students' learning, especially in teaching and learning and research (Ebiye, 2015). A great deal of relevant information is available online that students can access through their smartphones. However, there are some questions that call for attention when it comes to students using smartphones in their academic journey. The questions involve the following: Do students benefit from using smartphones academically? What are the major challenges that students come across in accessing desired information using this device? Is it helping to improve students' academic performance? Despite their essential roles in education, little is known about smartphones' impact on the information-seeking behaviours of students (Ebiye, 2015; Mokoena, 2012). This is the perceived existing gap in knowledge that this study seeks to bridge. Nonetheless, there are several studies on the use of smartphones by students, but relatively little is known about the impact of smartphones on the academic performance or life of students of the NWU, Mahikeng.

Smartphones in learning: The history of smartphones can be traced back to the mid-90s with all the effort to change lives (Lundquist et al., 2014; Alson & Misagal, 2016; Gowthami & VenkataKrishnaKumar, 2016). The transformation brought about by smartphones also affects students (Jesse, 2015). Jesse (2015) states that smartphones are becoming a necessity in life. Modern technology-aided learning is categorised into three points, extending from "conventional electronic learning (e-learning) to mobile learning (m-learning) to context-aware-ubiquitous-learning", which all can be performed on smartphones. These three stages provide a platform where smartphones can aid students' learning experience in a developing country. In this regard, Kibona and Mgaya (2015) suggest that smartphones facilitate easy communication between students and lecturers in activating learning environment-independent and functional access to learning contents.

Learning on smartphones can be regarded as m-learning, which involves wireless connection that allows students access to resources beyond boards. By default, m-learning includes three components: mobility of learners, mobility of technology, and mobility of learning processes. Mobility of technology is regarded to mobile nature of hardware and software that allow endless wireless internet connectivity (Yu, Bamis, Lymberopoulos, Teixeira & Savvides, 2008). The mobility of learners is seen learners who are "no longer physically attached to one or several learning sites"; but they can learn on a go and mobile (social media and many more) at the same time. Finally, advancement of learning is regarded as the "mobility of both the technology and learners" (Yu et al., 2008). The presence of smartphones and their applications by students revolutionised the teaching and learning process. However, the more students use smartphone, the more they are exposed to many positive and negative impacts.

Smartphones in institutions of higher learning: Being able to use smartphones as a learning tool can be very helpful in cases where access to a computer or laptop is restricted. A smartphone does not suffer restrictions to an area, and one is free to move from one place to another (Olivier, 2011). Smartphone technology inescapably evolves students' behaviours. Students tend to focus more or rely on their smartphones in relation to their school work or social networking. A survey done by Course Smart in 2011 shows that students cannot go long without checking their smartphones. Based on the infographic research. HackCollege.com found that 57% of learners use smartphones, 60% say they are smartphone addicted, 75% sleep next to their smartphones, 88% send messages before they turn to sleep, 97% of owners of smartphones use them for social networking and 40% use smartphones to read school work (Alexander, 2011). From all indications, the use of

smartphones is a common phenomenon in the education environment. Students, lecturers and academic institutions in developing countries are gradually adopting m-learning in communicating with students, staff and others, in delivering learning contents, social media learning name them. The amount of interest and investment by academic institutions in smartphones for teaching and learning are proof of a great future ahead.

3. Research Methodology

Methodology is a logical approach to research that entails an apparent preference for methods and techniques within the framework of detailed ontological and epistemological positions (Mouton & Muller, 1998). According to Mouton and Muller (1998), methods and techniques refer to the actual apparatus employed in research. Research methodology is a way to systematically solve the research problem. There are different forms of research: quantitative, qualitative and mixed-method research (Chukwuere, Mavetera & Mnkandla, 2016). The quantitative method is evidence- and data-based research, which is numerical in nature (Chukwuere, 2013). Data collected through quantitative research is summarised. Questionnaires are used to collect data and obtain data appropriated to the objectives and the research questions (Nthutang, 2015). Ntseme and Chukwuere (2017) suggest that questionnaires help a researcher to gain primary and core data. This research collects data using a quantitative research methodology, whereby the researcher collects data from students using questionnaires to get the answers to the research questions. The questionnaire contained closed-ended questions, structured to meet the expectation of the study. A total of 375 respondents participated across the population of 11 657 registered students in 2016. The faculties involved in the study are: Commerce and Administration (142), Humanities and Social Sciences (62), Education (53), Law (89) and Science and Agriculture (29). Participants from these faculties make use of smartphones on and off campus for personal and academic purposes.

Data was collected randomly from respondents and all 375 questionnaires were returned and analysed. Therefore, this study recorded a 100% questionnaire return rate. The participants were selected as a result of their high usage of smartphones in and off the university in support of teaching and learning and personal life purposes. However, the sample size was drawn applying Krejcie and Morgan's (1970) sample size determination technique. The technique allows researchers to gather 375 participants as a sample size within a population of 15 000. This technique has been applied in literature by researchers since inception (Ntseme, Nametsagang & Chukwuere, 2016).

4. Results and Analysis

This research was analysed using the Statistical Package for Social Sciences (SPSS) version 22, applying descriptive statistics through tables. This section presents the results as obtained from the questionnaires. The questionnaire was structured into: demographics of the students; advantages and disadvantages of using smartphones in learning; smartphones expanding students' educational experience; and factors motivating students to use smartphones.

Demographics of the students: The demographic questions aimed to establish the personal particulars of the respondents. The findings revealed that 56.9% are 18 to 22 years old, 22.6% are 23 to 26 years old, 9.6% are 27 30 years old and 10.6 % are 31 and older. Most students at the NWU who took part are between the ages of 18 and 22 years old, suggesting that the respondents are young students. With regard to gender, the study found that 230 (61.2%) of the respondents are male, while 145 (38.6%) are female. The study also recorded that 127 (33.8%) are doing their second year, 90 (23.9%) are in their third year, and 68 (18.1%) are postgraduate students.

The advantages and disadvantages of smartphones on learning: In this section, the advantages (opportunities) and disadvantages (threats) of owning a smartphone are presented. From the literature study, it was recorded that different kinds of advantages and disadvantages exist for students using smartphones. To demonstrate the advantages and disadvantages, the analysis began by determining whether respondents use smartphones. It was established that 357 (94.9%) of the students use smartphones, while 18 (4.8%) students do not use smartphones. The findings indicate that students in developing countries are using smartphones for different reasons.

Table 1: Smartphones improve social life

	Frequency	Percent	Valid percent	Cumulative percent
Yes	260	69.1	69.3	69.3
Maybe	101	26.9	26.9	96.3
No	14	3.7	3.7	100.0

In Table 1, 260 (69.1%) respondents suggest that smartphones improve their social lives, while 101 (26.9%) are not sure whether it does. This implies that for the majority of the respondents, smartphones improve the social lives of students, which indirectly impacts upon their academic lives.

Table 2: Smartphone improves access to your learning material

	Frequency	Percent	Valid percent	Cumulative percent
Yes	334	88.8	89.1	89.1
Always	22	5.9	5.9	94.9
No	19	5.1	5.1	100.0

Table 2 above shows that 334 (88.8%) suggest that smartphones improve access to their learning material, 22 (5.9%) state always and 19 (5.1%) do not see any improvement. This indicates that many of the respondents believe that smartphones improve access to their learning material, which is an advantage to them.

Table 3: Smartphones affect academic performance or results, are time consuming and are distractions in class

	Yes	Sometimes	No
Smartphones improve academic performance or results	141	181	50
	37.5%	48.1%	13.3%
Using smartphones is time consuming	165	176	34
	43.9%	46.8%	9.0%
Using smartphones can be distracting in class	163	159	53
	43.4%	42.3%	14.1%

Table 3 above shows that 141 (37.5%) of the respondents concur that smartphones improve their academic results, 181 (48.1%) say it does sometimes, and 50 (13.3%) say it does not. This finding indicates that sometimes smartphones do improve the academic results of the students. In general, the finding establishes that using smartphones has a positive impact on students' academic performance. In the same manner, smartphones can be disadvantageous to students (time consuming and a distraction in class). Table 3 above also shows that 165 (43.9%) indicate that using smartphones is time consuming, while 176 (46.8%) suggest sometimes and 34 (9.0%) believe it is not time consuming. This demonstrates that more respondents reflect that using a smartphone is time consuming sometimes, which can be disadvantageous to them.

Furthermore, Table 3 above displays that 163 (43.4%) categorically state that smartphone usage in the classroom is distracting, while 159 (42.3%) are of the view that sometimes smartphones are distracting and 53 students (14.1%) do not feel distracted at all. This infers that the majority of participants believe that using smartphones is mostly distracting in the classroom; the distracting nature of it is a disadvantage to them in their learning process.

Smartphones expanding students' educational experience: Smartphone usage by students can expand the educational experience, provided it is used effectively. The researchers used this section to understand what students do with their smartphones, or rather, to determine what they do with their smartphone towards enriching their academic learning experience. Firstly, participants were asked different learning functions their smartphones can perform, such as access to email, submitting assignments, chatting, taking videos and many more. These are different kinds of tasks that participants can engage in on their smartphones for academic

purposes. The findings show that 48 (12.8%) use their smartphones to chat, 38 (10.1%) say access to email, four (1.1%) use it to take and share pictures, seven (1.9%) do online shopping, 33 (8.8%) make use of video and voice recording, eight (2.1%) access assignments/learning materials, 30 (8.0%) combined using their smartphone to chat, have email access, access assignments/learning materials, music and video player, and video recording. In general, 187 (49.7%) state that their smartphones can perform many activities, while 20 (5.3%) use their smartphones to chat, access email, take and share pictures, as well as access assignments/learning materials. The findings entail that most of the respondents' smartphones can do all normal functions as indicated; these functions can be used to expand educational experiences if used effectively. However, it is also indicated that chatting is among the top functions students do on their smartphones.

Table 4: Preferred devices for your academic work

	Frequency	Percent	Valid percent	Cumulative percent
Smartphone	35	9.3	9.3	9.3
PC	143	38.0	38.1	47.5
Laptop	197	52.4	52.5	100.0

Table 4 shows that 35 (9.3%) prefer to use smartphones to do academic work, 143 (38.0%) use PCs and 197 (52.4%) use a laptop. The finding shows that more students prefer to use their laptop to do their academic work. Students prefer to use their laptop for academic work rather than smartphones and PCs. The finding means that PCs are gradually fading away among students. The participants' lesser interest in smartphones can be associated with the fact that students in a developing country are not aware of or understand that smartphones can be used in the place of a laptop and desktop for learning purposes.

Table 5: Frequency usage smartphone for learning activities

	Frequency	Percent	Valid percent	Cumulative percent
Sometimes	265	70.5	71.0	71.0
Always	90	23.9	24.1	95.2
Never	14	3.7	3.8	98.9

In Table 5 above, it was found that 265 (70.5%) of the respondents sometimes use their smartphones for learning activities, while 90 (23.9%) use it always and 14 (3.7%) never use their smartphones for learning activities. This finding is aligned with Table 4 in stressing lack of awareness or understanding, which led to the majority of the respondents saying that they sometimes use their smartphones for learning activities.

Table 6: Available social networks (applications) use for learning

	Frequency	Percent	Valid percent	Cumulative percent
WhatsApp	57	15.2	15.2	15.2
Instagram	2	.5	.5	15.7
Facebook	46	12.2	12.3	28.0
YouTube	66	17.6	17.6	45.6
Google+	91	24.2	24.3	69.9
WhatsApp, Google+, YouTube	42	11.2	11.2	81.1
YouTube, Google+	24	6.4	6.4	87.5
WhatsApp, YouTube	26	6.9	6.9	94.4
WhatsApp, Google+	21	5.6	5.6	100.0

It was found in Table 6 that 57 (15.2%) of the respondents use WhatsApp for learning, two (0.5%) use Instagram, 46 (12.2%) use Facebook, 66 (17.6%) use YouTube, 91 (24.2%) use Google+, 42 (11.2%) respondents use WhatsApp, Google and YouTube, 24 (6.4%) use YouTube and Google+, 26 (6.9%) use WhatsApp and YouTube, and 21 (5.6%) use WhatsApp and Google+. This finding implies that many respondents use Google+ as social media network for learning; however, participant's preference for Google+

is because they thought that Google+ is the same as the Google search engine. Nonetheless, the findings further imply that students use social media networks via their smartphone as an effective learning device.

According to Table 7 above, 178 (47.3%) support the notion that smartphones should be allowed to be used in class, 46 (12.2%) strongly agree, 64 (17.0%) disagree and 87 (23.1%) strongly disagree. These findings indicate that the majority of students agree that smartphones should be allowed to be used in class, as it has a positive impact on their studies. Furthermore, 277 (73.7%) agree that they can easily contact a lecturer for study purposes using smartphones, 57 (15.2%) strongly agree, 31 (8.2%) disagree and 10 (2.7%) strongly disagree. In advancing effective learning through smartphones, respondents can easily contact a lecturer for study purposes using their smartphones, which has a positive impact on their studies. The study also found that 177 (47.1%) suggest that lecturers use their smartphones to communicate with them, 51 (13.6%) strongly agree, 120 (31.9%) disagree and 27 (7.2%) strongly disagree. This finding implies that many lecturers are using their smartphones to communicate with students, and by so doing their smartphones influence teaching and learning positively. These findings prove that smartphones can actually expand students' learning experience in a positive manner in a developing country.

Factors motivating students using smartphones: There are a number of factors that motivate students to purchase or use smartphones. The aim of this question was to establish those factors that motivate students to use smartphones. To provide the factors, the following questions were asked in Tables 8, 9 and 10:

Table 7: Using smartphone in class and easy communication

	Frequency	Percent	Valid percent	Cumulative percent
Agree	254	67.6	67.7	67.7
Strongly agree	97	25.8	25.9	93.6
Disagree	4	1.1	1.1	94.7
Strongly disagree	20	5.3	5.3	100.0

Table 8: Easy access to school material through smartphone

	Agree	Strongly agree	Disagree	Strongly disagree
Using smartphone in class	178 47.3%	46 12.2%	64 17.0%	87 23.1%
Easily contacting lectures for study purposes	277 73.7%	57 15.2%	31 8.2%	10 2.7%

Table 8 above aimed to determine whether using smartphones to access academic materials motivates students' usage. It was found that 257 (67.6%) of the respondents access their school work via their smartphones, 97 (25.8%) strongly agree, four (1.1%) disagree and 20 (5.3%) strongly disagree with the question. The findings indicate that the majority of the respondents get easy access to academic materials through their smartphones, and this can be among the main factors motivating students to use smartphones.

Table 9: Monthly expenditure on data bundle

	Frequency	Percent	Valid percent	Cumulative percent
R30-R60	74	19.7	19.7	19.7
R60-R90	43	11.4	11.5	31.2
R90-R120	66	17.6	17.6	48.8
R120 or more	192	51.1	51.2	100.0

The question in Table 9 aimed at ascertaining how much students spend monthly on data bundles, and whether access to data can be a motive. Table 9 shows that 74 (19.7%) of the respondents spend between R30 and R60, 66 (17.6%) between R90 and R120 (17.6%), and 192 (51.1%) spend more than R120 on data bundles monthly. This implies that many of the respondents spend R120 or more on data bundles monthly; the higher spending can be attributed to the fact that respondents use smartphones for learning purposes. However, according to Chukwuere et al. (2017), students from the middle- and low-income families spend between R10 and R30 on average monthly on data. However, access to mobile data may not be a motive due high cost.

Table 10: Addicted to smartphone

	Frequency	Percent	Valid percent	Cumulative percent
Yes	181	48.1	48.3	48.3
Maybe	140	37.2	37.3	85.6
No	54	14.4	14.4	100.0

Research suggests that students are getting more addicted to smartphones. As per Table 10 above, 181 students (48.1%) suggest that they are addicted to their smartphones, while 140 (37.2%) are not sure whether they are addicted, and 54 (14.4%) are not addicted. This finding implies that many respondents are addicted to smartphones in performing different functions and this can be a form motivation to use smartphones. This addiction can be an advantage to the students in a sense that more academic works are performed and it can be a good motive; however, it can be distractive, which is disadvantage.

Discussion

As noted earlier, this study focused on the effects of smartphone usage on university students' academic lives, in this case, in a developing country. This discussion on the findings establishes connections with the research objectives (questions) and may be backed by existing literature studies.

The advantages and disadvantages of smartphones for learning: The aim of this first research objective was to understand the advantages and the disadvantages of smartphones in learning processes. An analysis of the research survey shows that approximately 94.9% students do use smartphones and the other 4.8% do not use smartphones. It was found that 69.1% state that smartphones improve their social lives, but 3.4% disagree. The high usage of smartphones is an indication that the device is advantageous for the users. Kibona and Mgya (2015) argue that access to smartphones enhances student productivity (socially and academically). The literature supports Tables 2 and 3, which proves that smartphone usage by students improves access to learning materials and academic results. The usage can also improve their social lives. Gowthami and VenkataKrishnaKumar (2016) also suggest that smartphones improve distance learning with better access to information and learning materials.

The study further shows that smartphone usage by students can be disadvantageous, as Table 4 identified that 46.8% of the respondents believed that the use of smartphones is "sometimes" time consuming, while 9.0% disagree. This is an indication that the smartphone can be disadvantageous because it is time consuming. The finding is aligned with Gowthami and VenkataKrishnaKumar's (2016) study, which proves that smartphone users, on average, check their phone 34 times daily. The amount of time spent daily on the gadget suggests elements of sustained distraction and addiction (Table 10). The study also found that 73.4% of the respondents say that smartphones distract them in class, while 14.1% disagree.

According to Gowthami and VenkataKrishnaKumar (2016), and Kuznekoff and Titsworth (2013), the application and usage of smartphones by students are distracting to users and people around them. Some say they do not have smartphones and therefore it does not improve their academic lives or their social lives; however, based on the results, evidence shows that smartphones do play a vital role in the lives of those students who have these gadgets, as it has improved access to their learning materials. Students can access their emails in case they are not on the school premises (Gowthami & VenkataKrishnaKumar, 2016), which is one of the advantages of using a smartphone. Generally, smartphones improve academic and social lives, and are also disadvantageous if not applied properly.

Students using smartphones to expand their educational experience: The second research objective aimed at understanding how the use of smartphones expands students' educational experience. The findings indicated that smartphones can perform different things, but they all have one thing in common, which is to chat across different social networking sites to expand students' learning experience. Kuznekoff and Titsworth (2013) regard chatting as one of the benefits of using smartphone. The study also found that 52.4% of the respondents prefer to use their laptop to carry out academic works, while 38.0% prefer to use their PCs. For social networking, 83.8% prefer to use their smartphones, while 6.1% prefer to use PCs. Table 7 found that 70.5% of the respondents sometimes use their smartphones for learning activities, and 3.7% never use their smartphones for learning activities.

Participants suggested that an expansion of educational experience is facilitated through the use of social networks. The study found that Google+ expands their learning experience and therefore smartphones should be allowed in classrooms, as suggested by the participants in Tables 9 and 10. This study proves that smartphone usage allows NWU students to connect with lecturers and vice versa, and they follow students. This suggestion was in line with Kibona and Mgaya (2015), who state that smartphones facilitate easy communication between students and lecturers. However, the experiences of the respondents were mixed, because some students felt they needed to use laptops for learning activities, while some believed that smartphones could be used as a learning device, and therefore the results reflect that most students prefer to use their smartphones for learning activities, because it assists them in expanding their learning experiences. It could be tentatively concluded that the smartphone is improving and changing students' productivity (Kibona & Mgaya, 2015; Olivier, 2011).

Some factors that motivate students to use smartphones: This last research objective sought to understand factors that motivate students to use smartphones. The analysis shows that 67.6% agree that smartphones give them easy access to academic materials, and 1.1% disagree. The easy and quick access to learning materials is a great motive for students to use smartphones as a learning device. The easy access to learning materials is in accordance with literature by Ebiye (2015), who suggests that smartphone usage improves access to learning materials. The study also found that 96% of the respondents believed that smartphone data bundles are costly in South Africa, while 8% say they are not costly. The high cost of data bundles can be demotivating.

There was a follow-up to determine how much participants spend monthly on data bundles. It was found that 19.7% of the respondents spend between R30 and R60 on data bundles, while 51.1% spend R120 or more monthly. The high cost of data bundles is an indication that many of the respondents are not using their smartphones for academic work, but for social activities or rather prefer to use laptops for school work (52.4%) (see Table 6). Furthermore, the high data costs in South Africa determine whether students will use smartphone(s) or not. It means that the cost of data can be a motivation. In contrast, a research finding by Chukwuere et al. (2017) shows that students from the middle- and low-income families spent between R10 and R30 monthly on data. The study further found that 48.1% say they are addicted to smartphones, while 14.4% say they are not addicted. This finding is supported by Kibona and Mgaya (2015) and Abu-Shanab and Haddad (2015), who state that the continuous use of smartphones is addictive. Furthermore, approximately 72.1% say their smartphone is worth R1 000 or more, while 7.2% bought their smartphone for between R500 and R750, and 1.3% bought their smartphones for between R250 and R500. These findings indicate that smartphone and data costs can be a motivating factor towards students owning and using smartphones for academic-related activities.

Study limitations and recommendations for future study: The use of smartphones among university students in a developing country has gained momentum in the past few years due to the level of attention it has received from the general public (young and old). The high level of usage can also be attributed to the fact that smartphones are becoming a daily necessity for university students. Universities in a developing country are characterised by students from diverse cultures, social and economic classes, with varying expectations and needs. However, this study has some shortfalls and limitations. The implication of smartphone use by university student's cuts across different institutions of higher learning, but this study was limited to a single campus. Therefore, it is proper for a study of this nature to be replicated across other university institutions.

For further studies, there should be an investigation into the effect of smartphones on university students' continued concentration in their studies and class attendance. There should be a study to determine smartphone usage in developing countries and students' academic writing. There should be a study on the effect of smartphones on the cultural values and beliefs of students and many more. This study was not able to cover these areas due to limited time and resources.

5. Conclusion

This study attempted to determine, through an empirical investigation, the effects of smartphone usage on university students' academic lives, in a developing country. For the university to allow students to use their smartphone as a learning device in classrooms, as well as to communicate with the lecturers, students should

be willing to buy or own smartphones as part of their learning devices. In the literature review, the definition of smartphones, smartphones in learning, advantages and disadvantages of smartphones, and smartphones in institutions of higher learning environments were explored. Some of the literature supports the views of the respondents in this study, while some contradict the findings.

According to the results, the smartphone does help students to improve their social lives, to access learning materials, to improve academic performance or results, as a mark of advantages of smartphones usage among students. The study also found that participants still prefer using laptops for academic work, sometimes using smartphones, and Google+ for learning activities. Furthermore, participants advise that smartphones should be allowed in classrooms for lecturers to engage with them using smartphones. Furthermore, students use smartphones to access academic material. Nonetheless, the price of data bundles is high, as the study identified. The results also found that smartphone usage consumes students' time; it is distractive and students are eventually addicted to smartphones.

Overall, this study achieved its objectives in understanding that North-West University, Mafikeng Campus students are using smartphones not primarily for academic, but rather for social activities, as many of them have turned their devices into a learning tool. Then, the effects of using smartphones on university students' academic lives in a developing country can have positive and negative impacts. Students have good academic experiences and also, many factors motivate students to use smartphones to enrich their academic and social lives. The overall findings indicate that smartphones offer easy access to academic materials, meaning that with smartphones, students within and outside the lecture room can get hold of their learning material without meeting with their lecturers or other students (Sarwar & Soomro, 2013).

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Exploring the Relationships between Antecedents of Online Purchasing Behavior

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Abstract: Technological advances have acted as a catalyst, increasing the number of consumers shopping online. This is caused primarily by the increased adoption and accessibility of the internet. This study examined consumer's perceptions of shopping online. A convenience sampling approach was adopted, and descriptive statistics were outlined. The relationships between the various perceptions were examined by conducting a correlation analysis. Trust plays a critical role in the perceived benefit sought by consumers who seek this online method of shopping. Online trust allows consumers to mitigate vulnerabilities concerning security and privacy issues when shopping online (Beldad, de Jong, and Steehouder, 2010). Trust showed a positive and significant relationship with all the other variables, which makes it a significant role player in perceptions of online shopping. Recommendations for future research are outlined as well as implications for literature and managerial support.

Key words: *Trust, online shopping, perceived benefit and attitude*

1. Introduction

Technological innovation such as the internet has changed how business is conducted all over the world and it has significantly shifted how consumers shop (Pi & Sangruang, 2011; Salehan, Kim & Lee, 2016). The internet is the most successful invention, largely because of its ability and advanced ways of sharing info using apps (Wani & Sheeba, 2013). This exceptional and flexible communication platform is not restricted by location (Cant, van Heerden & Ngambi, 2013). The number of people adopting the internet is continually rising (IAMAI, 2015). These developments in the market require businesses to meet the ever-changing demands of online consumers and to turn this to their advantage in order to grow their business (Muhammad & Uddin, 2017). Researchers such as Farber (2016) and Prashar, Vijay and Parsad (2017) have indicated that this growth is enhanced by the adoption of technology, improved standards of living and the use of smartphones. The rapid pace of technological advancement has enabled consumers to communicate with retailers online anywhere at any time (Payne, Peltier & Barger 2017). Raman (2017) adds that the growth of online shopping is fuelled by people in rural areas who are also using technology. Shopping on the internet is described as examining, searching for, browsing for or viewing products and services with the initial intention of making a purchase decision.

The internet enables businesses to reach out to a wider market, promote offerings and ensure good customer service (Charumathi & Rani, 2017). According to Hsiao (2009), the internet has created a fresh, convenient business platform for shopping online anywhere and anytime. Online shopping is a growing phenomenon where consumers can easily purchase products from the comfort of their homes. According to Fong (2013), e-commerce is a common practice which consumers adopt because of its low and clear prices and wide-ranging assortment of goods and services. According to Stats SA (2017), the total number of online shoppers is expected to raise above 2 billion in 2019 globally. Charumathi and Rani (2017) explain that online shopping eliminates the need to search for products in stores and wait in long queues to make payment. Online shopping also provides consumers with widespread product choices, sufficient product information and allows one to shop from multiple stores while making comparisons between brands from different sellers with less effort (Olson, 2018). Consumers who are shopping on the internet also have unlimited access to service providers such as financial institutions, restaurants, entertainment and tourism (Lin & Lekhawipat, 2014). Prashar et al. (2017) indicate that the lucrative returns of e-commerce in evolving countries such as India have attracted full support from investors and it is expected to hit US\$100 billion sales point. However, the E-commerce Insight (2017)

reported that 18.43 million people in South Africa are conducting commercial transactions electronically. Online retailers have managed to attract approximately 19.9 million shoppers and they are anticipating increasing the total number of internet shoppers to 24.4 million in 2021.

Online spending of South Africans is likely to increase from R37.1 billion to R53 billion by the end 2018. Total sales of R37.1 billion were accumulated from adults who shopped online over the past 12 months (Reporter, 2017). In developed countries such as the United States, the total sales of online shopping were projected to reach \$370 billion in 2017, but this figure was exceeded, rising to \$445 billion (Lomas, 2013). A study conducted by Ritter (2017) reveals that the most frequent online shoppers are those aged between 25 – 29 years globally. The results of the Nielsen (2017) survey indicate that South African consumers are showing interest in online shopping, meaning there is potential growth within that segment (Gernon, 2017). The survey results further indicate that almost 60% of shoppers are starting to buy groceries using the internet. Effective Measure (2017) reveals that web-based shopping tendencies are evident in 80% of shoppers and 46% of traditional shoppers are showing interest in technological methods of shopping.

The introduction of social networks and mobile commerce has made the online consumer journey even more accessible (Szymanski & Hise, 2012). Social networks have provided an incredible, two-way communication platform where online consumers can engage with the brand and other online consumers (Kapler, 2017). Smith (2017) reports that at least 65% of online shoppers are predicted to use their mobile devices for this purpose between 2015 – 2016 in South Africa. Retailers wishing to take advantage of this phenomenal invention must develop strategies which focus on how expanding the accessibility of their businesses (Fang & Zhou, 2012) and to enhance customer experience on digital platforms (Drell, 2018). Businesses need to invest time and money in creating websites which will make the shopping experience as pleasant as possible (Dailey, 2004). The content of websites are naturally the most important factor for retailers in promoting their goods and services to increase revenues in the widespread competitive online market (Yoag & Siganel, 2015).

There are a number of studies focusing on online shopping intentions (Harry, Riley, Riley & Hand, 2017; Tadon, Kiran & Sah, 2017), online shopping risks (Forsythe, Shannon & Gardner, 2006; Dai, Forsythe & Kwon, 2014), online customer satisfaction and loyalty (Wand, 2005; Rafiq & Fulford, 2005; Pham & Ahmmad, 2017). Nevertheless, there is an enormous gap in the present literature on perceptions of online shopping in Gauteng, South Africa. Other studies on individual factors affecting online shopping have been conducted in developed European and Asian countries. There is a need to understand how different shoppers' perceptions influence buying behaviour on the internet. Ling and Yazdanifard (2014) affirm that perceptions are significant factors in understanding online shopping behaviour and must be analysed in every market segment. The principal purpose of this study is to understand how different shoppers' perceptions are influential in online shopping in Gauteng.

2. Literature Review

In this section various elements essential to understanding online shopping behaviour are explored in detail. These elements include online shopper demographics, online shopping experience, online shoppers' attitude, perceived benefits, perceived risks and trust.

Online shopper demographics: While most consumers are slowly entering the electronic marketplace, organisations also stand to gain significantly by eliminating major costs such as property/building expenses (Akar & Nasir, 2015). Chatterjee and Ghosal (2015) note that consumers' habits and attitudes towards e-shopping are influenced by different demographic factors which play a pivotal role in the online shopping experience. Demographic variables must be examined to gain more accurate information on online shoppers (Muhammad & Uddin, 2017). The results of the studies conducted by Fram and Grandy (2015), Dahiya and Richa (2012) revealed that the demographic variables such as age, gender, education and family of online shoppers plays a significant influence in selecting online shopping portals.

Most online shoppers are high-income earners who have good educational background and are employed as middle management personnel (Smith, 2015). According to Bhatnagar (2007) individuals who earn a high income, especially younger men, are more likely to shop online. Ritter (2015) and Oornie and Malin (2017)

elaborate that young professionals with higher levels of education and income are early adopters who take advantage of online shopping. Traditionally, shopping in most households has always been viewed as the responsibility of women not men (Raman, 2017). Previous studies have found that most men are more willing to use the latest technological innovations online, easily adapting to online shopping platforms and tending to enjoy buying online (Monsuwe, Dellaert & de Ruyter, 2004; Diep & Sweeney, 2008; Liu & Forsythe, 2010; Santana & Loureiro, 2010). The intention to shop online is strongly influenced by the existence of perceived benefits and perceived risks associated with this method of shopping (Geeta, 2016).

Online shopping experience: Researchers such as Alba and Hutchinson (2000) define 'online shopping experience' as the psychological and emotional state that shoppers go through while shopping on the internet. Pappas, Pateli, Giannakos and Chrissikopoulos (2014) are of the view that consumers' perceptions of online retailers are determined by their previous encounters. A positive customer experience may result in a favourable attitude towards shopping online in the future whereas a disappointing experience may discourage a consumer from even recommending a retailer to others (Giannakos, Pateli & Pappas, 2011). Izogo and Jayawardhena (2018) suggest that online retailers can reduce the occurrence of negative experiences and improve their service quality by considering customers' inputs when tailoring their offerings. Vargo and Lusch (2008) explain that collaborating with customers through interactions could lead to greater value creation.

According to Gentile, Spiller, and Noci (2017), online shopping experience is described as the engagement of various customer dimensions to contribute in satisfying and value-creating interactions with the seller, its offerings and other customers online. Shopping on the internet is intended to be pleasurable and produce a satisfying experience to consumers through retailers' websites which are safe and user friendly (Szymanski & Hise, 2012). Online shopping experiences influence purchase intentions both directly and indirectly through trust (Samuel, Balaji & Wei, 2015). Liao (2011) indicate that customer experience is the moderator of trust and future behavioural intentions. Online retailers who provide positive experiences are likely to gain customers' sense of trust, as they will be considered reliable by customers (Chiu, Lin, Sin & Hsu, 2009).

Trust: Trust is of vital importance in the online shopping context (Izogo & Jayawardhena, 2018) and it was found that trust is a recognised behavioural outcome of online shopping experience. Online retailers who are able to deliver as promised, tend to be highly trusted, and this level of trust can benefit them if it is well maintained (Izogo & Jayawardhen, 2018). This higher level of trust minimises perceived risks associated with shopping on the internet and creates more favourable attitudes (Jarvenpaa, Tractinsky & Vitale, 2002). Conversely, Abbad (2011) argues that the lower the perceived level of trust, the higher the perceived risk associated with online shopping. The main attributes of trust, as identified by Lee and Turban (2001), can be broken down into integrity, ability and benevolence. Online trust allows consumers to mitigate concerns around security and privacy issues when shopping online (Beldad, de Jong & Steehouder, 2010).

One of the factors which affects the level of trust of consumers is web quality. Rozekhi, Hussin and Mohamad (2014) concur that perceived website quality can be the direct predictor of trust and overall perceived benefits. Al-Debei Akroush and Akroush (2015) confirm that the perceived quality of the website is a direct predictor of trust, which substantially influences perceived benefits. The behaviour of the customer is dependent on the website content and quality to carry out the transaction successfully (Lu, Zhao & Wang, 2010). Ming-Tsang and Wen-Chin, (2014) support this notion, indicating that the elements and usability of a website influence customers' perceived risk associated with online shopping. Pratminingsih, Lipuringtyas and Rimenta (2013) note that shoppers who are pleased with the service from the online store are more trusting and more likely to repurchase or recommend the website to others. Most shoppers are concerned about the risks instead of the benefits.

Perceived risk: Agag and El-Masry (2016) as well as Khan and Chavan (2015) agree that 'perceived risk' refers to the possible loss which a customer might incur when deciding to shop online. There are three types of perceived online shopping risks, namely, channel risks, product risks and social risks (Yen, 2010). The author elaborates that customers with a high perception of channel-related risks will not use the website for any purchase. Shoppers may also refuse to shop online because of perceived financial risks or safety risks (Forsythe & Shi, 2003). According to Chang, Liou, Chih and Yang (2016), transactional security and privacy are amongst the most important factors that affect online shopping. Making online transactions requires personal

information such as credit card numbers, and those in the late majority adoption process are concerned about how these could be misused. Wu and Ke (2015) indicate that perceived risk plays a significant role in both attitude formation and intention of online shoppers and trust can be used as a mediator. Perceived risk impacts consumer behaviour because shoppers want to avoid making incorrect decisions (Farzianpour, Pishdar & Shakib 2014).

Most consumers hesitate to accept online shopping practices as they are afraid of the possible barriers (Sulaiman, Yusr & Ismail, 2017). Perceived risks of shopping online can discourage a consumer from buying on the internet and negatively influence the perceptions of potential buyers (Bianchi & Andrews, 2012; Forsythe, Liu, Shannon & Gardner, 2006). Zendehdel, Paim and Osman (2015) also confirm that possible perceived risks may affect consumers' attitude towards online shopping.

Perceived benefits: Chandon, Wansink and Laurent (2000) describe 'perceived benefits' as consumers' beliefs about the positive outcomes associated with the response to a real or perceived threat. Leung (2013) simply views perceived benefits as the positive outcomes caused by shopping activities. Being able to shop and transact on the internet eliminates the process of physically holding shopping baskets or pushing trollies as well as walking around stores in search for products (Bailey, 2011). Online shopping allows customers to shop any time of day from the comfort of their homes, which makes convenience the main reason for purchasing online (Sarkar, 2011). Shopping convenience is regarded as the consumer's ability to shop anywhere at any time without visiting a physical store (Bailey, 2011).

Forsythe et al. (2006) reveal that convenient, effortless shopping and wide product choice are amongst other influential factors that account for perceived usefulness. Childers (2011) also indicates that consumers decide to use e-commerce for reasons such as being in control and enjoyment. The results of Tanadi, Samadi and Gharleghi (2015) also indicate that convenience, product choice, the ease of shopping and enjoyment are the driving factors of shopping online. It is important for organisations to understand what encourages consumers to consider website shopping, as this will be useful in guiding their marketing strategies and technological advancements. Online shoppers are more influenced by the perceived benefits rather than perceived risks (Wolfinbarger & Gilly, 2011). There are non-monetary costs associated with traditional shopping that can be lessened such as time, effort and psychological costs (Eastman, Iyer & Randall, 2009). Kacen, Hess and Walker (2012) highlight that perceived benefits are essential aspects influencing consumer attitudes and evaluations towards their purchasing decisions. Shopping comparison, variety of brands, a wide variety of promotional items, low prices, quick delivery, low delivery costs, time saving, improved customer service, speedy e-mail response, greater product information make online shopping more attractive (Lorek, 2003); de Swardt & Wagner, 2008; Wani & Sheba, 2013; Geeta, 2016). Two studies in India (Mallapragada, Chandukala & Liu, 2016; Arora & Aggarwal, 2018) reveal that online stores offering a wide range of products on their website are most preferred.

Online consumer attitude: According to Mpinganjira (2013), 'online consumer attitude' is generally viewed as the outcome of direct experience and is more likely to have an effect on behaviour than behaviour based on a lack of personal experience. Li and Zhang (2002) are of the view that consumers' decisions to shop on a retailer's website can be influenced by the type of attitude they have towards the retailer. Factors affecting attitude include browsing aids, security aspects and secure orders (Mpinganjira, 2016). Other researchers have discovered that website credibility and reputation also tend to have an impact on consumers' attitudes towards shopping online (de Swardt & Wagner, 2008). However, Al-Debei et al. (2015) highlights that the level of trust and the benefits experienced by consumers are detrimental in shaping their shopping attitudes. Hase (2008) and Lin (2011) are of the view that online stores can positively influence consumers' attitudes by being reliable, trustworthy and improving safety features. However, Le and Nguyen (2014) argue that online consumers' attitudes are formed by a general assessment by individuals, which may sometimes include objects, issues and advertising.

In the next section, the methodology adopted in the study is described.

3. Research Methodology

A descriptive quantitative research approach was used in this study to measure and determine whether perceived benefits, perceived risks, attitude and trust have any influence on online shopping with particular reference to customers in Gauteng. Descriptive research was used to gain a better understanding of factors that influence of online shopping (Hair, Celsi, Ortinau & Bush, 2008). A non-probability sampling technique, convenience sampling, was used to select the respondents.

Data collection and research instrument: A structured questionnaire was used as the research instrument. The questionnaire contained closed-ended questions, producing data that was analysed quantitatively for antecedents on purchasing online. A completion rate of 191 was achieved for the questionnaire, which contained two sections. Section A looked at demographics (age, gender, education) as well as preferences. Section B contained a five-point Likert scale, ranging from 1 = strongly disagree to 5 = strongly agree. The questionnaire was self-administrated, which meant there was no interviewer to administer the survey, pose the questions and record the answers. The respondents thus read the questions and recorded their answers without an interviewer to assist or explain (de Leeuw, Hox, and Dillman, 2008). This method was selected as it was seen as the most convenient to gather data in a short period of time in those environments.

Data analysis: Various tools were used to analyse the data gathered from the questionnaires. All analyses were carried out using statistical software, SPSS version 24, to interpret the data. Tools such as Kaiser-Meyer-Olkin Measure of Sampling Adequacy, Bartlett's Test of Sphericity, variance test and reliability correlation analysis, were carried out to address the objective of determining if gender has a significant impact on online shopping behaviours of customers in Gauteng

Reliability and validity

Table 2: Reliability of overall instrument

Cronbach's Alpha	No of Items
0.767	44

Table 2 shows the overall Cronbach's alpha analysis result of the study. The test measures internal consistency of a scale or test and is articulated as a number between 0 and 1 (Tavakol & Dennick, 2011). The objective of the Cronbach's alpha test is to determine the reliability of an instrument (Tavakol & Dennick, 2011). According to Bland and Altman (2003), any figure ranging from 0.70 to 0.95 is considered as acceptable. The study results sit on 0.767 and therefore fall within an acceptable range. George and Mallery (2003) provide the following guide to determine how to classify the reliability results: $> .9$ – Excellent, $> .8$ – Good, $> .7$ – Acceptable, $> .6$ – Questionable, $> .5$ – Poor, and $< .5$ – Unacceptable. Table 3 shows the alpha values of all the variables.

Table 3: Cronbach Alpha's for antecedents of online behaviour

Factors	Number of Variables	Alpha Value
Trust	4	0.441
Attitude	6	0.512
Perceived benefit	6	0.656
Perceived Risk	8	0.603

The results in Table 3 indicate that all the items that were analysed were unreliable as the trust reliability alpha value came out at 0.411, making it unacceptable. Attitude reflected that the results were poor as the alpha value was 0.512. Perceived risk came out to 0.656, which is close to perceived risk at 0.603, resulting in both being questionable. As the alpha value for all the antecedents was lower than 7, they were deemed unacceptable (George & Mallery, 2003).

The next section looks at the results and discussions of this research. Although there were challenges with the main constructs, overall the instrument showed internal consistency, therefore the results of the study can be presented.

4. Results and Discussion

This section describes the results on the antecedents of online shopping.

Table 4: Correlations

		Perceived Risk	Perceived Benefit	Online Attitude	Trust
Perceived Risk	Pearson Correlation	1	.119	.405**	.404**
	Sig. (2-tailed)		.102	.000	.000
Perceived Benefit	Pearson Correlation	.119	1	.337**	.230**
	Sig. (2-tailed)	.102		.000	.001
Online Attitude	Pearson Correlation	.405**	.337**	1	.151*
	Sig. (2-tailed)	.000	.000		.038
Trust	Pearson Correlation	.404**	.230**	.151*	1
	Sig. (2-tailed)	.000	.001	.038	
	N	191	190	189	191

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

* . Correlation is significant at the 0.05 level (2-tailed).

Table 4 shows the correlations between the key constructs in the study. Interesting correlations were found with regard to the relationship between the constructs tested. Correlation indicates if there is a relationship or association between two variables. There is a positive correlation between online customer attitude and perceived benefit. Attitude refers to the customer's evaluation and feeling towards a certain concept or idea (Haque, Sadeghzadeh & Khatibi, 2011). The consumer's positive or negative feelings when purchasing products online are defined as the attitudes towards online shopping (Chiu, Lin, Sun & Hsu, 2009.). It is important to understand consumer characteristics relating to online shopping (Delafrooz et al., 2009). Studies have shown that online shopping benefits were significantly associated with attitudes relating to online shopping (Koivumaki, 2001). Perceived benefits are the online advantages or satisfactions that meet the consumer's needs or wants (Shwu-Ing, 2003). There is a positive correlation between trust and perceived benefit. The lack of trust regarding online shopping is one element that prevents customers from shopping online. Consumers who have positive attitudes towards online shopping also believe it is beneficial. This is important to understand as research shows similar patterns across the world. There are two categories that can be considered regarding perceived benefits, namely, functional benefits that relate to convenience and non-functional benefits that relate to the enjoyment of online shopping (Maria & Loureiro, 2013).

There is also a positive correlation between trust and online attitudes with trust influencing consumers' intention to purchase products online (Tan, 2014). Furthermore, businesses that are selling products online believe that a trusting attitude is one of the main factors that will influence consumers' confidence when purchasing products online. Although there is a correlation between perceived risk and online benefits, it is not significant. When perceived risk is high, consumers' intention to purchase products or services online is low. This will also have an effect on attitude towards online shopping. Furthermore, there is a positive correlation between perceived risk and trust. Consumers place their trust in the company and its website when purchasing products online (Delafrooz, Paim & Khatibi, 2011). Therefore, the higher the perceived risk, the lower the possibility that consumers will purchase products online.

Table 5: Factor Analysis

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.528
Bartlett's Test of Sphericity	Approx. Chi-Square	96.546
	df	6
	Sig.	.000

Factor analysis is a method used to reduce many variables into a smaller set of factors (Williams, 2012). Furthermore, it focuses on the study and description of variability among the observed correlated variables (Říha & Říhová, 2016). There are specific tests that are used, namely, the Kaiser-Meyer-Olkin (KMO) test and Bartlett's test of sphericity (Williams, Brown & Onsmann, 2012). Furthermore, these tests measure the suitability of factor analysis (Williams et al., 2012). Regarding the KMO, 0.50 is considered suitable for factor analysis as the index ranges from 0 to 1. Bartlett's test of sphericity is significant if it is less than 0.05 ($p < 0.05$). If the results are less than 0.05 this then means that the analysis is suitable (Williams et al., 2012). The results in Table 5 above reflect that the analysis is suitable factor for analysis as the KMO is 0.528. For Bartlett's test of sphericity, the significance is 0.000 which means that all the constructs correlate with the study.

5. Limitations and future research

The study used a small sample size from the Gauteng area, which limited the research findings. It is recommended to extend the study to other geographical areas other than Gauteng especially a multinational study would add more value. Other limitations include the questionnaires being distributed through a convenience sampling method as opposed to having the research done on an online platform (given that the research question examines online consumer behaviour). Online surveys have a poor response rate but were nonetheless best suited for this study. The eventual sample size was 191, which is considerable low based on the normal standards. The number of respondents could be improved in next study and probability sampling could be used to allow for more representative findings in the future. The questionnaire response rate was only 51% which is low; a better response rate should be targeted.

Managerial, policy implications and conclusions: Based on the results and findings, this study identifies the following managerial implications. Retail companies should seek to eliminate risk and gain trust on the online platform. Consumers should be exposed to more information that relates to the product and the company selling the products online, retail managers should communicate and encourage customers to shop online buy using other platforms such as promotions, advertisements and social media networks like Facebook, Twitter and LinkedIn. The company website should be captivating and easy to navigate to ensure that consumers spend a longer time on the site exploring. Online retailers should also consider implementing call centres which could ensure that the customer gets a chance to directly interact with the company before the actual purchase.

The key policy implication is that personal information entered into the system must be secure. Therefore, policies securing customer information are vital. If the customer knows their information is safe and the transaction is secure, they will be encouraged to purchase online. Therefore, there is clear and empirical evidence of the need to understand perceptions of consumers towards online purchasing in order to change these perceptions. This research set out to understand these perceptions and found significant correlations.

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Managing South African Television Business in the Era of Glocalization: The Roles of Information Technologies

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Abstract: This paper sets out to prescribe how the South African Television business can be managed using Information Technologies (ITs) in this era of Glocalization. Using Big Brother and Idols South Africa as the forms of glocalized media franchises in the South African media arena, the study shows how reality TV programs have been adapted into South African culture through transnational corporations (TNCs) like Endemol, Fremantle Media, 19 Entertainment and MultiChoice. Glocalised media franchises in this context refer to those media contents produced from global original formats and modified to local settings with the help of ITs. The study adopted analytical description as the method of study while the theoretical approach of the study is premised on the theory of political economy. The study concludes that ITs can be used by South African media in glocalizing media contents that can strengthen the cultural values which Africans are known for. The study therefore recommends among others the formulation of guiding policies on local programming in South Africa. Such policies will guide glocal features of the franchises, and strike a balance between local and global audiences.

Keywords: *Glocalization, Globalization, Information Technologies, South African TV Business, Political Economy.*

1. Introduction

Media industries in African nations are already influenced by economic, political and social developments occurring elsewhere in the world. This is because the concept of globalization has made the world a global village. And just like other businesses, media business is greatly shaped by many economic factors. Also the entrance of China into the country continues to pose questions about how African media will survive this competitiveness in this era. The rapid development of technology is also changing media practices and contents. African media's business model tends to be in limbo due to decline in advertising revenues. As has been the case in the global media industry, digitization and the use of Information Technologies (ITs) have all influenced journalism profession in Africa. The long-standing practice of depending on advertisements alone has been threatened because the media audiences are now active and no longer passive consumers of media contents. Social media platforms have therefore changed the way media contents are consumed (Wasserman and Renequista, 2017). Similarly, the ease with which media contents are disseminated online using ITs has made it possible for rumours, half-truths and complete falsehoods to be disseminated. This has affected the credibility rate of information on traditional media forms.

ITs no doubt has completely changed the manner in which journalists all over the world practice their profession. As newer ITs emerge, journalists also change and adapt to the new technologies in order to cope with the changing trends in the world of information gathering and dissemination. And because of the fact that we now live in a world space compressed by time and space in which the media multinationals in developed nations have taken over the global media space, one wonders how African media contents can be glocalized to meet the demands and tastes of both local and global publics of the media and withstand the competitive nature of today's media world. This concept of glocalizing media contents implies "thinking locally and acting globally". ITs no doubt, have altered the manner we interact with our environment and with ourselves but we are yet to come to terms with the occurrences that have brought these powerful changes. Lacks effective communication between and among people do result in conflicts, misunderstanding and misinterpretation of what is communicated. Therefore, how people interact has to

be considered to avoid pitfalls in communication. The global village phenomenon has become a reality which mankind must grapple with. Furthermore, the new ITs that make the world highly globalized must be utilized positively by journalists. With reference to business, ITs have opened up many avenues for profit maximization and have also provided new ways of satisfying modern day customers. Services and goods are offered in faster and more efficient ways while business executive partner with each other and resolve issues even without seeing each other face-to-face (Marga, 2000).

This is the essence of this paper. It is aimed at prescribing how ITs can be used by media professionals in South Africa to manage the South African television business. The paper will also x-ray how Big Brother and Idols South Africa have been glocalized to entertain the television audience in South Africa and other African nations. Using political economy theory of communication, it is the paper's aim to pin-point how globalisation has caused porosity of national borders which enable media multinationals to glocalize their contents. Based on the nature of these objectives, analytical description or discussion method will be employed in offering insights on how these objectives are to be met. This method of study is deemed adequate because the study is prescriptive in nature. From the discussion, useful recommendations that will guide South African TV managers will be proffered.

Theoretical Underpin: This paper is guided by the political economy theory of communication. This theory studies social and power relations that make up and define how media contents are produced, distributed and consumed. It also explains the various factors that may facilitate audience feedbacks that is, responses received from the target audience (Mosco, 2009). This description by Mosco (2009) shows how the communication business operates. It also shows the ways producers can know the feedback of their consumers through fan-based websites, ratings, comments and increase or decrease in show viewership as a result of likeness or dislike. It also helps us to understand how those within this market chain operate. The proposition of political economy is that political and economic controls of the media are determinants of media content and the media's ideological power (Fourie, 2007). However, to grasp the power of the media and its political economy, such factors as media ownership, structure and concentration need to be considered.

Political economy examines the growth and expansion of different forms of corporate concentration and power in the communication industry (McChesney, 2007). The emphasis on those media structures that make up the production team of media content is important to note in the light of global media companies that have led to increased output of media content. Such integrated transnational conglomerates like Fremantle, Naspers, News Corp, Endemol, and CORE Media produce media contents with multiplier effects in the sense that a media text, for instance a film, can be cross-promoted through these firms' subsidiaries on various media like broadcast, print and new media/Internet-enabled. The reach of each medium will capture a huge number of the audience and this will also generate revenue for these corporations. Political economy creates awareness on the ways these corporations shape diverse areas of media content. The larger a firm, the more advantage it has because it can improve its profit margin and lower the cost of production by the spread of risks over other channels of production. An effective way that has been observed to lower costs is what economists referred to as 'economies of scale' which are "ways that a corporation can save money through size – being big, buying big and acting big in terms of sales and profits" (Long and Wall, 2013: 179). These can be measured by the growth and size of conglomerates, by the assets they have, revenue generated, profits, employees and their stock value. In recent times, a striking development in the media industry has been the significant structural transformation within each sector.

Each sector experienced a wave of consolidation that left fewer large media firms with more and more market share; each aspect of the media like newspapers, music companies, cable television companies, book publishers even though each experienced higher numbers of media channels, the degree of ownership concentration among the market shareholders had never been higher (McChesney, 2008). The dominant players – the private corporations, enjoy integrated production and marketing of products and services across national borders, entrenched in the concept of globalization that facilitate capitalism. These have been established on transnational bases not in trade of products and services alone but also through capital flow of currencies and financial instrument among other countries (McChesney, 1998). A media corporation can grow bigger and control more revenue through various means of media ownership and integration in order to underscore its power economically and politically. This is why this theoretical framework of communication

addresses issues as the relationship of media and communication systems to the societal structures in reinforcing, challenging or influencing existing classes and social relations as well as how ownership support mechanisms as advertising and the policies of the government, influence media texts and behaviours. This means that with the advent of new digital technologies, commercialism will continue to be on the increase (McChesney, 2008). Consequently, the longer the chain of ownership and media concentration within a firm, the higher its level of revenue generation from adverts. For instance, Naspers with its various chains of media production and distribution (through video, print and new media) will generate more income compared to other firms within the South African media landscape that are not as diversified as this conglomerate. So also will Endemol, 19 Entertainment and Fremantle Media through their various subsidiaries around the world. These entities target the porosity of national borders due to globalization that has created this ease of access. Most times, these companies may generate more revenue outside their countries of base than from within.

2. Literature Review

South African Television Landscape: A Historical Overview: The present-day TV in South Africa is greatly influenced by the past events which mark the historical records of South Africa as a nation. The ending of apartheid in 1994 brought about political, ideological and cultural restructuring in the nation's media landscape in general (Milton and Fourie, 2015). The media landscape from the viewpoint of its historical colonialist era was that of racial exclusion – strong white presence and structured black absence (Milton and Fourie, 2015). The censorship that was placed on the media by the government during the apartheid regime before the democratic elections in 1994 hampered the effectiveness and growth of the media industry. This censorship ensured that media outfits operated in line with government policies. But after this era, bills and laws were passed to ensure freedom of expression and the press. The Independent Broadcasting Authority (IBA), established in 1993 regulated the activities of media corporations and also issued licenses to encourage plurality within the country's media landscape (Wigston, 2007; Teer-Tomaselli, 2008). Pluralism, as used here, refers to a "diversity of contents that would limit ownership" (Berger, 2000: 9). With the introduction of the IBA, monopoly was monitored and limited within the media landscape. The IBA and the South African Telecommunications Regulation Authority (SATRA) merged in the year 2000 and became the Independent Communications Authority of South Africa [ICASA] (Z-Coms, 2009).

Heuva, Tomaselli and Ruth Teer-Tomaselli (2004) were of the opinion that the neutrality of 'independent' boards and regulatory commissions needed to be checked so that these bodies can carry out their duties without fear or favour. Television according to Donnerstein and Linz (1999) and Muller (2008), was only introduced at the end of the year 1975 as a result of mounting tensions between the Afrikaner and English-speaking communities about television contents that might have further 'fuelled' conflicts among them. The television broadcasting sector is divided into community, public and private/commercial television stations. Community television broadcasters include Tshwane Television, Soweto Television, Bara Television, Cape Town Television, BayTelevision and 1 KZN Television (Aldridge, 2014). In the other divisions, there are other foremost television broadcasters within the South African media landscape like the South African Broadcasting Corporation (SABC) [a public corporation owned by the South African government], e.tv [a commercial broadcaster and subsidiary of PRIMEDIA], MultiChoice [a private/pay-television broadcaster owned by Naspers] and TopTV [a private/pay-television service provider run by On Digital Media] (Milton and Fourie, 2015; Media Club South Africa, 2016a).

All these television broadcasters have their licenses from ICASA. For twelve years, MultiChoice provided satellite and pay-television broadcasting services (through the digital satellite television [DStv]) but this monopoly was broken in 2007 when ICASA issued licenses to four other service providers – Telkom Media provider, On Digital Media provider [ODM], e.sat group and Walk on Water Television group (Media Club South Africa, 2016b). The issuance of these licenses was to create a level of plurality within the South African media landscape. MultiChoice seems to have maintained an uncontested monopoly in the media market. It is still the dominant player in pay television (PwC, 2013: 84). For instance, in September 2015, MultiChoice had reported a subscriber base of 5.6 million in South Africa (Mybroadband website, 2016).

Since 1936, the state-controlled service provider, the SABC had dominated broadcasting while commercial enterprises dominated the press (Wigston, 2007: 5). Not until 1995, SABC had monopolized the airwaves even after M-Net (owned by Naspers) was established in 1986 as its main television broadcasting competitor (Milton and Fourie, 2015: 185). M-Net was the first subscription service in South Africa and it began broadcasting on October 1, 1986 as a result of the concerns of newspaper groups based on the commercialization of the SABC (Wigston, 2007: 17-18). The introduction of subscription service that ushered in M-Net was a big change to television broadcasting within South Africa. Due to the effect of the impact of the racial exclusion witnessed by the Historically Disadvantaged Individuals (HDIs) like the Blacks and Indians during the apartheid era, efforts were made to meet general media needs. For instance, in order to encourage the Black Economic Empowerment (BEE) policy as instituted by the South African government on the inclusion of disadvantaged groups after the apartheid regime, M-Net gave 20% of its stake out for sale to black investors to encourage more black stakeholders which created a point of racial representation and pluralism within the media market; as a result, ownership and competition increased while the industry experienced the presence of black entrepreneurs. Also, internet-enabled technologies and smart phones, all ended the control of the industry by one broadcaster greater (Berger, 2000: 8).

The empowerment trend was soon adopted by other media outfits to create a new category of black broadcast-entrepreneurs who are diversified. The diversified nature of new South African media made it possible for the development of multi-channels that had effects on the viewing patterns and profile of the media audiences (Teer-Tomaselli, 2008). This to an extent created a healthier market structure than what was experienced at the on-set of the South African journalism industry in the sense that the industry professionals began to give adequate considerations to the modified viewing needs of the members of the audience while the dominant characteristics as exuded by key players within the media landscape were checked through competition and policies.

Glocalization: An interface between Globalization and Localization: Diffusion of media contents across international borders due to globalization has created “a unified world economy, a single ecological system, and a complex network of communications that cover the whole globe in such a way that local happenings are shaped by events occurring miles away and vice versa” (Twining, 2000: 4). These global contents can come in contact with local contents to either become ‘localized’ or ‘glocalized.’ These concepts are as a result of the effects of globalization intentionally or unintentionally on the lives of people around the globe (Fairweather and Rogerson, 2003). Movement of the global media therefore occurs as a result of globalization that had expedited this flow and the consumption of foreign contents.

This in turn adjusted local cultural norms and thereby affected socio-cultural order. Globalization in media studies has generated different views and opinions from various scholars among whom are McLuhan (1964), Barker (1999), Nyamnjoh (2004), Robertson and White (2007), Robertson (1995, 2012) and Choi and Park (2014). The concept of globalization indicates a process that transforms the world into a single arena and changes the spatial organization of transactions and social relations we have among ourselves as human beings (Dasgupta, 2004). This entails the smallness of the globe and the increased consciousness of the nearness of mankind to each other (Robertson, 1992: 8). Globalization concerns cultural meanings and the global consciousness attached to media content that involves people in networks extended beyond their physical locations (Barker, 1999). It reflects an awareness of the interdependence of societies and economies within a world system and with the growth of the new media, global networks of information are formed (Thomas, 2006).

Localization is also an important aspect of media globalization. It is the process that adapts and modifies the contents of the international media to local formats that will be appreciated by the domestic audience alongside local cultures so as to show a ‘domestication’ or ‘customization’ of international contents; a commercial strategy that has been observed to maximize profits in domestic media markets (Waisbord and Jalfin, 2009: 57). Global media formats are suited to local contexts with very little or no features of the global formats. This shows their ‘domesticated’ characteristic that makes this concept of localization different from glocalization. Localization as a concept has produced easier understanding and ways local cultures come in contact with and equally interact with foreign cultural elements refashioned out of contents that have origins from elsewhere.

Glocalization is therefore an important aspect of globalization. It has its origins from the Japanese word *dochakuka*, a form of marketing strategy meaning 'global localization' (Robertson, 1995: 28; Tong and Cheung, 2011). Glocalization encompasses the creation and incorporation of locality that shapes the world in its entirety (Robertson, 1995). It is the permeation of that which is global and that which is local that result in distinctive contents within diverse spaces (Ritzer and Ryan, 2003). This implies that interpenetration of such 'products' of global media into local contexts will result in different programs identifiable to such local environments depending on where those programs have been glocalized because of each environment's unique cultural landscape. Glocalized contents unlike localized contents still contain traces of the global content although both contents turn the original content into formats that will suit the consumption pattern of the audience in local setting. An instance of a glocalized program format is Big Brother Mzansi (South Africa's version of Big Brother). The glocalized formats are different from one another even though they may have similar elements (Plas, 2001 in Mathijs and Jones, 2004: 3). Another example is Idols South Africa which is also different from other glocal adaptations.

Glocalized Contents in South African Television Industry: A Look at Big Brother South Africa and Idols South Africa: Television media franchises are series of 'like programmes' that are produced and packaged for a target audience in mind (Kalagian, 2012: 156). These could come in the form of reality television shows, dramas, soap operas and so on. Reality television shows are the examples that would be used in this study to illustrate how global and local contents have been infused to become glocal – a mix of global and local concepts (Robertson, 1995: 28).

Reality television show is a type of programme depicts reality and not fiction. Such shows air scenes as they occur although the final edition is often edited (Kopp, 2013). This genre was selected for this study in order to contextualize the concept of glocalization within South Africa because it is a genre that has become popular within various local contexts. It has been regarded as the 'fastest' and 'most popular' form of television programming in recent times (Ebersole and Woods, 2007:24) in comparison with other genres. They have different types of formats which are prepared to suit different segments of the audience depending on their tastes, ages and other demographic variables. The popular genres of reality shows are Big Brother shows, Fear Factor shows, and Survivor franchises. Others are cooking programmes like Chopped shows and MasterChef franchises and musical shows like Idols and The Voice franchises. The focus of this study however will be on Big Brother, and Idols franchises.

Big Brother is an international franchise with various localized formats. After its initial success in the Netherlands in 1999, the Big Brother franchise was sold to eighteen countries among which was South Africa; but is now present in over 40 countries (Devereux, 2013). The Big Brother franchise in Africa has the continental version called Big Brother Africa and other localized versions of countries such as Nigeria (Big Brother Nigeria) and South Africa (Big Brother Mzansi). Big Brother capitalized on technological innovations that "allowed viewers to key into the program at any hour of the day or night – whether it be via website, chat lines, video and audio-streaming, or simply by downloading the Big Brother ringtones into mobile-phone and in so doing become a communicant in an all-enveloping media event" (Kilborn, 2003: 81). These strategies have made it a potent illustration of media globalization (Devereux, 2013).

Endemol (through Endemol Shine Africa, its South African subsidiary), the franchise holder of the Big Brother franchise entered into an agreement with MultiChoice's M-Net the franchisee, a pay-television channel on DStv in South Africa and beyond to produce and broadcast the first series of Big Brother Mzansi in 2001 (Pitout, 2004). Endemol and M-Net feature other shows like MasterChef South Africa, Fear Factor, Big Brother Africa and Survivor franchises among others (Endemol, 2015). The Idols franchise is the second example of this study. It was made public in 2001 in the United Kingdom. Right now, this reality show has given rise to over thirty different programme types and formats which are broadcast by media organizations worldwide (Meizel, 2007). Some examples are American Idol, Canadian Idol and Nigerian Idol. This show encourages young singers by bringing them together to compete for the attention of recording labels, producers and directors who are interested in such areas. It is the duty of a panel of judges, to select the best performers while the audience votes determine the eventual winner (Meizel, 2007).

The South African version of this show is broadcast by M-Net and is known as Idols South Africa. This show is produced by MultiChoice, Fremantle Media and 19 Entertainment while its distribution is done by Fremantle Media and MultiChoice's M-Net. Fremantle Media includes brands such as the Got Talent franchise (America Got Talent, Britain Got Talent, South Africa Got Talent shows), Idols, the X Factor franchise and a host of others. 19 Entertainment is a subsidiary of CORE Media, an international media group based in the United States of America. 19 Entertainment also produces the So You Think You Can Dance franchise and partners with Fremantle Media on the production of Idols especially the American Idol. The producers of these shows are bound by long term agreements with some of the show's winners and finalists such as Kelly Clarkson and Carrie Underwood. These examples are few out of the many glocalised broadcast by M-Net

3. Discussing South African TV Business: What ITs Can Do in this Era of Glocalization

Technological advancements and revolutions experienced in the ICT sector have transformed the manner in which media contents are produced and consumed by the global community. They have equally allowed contents to be globalized and glocalized (Sigismondi, 2011). With the advent of internet and ICTs, many cultures of the world have not only become global, but glocal as well. The business opportunity offered by the internet is already being maximized by media managers in many parts of the world (Groebel, Noam and Feldman, 2012). The South African TV managers can equally key into this innovation. The question is, how?

Convergence revolves around the interaction between old forms of media and new forms of media which in a sense creates the notion of "an old concept taking on new meanings" (Jenkins, 2006: 6). Television business in South Africa can be managed more efficiently using information technologies especially in this era of glocalization. New IT softwares can be employed in creating network bandwidths, wireless hotspots, and cloud computing environments. With these technologies, television audiences can surf the net online on TV. Local contents can be globalized more efficiently as well. For instance, a movie review can be pulled from a programme schedule and be broadcast for both local and international audiences. Documentaries and other interesting local contents can be shown online as webcasts. Lottery tickets can even be advertised and sold through online platforms. South African Television managers need to create their own contents using local resources and materials and make these contents global through websites they have established. The importance of websites cannot be over emphasized with regards to how they can glocalize media contents. ActivMedia (1998), reports that 24.4 billion USD was generated in 1997 mostly from adverts, sales and services. Other revenues emanated from the development of websites and allied equipment. Similarly, Paustian (1996), notes in a 1996 study that many business executives in the United States of America have already established their businesses on the web. The reason is not far-fetched. The web affords them the kind of visibility that no other medium can give. Television managers in Africa also need to do what their counterparts in other nations are doing by maximizing the benefits offered by the web.

The web no doubt can only be accessed by users who have access to and are computer literate; but its usage by media professionals has climaxed to the apex point as explained by Rogers (1995). The South African TV business can be transformed by the web because unlike traditional media which employs a model that is singular in nature, that is, from one service provider to an individual, the web offers the opposite in form of "many-to-many" (Hoffman, Novak, & Chatterjee, 1995; Morris & Ogan, 1996). This nature of broadcast is possible because many users can make use of the web at the same time without any hindrance. This type of communication is only applicable to the web due to the various originating and end points which exist together in the cyberspace. As a marketing medium, the web could be termed "a cross between an electronic trade show and a community flea market (Berthon, Pitt & Watson, 1996, p.44)". It will allow TV managers in South Africa to showcase their programmes online to both local and international communities and afford their audiences opportunities to see browse and their programmes as well. Feedback is made easier and faster and this will lead to improved programmes that will lead to viewers' satisfaction.

In line with Balthazard & Koh (1997); Berthon, Pitt, & Watson (1996); Hoffman & Novak (1996); Stern (1995) and Maddox & Mehta (1997), the web will tremendously help South African TV managers in the following areas: 1) provide timely updates to their audiences without space limitations; 2) make available to their marketing managers an informed guide by providing answers to questions from their audience; 3) satisfy audience

curiosity about programmes and their schedules and create avenues on how they can reach them; 4) conduct opinion polls and assess audience attitude online; 5) organize and execute sales promotions online; 6) personalize their customer-client relations by targeting and holding the attention of individual customers who have the potentials of helping them achieve marketing goals.

The above points imply that ITs can be useful in helping TV managers glocalize and globalize the contents of their programmes. Robertson (2012:191), supports this assertion by stressing that globalization did not only have the characteristics of 'sameness' or 'homogenization' but also diversity. To buttress his conclusion, he added that the heterogenizing aspect of globalization led to the concept of glocalization – the main focus of this study. South African Television business Executives need to ask and answer some questions before investing on any technology. These questions will be summarized under what media scholars termed the "5Ws and H". They include "why, what, where, when, who and how". The first "W" stands for why. Is there a reason for the use of technologies like computers, digital cameras, tape recorders and any other gadget that will help editors and reporters in their day-to-day activities? If there are no well-defined benefits to be derived, then there is no need to invest in such technology.

The second "W" stands for what. The cost of using such technology has to be taken into consideration. The third "W" stands for where and this implies that the actual thing which will be invested on has to be defined. Is it on the internet, electronic gadgets, computer equipment, softwares or hardwares? They must be well-defined. The fourth "W" stands for when. Every TV manager should know the actual time to invest or use any technology in order to reap the benefits or to prevent any crisis or to avoid losing a business opportunity. In business, time is money. The fifth "W" stands for who and this refers to the person that will help in the implementation of the technology. Is it a professional or do you already have a staff that can help in software programming and other similar things? The answer to these questions will help prevent mistakes and save costs that will accrue from righting any wrong that would have been avoided at the onset. "H" stands for how and this refers to how much of the company's income will be spent on the needed ITs. Spending so much will spell doom for the TV business while spending too little will make the business suffer in the face of competing business rivals.

4. Conclusion

Major media owners particularly those within the television industry shape of our daily lives and the world we live in because they present to us 'media representations' of their own lives and world. This happens as we watch images and read stories through which we learn the preferred values and norms of our society. The uniqueness of TV industry especially to this study is inherent in its strategic position to construct reality through various program it provides to its teeming audience. Television has the widest global distribution of all media platforms because of its ubiquitous nature and is present in over 1.2 billion households worldwide (Artz, 2015). These constructions are tailored around the proliferation of media content aided by globalization. Globalization is the major factor that necessitated glocalization. This is because globalization is a broader concept out of which glocalization has been singled out.

Cultural factors are important elements that need to be considered in the glocalisation process so as not to impede on local cultures and not create instances of cultural imperialism (Barker, 1999). Hence, the norms, values and traditions of the people need to be considered so that the glocalised media franchises can be suited with these. China is an example of a local culture that has regulated and excluded foreign cultures; for instance, the ban on the importation of Western products and restriction of Internet platforms especially Google and other sectors of the economy to only locally made products. The ban on the use of Google in China led to the adoption and proliferation of Baidu and Sohu; indigenous web companies with headquarters in Beijing that have recorded tremendous growth as dominant web engines in China (O'Brien, 2015). Another instance is Zimbabwe's resistance to foreign ownership of the country's broadcasting sector at any level to curtail the effects of media and cultural imperialism (Heuva, Tomaselli and Teer- Tomaselli, 2004). Reality television programmes like the Big Brother South Africa and Idols South Africa are used to show that few glocalised contents have found their ways into South African media arena. Reality television genre is captivating because it depicts a mixture of facts while informing and entertaining TV audiences (Kavka, 2012). It depicts real people and real-life experiences in real life settings (Hill, 2005).

Recommendations: Reality TV programs especially the glocalized and adapted programs available within the South African media landscape are presented to show that TV contents are already glocalized into various cultures while the theoretical framework adopted in the study explains the ways through which global franchises have been adapted into local terrain and how MultiChoice after acquiring the right of broadcast presented these formats into local appeals. The roles which ITs can play in making South African TV business viable cannot be over emphasized as has been shown in this study. Based on these underpins, the study recommends the following:

- That there should be media policies in South Africa to ensure that the media landscape promotes and reflects the country's diversity through media programming.
- That these policies must protect the autonomy of the local audience through the allocations made for local content.
- That the policies must ensure priority is given to South African media contents in order to strengthen the broadcasting sector through the provision of varieties.
- That the policies protect the cultural heritage of the country especially with the use of the indigenous languages. This no doubt will encourage the cultural diversity of the country and limit external influences on the culture that may result in varying forms of imperialism.
- Those more cultural elements be integrated into glocalized formats in order to foster the reception of these media texts. This is not to say that glocal adaptations should not be linkable to their global counterparts, but there should be more incorporation of local cultural features that are relatable, and these should be with little influences from franchise holders, producers and broadcasters.
- That South African Government partner with public Broadcasters in the provision of ITs in order to reach out to various audiences.
- That the aspects of production and consumption of glocal media franchises and the influence of these on audience identities be studied by other researchers.

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Other Articles

Factors influencing learners' decisions to follow a career in engineering in South Africa

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Abstract: A high demand for engineering skills and a lack of capacity in the engineering field are worldwide phenomena. Du Toit and Roodt (2009:93) refer to Lawless (2005), who declared that South Africa was in the midst of one of the worst capacity and scarce skills crises in years. Headcount enrolments in Science, Engineering and Technology (SET) grew by 4.4% a year between 2000 and 2009, and graduation rates in these areas grew by 5.5% annually (South Africa 2012:38). An effective and targeted approach is essential in order to ensure that enrolment targets are met so that universities can address the national skills needs. Most South African universities do work towards this goal, but one critically missing link in this chain is an evidence-based strategy to influence learners' career decisions. According to Burmeister (2011) "Too often, schools and universities are not turning out the skills required by business. There is a critical need for research and accurate information to ensure we have enough of the right kinds of skills. When it comes to increasing scarce skills, the only real long-term solution is to increase the pipeline of entry-level skills into critical areas." Burmeister's paper argues that a possible solution to this problem is to recruit appropriate students by creating an awareness of the fields in engineering through effective messages and activities. These messages and activities should demonstrate the links between engineering and the enabling subjects, namely Mathematics and Physical Science. An alternative suggested by Youngman & Egelhoff (2003:13) is that multiple recruiting strategies should be employed. The implication is that recruitment is everyone's responsibility and should be promoted by all university staff and students.

Keywords: *Engineering Education, Learners, Mathematics and Physical Science, curriculum, employability*

1. Introduction

In view of the global skills shortage and the demand for technological skills in Africa, it may be assumed that a skills pipeline would assist with economic growth. Skilled professionals could then contribute to job creation, thereby addressing the unemployment challenges in South Africa (South Africa 2011:54). When learners are made aware of the necessity to study the enabling subjects, the pool of appropriately qualified people should increase, and the general employability should be enhanced (United Kingdom 2014:9). Du Toit and Roodt (2009:88) have determined that, although there was an annual growth of 0.7% in the number of engineering professionals at the time of their study, the need for engineering professionals was expected to increase as a result of the huge infrastructure investment by government. A study conducted in Mexico by Goonatilake and Bachnak (2012:15) showed that both the higher education authorities and the federal and state governments were concerned about the decline in Science, Technology, Engineering and Mathematics (STEM) students. They found that the existing programmes at schools did not produce the desired results, similar to the South African situation. Prieto et al. (2009:183) identified the following factors that influenced learners' career decision-making in the 20th century: Investment by the private sector and the government, the importance of guidance teachers, the influence of parents and the media, relevant and updated curricula, teacher education, and last but not least, learners' and teachers' perception of the nature of engineering. All these factors are still relevant today. The objective of this study was to identify methods of promoting engineering as a study field and future career, and ultimately to identify the most effective way of recruiting students for the engineering courses at a university of technology. Based on the identification and influence of *what had already been done* in the past, this literature informed a proposed multifaceted evidence-based marketing and recruitment model for a university of technology.

2. Methodology

This study followed a case study design, as case study research aims to be able to describe, analyse and interpret the phenomenon being studied (Yin 2003). Quantitative and qualitative methods were combined in a mixed-method approach. Thus, an objective quantified view and a more in-depth qualitative perspective were obtained from different angles, and the mixed method cancelled out the shortcomings of each of the two methods (Mouton 2006:156). The results were triangulated to produce a more in-depth understanding of the research question (in this case, the career choice behaviour of learners) (Cohen, Manion & Morrison 2007:141). Purposive sampling was used to collect data through a structured questionnaire that was completed by 437 first-year Extended Curriculum Programme students (see next section). The researcher also conducted focus group interviews with a smaller sample of the students who completed the questionnaire. Data collected from the questionnaires was analysed using the Statistical Package for the Study of Social Sciences (SPSS) programme. The focus group interview data was transcribed, and a content analysis was done through coding. Themes and subthemes were identified and enriched the quantitative data. In the context of the research objective, the Faculty of Engineering and the Built Environment at the Tshwane University of Technology (TUTFEBE) was used as a case study to determine marketing and recruitment actions that can be used to increase the number of learners who become prospective engineering students.

Population: The first-year Extended Curriculum Programme students at the University of Technology (UoT), representing civil, electrical, and industrial and mechanical engineering students, were used as a convenient and accessible sample for this study. The sample size was 437 students as representative of the entire population (994 in the first semester), namely 44% of the first-year entering students in engineering.

Sampling: The first-year Extended Curriculum Programme students fit the same criteria as first-time entering engineering students at TUTFEBE and the researcher was able to identify them thanks to the convenience of accessing them. Given the qualitative approach in the mixed-method study, non-probability sampling was used as a suitable means to avoid a generalisation of the findings beyond the sample in question (Cohen et al. 2007:113). The stratified random sampling method was used to select the focus group participants (De Vos et al. 2010:200). This sampling method provided a true reflection of the subgroups. The groups were a heterogeneous population percentagewise and their experiences were relevant to the problem researched (Cozby & Bates 2012:146). The focus group interviews gave insight into the respondents' experiences and attitudes that would otherwise not have been accessible (Denzin & Lincoln 2011:529). A group of 50 students from the sample of first-year Extended Curriculum Programme students who participated in completing the questionnaires were invited to be interviewed. Semi-structured interviews were used to verify the data obtained from the questionnaires and to clarify the answers (Maree 2007:87). The interviews elicited participants' experiences, opinions and understanding of decision-making, as well as the factors that had influenced their career decisions.

Data analysis: The qualitative data revealed the following useful information: Most respondents were male and in the 17–20-year age group. The ratio of male to female in the sample was 3:1. Therefore, targeted actions focusing on the promotion of females in engineering were included in the marketing and recruitment model. The Gauteng, Limpopo and Mpumalanga provinces stood out as the main footprint provinces for TUTFEBE. It is noteworthy that three of the top feeder schools are participants in the annual Faculty of Engineering and the Built Environment (FEBE) Competition Day. This confirms the effectiveness of this recurrent recruitment event. TUTFEBE attracts learners from the following locations: Rural (42%), urban townships (38%) and urban suburbs (19%), while 7% of the attendees did not specify their place of residence. Only 2% of TUTFEBE's students were English mother-tongue speakers. This supports Makgato and Mji's (2006:253) findings that English proficiency is one of the main problems experienced in education and confirms Howie's (2010:512) conclusion that inadequate comprehension of information results in poor academic performance. It was satisfying to note that the highest percentage (45%) of learners have both parents in their household but disturbing to discover that the primary guardian of a large percentage (35%) of students was the mother only. In the majority of cases the student's female guardian was the highest qualified in the guardian relationship, with 10% having completed matric, 10% having completed secondary school and 13% having a tertiary qualification (N Dip, degree and postgraduate qualifications combined). This is satisfying to know, as it is assumed that learners, and specifically female learners, want to follow in the footsteps of their female

guardians. Although full-time employment by both father and mother was revealed as 19% and 23% respectively, the unemployment status was alarming, as 12% of the fathers and 21% of the mothers were unemployed.

3. Results and Discussion

Findings: Prior studies noted the importance of a university's involvement in and presence at schools to ensure an awareness of the institution and the courses offered at this particular institution. Career guidance professionals, open days and career exhibitions were identified as very important, especially in circumstances where the learners' peers were uninvolved in their academic lives. The provision of opportunities outside the traditional engineering courses, like the current hands-on experiences created by the Competition Day, Robotic Workshops and Lego League competitions, made learners aware of the engineering field. Such events were acknowledged as being indispensable. Professional institutional marketing material that complemented the marketing and recruitment actions was indicated as a high priority. Students specified the important role of the 'right' image in their world and identified professional marketing material as one of the components that define the image of an institution and a faculty. This marketing material enabled learners to share the information with their peers and fellow learners, and in that way the information about the institution and careers reached a broader audience.

Word of mouth plays an important role in marketing. Consequently, FEBE's internal stakeholders were informed of the significant role they play in supporting the institution's marketing and recruitment actions. The staff members of faculties and service departments at the institution were made aware of the influence their professional service delivery had on building and maintaining a positive reputation for the institution. The content of the syllabi was acknowledged as being of the utmost importance. The individual departments' advisory committees, each consisting of a panel of industry partners and academics, advised the academics on a continuous basis of what should be included in syllabi to keep the content relevant to real-world situations and to help the students become fully aware of what engineering entailed. Another factor was identified that made engineering more attractive as a career choice, namely the availability of multiple access routes across the sub frameworks of the Higher Education Qualification Sub framework (HEQSF). The different access routes enable learners to access engineering programmes via the recognition of prior learning (RPL), via the technical vocational education and training (TVET) colleges, and via the school system (South Africa 2013:7). One component of the broader audience was identified as being the community where the learners grew up, and specifically their parents. School principals were recognised as playing a pivotal part, because they defined the excellence at their schools. Drawing from Case's (2006:13) work, it can safely be assumed that a *no tolerance approach* at schools would ensure better performance by teachers and principals. Thus, a more demanding school environment that leads to an expectation of higher performance levels by staff and learners should be encouraged. Mathematics and Physical Science teachers were identified as the shortest, most influential and cost-effective route to access learners and create an awareness of the career possibilities in engineering.

Access to the internet was identified as nice to have, but at present it cannot be assumed that all learners have access to it, although access will undoubtedly become an absolute necessity in future. Although the internet and social media cannot be used as the main route of communication, they have to form an integral part of the marketing and recruitment model. The coordinated actions by government leaders, industry partners and universities to supply the industry with well-equipped graduates to promote national competitiveness were investigated. The IndustryGrid addressed this need and Boys2Men is one example of such a project. It was found that work shadowing had a vital influence on career choice and that this was one of the means not exploited to its fullest, as it was not incorporated in the marketing and recruitment model. The importance of awareness creation of courses in engineering aimed at reaching the larger audience was noted. Recruitment actions were identified to keep the larger audience informed of the institution and particularly of its admission requirements and the engineering courses offered. The research results enabled the researcher to design a high-impact marketing and recruitment model for TUTFEBE.

Unexpected outcome: Surprisingly, finances were not indicated as a hurdle for learners who considered tertiary education, despite the recent #FeesMustFall movement. It seemed that learners were well aware of the availability of government bursaries although there were not yet an adequate number of such bursaries. Fifty

per cent of the students identified the National Student Financial Aid Scheme (NSFAS) as their means of payment for their studies. As suggested by Field (2007:7), the available tuition subsidies resulted in a more relaxed approach when applying for courses. The time frame in which learners needed to be made aware of engineering was observed. It was theorised that, should awareness of engineering be created at an earlier age such as at primary school level, the importance of being successful in the required subjects, Mathematics and Physical Science, would contribute to informed decisions when choosing a career. Currently, learners perceive Mathematics as being a difficult subject. This perception should be transformed to the perception that Mathematics is '*different*'. It is assumed that by presenting practical actions, like competitions where Mathematics and Physical Science are applied, learners would learn to perceive those subjects as different rather than difficult.

The finding that most of the courses the learners chose at TUTFEBE were also presented at other higher education institutions, and that learners still preferred TUTFEBE, was unexpected. This suggested that the reputation of the Faculty of Engineering and the Built Environment, and specifically certain departments, dominated their career choice. Another important but surprising finding was that advertising in newspapers and on radio was not seen as a valuable marketing method. Television, the internet, faculty brochures and career magazines were identified as useful sources of career information. Contrary to expectations it was found that the public at large, including educators and learners, was not sure about the differences between the qualifications conferred by the different tertiary institutions, namely technical vocational education and training (TVET) colleges, universities and universities of technology. The lack of understanding of which qualifications gave access to which careers, and of the distinction between the careers available in engineering for artisans, technicians, technologists and engineers was stressed.

Recommendations and Actions

Awareness creation: This study argued that one of the solutions to the problem of recruiting appropriate students is to create an awareness of the fields in engineering through effective messages and activities that demonstrate the links between engineering and the enabling subjects, namely Mathematics and Physical Science. An alternative suggested in this chapter is that multiple recruiting strategies should be employed (Youngman & Egelhoff 2003:13). The implication is that recruitment is everyone's responsibility and that university staff and students should be involved in various ways. They should be made aware of their important role in recruiting engineering students and of the benefits they would reap from doing so.

Specialised projects: Tertiary institutions' main recruitment and marketing strategies seem to consist of copying each other's strategies. This researcher followed an alternative route by identifying and emphasising TUTFEBE's uniqueness as the hands-on projects, the Solar Car Challenge, the Baja Bug races and the Robotics and Lego competitions. The exceptional programmes in the Faculty were identified as Architecture, Mechatronics, Three-dimensional Design (Industrial Design) and Polymer Technology. Civil Engineering stood out in the statistics as the preferred department for qualifying for a career in civil engineering.

Decision-making period: The identified marketing and recruitment actions should be implemented at an early stage of the learners' academic career to create an awareness of the careers in engineering. It is assumed that an interest in engineering would be fostered by exposing learners to hands-on projects early on. An added advantage of those projects should be that they relate to real-world problems. Should the learners decide on a career in the engineering field, outcomes should be identified which would enable them to achieve their goals, namely to perform well in the enabling subjects, Mathematics and Physical Science. That would grant them access to academic programmes in engineering.

Different messages for different audiences: The different targeted audiences were identified as:

Career guidance counsellors: Specific actions were put in place to inform the counsellors of the programmes offered at FEBE, and of the different admission requirements. They were also informed of the careers that are applicable to each of the engineering qualifications obtained at a UoT.

Industry: The recently established IndustryGrid started collaborating with the industry by regularly presenting workshops for current students. This brought about interaction with the local industry and international partners, also introducing these two audiences to one another. To add to this, more targeted messages were created to interact with advisory committee members. One such action was to ensure that each member received updated information on the TUTFEBE. The *TUTFEBE in Perspective*, an annual publication, is one method. This publication summarises the events at the Faculty and contains detailed information on research done there.

Internal stakeholders: This audience was identified in statistics as an underutilised area having an influence on learners' career choices. The divisions that specifically interact with prospective learners were identified, like the Call Centre, Recruitment Division and Information Division at Tshwane University of Technology (TUT). Regular presentations to these staff members were scheduled in the marketing and recruitment model. Faculty staff was identified as another internal stakeholder and annual workshops to keep them informed of what is happening in the Faculty were scheduled in the model. The implementation of the new qualifications and their implications made these actions a priority.

Mathematics and Physical Science teachers: To start with, the footprint schools were identified, and various interactions were scheduled to empower their staff with information about the programmes offered at the Faculty of Engineering and the Built Environment (FEBE). This included inviting the teachers concerned (Mathematics, Physical Science and Life Orientation teachers) and the principals to campus and introducing them to FEBE. Depending on financial resources, workshops for Mathematics and Physical Science teachers is another interaction that could be implemented in the model. Additional interactions at schools were undertaken, like organising career days at the schools, presenting mini competition days, and acting as adjudicators at their science expos.

Parents: To obtain access to parents, the communities where the learners were from had to be targeted.

Prospective students: Open Days, Competition Days, Robotics workshops and Lego League workshops were some of the actions identified as possibilities. Campus visits were recommended to targeted students performing well in Mathematics and Physical Science.

The following actions were identified as the most effective in motivating learners to excel in Mathematics and Physical Science:

- Support and cooperation during science expos at schools. Faculty staff members should be involved in school science expos on multiple levels, such as helping with displays and assessing the projects. Interaction of this kind leads to links between the faculty staff and the learners, their parents and their teachers.
- Hosting mini competition days at schools, relating competitions with relevant syllabi information, encouraging learners to note the relevance of the information in the syllabi.
- Presenting open days at universities, where current students interact with prospective students by exhibiting and explaining their projects.
- Hosting campus visits for schools. Learners experience the campus and visit the laboratories where practical experiments and exhibitions are shared.
- Managing career shadowing to complement the marketing and recruitment model. Arranging industry visits for learners to experience the real world of work.
- Presenting vocational school workshops at universities for identified learners.

The primary influences on the career choices of learners were identified as the following:

- An interest in the field of engineering. Such interest was caused by different factors. Therefore, it is theorised that more should be done to create an awareness of engineering and to encourage interest in the engineering fields.
- The impact of different people on learners' career choices was another primary factor. The influences of the different people were unpacked.

- The influence of exposure to possible careers in engineering was determined. When learners understood the implications and applications of a specific engineering field, it was easier for them to make choices.
- The quality of the teaching methods of Mathematics and Physical Science teachers played a major role in career choices. This study revealed the positive outcome of learners' perceptions of careers in engineering if they were tutored by positive, competent teachers.
- The practical focused, hands-on education that was the teaching method at a UoT was acknowledged as having an influence on career choices of learners.
- Employability was considered to be higher when students qualified at a UoT than when they qualified a traditional university.
- Last but not least, the image and reputation of an institution played an important role in career choices.
- Finally, the implementation of a social media strategy in the marketing and recruitment plan was identified as a definite recruitment tool, but certainly not as the only recruitment tool to be used.

4. Conclusion

There is no recorded scientific evidence about which recruitment methods efforts work best in attracting quality students for the engineering field, and about what influences learners to choose a career in engineering. Learner recruitment forms a critical component of a university's business. Factors that influence learners' decisions about careers in engineering have been identified in order to ensure that engineering faculties' enrolment targets are met, and that national skills, competency and capacity needs are addressed. It became evident that creative and innovative marketing and recruitment efforts would have to be developed and implemented to counteract the declining numbers of engineering students. It was found that the FEBE at this particular university of technology assumed responsibility for recruiting its students, presented opportunities outside the traditional engineering courses, provided academic flexibility, established student-centred facilities, and made available multiple routes to success and student support through a respectful culture and environment. The Tshwane University of Technology assumed responsibility for addressing the decline in student numbers at the faculty by preparing suitable learners to opt for a career in engineering. It is envisaged that the throughput rate would eventually increase when better-prepared learners are selected for engineering programmes. This study focused on a specific faculty at a specific university of technology and the results can therefore not be generalised. This research might however be used as a pilot study relating to methods of recruiting engineering students for universities of technology.

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The Sustainability of Small or Medium Enterprises Growth in Emerging Markets

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Abstract: Small and medium enterprises (SMEs) are agents of economic transformation; they create jobs, reduce poverty, and generally improve the standards of living of the owners and their families. Nonetheless, SMEs often have to scale several hurdles. Chief among them is insufficient capital. A corollary to this is access to finance. Some other factors linked to finance include high interest charged by the lender for lending money and the inability to experience financial satisfaction from the small business. There are other significant obstacles namely lack of understanding of the basic principles of business management, legal restrictions and requirements as well as the cost of meeting them, fear of failure and several others. Burgeoning economies cannot but invest in its SMEs. Investing in SMEs and meaningfully reaping their benefits require a number of important elements. These include physical infrastructure, obliteration of undue and excessive red tape associated with business registration, access to finance, as well as access to business education. This paper is an attempt at offering a broad overview of the relationship among the critical factors that facilitate SME growth in emerging markets. Essentially, the paper tries to establish the interrelatedness of these factors by examining their relevance as well as implications when they are unavailable or in short supply. This ambitious project lent itself to the arduous task of examining the different factors that impede SME growth. The author confirms that this is the first known theoretical review of its kind i.e. bundling all the variables and therefore care was taken to ensure that only articles with a focus on infrastructure, red tape, access to finance, and training were consulted. This review clearly suggests that the factors that have been examined are interrelated. For instance, the high cost electricity significantly reduces the profit that can be made by a small business owner. And in this case, the small business owner may have difficulty paying back a loan obtained in favour of the business.

Key Words: *Small business management, Red tape, Entrepreneurship education, Business education, Small and medium enterprises, SMEs, emerging markets*

1. Introduction

Finding a standard definition of sustainability has eluded scholars simply because the concept is used to argue for a variety of things. Or perhaps because the concept is linked to three somewhat different but uniquely interconnected dimensions, namely social, economic and environmental. For instance, the concept takes centre stage in debates related to the environment and socio-economic issues. Nonetheless, there is a definition that seems to be in common use among scientists within environmental development studies that says 'Development that meets the needs of the present without compromising the ability of future generations to meet their own needs' (WCED 1987:43). Merriam-Webster dictionary (2006) defines the term as something that has the capacity 'of, relating to, or being a method of harvesting or using a resource so that the resource is not depleted or permanently damaged.' Considering the varied descriptions of the concept, this paper adopts Jenkins' (2009: 380) view that sustainability refers to 'a capacity to maintain some entity, outcome, or process over time'. This description suggests that that which has to be 'around' for a very long time should have inexhaustible resources to keep it going. By extension therefore, it means that to sustain something, the resources that it depends on must be available at all times for it to continue to exist. After all, sustainability implies accountable, pre-emptive and innovative management practices that reduce adverse impact and maintain balance between society and those who live in it (Kuhlman & Farrington 2010; Chichilnisky 2011). And so, 'the practical challenge of sustainability is to find specific ways to pursue those distinct goals that conform to their mutual relation' (Jenkins 2009:380).

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There is equally no common definition of an emerging market that exists, however, descriptions of what constitute an emerging market have been offered by several researchers and global institutions. For example, Kuepper (2016) broadly defines it as one that is making progress towards industrialisation and rapidly improving both economically and politically, while Burgess and Steenkamp (2006) borrow some of the World Bank's indices to characterise an emerging market as one whose economy has not reached the level of a developed one. Bloomberg's (2013) list of top 20 (see Table 1) emerging markets has some aspects of Khanna and Palepu's (2000) description of an emerging market. In other words, one can safely say that an emerging market is 'not there yet' because it has poorly functioning institutions (Khanna & Palepu 2000). Flowing from this depiction of an emerging market is the common assumption and one that has been consistently argued in economic literature, that countries with ailing institutions experience socio-economic difficulties which call for constant attention.

Table 1: Top 20 emerging markets (<https://www.bloomberg.com/news/photo-essays/2013-01-31/the-top-20-emerging-markets>)

No.	Country	GDP growth 2013-2017 (%)	Inflation rate (%)	Govt. debt as % of GDP	Ease of doing business (Rank)	Total score
20.	Philippines	20.4	4.1	36.8	138	38.1
19.	Morocco	27.7	2.5	57.8	97	39.0
18.	Hungary	15.6	3.1	75.7	54	40.0
17.	Brazil	22.3	4.7	57.3	130	40.1
16.	Mexico	17.5	3.1	43.1	48	42.1
15.	South Africa	19.9	4.9	43.9	39	42.9
14.	Zambia	31.3	5.3	28.8	94	43.0
13.	Namibia	22.3	5.0	30.0	87	44.0
12.	Poland	21.2	2.5	54.2	55	47.1
11.	Colombia	21.9	3.0	29.2	45	48.4
10.	Indonesia	31.3	4.6	2.0	128	49.1
9.	Russia	26.6	6.5	11.6	112	49.9
8.	Chile	24.2	3.0	12.9	37	50.8
7.	Turkey	21.2	5.4	36.3	71	51.0
6.	Malaysia	21.8	2.5	54.6	12	51.4
5.	Czech Republic	21.1	2.0	45.5	65	53.8
4.	Peru	27.4	2.1	17.2	43	58.1
3.	Thailand	25.9	2.7	49.4	18	58.7
2.	South Korea	22.9	2.9	27.3	8	67.4
1.	China	45.9	3.0	14.9	91	77.5

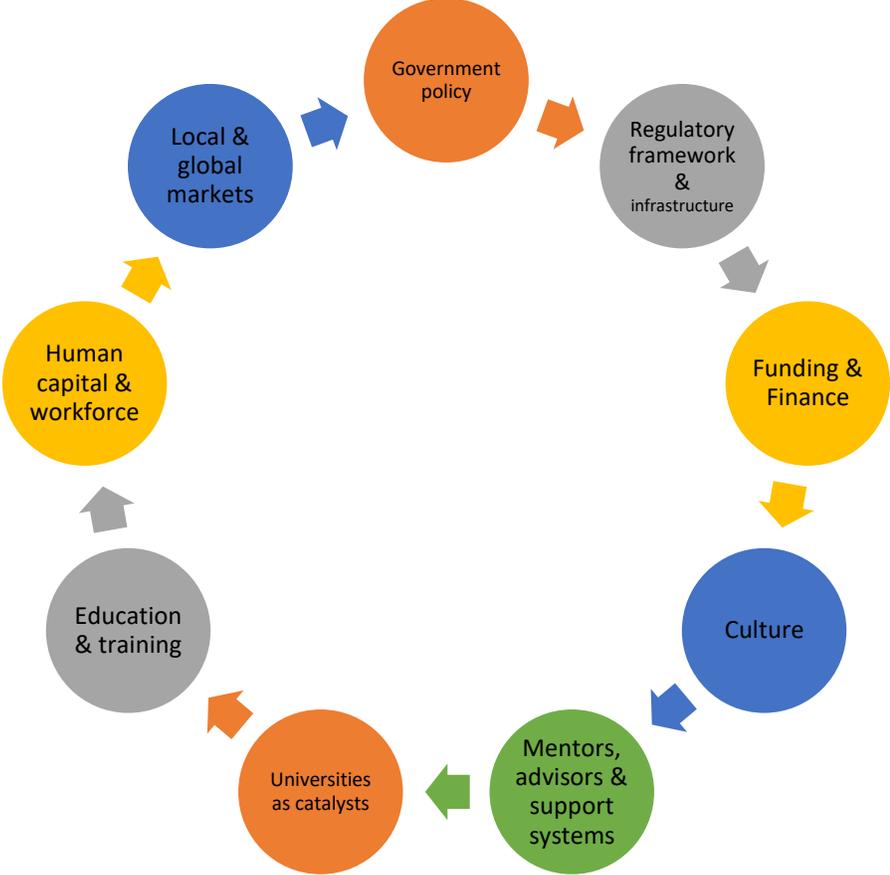
For the purposes of this paper, an emerging market is one with a developing economy that has the potential to transition to a developed status (industrialised status) by providing new opportunities for local as well as significant international investment. Basically, emerging economies have to find ways to improve their peculiar socio-economic circumstances. Often, entrepreneurship is suggested as the way to go. The outcome of most entrepreneurial activities is a small or medium enterprise (SME).

SMEs are agents of economic transformation; they create jobs, reduce poverty, and generally improve the standards of living of the owners and their families. Nonetheless, SMEs are often confronted by several hurdles. Chief among them is insufficient capital. A corollary to this is access to finance. Some other factors linked to finance include high interest charged by the lender for lending money and the inability to experience financial satisfaction from the small business. There are other significant obstacles namely, lack of understanding of the basic principles of business management, the (inherent) risks of engaging in business, legal restrictions and requirements as well as the cost of meeting them, fear of failure and so on.

The point made about insufficient capital taking centre stage in matters concerning SME development has become hackneyed by social scientists and the like. Academic literature is equally full of research reports

regarding issues of infrastructure, red tape and training opportunities for SMEs. While these issues have been the focus of numerous empirical examinations, their multifaceted interrelationship has received negligible attention. This paper therefore critically offers a nuanced review of the complex interrelationship among physical infrastructure, red tape, access to finance and business education. It is hoped that this attempt will permit a clearer description of the extent to which the interconnectedness of these factors shapes the entrepreneurial ecosystem (Figure 1).

Figure 1: Entrepreneurial ecosystem. Source: Adapted from Mazzarol 2014.



Each of the elements in the diagram has a relationship to the growth of SMEs. For instance, SMEs suffer from debilitating factors, some of which call for intense government attention. One way for government to intervene according to Mazzarol (2014) is for government to develop policies that work, as well as appoint ministers who are able to ‘play a critical role in fostering enterprise and innovation.’ This suggests that ‘prioritizing SME development is critical for promoting inclusive economic growth’ (Valerio 2015). Emerging economies cannot but invest in SMEs. Investing in SMEs and significantly gaining from them require several key elements such as physical infrastructure, obliteration of undue and excessive red tape associated with business registration, access to finance, and access to business education. Each of these factors will be discussed after the next section, which explains the methodology used in this research.

2. Methodology

This was an ambitious project which lent itself to the laborious undertaking of examining the different factors that impede SME growth. The author confirms that this is the first known theoretical review of its kind, that is, bundling up all the variables and therefore care was taken to ensure that only articles with a focus on infrastructure, red tape, access to finance and education were consulted. Dey (2005) and Mogalakwe (2006)

affirm the necessity of this method of research (aka documentary analysis) which allows a researcher to select pertinent documents for his or her research.

As stated earlier, the paper offers a broad overview of the relationship among the critical factors that facilitate SME growth in emerging markets. Therefore, the paper is devoid of sophisticated empirical scrutiny such as the ones found in studies by Calderon and Serven (2004) and Estache, Speciale and Veredas (2005). However, the data drawn from secondary sources generated newer insights which facilitated a better understanding of the interconnectedness among the factors.

3. Factors that sustain SME growth

SME sustainability discussions especially in an emerging economy therefore confront very important moral questions namely: (1) considering the value of SMEs, should they not be sustained? (2) And in pursuing the goal of sustaining SMEs on the basis of the value they add to society, what do they need to remain relevant? Prioritising the following will embolden the entrepreneurial ecosystem and by extension, advance SMEs in emerging markets.

Infrastructure: There are many ways of looking at infrastructure namely as a capital good (Gramlich 1994), economic or social means. According to the Development Bank of Southern Africa (1998) economic infrastructure refers to transport, communications, power generation, water supply and sanitation facilities, while social infrastructure includes educational and health-care facilities. To make sense of the value of infrastructure, economists normally rely on two frameworks namely physical and financial. According to Tachiwou and Hamadou (2010:132). Financial measures simply calculate the depreciated value of the accumulated investment in a particular piece of infrastructure such as a road, school or power grid. Physical measures vary across different infrastructure measures: total length of paved roads, number of classrooms or total number of containers processed by a port.

Physical infrastructure – referred to as built capital by Asitik, Sharpley and Phelan (2016) consists of road, water and electricity. In its 2015–2016 report, the Global Entrepreneurship Monitor (GEM) identified infrastructure as one of the major factors that impedes profitability among South African businesses. As serious as this is, the Treasury Department of South Africa allocated R416 billion for infrastructure development and maintenance (South Africa National Treasury 2007). This, therefore, suggests that a lack of necessary infrastructure poses severe limitations that must be addressed for SMEs to be realised as a viable means of poverty reduction (Asitik et al. 2016). In fact, availability and/or shortage of infrastructure present significant implications for market accessibility relating to cost, revenue generation and the benefits of economies of scale.

Investing in infrastructure should therefore be considered a worthwhile effort. The justification for this can be found in Fedderke and Garlick's (2008) discussion of the potential linkages between infrastructure and economic growth. They contend that infrastructure can be seen as:

A factor of production; a complement to other factors; a stimulus to factor accumulation; a stimulus to aggregate demand; a tool of industrial policy; and as a determinant of infrastructure spending [pg. 1]

Basically, infrastructure may simply be characterised variously as a facilitator of the production process, enabling access to basic services such as health care and education, and promoting government community relations through policy development.

Smooth/Hassle-free business formalisation: Increasing burden of regulation and/or spending disproportionate amount of time on unnecessary things can be discouraging to a business owner. In fact, complying with laws and regulations, tax and value added tax (VAT) issues may be the reasons why many SMEs are unwilling to formalise their businesses. By the way, laws and regulations are necessary for governance – be it in trade or investment, as long as they are fairly administered. This view is seconded by the International Labour Organisation Organization (ILO) (n.d.). According to the ILO, 'not all regulation is red tape' supporting the view that regulation is necessary and useful when it enables enterprise formation, growth and job creation. Therefore, business owners may not be unhappy with regulations but with the way in which they are implemented. For instance, Christensen, Hegazy and Van Zyl (2016) reported that their subjects considered

water and lights billing, high rates and taxes on properties, 'troublesome'. In some cases, worker compensation and regulations, and licensing were misinterpreted (Christensen et al. 2016) and therefore implemented wrongly (Robichaud n.d.). The troublesome and complicated process of formalising a business is also referred to as red tape. According to Robichaud (n.d.), red tape can be characterised by unfair administration of regulations which end up becoming regressive and destructive. Specifically:

Red tape includes rules that are difficult for business owners to understand or implement in their businesses, duplication between government departments or different levels of government, difficulty finding proper information and obtaining service from government, and the time and money that can be spent complying with paperwork requirements that can be excessive. [p.1]

The ILO (n.d.) describes red tape as:

What makes life difficult for enterprises [...] often described as a collection or sequence of forms and procedures required to gain public/official approval for something, especially when oppressively complex and time-consuming. [p.2]

It goes further to say that:

Red tape is a short-hand term for unnecessary or excessively complicated regulations and administrative processes that have financial as well as opportunity costs for enterprises when complying with national and local laws and regulations and administrative processes.

In South Africa for example, red tape is killing SMEs and by extension red tape is silently killing jobs. In fact, it can be said that the avowed and renowned virtues – poverty reduction, job creation and improved standards of living – of SMEs may remain a mirage if excessive regulation is not eliminated. It is noteworthy that the failure rate of South African start-up businesses and entrepreneurs stands at an alarming 75%. Most media report suggest that this high percentage is as a result of 'the stranglehold that regulatory burdens and red-tape have on entrepreneurs and small businesses. Businesses continue to struggle to operate in a highly inflexible and highly rigid regulatory framework' (Democratic Alliance 2015). If one examines Bloomberg's top 20 emerging markets (please see Table 1 above), one is confronted with the reality that emerging markets still have a long way to go in terms of 'ease of doing business'. So, it is imperative that unnecessary bureaucracy is eliminated to encourage formalisation of businesses and the improvement of earnings of government.

Access to finance: Lack of financial resources has been reported as a major hindrance to starting a business in sub-Saharan Africa. Poverty levels are very high in South Africa (Gwija 2014). Therefore, it is not uncommon to find even those who are employed engaged in some form of entrepreneurial activity in order to augment their incomes. Unemployment levels are equally high. To escape desperate socio-economic conditions, many unemployed people seek self-employment. These factors are known to push many into self-employment (Gwija, Eresia-Eke & Iwu 2014).

Most businesses are known to require some form of capital investment. Considering South Africa's poverty level, it is not in question that often most emerging businesses have to contend with very little capital (often own savings) to survive. For a business to grow, it needs capital to replenish inventory, pay rent and fend for the owner and his family (Asitik et al 2016; Gwija et al. 2014). In many cases, these are unattainable owing to large family networks that the average South African has to cater for. Financial institutions that ought to support emerging businesses require layers of collateral which include property (BankSETA n.d.). Beside the issue of collateral, micro lenders offer loans with very high interest rates and short periods of repayment (Okpara 2011). Basically, without adequate capital, SMEs are unlikely to make the necessary transition to growth. An array of risks therefore compounds the problems of SMEs as a result of lack of financial resources. These are captured in Table 2.

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Table 2: Economic factors which influence the South African economy (Schmidt et al. 2016:12)

Macro-economic factors	Micro-economic factors
Economic uncertainty	Bad business infrastructure
Extensive red tape	Bad pricing strategies
Frequent electricity outages	High levels of internal and external competition
High costs of credit	High overhead costs
High disruption in public transportation	Inability to deal with red tape
High electricity costs	Incompetent human resources
High inflation rates	Lack of business infrastructure
High interest rates	Lack of business knowledge
High levels of crime	Lack of business planning
High levels of external competition	Lack of business skills
High taxation rates	Lack of customer relations
High water costs	Lack of external funding
Rapid changes to government legislation	Lack of financial knowledge
Rapid technological advancements	Lack of internal financial resources
Strict government legislation	Lack of mentoring
Volatile demands for products and services	Lack of proper marketing strategies
Volatile exchange rates	Limited knowledge of markets
Volatile market conditions	Non-payment of debtors and customers
Volatile supplies of products and services	Poor cash flow management
Weak service delivery by government	Substitute products and services
	Weak business location(s)

As the Table 2 above shows, lack of and/or access to capital brings with it numerous encumbrances. For instance, without financial support, a business is unlikely to afford own transport. Also, without financial support, a business is unable to acquire competent human resources. The Table also shows that some of the macroeconomic factors have roots in inadequate infrastructure, government regulation and poor technological advancement.

Access to business education/need-specific training: Perhaps one of the reasons why there is so much red tape is lack of awareness of rudimentary practices for business registration. This view is shared by many researchers (for example Gwija 2014; Xesha, Iwu & Slabbert, 2014) who contend that small business owners are often unaware of what is required of them to take their business to the next level. With requisite business knowledge and skills, business owners are better equipped to operate their businesses properly.

The importance of business support programmes cannot be overemphasised. Businesses, especially the emerging ones need support services such as business registration, bookkeeping, marketing and human resource procurement. The South African government has several agencies that provide these services often at marginal cost. But as Gwija et al. (2014) discovered, government support agencies are present in many communities yet the community members who should benefit from their presence are unaware of their existence. A common source for such information could be a business training programme which offers opportunities for information sharing. That many small businesses are struggling to remain open and are closing frequently can be attributed to the absence of a structured business development training workshop. Little wonder therefore that Mckenzie and Woodruff (2013) offer the following description of the SME ecosystem in a developing country.

Walk into a typical micro or small business in a developing country and spend a few minutes talking with the owner, and it often becomes clear that owners are not implementing many of the business practices that are standard in smallest businesses in developed countries. Formal records are not kept, and household and business finances are combined. Marketing efforts are sporadic and rudimentary. Some inventory sits on shelves for years at a time, whereas more popular items are frequently out of stock. Few owners have financial targets or goals that they regularly monitor and act to achieve [p.1]

It is important to mention that training may not be the only panacea for SMEs to flourish. As noted earlier, there are limitations such as the lack of and access to financial resources, poor access to markets, lack of support services and low literacy levels should also be addressed. However, of significance is the pivotal role of training in supporting SMEs in emerging markets. Ladzani and Van Vuuren (2002) present an apt example thus:

Although a business may have the needed finance, without financial controls, its failure is probable. In the same manner, a business may have access to the markets, but ignorance about how to market products and services poses a serious obstacle to success [p.157]. An important point that can be deduced from the above example is that business and or entrepreneurship training is critical to the development and survival of any small and medium enterprise.

4. Conclusion

A common characteristic of emerging markets is that they are synonymous with marginal socio-economic development. In these countries, utilities such as water, electricity, roads and transportation systems are either dilapidated or hugely non-existent. In fact, in some of these markets functional public utilities are not at the disposal of the majority. For instance, in South Africa not every household is connected to the national grid (electricity). Although there is a considerably good road network, the cost of transport is considered to be expensive because of the high cost of diesel and gas. Unfortunately, with respect to water, draught is experienced in many provinces.

When socio-economic development is bandied around as the panacea for growing the economy, entrepreneurs are looked upon to do their bit. The entrepreneur's efforts materialise in the form of creative products and services and often small and/or medium enterprises. Researchers have confirmed that SMEs encounter challenges most of which relate to the absence of or inefficient utilities such as malfunctioning infrastructure, economic challenges such as lack of finance, poor training and unnecessary red tapes. The value of SMEs will continue to be compromised owing to these challenges. Therefore, relying on SMEs to champion socio-economic development would be like expecting the impossible to happen unless there is an efficient and affordable transportation system, available and reliable support systems (which include human and other capital) and removal of unnecessary or excessively complicated regulations and administrative processes.

This paper offers a new opportunity to researchers in the sense that they can empirically examine the extent to which the factors discussed have a combined effect on the growth of SMEs. Research has identified three important role players in the development and growth of SMEs. These include public institutions (government), private institutions, and education and training providers. In Kenya, for instance, the issue of lack of finance has been addressed by government through the establishment of a support mechanism for smaller banks. The project specifically supports small-scale enterprises to receive funds through the assistance of non-profit organisations and financial institutions. To support SMEs in the Philippines and Indonesia, both governments require banks to offer financial assistance to small and medium businesses. Equally, private firms are used in places such as South Africa and Malaysia to provide training programmes to small businesses. There is a considerably significant uptake of public-private partnerships in infrastructure development in China and India. This paper however did not take a deep interest in the likely remedial options that can emerge from stakeholders such as government, private institutions, and education and training providers. Therefore, a future study could intensely examine how the negative impact of these factors can be managed by these stakeholders. In fact, a political scientist may want to focus on the factors that lead to the deterioration of the socio-political system of a nation that warrants the dilapidation of infrastructure, and a general weak government.

Despite the acclaimed benefits of SMEs to any economy, its performance in emerging markets is arguably less than satisfactory owing to several factors. There is therefore justification for a concerted interest in the growth of the SME sector in emerging markets. In the words of Hallberg (2000: 5), 'it is enough to recognise that microenterprises and SMEs are the emerging private sector in poor countries and this form the base for private sector-led growth.'

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Implications of deviating from software testing processes: A case study of a software development organisation in South Africa

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Abstract: The software development life cycle (SDLC) starts with software requirements being defined, followed by specifications being created (Saleh 2009:5). Software architecture is then designed, coding of the software is done, followed by software testing. Software testing is a vital aspect of software development, as the software development industry still struggles with developing software applications which meet quality standards and project budget constraints (Ichu & Nemani 2011:716). Software development methodologies are considered an integral part of software development, as methodologies guide the timely and orderly execution of the various procedures, rules and documentation used to develop software (Ramsin & Paige 2008:3). For some methodologies, the software testing process is done during the development process (Herschmann, 2009:52), and for other software development methodologies, at the end of the development process (Naik & Tripathy, 2008:1). Hence, the main aim of the study was to explore what the implications are for software development organisations due to non-conformance to software testing processes. The study was shaped by three key issues: (1) industry standard software testing processes; (2) software methodology-specific testing processes; and (3) organisational and project specific characteristics which influence the software development process. Given the aim, it was convincing to ask the research question 'What are the implications of non-conformance to software testing processes? To tease out the question a case study methodology was adopted and it is described in the next section' (Roems and Twum-Darko, 2017:5).

Keywords: *Software testing, Software development methodology, Software development life cycle, Organisational processes*

1. Introduction

Software development projects: Laplante & Neill (2004: 12) argue that software development presents unique problems, including unrealistic expectations on budget, deadlines, and moving requirements. Organisations and projects have their own characteristics, requiring a range of techniques and strategies, but there should not be a scenario where none of these are used. The use of standard techniques and methodologies is thus essential to cope with the complexities and issues associated with the software development process. Gruner and Van Zyl (2011: 18) state that there is mostly a finite amount of software testing time available that needs to be allocated wisely. Inadequate testing time allocation or unplanned software testing procedures, are some of the factors resulting in software defects not being detected before software is cleared for implementation (Kaur & Sengupta, 2011: 4).

Software development methodologies and testing process: Software testing is part of the value chain of software development and project for that matter. The software testing process demonstrates that software operates as intended and verifies that requirements and features are met (Zimmerer, 2010: 7). Software testing has evolved from haphazard testing processes performed by software developers, to the current situation with formalised processes, dedicated testing staff and defect tracking software (Ichu & Nemani, 2011: 717). Major goals of software testing include ensuring that testing activities are planned and that there is adherence to applicable standards and procedures (Agarwal & Tayal, 2007: 71). Test strategies also include factors such as scope, governance and resources (Lazić, 2010: 462). There are many development models which make use of different testing strategies and scoping. One such mode is the waterfall development model. The Waterfall software development model is process-oriented and plan-driven, with documented process procedures for all tasks and milestones and its variants (Guntamukkala et al., 2006: 268). The Waterfall model has clear

demarcations between phases in the SDLC, such as when developers pass developed software to the testers prior to release (Desikan & Ramesh, 2006: 33). Agile software development methods prescribe quicker software release cycles, with face to face communication preferred over documentation (Guntamukkala et al., 2006: 270). However, the Agile methods thus provide challenges to software testing where it has to deal with the volume and speed of changes which are made, without compromises to software quality (Black, 2010: 20).

Software defects: Inadequate software testing could increase the likelihood of system failure or unknown defects occurring during software use (Rao & Sastri, 2011: 1239). This could even cripple a software development organisation financially. A defect introduced during initial requirements that makes it to the final release may cost as much as a thousand times more the cost of detecting and correcting the defect during initial requirements (Desikan & Ramesh, 2006: 11). The gap that this research investigated was adherence to both industry standard and software development methodology specific testing processes. This was done at a specific software development organisation with the focus being on e-commerce websites, to determine implications as a result of software defects.

2. Overview of duality of structure

Given the above overview of reviewed related literature, the analytical dimensions of duality of structure framework, based on structuration theory, was applied as a lens to understand and interpret the phenomenon of implications of deviating from software testing processes. Structuration theory deals with the relationship of human agents and their actions, versus emphasis on social systems structures, within an organisational context (Walsham & Han, 1991: 53). As part of structuration theory, Giddens conceptualises 'structure' as being 'rules and resources', used by actors in interaction (Turner, 1986: 972). This dual nature of structure and interaction lead to the theorem of the duality of structure, which is crucial to the idea of structuration (Giddens, 1984: 25). Agents and structures are not two independently given sets of phenomena, but represent a duality. Rules of structure reveal a number of important properties, including that these rules are tacitly known, widely sanctioned, informal, frequently invoked and used in conversations and daily routines (Turner, 1986: 972).

The duality of structure framework developed by Orlikowski and Robey (1991) enabled the analysis and interpretation of the case study. The concept provided a good understanding of the case study and how to apply it at the organisation, particularly in the area of software development (Rose & Scheepers, 2001: 217). The duality of structure framework from which the conceptual framework in Figure 2 was derived is as shown in Figure 1. Therefore, by the application of duality of structure as a lens, it is arguable that there are socio-technical processes interplaying between structure, as software development in practice, and agency, as software testing processes. The conceptual framework for this study was adapted from the duality of structure framework to investigate the research problem. Given the conceptual framework in Figure 2, it is arguable that there are influences of organisational structure and technology on each other during the software development process, which enable project deliverables to be met.

Figure 1: Analytical dimensions of duality of structure (Walsham & Han 1991:54)

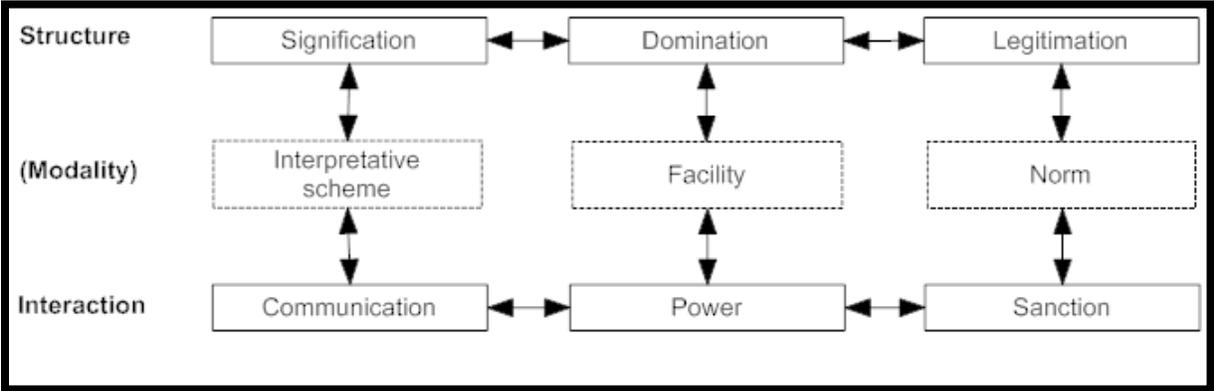
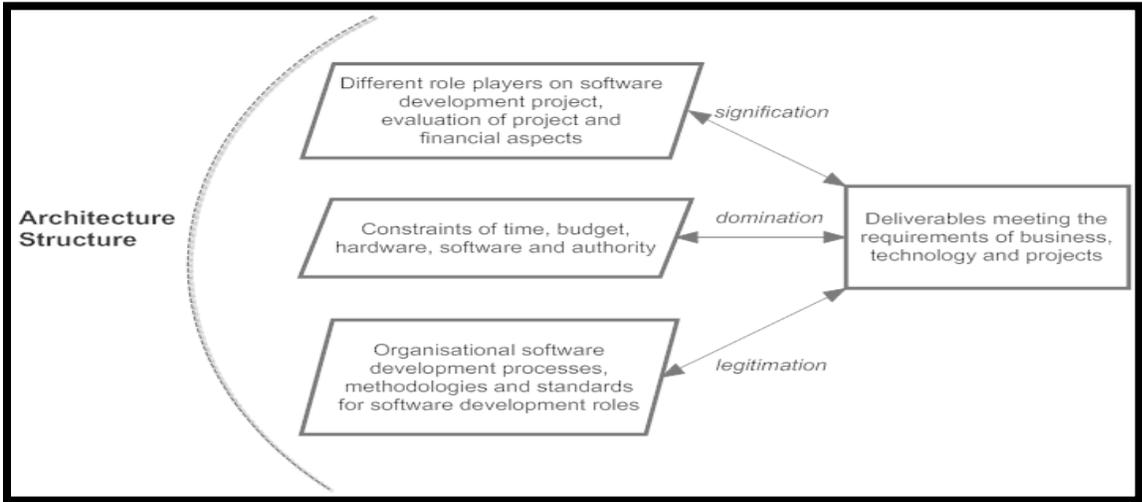


Figure 2: Conceptual framework



3. Results and Discussion

Introduction: Software development research can focus on software development team members drawing on their organisation's institutionalised structures of signification, domination, and legitimation, as discussed in the methodology in section 3.2, in order to perform their work function (Orlikowski & Robey, 1991: 158). Institutional aspects of software development can be investigated through analysis of interpretive schemes, resources, and norms of the software development organisation, and trying to comprehend how these factors enable or hinder the activities of software development team members. The interplay of organisational structure and technology on each other during the software development process as illustrated in Figure 4, and was used to analyze the case study.

Website and software development as signification: E-commerce website functionality was identified and defect lists analysed at the organisation. Software development resources costs were identified, together with implications associated with software defects at the organisation. Processes around the evaluation of completed software development projects at the organisation were also investigated.

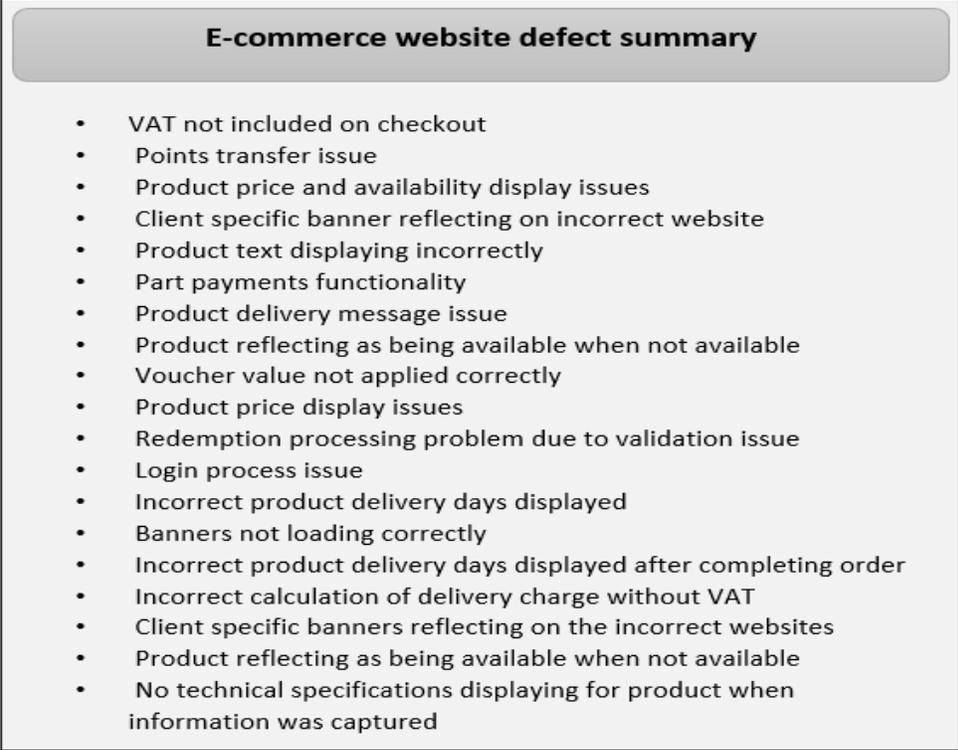
Ecommerce website functionality and defects: Back office processes which impact on the e-commerce website were stated by a respondent as being critical, in relation to the team managing what products get displayed on the website. Critical e-commerce website functionality indicated by research participants are shown in Table 1.

Table 1: Critical e-commerce website functionality

Critical e-commerce website functionality	Respondents
Ordering/checkout process	11
Credit card payments	5
Usability/site navigation	4
Product display	4
Search functionality	3
Accurate pricing and product information	3
Credit card and information security	3
Correct payment calculations	2
Different payment methods	1

Information recorded in organisation’s RT Tracker tool, where live environment defects are logged by internal users, was analysed for a six-month period, with twenty e-commerce website defects identified during this period, as shown in Figure 3.

Figure 3: E-commerce website defect summary



Implications associated with software defects: It was indicated by a respondent that the earlier you can pick up the defect, the cheaper it is to fix it, the later you pick it up, the more expensive it is to fix because then it needs to go back through the development lifecycle. In relation to a specific program which the organisation operates on behalf of a client and its service level agreements, there’s a huge impact if testing has failed and we are releasing defective software. Possible financial costs that the case study organisation can incur due to software defects as indicated by research participants are shown in Table 2.

Table 2: Implication of software defects

Implications of software defects	Respondents
Service level agreement penalties	7
Reputational/brand damage	4
Delays to other projects, as resources are diverted to fix defects	3
Correct payment calculations	2
Paying overtime/extra money to resources	1
Loss of potential income on e-commerce website	1
Possible fraud, ordering items for free	1
Loss of income for virtual products	1
Different payment methods	1

Completed software development projects: Lessons learnt or retrospective meetings after completed projects are not always held at the organisation. The process is not properly formalised and required improvement, with a tendency for the meetings to be held especially if there were issues in a project or the end product did not meet requirements. The meetings were indicated as being ‘finger pointing meetings’, instead of actually covering how to improve processes.

Software development resources costs: It was found that the organisation generates revenue by selling the time of its software development resources, in hours, to clients. Cost estimates are given to clients, with the costs associated for each of the different resources required to complete the software development project, with markup being added to the costs given to client. It was also found that the selling price of software development resource time is normally two times or three times the cost of the resource. This consists of one third for the salary, one third is for the overheads to run the business and one third should be contributing towards profit of the business.

Authority-driven interactions within software development as domination: Resources responsible for the software testing process, the review process and governance processes during the software development process were investigated at the organisation. The process of determining when software is ready to be released to a live environment, together with root cause analysis if defects were found in the live environment, were also investigated.

Software testing process resources: The testing team is primarily responsible for the software testing process at the organisation. Developers are also required to assist with the testing process, together with business analysts. Business users, including product managers, user acceptance testing resources and clients, also need to perform testing to confirm that functionality meets their requirements.

Reviews during software development process: These are being done at the organisation, but the frequency of the reviews was not sufficient and not applied as rigorous as it should be.

Live environment software releases, governance processes and root cause analysis: There is an approval process followed at the organisation to determine if software is ready to be released to a live environment. Decision making factors used at the organisation for the software release process are shown in Table 3.

Table 3: Software release decision making factors

Software release decision making factors	Respondents
Signoff from business stakeholders outside of IT department	8
Test execution results	6
Outstanding defects not yet fixed	5
Software requirements being met	4
Adequate test case coverage	1
Regression testing being performed on impacted areas	1
Having a release meeting with all stakeholders	1

Governance processes in the software development process are in place at the organisation but are not strictly enforced. It was indicated that governance processes are managed outside of the IT department, which may not cover the software development process as required. Root cause analysis is done for software defects at the organisation, but appears to be specific business unit, but not for the rest of the business. It was indicated that the organisation firmly believes in doing root cause analysis, but the IT team don’t necessarily like it. It was also indicated that root-cause analysis at the organisation is this not necessarily done to the level of specific development process.

Standards within software development as legitimization: Standard operating procedures for the software development process, including software development methodologies, software testing processes and tools were investigated at the organisation.

Software development processes: The software development process is formalised at the organisation, which cover the build process in the IT department, which covers software development and testing. Analysis, requirements and documentation, the release process, including the deployment of code, are covered in software development process. The details provided by respondents were confirmed in the organisation’s software development process document.

Software development methodologies: Respondents were aware of the concept of software development methodologies, with a combination of Waterfall and Agile methodologies being used on projects at the organisation. Neither of these methodologies is being strictly enforced. Agile methods were introduced to the organisation for a few projects recently according to a respondent, so it remains to be seen which is more effective. This is in relation to the Waterfall method which is also being used. It was stated by a respondent that testers are involved from the beginning of projects with Agile, because it’s an iterative process and testing happened from start. With the Waterfall methods testing waits until development is completed and handed over from a developer. Issues associated with the Waterfall software development methodology at the organisation include miscommunication of development which is complete, which impacts testing resources as it is unclear of what can be tested and can waste valuable time. A software development methodology attempts to provide guidance, thus not following a specific methodology can cause downstream issues with testing if areas such as specifications, defect management and test cases are not done. Similarly, if a specific methodology is not being followed and there are too many changes, there is a negative impact on testing if test cases need to be redone.

Software testing processes and tools: The software testing processes used at the organisation are in place and formalised, and include the processes as indicated by respondents as shown in Table 4.

Table 4: Testing processes

Testing processes	Respondents
Test case creation	6
Test execution	4
Defect logging and fixes	4
User acceptance testing	4
Testing after changes are made live	2
Test planning	1
Use cases	1
Exploratory testing	1
Cross browser testing	1
Integration testing	1
Regression testing	1
Test data creation	1

The goal with testing should have at the organisation is to always have as much coverage as possible within the time constraints the testing team always have, this is in relation to test execution. In relation to integration testing with the organisation’s payment gateway provider, testing should include logging onto the payment gateway portal actually seeing that transactions are reflecting. Differences testing processes dependent on the nature of the development which, this includes scenarios such as planned releases, change requests or emergency fixes, should always have certain types of tests which are executed. The quantity tests would be different in the different scenarios, depending on available time. These critical tests should always be done to

mitigate the chance of software defects in important functionality in released software. Testing provides stakeholders with the necessary information to make a decision to release software or not, in relation to compliance with customer requirements based on qualitative and quantitative assessments. It was also indicated by a respondent that testing for big releases, for a specific business unit as an example, is in all probability tested better, while testing for smaller fixes and for less critical systems, are probably tested less. A respondent indicates that there is a culture at the organisation of not following the correct process when testing any piece of the software. This includes a tester not testing software as thoroughly as they should or ignoring certain processes that may consume too much time. Following all processes may keep the tester from being able to complete other work. It was also indicated that the testing department might not be resourced sufficiently. Testing tools used at the organisation as indicated by respondents is shown in Table 5.

Table 5: Software testing tools

Software testing tools	Respondents
MantisBT, for defect logging and tracking	10
Testlink, for test case management and execution	8
Video recording software	3
RT Tracker, for defect logging	2
SoapUI, for web service testing	1
Robot Framework, for test automation	1

4. Conclusion

Software testing processes and techniques: The findings indicate that there are various software testing processes and techniques that are applied at the case study organisation. Testing processes and techniques are primarily used to ensure that developed software meets requirements. Some of the most cited testing processes include test case creation, test execution and user acceptance testing. It was also found that software testing processes and techniques used at the case study organisation are formalised. The software testing team was found to be primarily responsible for the software testing process at the case study organisation. Developers and business analysts are also required to assist with the testing process. Business users, which include product managers, user acceptance testing resources and clients, also need to perform testing to confirm that functionality meets their requirements. Software testing tools are being used at the case study organisation to facilitate the software testing process, as per the organisation's software development process document.

Software development methodology specific testing processes: It was found at the case study organisation that testing is involved from the beginning the beginning of software development projects when Agile methods are used, while with Waterfall methodology the process starts once development is completed and handed over from the developer. With the Waterfall methodology it was found that there were communication issues at the organisation as to what development was completed. This negatively impacts the testing process as testers are unclear what functionality to test and what is not yet working. It was found that a combination of Waterfall and Agile software development methodologies are being used on projects at the organisation, which are not strictly enforced. Agile methods were also introduced within the last year, with the organisation currently in a learning process regarding Agile methods. Mixing software development methodologies can result in processes not being followed, which can result in an increase likelihood of defects both prior to a release and after software is released. Not using a specific methodology has negative implications for testing if there are too many changes are testing tasks such as test cases have to be redone.

Deviations from prescribed testing processes: Governance processes for software development were found to be in place at the organisation but are not being strictly enforced. This can result in heavy dependence on testing to detect and fix defects if upstream activities are poor. Similarly, poor testing can result in defects when software is released to a live environment. It was found that reviews during software development process are not always done at the organisation, these are done more often when agile methods are used on a project. Similarly, it was found that meetings following projects being completed are not always held, as per the case

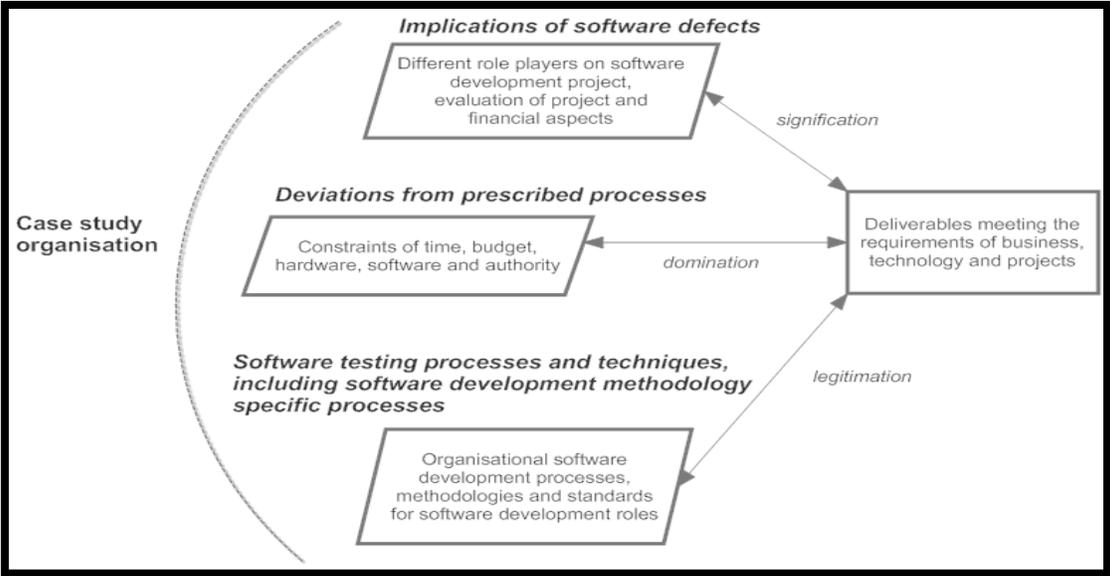
study organisation’s software development process document. Root cause analysis was being done for software defects at the organisation but is not necessarily done to the level of where specific development processes are identified where the defect originated. This makes it more difficult to identify where the organisation’s software development governance processes are not effective enough. It was found that time constraints were a factor which the testing team always has, in relation to time required to complete test execution.

Implications resulting from software defects: The following tangible costs were found to be associated with software defects, together with how these costs can be quantified, as identified by research respondents in relation to the case study organisation’s e-commerce website: (1) paying overtime/extra money to resources (this can be equated to the hourly cost of a software development resources which cannot be recuperated from a client); (2) loss of potential income on e-commerce website (any website downtime or loss of functionality means orders cannot be completed and sales are lost during that period, can be hourly average turnover); (3) possible fraud, ordering items for free (loss of the cost of item, including virtual products) and (4) service level agreement penalties (financial penalties levied against the organisation).

The following intangible costs were found to be associated with software defects as, identified by research respondents in relation to the organisation’s e-commerce website: (1) reputational or brand damage; and (2) delays to other projects, as resources are diverted to fix defects. Intangible costs are more difficult to quantify, as it is more difficult to quantify how much revenue is lost due to reputational or brand damage or project delays. There may be no noticeable drop in revenue and projects delays can be recovered without any additional costs. Research participants were unable to provide specific financial details on software defect costs, as the information was being collected at the organisation.

Research contribution: A guideline was developed for the case study organisation, based on the conceptual framework, to illustrate the relationships of the specific research questions on software project delivery, as shown in Figure 9. The use of the analytical dimensions of duality of structure framework, based on structuration theory, was applied as a lens to understand and interpret the phenomenon. The use of theory guided the interview questions which research participants were asked, based on the research sub-questions. As a result of the research out, the case study organisation has gained understanding on specific software development and organisational process. Addressing these issues can prevent future occurrence of issues, such as software defects. The necessary remedial action will need to be implemented by the case study organisation, for future evaluation.

Figure 9: General framework: implications of deviating from software testing processes

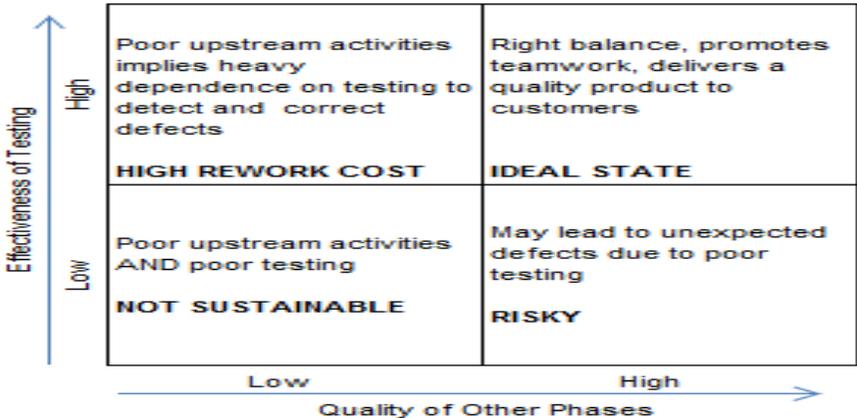


Recommendations: Test execution for the organisation’s e-commerce website should be prioritised for the critical functionality, including areas such as the ordering and checkout process, credit card payments and product display. In scenarios where there are time constraints in finishing test execution, critical functionality should be tested first and proven to be working before less critical areas are tested. The necessary test case prioritisation should be done in the organisation’s test case management tool to facilitate this process. The necessary risk management should also be undertaken in scenarios with time constraints to achieve a positive outcome which balances risk with quality, features, budget and schedule. The exploratory test technique should also be applied in time constraint project scenarios, as indicated in the literature reviewed (Hambling, 2010: 119).The organisation’s test case review process should be more stringently enforced, to ensure that changes are covered and tested thoroughly before these are released to a live environment. This can also help to reduce new defects being introduced. Similarly, test execution processes should also be checked, to prevent issues where testing processes are not followed. Ensuring that there are sufficient testing resources will also help to ensure that testing processes are followed correctly, as this can assist to mitigate the need to skip processes to save time.

A more unified approach to tracking defects in relation to test cases should be investigated at the organisation, so that they can be linked to test cases, and so that your test suite improves as defects are found. Process improvement is needed for the RT Tracker tool, with regards to closing tickets and classification of defects, in order to improve reporting. The specific processes associated with different software methodologies should be more strictly enforced on a per project basis, to prevent the negative impacts on software development processes, including testing. The use of specific software development methodologies on a specific project, either using structured Waterfall or Agile methods, should be analysed or justified on a project basis, which will optimise the use of time and costs. The organisation should also undertake training with regards to agile methods, as this has been newly implemented. Process improvements which the organisation can undertake include reviews on technical specifications and code reviews. These were mentioned by research respondents, but not formalised, as these are not mentioned on the organisation’s software development process document. It was found that the following information provided by the software testing process must be factored into the decision to release software to a live environment: (1) outstanding defects not yet fixed; (2) software requirements being met; (3) adequate test case coverage and (4) regression testing on impacted areas.

Testing after changes are made live, as per the organisation’s software development process document is an important process and should be done immediately after changes have been made live. The process can assist with detecting any issues after changes are made live. Similarly, the roll back process, as per the organisation’s software development process document, needs to be better clarified, as changes may need to be reverted if defects are picked up after changes are made live. It appears that the organisation is not placing emphasis on software development processes prior to testing, such as documentation and coding standards (Balfagih et al., 2012: 153).Improvement in areas such as analysis, system design and code reviews can improve the effectiveness of the testing process delivered by software testers, as seen in Figure 10.

Figure 10: Relationship of effectiveness of testing to quality of other phases (Desikan & Ramesh, 2006:6)



Limitations and future research work: It was possible to determine what the impact of software defects was to the case study organisation, together with specific software testing process improvements that could prevent software defects in future, it was not possible to determine the specifics in relation to revenue lost and additional costs that the case study organisation was incurring due to software defects. Determining revenue lost and additional costs incurred due to software defects is an aspect that which the case study organisation would need to implement as part of improving the maturity of their processes. This could result in the areas of scope, governance and resources for software testing to be increased accordingly, to prevent software defects. This particular case study was undertaken on a specific software development organisation. Another study could explore the software testing processes at other software development organisations with e-commerce websites, and could provide a comparison of this particular study's results. Similarly, a study could also be undertaken on a software development organisation doing in house development for their own e-commerce website, i.e. where development is not outsourced, which is what the case study organisation does on behalf of clients. Software development and testing processes can also be compared to this particular study.

Summary: The paper discusses software testing processes, with the focus being on the function performed by the software tester role. The objective of the research was to determine the implications that software development organisations could face when deviating from software testing processes. The paper considered the interplay between software testing processes, software development methodologies, organisational processes and software defects which arise. Structuration Theory was used as a lens to understand and interpret the socio-technical processes associated with software development processes within a software development organisation. Software testing processes, resources and tools were identified at the case study organisation, together with the formal software development processes, methodologies and associated processes being used. Critical e-commerce website functionality was identified, in addition to software development resource costs and costs associated with software defects.

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Disruptive Innovation: Imperatives for Business

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Abstract: This paper introduces the notion of disruptive innovation and the consequent business imperatives for the South African Small and Medium Enterprises (SME) sector. The field of innovation strategy has experienced the rise of significant disruptive innovation by way of Internet-related technologies, supported by the proliferation of mobile computing over the last decade. The aim of this study is to interrogate (1) the nature of disruptive innovation; (2) its trajectory; (3) its imperatives for business; and (4) whether the aggregation of these present any benefit for the entrepreneur. Two research methods were used in this qualitative study, namely an extensive literature review of the key areas followed by in-depth interviews with South African Information and Communication Technology (ICT) professionals. The study concludes that the aggregation of the nature of disruptive innovation, the trajectory of disruptive innovation and the imperatives of disruptive innovation to business could hold potential benefit for the entrepreneur. The value for the entrepreneur lies in this synergistic, triangular relationship which can assist with success and sustainability.

Keywords: *Information and Communication Technology, disruptive innovation, entrepreneur, sustainability, Social Media*

1. Introduction

Disruptive innovation as a phenomenon has become increasingly prevalent within the Information and Communication Technology (ICT) industry. Several articles dealing with the nature, trends and potential impact of disruptive innovation have appeared in leading publications such as Harvard Business Review, Gartner and Forrester in recent times. There is also an active discourse on disruptive innovation within online technology and business forums. Tynan (2008) and Christensen et al. (2016, p. 170) jointly argue that ICT is extremely dynamic and its development certainly has a means of grasping established ideas and engrained industries and change them completely. ICTs such as Web 2.0, Social Media, Cloud Computing and Mobile Computing will often pair up to become disruptive technologies.

ICTs have become pervasive in the modern world and an increasing number of people have access to the Internet, personal computers and associated technologies. Evans (2011, p. 2) supports this view by suggesting that much of the innovation is happening in the knowledge space but not everybody has access to these technologies, so this requires a new strategy. What is critical now seems to be how well businesses react to what is available to them. It is important to note that disruption could potentially lose its meaning when it is used to describe any successful innovation. This study therefore pursues the arguments of Wessel (2013) and Lepore (2014) to ensure that disruptive innovation is clearly identified and that it is not whittled down in its significance, by confusing it with the natural process of transformative innovation. For the purpose of this chapter an entrepreneur is regarded as one who, instead of being employed, manages a small business and assumes all the risk and reward of the business.

2. Disruptive Innovation

The nature of disruptive innovation: In attempting to understand the nature of disruptive innovation it is judicious to enquire into the basic or inherent features, character, origin, or qualities of the innovation. This study adopts the early definition of Bower and Christensen (1995, p.44) where the authors view disruptive innovation as an innovation that creates a new market and value network which ultimately disrupts an existing market and value network, displacing established market leaders and alliances. Christensen, et al. (2015) caution that to describe any situation in which an industry is upset and previously successful

incumbents stumble as disruptive innovation as a too broad a definition. They suggest that the difficult with conflating a disruptive innovation with some innovation that alters an industry's competitive patterns is that diverse innovations need diverse strategic approaches. Plummer (2008) defines a disruptive technology as that which causes significant changes in 'the accepted way of doing things', including business models, processes, revenue streams, industry dynamics and consumer behaviour. Christensen (1997, p.98) describes disruptive technology as a new technology that unpredictably dislodges established technology. The author distinguishes between sustaining and disruptive technologies. While sustaining technologies depend on gradual improvements to entrenched technology, disruptive technologies, on the other hand, are unsophisticated, lack performance due to their novelty, appeal to a narrow audience, and may not yet have a tested practical application. An example of this would be Alexander Graham Bell's invention of the "electrical speech machine" in 1874, while he was toying with an earlier idea, the "harmonic telegraph" that could send more than one telegraphed messages at once. These were pioneering technologies for the current telephone system and indirectly contributed to the development of the modern smartphone and tablet computer.

Even though the early views of Christensen (1997, p.98) predate many modern disruptive technologies, the author's argument that large corporations are designed to work with sustaining technologies is still true today. They understand their market, adhere to their customer demands, and have a mechanism in place to develop existing technology. The author infers that they have difficulty in exploiting the potential efficiencies, cost-savings, or new marketing opportunities created by low-margin disruptive technologies. Schadler (2012) reinforces the view of Plummer (2008) by suggesting that businesses can improve efficiencies to their customers, partners, and employees with systems of engagement brought about by mobile, social, big data, and cloud technologies. Systems of engagement refer to the capability to empower all the business stakeholders with context-rich applications and smart products to assist them to make decisions and to take immediate actions at the appropriate time and place. The authors argue that these bundle mobile, social, cloud, and big data innovation in order to deliver smart products directly to the user. Lepore (2014) vociferously suggests that retrospection and historical analysis is required to support the disruptive innovation theory. The realized outcomes have to be observed in order to identify the relationship between innovations and the resulting success or failure of the business. This is evident in the following profound statement by Lepore (2014):

The idea of innovation is the idea of progress stripped of the aspirations of the Enlightenment, scrubbed clean of the horrors of the twentieth century, and relieved of its critics. Disruptive innovation goes further, holding out the hope of salvation against the very damnation it describes: disrupt, and you will be saved.⁵

Tynan (2008) suggests that ICTs will often pair up to become disruptive technologies. A few significant partnering disruptive technologies are listed in Table 1 to illustrate how they impact their industries.

Table 1: A sample of disruptive technologies that have impacted certain industries

Disruptive Technology One	Disruptive Technology Two	Impact on Industry
YouTube	Cheap Digital Cameras and Camcorders	Digital video has encouraged mass movie production. Social media applications afford the masses an opportunity to stage their amateur movies which is having a significant impact on sectors like journalism, politics, and entertainment.
MP3	Napster	The concept that music should be portable and free is disruptive.
Cloud Computing	Always-On Devices	Cloud computing provides business with benefits of a data center without the expense and trouble of maintaining one. It offers the average user lower cost of storage with fewer devices and ubiquitous access to data and applications. Hardware and communication networking industries are significantly impacted by this.

Mulholland (2011) identifies technological devices that have been impacted by disruptive technologies. What was once indispensable devices are now being replaced by smarter and ostentatious ones? Table 2 represents

a summary of some old technologies that have been replaced by disruptive technologies with a plausible explanation.

Table 2: A sample of old technologies being replaced by disruptive technologies

Old Technology	Disruptive Technology	Possible reasons
Camcorders and compact cameras	Smartphones and tablet computers	Smart phones are equipped with up to 12-megapixel cameras that compare well with many cameras and their photo and video quality is constantly improving.
iPods and other portable music players	Smartphones and tablet computers	Apple has fallen prey to its own success as sales of its iPhone and iPad have reduced sales of its iPod music players. Sales of iPod peaked in the U.S. in 2008, one year after the iPhone appeared, and have been plummeting ever since.
GPS devices	Smartphones and tablet computers	External GPS navigation devices are being threatened by smartphones largely due to the Android operating system that extends Google Maps to phones and tablets.
Answering machines	Smartphones and tablet computers	In the world of instant communication, answering machines and voicemail services are regarded as being too slow. Facebook, Twitter, instant messaging and email are the preferred options.
eBook Readers	Tablet computers	Recently books were being threatened by e-readers, now they have in turn become threatened by tablets.
External storage devices	Cloud computing	The ability to store data in the cloud is threatening the continued existence of zip drives, flash drives and perhaps the computer hard drives.
Watches, alarm clocks and wall calendars	Smartphones and tablet computers	These devices are able to reliably and conveniently provide users with the time and date which threatens the sale of calendars, alarm clocks and watches in general.

In summary, the nature of disruptive innovation is that it is unpredictable, unsophisticated and it brings about significant change to the industry in which it is located.

The trajectory of contemporary disruptive innovation: In further attempting to understand the potential opportunities of disruptive innovation and whether the aggregation of these present any benefit for the entrepreneur, it is sensible then to reflect on how these have emanated over time and what the trends are. One such disruptive innovation appears in the form of Digital Social Networking (DSN) supported by Web 2.0 technologies. These applications enable its participants to contribute views, ideas, opinions, and interests to a specific community on the Internet. What used to be the sphere of Web experts and developers, had now become accessible to ordinary users with the advent of Web 2.0. In conjunction with the growing popularity of mobile computing, Web 2.0 has enabled users to publish their views and share opinions more freely than ever before.

Mansour (2012, p.129) acknowledges that social networking sites are shown to have played a central and pivotal role in the events known collectively as the Arab Spring. These events refer to the 25 January 2011 Revolution of Egypt where protesters were able to share their grievances with the rest of the world via Facebook, YouTube, etc. Their importance as a source of non-governmental information and as a means of informing the external and internal community of internal events is highlighted by all participants. These sites were used not only to inform each other of events but also to coordinate their efforts against the regime. A study by Colliander and Dahlén (2011, p.315) suggest that social media marketing is growing prodigiously and that it has generated much international media attention. The authors cite an example of how a popular blog

endorsement had helped one company grow its sales from \$100,000 to \$4 million between 2002 and 2006. Another form of disruptive innovation manifested in the form of cloud computing. This is aptly named as it allows users to upload and download data and other associated information communication services onto and from a server which is positioned in a different location to the user. Cloud computing can generally be classified into three service models or categories, viz. Platform as a Service (PaaS), Infrastructure as a Service (IaaS) and Software as a Service (SaaS). Conceptually, cloud computing is not necessarily a new concept but in unison with mobile computing, it has become extremely valuable to business. This is confirmed by Menychtas, et al (2011, p.462) who argue that while cloud computing as another distributed computing paradigm is not brand new, there is an ever increasing number of people and organizations who are exploiting the potential of it and research in this area is growing. The authors indicate that new cloud ecosystems are altering the way computing, storage and networking resources are purchased and consumed and in so doing, are establishing new business models and value chains.

Drew (2011) states that the benefits of cloud computing to business is its ability to take business applications as well as its data, beyond its physical boundaries and in so doing affording business the ability to have access to these from anywhere and anytime. Other benefits lie in reduced costs to business due to the fact that they no longer have to support this type of internal, network infrastructure and its related resources. A further benefit is that business would have more predictable costs in that it is easier to do upgrades to their systems since it would be done in the background by the vendor allowing the business to enjoy the most updated and best versions of the latest applications. Access to data can be done remotely and it will be backed up and kept secure by the vendor. Local product installation is eradicated and hardware compatibility issues are reduced. The next form of disruptive innovation is the mobile phone.

These phones represent the foundation for one of the supreme developments of human capabilities in modern history and within a very small span of time as well. This growth is also expected to continue exponentially. Smith, et al (2011, p.79) confirm that mobile phones will promote connectedness between users and they would increasingly have access to pertinent information. Motivated by the proliferation of Web 2.0, Social Media, Cloud Computing and Mobile Computing over recent years, businesses have hefty volumes of data at their disposal but these volumes present a challenge in the manner in which businesses comprehend and handle the data and convert it into information. "The IT organization of the future must coordinate those who: have the money; deliver the services; secure the data, and set their own pace for use of IT." (Plummer, 2011)

The afore-mentioned disruptive innovations in Web 2.0, social media, mobile computing and cloud computing rely on one very distinct element, namely the Internet. Evans (2011, p.4) maintains that the Internet is one of the most powerful and substantial creations in the history of mankind. The Internet has already had a significant impact on education, science, communication, government, business and society in general. In addition to this, the Internet of Things (IoT), will alter everyone and everything in the near future. Chui et al., (2010) argue that the physical world is being transformed into an information system by way of the IoT. Sensors and actuators implanted in physical objects like machinery, roadways, houses, pacemakers, etc. are linked through wired and wireless networks across the Internet. When things can both sense the environment and communicate, they develop into tools for understanding complexity and reacting to it quickly. Much of this interaction between these things is occurring without human intervention.

The IoT embodies the next evolution of the Internet, now encompassing beyond the Internet's ability to merely collect, analyse, and distribute data that we can turn into information, knowledge, and finally, wisdom. The development of ICT particularly in Web 2.0, social media, mobile computing and cloud computing has impacted the way businesses function and the consequences to these businesses if they do not respond appropriately. These pervasive technologies are described as disruptive technologies which are new technologies that unpredictably dislodge established technologies. The status quo and functioning of small businesses across various sectors will be significantly impacted by these technologies. It is evident from the above discussion that the Internet has played a significant role in the development of disruptive innovation. In particular the evolution of the Internet via Web 2.0 technologies, has given users an unprecedented voice and a collaborative platform on the Internet. The evolution of cloud and mobile computing promoted increased access and connectedness of users on the Internet. Along with these, the IoT will spearhead disruptive innovation in the near future.

The imperatives of disruptive innovation to business: Having critically reviewed the nature and trajectory of disruptive innovation, this study now shifts its focus on the ability of disruptive innovation to bring about business success. It appears that not all innovative products are disruptive innovation. According to Wessel (2013) the now very popular iPhone was not a case of 'high-end disruption'. It was simply a better, expensive smartphone than the established and dominant BlackBerry and the company Research in Motion's (RIM) failure to adapt does not mean they were 'disrupted' but rather that Apple displaced RIM in the smartphone market. The author presents a thought-provoking alternative to what is often misinterpreted to be disruptive innovation. The author argues that if a new business launches a better product, at a higher margin, to an established business' best customers then that does not represent 'disruption' but rather 'innovation' (Wessel, 2013).

Plummer (2011) suggests that IT will alter the nature of business over the next few years. The author defines a strategic technology as one that is likely to profoundly impact business over the next three years. It is characterized by a high probability for disruption to IT or the business, the necessity for significant financial investment, or the threat of being adopted late. Business leaders should be aware of the opportunity for innovation through emerging disruptive technologies and solutions. Ratto and Ree (2012) indicate that 3D printing is a socio-technical invention. This invention involves not only technological interventions, but also necessitates and is manifested by organizational and business innovations. Concerns of organizations adopting these technologies without due consideration are raised by Lindström and Hanken (2012, p.68). The authors suggest that while technologies like wearable computing might result in improvement and reengineered work processes they could also establish alignment problems as employees may adopt the new technology before organizations are ready for its adoption. Over and above these concerns is the readiness of supportive legal models for the new wearable computing technology.

In a report from Forrester Research which is a research and advisory firm working with business and technology leaders to develop strategies, McCarthy (2011) identifies another key ICT, called the Mobile Application Internet and the associated extended wave of application development and management. The transition to the Mobile Application Internet disrupts the traditional delivery and management of applications. Over and above this, it will also significantly impact how traditional software is retailed and delivered. All aspects of the ICT delivery system will be impacted by mobile applications. The combined spend on mobile applications and services were to approximately reach \$54.6B a year by 2015.

In Christensen and Raynor (2003) the authors distinguish between "disruptive technology" and "disruptive innovation", by contending that the technology in and of itself is unlikely to be disruptive. It is more likely the application and derived value from the technology within a particular context, where the disruptive innovation occurs. The authors argue that once the disruptive product gains a foothold in new or low-end markets, the improvement cycle begins. Since the rate of technological progress exceeds customer needs, the previously inferior technology ultimately improves adequately to overlap with the needs of more demanding customers. It is then that the new entrants or disruptors ultimately obliterate the incumbents. It is suggested that business opportunities associated with mobile applications are in its infancy phase and it is to be expected that smarter applications are yet to enter the market.

The current state of the research suggests that there are different dimensions of disruptive innovation put forward by different authors and that a working definition would serve as a key building block for organizations. Assink (2006, p.215) guides the development of the tools and methods that can assist organisations to enable and manage disruptive innovation as a key competitive strategy. It is also apparent that businesses often fail to develop disruptive innovations due to key inhibitors or barriers. The author argues that there is an interrelationship and interdependence of the inhibiting factors, in an effort to provide a better understanding of how companies can improve their disruptive innovation capabilities.

In today's complex, dynamic world, having a disruptive innovation capability is mandatory, both for growing a business and protecting existing markets. But leading disruptive innovation requires new mind-sets and behaviours, for leaders themselves and for the organizations that develop them. (Kaplan, 2012)

Kaplan (2012) continues to argue that a disruptive innovation is easier identified in retrospect. What is probably more difficult is how to convert the understanding into a formal and repeatable process. The author suggests that in the contemporary, tempestuous business environment; leading disruptive innovation is probably more about best principles than best practices, and requires a disruptive approach to management itself. In consideration of the imperatives of disruptive innovation to business, the study suggests that business has to draw the distinction between evolution of technology and disruption in innovation. Business leaders should view disruptive innovation as a strategic factor that will impact their industry in some way or another. Disruptive innovation will require changes to business processes and ultimately to the design of new business models. In due course, disruptive innovation requires shifts in paradigm for managers and for the organizations that develop them.

3. Methodology

This study aims to interrogate (1) the nature of disruptive innovation; (2) its trajectory; (3) its imperatives for business; and (4) whether the aggregation of these present any benefit for the entrepreneur. In practical terms, this socio-technical research study will not only focus on the measure or types of disruptive innovation and how they are used but also how these will benefit the sample population. It has to be understood that the synthesis of existing knowledge should create room for the research and unveil the contribution that this chapter can make. The extant literature in the field of disruptive innovation appeared to be inundated with marketing tone and in order to ensure the scientific value of the study; the literature study was framed around an established framework based on the seminal works of Locke and Golden-Biddle (1997, p. 31; 2007).

The literature study developed around the three coherence processes as proposed by the authors, namely:

- Synthesised coherence which involves assembling work that previously had been considered unrelated.
- Progressive coherence represents the acquisition of knowledge and accord among researchers in an entrenched and focused line of inquiry.
- Non-coherence in which referenced works are linked by discord among the researchers.

With the afore-mentioned as the framework, the literature study thus sought to explore the three key areas of disruptive innovation. The in-depth interview was deemed particularly appropriate for this study as recommended by Boyce and Neale (2006, p.19) as a qualitative research technique to acquire responses from a small sample of respondents in their natural setting, and to explore their perspectives on a particular theme. The technique involves intensive, individual interviews with professionals in order to discover specific matters in depth. In-depth interviews are particularly beneficial when individual as opposed to group opinions are required and they expose more complete information than other data collection methods such as surveys. In light of this then, the aim of these in-depth interviews was to establish one-on-one opportunities which afforded the ICT professionals the time and scope to talk about their opinions by answering open-ended questions on the key areas relating to this relatively novel phenomenon, disruptive innovation.

This chapter made use of the stratified random sampling method in order to constitute its sample from the ICT sector of the Western Cape in South Africa. The ICT sector is made up of numerous attributes, which made stratified random sampling a particularly suitable method. In this case, the ICT professional population was divided into two strata based on the members' shared attributes or characteristics, namely, the ICT entrepreneurs and the ICT practitioners. A random sample from each stratum was taken in a number proportional to the stratum's size when compared to the population. These subsets of the strata were then pooled to form a random sample. The individuals were then randomly chosen from these two strata. This method was chosen to ensure diversity amongst the respondents and to ensure each one had an equal chance of being selected. The reason why random stratified sampling was chosen is because it captures crucial population features in the sample that are proportional to the innovation and technology industry. The innovation and technology industry is also representative of a myriad of attributes, which makes stratified random sampling a suitable method.

Consequently, the study proceeded to arrange in-depth interviews with 12 ICT professionals that included owners, managing directors and senior officials of businesses in the ICT sector of the Western Cape in South Africa. The interviews were recorded and a text version was compiled by a transcriptionist. The thematic

analysis method was employed to identify, analyse and report on themes within data. The significance of this method was to determine whether a theme extracted value from the data in relation to the research question. The constraint on the sample size of the study was the availability of these professionals to participate in the study. In retrospect, the in-depth interview technique also proved how challenging it would have been to organise, for instance, an alternative technique like a focus group session since this requires many participants to be available at the same time. However, it must be noted that the in-depth interviews allowed the respondents to articulate their own opinions in an unhindered environment and allowed them to participate freely in the discussion. As a result, their input proved to be invaluable to meeting the aims of this study. Further, it must be noted that the small sample size has not influenced the reliability of the data or the validity of the results as no statistical inferences have been made during the analysis. The aims of this study required the analysis of the qualitative data collected during the interview process.

4. Results

The literature study has indeed, to a greater or lesser extent, revealed instances of the three coherence processes as proposed by the Locke and Golden-Biddle (1997, p. 31; 2007). The following coherence processes are discussed in ascending order of significance:

- In the first instance, there are aspects of non-coherence amongst the authors within one of the three focus areas, namely, the field of disruptive innovation. The non-coherence emerges from a superficial level of discord at definitional level and not at a deep, philosophical debate about disruptive innovation. This discord is ultimately linked by their acknowledgement on the importance of innovation to the success of businesses. Wessel (2013) and Lepore (2014) caution against simplistic definitions of disruptive innovation by authors such as Christensen (1997, p.98) in which disruptive technology is defined as a new technology that unpredictably dislodges established technology.
- Wessel (2013) contends that it appears that not all innovative products are disruptive innovation and supports his disagreement to Christensen (1997) by illustrating that the iPhone was not a case of "high-end disruption". It was simply a better, expensive smartphone than the established and dominant BlackBerry and the company Research in Motion's (RIM) failure to adapt does not mean they were "disrupted" but rather that Apple displaced RIM in the smartphone market. Lepore (2014) challenges the sources of Christensen (1997) by suggesting that they are often unconvincing and his logic debatable. It is imprudent of him to construct the theory of disruptive innovation on a selective case study method. Other than the discord relating to the nature of disruptive innovation, the extant field did not reveal non-coherence through significant disagreement on other aspects relating to the trajectory of disruptive innovation and its imperatives for business.
- The second instance of progressive coherence is more prolific within the literature study. The extant literature of the three focus areas depicts cumulative knowledge growth over time and consensus among researchers through an established and concentrated line of inquiry. This is clearly represented by the fact that in the field of disruptive innovation, Christensen (1997) is supported by Tynan (2008) where the authors argue that organizations have trouble capitalizing on the potential efficiencies, cost-savings, or new marketing opportunities created by low-margin disruptive technologies. Schadler (2012) reinforces the view of Plummer (2008) by suggesting that businesses can improve efficiencies to their customers, partners, and employees with systems of engagement brought about by mobile, social, big data, and cloud technologies. The circumspect opinion of Wessel (2013) about disruptive innovation ultimately cautions all of these views by suggesting that it would be remiss to confuse disruptive innovation with the natural process of transformative innovation.
- The third aspect of synthesized coherence is most pervasive in the extant literature in relation to all three of the focus areas. It is evident from the literature study that the aggregation of the nature of disruptive innovation; the trajectory of disruptive innovation and the imperatives of disruptive innovation to business could hold potential benefit for the entrepreneur. In this way the study accentuates through synthesized coherence the need for novel work by revealing an undeveloped investigative concern that is common to the referenced work. This fact is particularly reinforced by the

ideas of Kaplan (2012) in which the author states that having a disruptive innovation capability is obligatory in a business. This disruptive innovation, however, requires a fresh and holistic business perspective. The author continues to argue that it is difficult to convert the understanding of the disruptive innovation into a formal and repeatable process. This suggests that disruptive innovation is likely more about best principles than best practices, and requires a disruptive approach to management itself. Further to this, it is apparent that the extant literature reveals that there is a strong ICT influence in society. Businesses would have to strategize how they could benefit from these opportunities. This view is extended by Plummer (2008) and Plummer (2011) suggest that business leaders need to be cognisant of the opportunity for innovation through disruptive innovation.

These three aspects will, therefore, best be connected by constructing corresponding relationships through the process of synthesized coherence in the clarification of the triangular relationship amongst the nature of disruptive innovation, the trajectory of disruptive innovation and the imperatives of disruptive innovation to business. The value for the entrepreneur lies in this aggregation of the triangular relationship which could assist with success and sustainability. A summary of the results of the in-depth interview sessions are listed in Table 3.

Table 3: In-depth interview interaction

Industry Response	Researcher's Interpretation	Researcher's Reflection
Disruptive innovation is not a common term. South African businesses tend to be conservative and follow international trends with regard to innovation and technologies.	It appears that disruptive innovation is not a common term used by industry.	How would the nature of disruptive innovation be made known to the stakeholders?
Disruptive innovation is not commonly used in the sector. South African businesses and particularly small businesses are generally not big players in innovation. The answer to this philosophy might lie in the cultural, socio-political development, isolation and the consolidation of large monopolies within South Africa.	It appears that their does not appear to be a huge appetite for innovation within South African businesses. It is agreed that this is not the desirable state and the change imperatives need to be unpacked in order to resolve this condition of technology adoption to technology innovation.	Does this conservative business practice, mean that there are evolutionary rather than revolutionary approaches towards innovation?
Disruptive innovation requires thinking 'outside of the box' when it comes to innovation.	It requires an anticipation of needs that businesses were not necessarily aware of.	How can business leaders shift from being reactive to proactive? How do they turn an innovation into a business that can succeed and ensure its long-term sustainability?
Disruptive innovation is a new wave in technology with a promise of business opportunity.	It appears that disruptive innovation is viewed as a moving target.	How can business leaders be assisted to capitalize on the business potential of disruptive innovation?

With reference to Table 3, the in-depth interview sessions can be summarised by stating that the nature of disruptive innovation remains elusive to ICT professionals. Further elaboration on the concept of sustainability, as it relates to innovation, is required. This could be accomplished by making an allowance for the stages of development of an idea through to commercialization; and how the environment impacts on the ability of the entrepreneur to survive and thrive. In essence then, the study has interrogated existing research, models, and case studies and triangulated this approach with in-depth interviews with representatives of ICT professionals.

In so doing, the study has revealed that a triangular relationship exists amongst the nature of disruptive innovation; the trajectory of disruptive innovation and the imperatives of disruptive innovation to business. The edifying fact that arises from this is that once the entrepreneur understands the essence of disruptive innovation and knows where this disruptive innovation is heading to, its imperatives for business becomes evident. The value for the entrepreneur lies in this synergistic, triangular relationship which could assist with success and sustainability.

5. Conclusion

This study aimed to interrogate (1) the nature of disruptive innovation; (2) its trajectory; (3) its imperatives for business; and (4) whether the aggregation of these present any benefit for the entrepreneur. With regard to the nature of disruptive innovation, the study shows that it would be inappropriate to equate disruptive innovation with the natural process of transformative innovation. It appears that amongst the sample of ICT professionals, disruptive innovation is not a common term used by industry and that this needs to be unpacked to resolve the condition of technology adoption to technology innovation. In terms of the trajectory of disruptive innovation, the Internet has given rise to a number of disruptive innovations over the last decade and will probably be the catalyst for future disruptive innovation. It appears that disruptive innovation is viewed as a moving target and that often there are evolutionary rather than revolutionary approaches towards innovation.

If disruptive innovation is to be useful to business, then it requires an anticipation of needs that businesses were not necessarily aware of. Businesses often have difficulty in capitalizing on the potential efficiencies, cost-savings, or new marketing opportunities created by low-margin disruptive innovation. Business leaders would need to be mindful of the opportunity for innovation through disruptive innovation. Disruptive innovation is probably more about best principles than best practices, and requires a disruptive approach to management itself.

The study has acknowledged the importance of innovation to the success of businesses. If entrepreneurs wish to derive benefit from disruptive innovation, they would have to make a transition from being reactive to proactive in their business approach. They would have to understand how to turn an innovation into a business that can succeed and ensure its long-term sustainability by strategizing how they could benefit from the business potential of disruptive innovation.

The value of this study lies in the synthesised coherence of the key themes of disruptive innovation and is manifested in the apparent businesses value of disruptive innovation. The extant literature around the research topic was considerably well established, and substantial peer-reviewed articles were retrieved from accredited journals and academic research databases. Despite this, however, two themes around the research topic present opportunities for further empirical research as the literature had been scant on these, namely:

- The adaptations, if any, which businesses would have to make to benefit from the opportunities and potential of disruptive innovation.
- The development of a model that could provide substantial strategic direction for the technology transfer and technology commercialization of disruptive innovation.

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Factors Influencing African Immigrant Entrepreneurship in South Africa: A case of Selected Craft Markets in Cape Town

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Abstract: A significant proportion of African immigrant entrepreneurs are pushed by the need to survive and pulled by the many tourists in South Africa, resultant in African immigrant entrepreneurs turning to the craft business. Although many studies have been conducted on craft businesses in general, little information exists on factors influencing African immigrant entrepreneurship in South Africa. The study utilized the pull and push theory of migration to determine and understand these influencing factors. This study focused on four craft markets in the Cape Town area—Greenmarket Square, Stellenbosch, Franschhoek and Hout Bay. The population of the study comprised all African immigrants at the selected craft markets and the municipal managers responsible for managing these selected markets. The study utilized a mixed method approach to collect and analyze data. Questionnaires were administered to 122 African immigrant entrepreneurs and in-depth interviews were conducted with the three municipal managers responsible for the four selected craft markets. Quantitative data were analyzed separately using Statistical Packages for Social Sciences software, and face-to-face interviews were analyzed by means of content analysis. The study found that the main reasons why African immigrant entrepreneurs entered the craft business were the need to survive, the many tourists in South Africa, previous experience in the craft industry, education, and because many South Africans were not involved in the craft business.

Key words: *African immigrant entrepreneur, migration, theories, craft markets*

1. Introduction

Migration is the movement of people from one region to another over long distances. Hagen-Zanker (2008:4) describes migration as the temporary or permanent movement of people from one region to another. The reasons include persecution and employment opportunities. This chapter focuses on migration in Africa in terms of the movement of people from other African countries to South Africa. The aim was to understand and interpret the reasons African immigrants start craft businesses in Cape Town, South Africa. The objective was to determine whether African immigrant entrepreneurs start craft businesses to survive outside their countries. It was also to investigate if the objective is caused by discrimination in the labor market, lack of employment opportunities, they are artists, previous experience in other industries or because there are many tourists in Cape Town. The chapter uses the push and pull theory of migration as a lens through which to understand and interpret the stated problem.

2. Literature review

Pull/Push Theory: There are many theories that attempt to explain the reasons why people migrate. One of these theories is the push-pull theory. Lee (1966:50) was the first person to formulate the push-pull theory. The theory explains that there have to be disadvantages which push people to leave their country of origin (other African countries) to move to other countries (South Africa) (Simelane, 1999:3). There also have to be advantages which pull people from other African countries (country of origin) into South Africa (host country). Simelane (1999:3) suggests that African immigrants are pushed out of their country of origin because of war, poverty, and political instability, and unemployment, lack of social amenities such as schools, hospitals, roads, electricity and low wages, compared to South Africa. Fatoki and Patswawairi (2012) suggest globalization, wars and political instability in other African countries as reasons for African immigrants coming to South Africa. Hunter and Skinner (2003:302) suggest war and conflict in the Democratic Republic of Congo, Sierra Leone,

Burundi, Somalia, and Rwanda have pushed people to move into South Africa. Tengeh, Ballard and Slabbert (2011:375) found unfavorable political circumstances (68.2%) as the main reason people emigrate to South Africa. Peberdy and Crush (1998:21) confirm this, stating that African immigrants come to South Africa because of opportunities in the tourist market (27%) and the strength of South African currency (Rand). Comparing the views of Simelane (1999), Tengeh et al. (2011:375) and Peberdy and Crush (1998:21), it is clear that political instability and unemployment push many African immigrants into leaving their countries of origin to immigrate into South Africa.

According to Fatoki and Patswawairi (2012), South Africa is a rainbow nation comprising diverse groups from other countries in the world. There are many opportunities in South Africa (Rogerson 1997:35). Simelane (1999:3) posits that African immigrants are pulled to South Africa because of higher salaries, political stability since the first democratic election in 1994, better job prospects, and better social amenities. Tengeh (2011:188) supports the views of Simelane (1999:3), that political stability and a stable economy are reasons that immigrants are pulled to South Africa. Comparing the views of Simelane (1999:3), Tengeh (2011:188), and Peberdy and Crush (1998:21), it is clear that employment opportunities, better social amenities and political stability pull many African immigrants into South Africa. However, once an immigrant arrives in South Africa, the next challenge is how to find employment.

Push/Pull Factors: Immigrant Self-Employment: Nieman and Nieuwenhuizen (2009:36) claim that there are basically two reasons or forces to cause a person to become an entrepreneur—opportunity (pull factor) or necessity (push factor). However, this may not be true for all immigrant entrepreneurs. Sahin, Nijkam and Baycan-Levent (2006:2) concluded that the majority of African immigrants use entrepreneurship to escape unemployment in the host country. Drawing from Shapero and Sokol, (1982:), immigrants are more likely to launch new ventures in their host countries than in their country of origin. This view is supported by Tengeh (2011:33) opines that many theories have been advanced to support reasons why immigrants resort to entrepreneurship. Among these theories are the block opportunity or push factor theory, ethnic market niche or pull factor theory, and ethnic enclave theory.

Block Opportunity or Push Factor Theory: The block opportunity or push factor theory advocates that discrimination is one of the reasons immigrants establish businesses in the host labor market (Clark & Drinkwater, 2000:2; Basu & Altinay, 2002:373; Sahin et al., 2006:6; Volery, 2007:31). Basu and Goswami (1999:265) found the inability to find salaried employment, underpaid salaries, discrimination in the labor market and redundancy are reasons why 118 immigrant entrepreneurs in Great Britain were pushed to establish businesses. According to van Tubergen (2005:711), in countries with a high unemployment rate, such as South Africa, immigrants are pushed out of the labor market and one of the alternatives is self-employment. Harper (1991) shares similar views, that marginal groups such as Indians in eastern Africa, the Chinese in Malaysia, and Lebanese in West Africa are most likely to face barriers to employment, and opportunities and as such entrepreneurship are seen as the option to social integration when other paths are closed. Tengeh et al. (2011:375) conclude that 67.4% of African immigrants interviewed agreed that limited job opportunities in the host country pushed them to self-employment. Phizacklea and Ram (1995:52) in a comparative study of 10 ethnic small businesses in France and Britain and found that unemployment was the main reason for starting a business. Comparing the views of Clark and Drinkwater (2002:2), Basu and Altinay (2002:373), van Tubergen (2005:711), and Phizacklea and Ram (1995:52), it is clear that they all agree with the opinion of Peberdy and Crush (1998:17) who argue that natives are given first preference for employment, over immigrants.

Several studies support the notion that natives get first preference over immigrants when job opportunities arise. Salaff, Greve and Wong (2006:7) report that the Canadian authorities do not recognize Chinese credentials. Statistics Finland (2008) found that the labor market is segmented and that regardless of the level of education of immigrants, locals are preferably employed. Aaltonen and Akola (2012:5) found that in Finland immigrants are disadvantaged when compared to native entrepreneurs because they do not have the same networks of friends, school mates or relatives, which is an important aspect when seeking employment. Landau (2010:72) shares this view, stating that in South Africa a significant proportion of immigrants do not have money to pay for their educational qualifications to be verified by the South Africa Qualifications Authority (SAQA). These immigrants are rejected by potential employers and the only alternative is self-employment. In Durban, a significant number of Ethiopian immigrants indicated that their inability to communicate in English

and local languages was a disadvantage when seeking employment (Gebre, Maharaj & Pillay, 2011:31). Khosa and Kalitanyi (2014:212) found that 59.1% of African immigrants agreed that their inability to speak local languages (Afrikaans and Xhosa) is a hindrance to finding employment in Cape Town.

Ethnic Market Niche or Pull Factor Theory: Garg and Phayane (2014:59) state that the ethnic market theory is formulated on the fact that immigrants are pulled to establish businesses in market niches created by opportunities in society and characteristics of the immigrant group. Garg and Phayane (2014:79) further maintain that immigrants quickly find niche markets which have not been satisfied by local entrepreneurs. Halkias, Abadir, Akrivos, Harkiolakis, Thurman and Caracatsanis (2007:6) conclude that immigrants enter abandoned markets. The researcher suggests that an example of an abandoned market is the craft and curio market in Cape Town. Kaiser and Associates (2003:22) report that a traditional craft skills base is lacking in the Western Cape. The majority of craft traders in the Western Cape are non-South African citizens from the SADC and the rest of Africa and these immigrants serve the tourist market. Peberdy (1997:6) and Peberdy and Crush (1998:21) support the view of Kaiser and Associates, that immigrants were pulled to crafts and curio businesses because South Africa does not have a strong indigenous curio-producing presence.

Ethnic Enclave Theory: Halkias et al. (2009:145-146) opine that the ethnic enclave theory is premised on the fact that immigrant entrepreneurs typically find business start-up opportunities within two sectors, namely immigrant communities and neglected business sectors in the broader economy. Based on this theory, Tengeh (2011:36), expresses a similar opinion that African immigrant entrepreneurs launch ventures mostly in industries where the start-up cost is low, competition is low, capital is easy to raise, and it is easy to convert assets into cash. This approach is rejected by Zhou (2004:1056) when he looks at the ethnic enclave theory from a different angle. According to Zhou, the ethnic enclave theory emanates from a labor market perspective. Immigrants and natives encounter two types of markets, namely primary and secondary markets.

Primary markets consist of highly paid jobs and the jobs require worker education, sound credentials, and experience. These markets are characterized by career advancement and unlimited economic opportunities. Mostly natives are active in the primary market. On the contrary, secondary markets are characterized by low-income jobs with few opportunities and limited career advancement. The majority of immigrants are willing to work in secondary markets because of lack of proficiency in the language of the host country. Therefore, because primary markets are not accessible to immigrants and there is limited economic opportunity for immigrants in secondary markets, immigrants establish ethnic enclaves as an alternative (Zhou, 2004:1056).

According to Ray, Momjian, McMullan and Ko (1988), culture plays a significant role when individuals pursue entrepreneurial goals. An example includes Americans, Berbers, Chinese, Greeks, Jews, Lebanese, and Persians. Lasry (1982), Shapero (1984) and Dana (1997) believed that individuals from a culture with an internal locus stand a greater chance of succeeding as entrepreneurs. On the contrary, Light (1972) looked at the ethnic enclave theory from a different angle. He argued that the traditional cultural explanation should be rejected as a reason why immigrants launched businesses in the host countries.

He argued that the ethnic milieu of an ethno-cultural group was relevant, not the culture itself. Peterson (1988) found that culture discouraged Norwegians from becoming entrepreneurs. Brockhaus (1991) shared a similar view when reporting that within the culture of Egypt a very weak private enterprise system exists except in the formal sector. According to Portes and Bach (1985 as cited in Dane, 1997:56), a significant proportion of Cuban immigrants in Miami is now entrepreneurs but they did not have an entrepreneurial culture when they arrived. Social network in their enclave is the main factor that has encouraged entrepreneurship.

The above section discusses various reasons why African immigrants start businesses. The following section explores the research approach taken in this study.

3. Research Methodology

Research Design: Given the purpose and the objective of this research project, this research benefits from applying the two research philosophies of interpretivism and positivism. The interpretivism philosophy adopts the qualitative paradigm. The qualitative paradigm consists of people's subjective experiences of the external

world. Here the researcher utilized the qualitative approach to uncover in-depth information from participants (Cohen, Manion & Marrison, 2007:96), and in particular, to develop the theme that underpins the quantitative approach. The interpretive approach (primary data) was collected by means of conducting interviews with the managers of craft markets in Cape Town. The positivism philosophy, adopting the quantitative approach, objectively tests the factors influencing immigrant entrepreneurship in selected craft markets in Cape Town.

Thus, a survey questionnaire (specifically a Survey Monkey questionnaire) instrument was used for primary data collection. To reiterate, both data collection instruments complement each other, thus the survey questionnaire served to superficially test the known variables on respondents. The secondary data were collected from a variety of online database sources such as books, academic journals, and other reputable sources. This research adopted purposive and snowball non-probability sampling techniques to select the targeted respondents who were the managers of selected craft markets in Cape Town. The selection of targeted respondents was based on the nature of their jobs and the specialist skills required for the job. In the analysis of the primary data, particular attention was paid to qualitative data; the research adopted the content analysis approach. For the quantitative data the descriptive analysis approach utilized the Statistical Package for the Social Sciences (SPSS).

Data Collection Instrument, Design and Approach: As indicated above, the study utilized mixed data collection instruments, being the qualitative interview and the quantitative questionnaire. The qualitative approach gathered in-depth information from the three managers in the selected craft market to develop the themes that were used as the bases for the design of the questionnaire. The interviews provided information and direction for subsequent data collection, and subjectively gathered unknown information from group participants. The online Survey Monkey software was used to design and develop the questionnaires. Drawing on the comments of Sarantakos (1998:225) on the use of the Survey Monkey questionnaire, an attempt was made to avoid selecting the wrong types of questions or logic design. The questionnaire was structured in nature, containing the dichotomous questions, rating scales, and rank orderings.

Sampling Approach: The target population for this study comprised the three managers in the selected craft market. The three managers were purposively selected owing to their in-depth knowledge of the craft industry. Their knowledge permitted the researcher to select suitable representatives for the sample. Purposive and snowball sampling was utilized to select respondents with in-depth knowledge of the craft industry. This generated valid response in this study (Bernard, 2006). Therefore, the selected sample for this research was the managers and immigrant entrepreneurs operating within the selected craft markets. The research applied two sample size approaches, one each for the qualitative and quantitative methods. The qualitative sample comprised three managers. A web-based platform was used (Raosoft, 2004). Applying the Raosoft platform, a confidence level of 95% and an error margin 5% was considered. The number considered for the quantitative data sample size was estimated at 122 questionnaires which were distributed to the immigrant entrepreneurs in the selected craft markets.

4. Data Analysis

The data collected from the interviews was transcribed. Respondents' responses were presented under specific questions. Similar responses were grouped into a single category and aligned to quantitative data from the survey and content analysis was conducted on the qualitative data. The content analysis approach involves understanding, analyzing and examining the data, and further interpreting them from text to the context of the actors involved in study (Cohen et al., 2007:476). Thus, it allows the validation of inferences from the qualitative and quantitative data to the factors influencing African entrepreneurship. The descriptive analysis was used to analyze the quantitative data collected from the questionnaire. The data were coded and processed through SPSS software to present the raw data flexibly. The processed data were statistically presented in tabular format.

Qualitative Data Presentation and Analysis

Question 1: In your opinion, what does the craft business involve?

- **Participant One:** Well I see it in three parts. Firstly, the selling of craft. The other parts are the making of craft. Third level is the biggest guy who imports the craft and distributes to different crafters ... and obviously the other people who are working for the crafters. It is some sort of job creation.
- **Participant Two:** You could get someone selling craft on the pavement; someone selling in craft in the shop, someone selling in craft market ... some of this craft is made up of glass, wooden, beads, wire.
- **Participant Three:** The craft market attract tourist to come to Hout Bay. The first spot tourist normally come to in Hout Bay is the craft market and it is good business for the Hout Bay harbour.

The above responses concur with the Art and Cultural Group (cited in CIGS, 1998:8) and Adu-Gyamfi and Boahinn (2013) who define craft as a broad range of synthetic and natural materials such as carved figures and sculpture, painted calabashes, leather products, beads, and fabrics. Ndlovu (2011) states that some examples of craft objects include wire, wooden vessels, glass, and beads.

Question 2: Why do African immigrants choose the craft industry?

- **Participant One:** Firstly, possibly because they come from areas where craft is quite a huge type of business, they have skills to make the craft and know where to source the craft ... and low barriers to enter. So, you don't need a lot. You get the product and you get the permit, then you can start the business. So it is possibly easier to get into the market.
- **Participant Two:** I think immigrant source craft in reasonable competitive prices because they are connected to suppliers. Also, craft is manufactured in their country of origin.
- **Participant Three:** There is no work where these African immigrants come from. I heard from one lady who comes from the Congo, she was unemployed and the Congolese government does not give unemployment benefits, pension, or grants to her citizens. Hence, coming to South Africa was the only option. In South Africa, craft business is the only option she has to make money and survive.

All the respondents agreed that the immigrants come from countries where crafting is big business, they have the skill to source the craft with reasonable and competitive prices and unemployment is a reason why they started a craft business. The responses can be compared with those in the studies of Steiner (1994) and Shinnar and Young (2008), where trader status is a precondition for participation in African art. Also, knowledge gained by African immigrants in certain sectors is critical to starting their new venture.

Question 3: What are the requirements for immigrant entrepreneurs to conduct business in the craft markets?

- **Participant One:** Firstly, you must be legally in the country ... it is possibly the most important document ... however, if you have a permanent job we will not allocate a space ... also if you have a formal business we would not give you a space.
- **Participant Two:** Firstly, you must have a valid identity document. Secondly, you must also have an affidavit stating you are unemployed. Thirdly, there is screening before the applicant is accepted.
- **Participant Three:** The trader must have ID document and proof of address before a stall is allocated to him/her.

All respondents agreed that entrepreneurs must be in possession of valid documents before applying for a space in the selected craft market. This finding is corroborated by Pahwa et al. (2006), Masonganye (2010) and Gudlhuza (2012). According to Pahwa et al. (2006), the City of Cape Town and the Ethekwini Municipality require a certified copy of ID documents and VAT registration number, where applicable, for business applicant.

Question 4: How long does it take for immigrant entrepreneurs to obtain trading space in the craft market?

- **Participant One:** It takes as long as it takes him to get the legal documents from Home Affairs.
- **Participant Two:** It depends on the availability of trading space.
- **Participant Three:** We don't have space to give to people who want space in Hout Bay craft market. Usually, the trader must go and apply for space at Public Works in Cape Town. There are lots of waiting lists, it all depends on the waiting lists and everyday people come. If they are lucky, perhaps three months, six months, and sometimes more than a year for the stall owners to have space.

All the respondents agreed it depends on the legal documentation and availability of trading space for immigrant entrepreneurs to get a trading space at the selected craft markets. However, the responses from all the participants differ from the findings of Chikamhi (2011) who found that the majority of immigrants experienced delays in the issuing of permits by the South African Home Affairs Department and sometimes it delayed their application to obtain trading space.

Quantitative Data Presentation and Analysis

Discrimination in the labor market: The results in Table 1 below reveal that the majority of (80 = 58.8%) respondents indicated that discrimination in the labor market was not a motivational factor to start a business, while 28 (23.6%) respondents agreed discrimination in the labor market did influence their decision to start a craft business. These findings are contrary to those of Clark and Drinkwater (2002:2) and Basu and Altinay (2002:373), who found that immigrants are pushed into self-employment because they suffer discrimination in the host labor market. Basu and Goswami (1999:254) point out that 70% of immigrants established businesses in Britain because of underpaid jobs, redundancy, and discrimination in the labor market.

Table 1: Discrimination in the Labour Market

		Frequency	Valid Percent
Valid	No importance	63	52.9
	Some importance	7	5.9
	Moderate importance	21	17.6
	Very important	14	11.8
	Extremely important	14	11.8
	Total	119	100.0
Missing	No response	3	
Total		122	

Lack of employment opportunities as reason to start craft business: The results in Table 2 below show that the majority (55 = 46.6%) of respondents indicated that lack of employment was not a motivating factor in starting a craft business, while 54 (41.5%) respondents stated that lack of employment opportunities pushed them to launch a craft business. These findings do not corroborate with the findings of Perberdy (1997:6) and Gwija (2014). Tengeh et al. (2011:375) suggest that 67.4% of African immigrants are pushed into self-employment because of the high unemployment rate in South Africa. This opinion is confirmed by Phizacklea and Ram (1995:52) who conducted a comparative study of 10 ethnic small businesses in France and Britain and found that unemployment is the main motive to start a business.

Table 2: Lack of Employment

		Frequency	Valid Percent
Valid	No importance	43	36.4
	Some importance	12	10.2
	Moderate importance	14	11.9
	Very important	25	21.2
	Extremely important	24	20.3
	Total	118	100.0
Missing	No response	4	
Total		122	

Had a job but was underpaid as reason to start craft business: The findings in Table 3 below indicate that having an underpaid job is not a reason why African immigrants start craft businesses. The majority of (71= 60.6%) respondents indicated that an underpaid job was not a motivational factor to start a craft business. This is contrary to the findings of Bogan and Darity (2008:2010) and Fatoki (2014b:184). Fatoki (2014b:184) asserts that immigrants are discriminated against in the labor market and if they do manage to find employment, often they are underpaid.

Table 3: I Had a Job but Was Underpaid

		Frequency	Valid Percent
Valid	No importance	63	53.8
	Some importance	8	6.8
	Moderate importance	16	13.7
	Very important	15	12.8
	Extremely important	15	12.8
	Total	117	100.0
Missing	No response	5	
Total		122	

African immigrant entrepreneurs start craft businesses to survive: Table 4 below reveals that the overwhelming majority of (99 = 81.8%) respondents started a craft business to survive and this was the only option to earn a living. These findings concur with Chrysostome and Arcand (2009:4). Chrysostome and Arcand (2009:4) and Masonganye (2010) describe necessity immigrant entrepreneurship as business activities undertaken by immigrants because they need to survive.

Table 4: Started Craft Business to Survive

		Frequency	Valid Percent
Valid	No importance	12	9.9
	Some importance	3	2.5
	Moderate importance	7	5.8
	Very important	32	26.4
	Extremely important	67	55.4
	Total	121	100.0
Missing	No response	1	
Total		122	

Started craft business because I am artist: The majority of respondents (54 = 81.8%) disagreed that they started a craft business because they were artists. During the field study some respondents complained to the researcher that they are tired of selling their craft to retailers who make vast profits but give them 'peanuts'. The results in Table 5 below are corroborated by Perberdy and Crush (1998:15) who found that only 42% of African immigrants entered the craft business because of artistic reasons.

Table 5: Started Craft Because I Am an Artist

		Frequency	Valid Percent
Valid	No importance	43	35.8
	Some importance	11	9.2
	Moderate importance	20	16.7
	Very important	17	14.2
	Extremely important	29	24.2
	Total	120	100.0
Missing	No response	2	
Total		122	

Encouraged by a member of the ethnic cultural community: The results in Table 6 below indicate that a significant number of respondents (56 = 47.8%) were encouraged by a member of their communities to start a craft business. This finding concurs with Bates (1997:121) who found that Vietnamese immigrant entrepreneurs relied on the ethnic cultural community to start a business. Steiner (1994:2) shares a similar view, stating that a trader status is a precondition for participation in African art trade. The alien status enables them to sell curios and craftware from their country of origin or from other African countries.

Table 6: Encouraged by a Member of the Ethnic Cultural Community

		Frequency	Valid Percent
Valid	No importance	37	31.6
	Some importance	9	7.7
	Moderate importance	15	12.8
	Very important	30	25.6
	Extremely important	26	22.2
	Total	117	100.0
Missing	No response	5	
Total		122	

I was not encouraged by anyone to start a craft business: Table 7 below indicates that the majority of respondents (73 = 65.9%) stated they were not encouraged by anyone to start a craft business. This implies that they were self-motivated to start their business. Some of the participants were born entrepreneurs, hence decided to take the risk and start a craft business. The researcher believes some of these entrepreneurs imitate famous entrepreneurs such as Bill Gates, the late Steve Job and Richard Branson. Richard Branson is an example of an entrepreneur who was self-motivated. He started the Virgin Group, which has approximately 200 companies worldwide, including South Africa (Branson, 2006:29).

Table 7: I Was Not Encouraged by Anyone to Start a Craft Business

		Frequency	Valid Percent
Valid	No importance	69	62.2
	Some importance	4	3.6
	Moderate importance	9	8.1
	Very important	16	14.4
	Extremely important	13	11.7
	Total	111	100.0
Missing	No response	11	
Total		122	

Previous experience in other industries: Table 8 below indicates that 45 respondents (39.1%) were inspired to start a craft business because of previous experience in other industries. This experience could be knowledge, skills or unsatisfactory working conditions that motivated African immigrant entrepreneurs to start a craft business. Taylor (1999:151) maintains that previous experience such as marketing, good customer relations, product innovation, and good communication with important stakeholders are vital for the survival of a

business. Werber (1990, cited in Altinay & Altinay, 2008:26) asserts that knowledge acquired by immigrant entrepreneurs from a previous industry helps them to detect business opportunity gaps in the market. Shinnar and Young (2008:14) share similar views, that experience gained by immigrants in certain sectors is critical to starting their own venture.

Table 8: Previous Experience in Other Industries

		Frequency	Valid Percent
Valid	No importance	35	30.4
	Some importance	6	5.2
	Moderate importance	29	25.2
	Very important	28	24.3
	Extremely important	17	14.8
	Total	115	100.0
Missing	No response	7	
Total		122	

Previous experience in craft industry: The findings in Table 9 below indicate that the majority of 57 respondents (50.0%) agreed that previous experience in the craft industry was a motivational factor to start a craft business. This finding concurs with Chrysostome and Arcand (2009:4), that significant numbers of immigrants have learned managerial skills in previous industries before starting their business.

Table 9: Previous Experience in the Craft Industry

		Frequency	Valid Percent
Valid	No importance	35	30.7
	Some importance	5	4.4
	Moderate importance	17	14.9
	Very important	31	27.2
	Extremely important	26	22.8
	Total	114	100.0
Missing	No response	8	
Total		122	

Education was a great assistance to identify resources: Results in Table 10 below show that a majority of 61 respondents (53.4%) believed that having an education was of great assistance in identifying resources to start a craft business, while 22 (27.6%) did not agree with the statement. According to the researcher, education helps an entrepreneur to understand challenges and how best to solve these challenges. An entrepreneur with an educational background would be most likely to conduct a feasibility study, spot resources and launch a viable business. This finding is supported by Ndedi (2009:467) who believes that education is crucial to entrepreneurs and the rest of the society. The author emphasizes that entrepreneurs and all levels of society should have some level of education. Nieman and Nieuwenhuizen (2009:2) also express the opinion that entrepreneurship can be developed by education.

Table 10: Level of Education Was of Great Assistance to Identify Resources

		Frequency	Valid Percent
Valid	No importance	22	19.0
	Some importance	10	8.6
	Moderate importance	22	19.0
	Very important	23	19.8
	Extremely important	39	33.6
	Total	116	100.0
Missing	No response	6	
Total		122	

Not many South Africans are involved in the craft business: Table 11 below shows that 54 respondents (46.1%) agree that not many South Africans are involved in the craft business. This finding is corroborated by Sequeira (2007, cited in Chrysostome & Arcand, 2009:2). Sequeira argues that immigrants are doing business because of the opportunity structure in the host market. He suggests that natives are not doing business because of lack of interest and insufficient economic rewards. This finding is corroborated by Kaiser and Associates (2003:22) who found that traditional craft skill is lacking in the Western Cape. Immigrants were pulled to craft and curio businesses because South Africa does not have a strong indigenous curio-producing sector.

Table 11: Not Many South Africans Are Involved in the Craft Business

		Frequency	Valid Percent
Valid	No importance	41	35.0
	Some importance	7	6.0
	Moderate importance	15	12.8
	Very important	21	17.9
	Extremely important	33	28.2
	Total	117	100.0
Missing	No response	5	
Total		122	

There are many tourists in South Africa: Table 12 below reveals that the overwhelming majority (86 = 72.2%) of respondents stated that the many tourists in South Africa was a motivational factor for them to launch a craft business. This result aligns with the findings of Peberdy and Crush (1998:21) which confirms that significant numbers of immigrants come to South Africa because of opportunities in the tourist market and the strength of the South African Rand.

Table 12: There Are Many Tourists in South Africa

		Frequency	Valid Percent
Valid	No importance	11	9.2
	Some Importance	6	5.0
	Moderate importance	16	13.4
	Very important	33	27.7
	Extremely important	53	44.5
	Total	119	100.0
Missing	No response	3	
Total		122	

To provide employment for other people from my home country: Table 13 below indicates that a significant majority of respondents, (64 = 54.7%), disagreed with the statement that they entered the craft business to provide employment for other people from their home country. However, this finding differs from Kalitanyi and Visser (2010:387) and Rogerson (1997). Rogerson confirms that immigrants employed local and foreign nationals. Kalitanyi and Visser (2010:387) found that immigrant entrepreneurs employed both non-immigrants and immigrants in their businesses and skills are transferred from immigrant to non-immigrant employees.

Table 13: To Provide Employment for Other People from My Home Country

		Frequency	Valid Percent
Valid	No importance	52	44.4
	Some importance	12	10.3
	Moderate importance	25	21.4
	Very important	16	13.7
	Extremely important	12	10.3
	Total	117	100.0
Missing	No response	5	
Total		122	

5. Conclusion

Although the majority of craft retail outlets in Cape Town are owned by immigrants from the southern Africa sub-region and elsewhere on the continent, little information exists on factors influencing African immigrant entrepreneurship in the craft business. The main objective of this chapter was to determine these factors. The study found that survival, the many tourists in South Africa, previous experience in the craft industry, education, and the fact that many South Africans are not involved in craft businesses were the main reasons influencing African immigrant entrepreneurship in the selected craft markets.

Recommendations: The respondents started craft businesses to survive as this was the only option to earn a living. The researcher recommends that the municipality should allow a representative of African immigrants to sit on the committee for designing and organizing Informal Survivalist and Micro Summit Municipality Workshops. The researcher also recommends intervention by the municipality managers to persuade financial agencies such as the DTI, Small Enterprise Finance Agencies (SEFA), and National Youth Development Trust (NYDT) to extend their funding assistance to include deserving African immigrant entrepreneurs. These agencies provide financial assistance to SMMEs across various industrial sectors such as retail and wholesale trade, tourism, and the craft industry. However, these agencies do not provide any financial assistance to African immigrant-owned businesses. These recommendations will assist African immigrant-owned survivalist businesses to grow and transition to small, medium or formal businesses.

The respondents indicated that the many tourists in South Africa were a motivational factor for them to launch a craft business. The researcher recommends that the municipalities should actively market the craft markets in their newsletters and on their websites as prime tourist attractions. This could increase the number of tourists and has the potential to increase sales for the crafters. The majority of respondents believed that having an education was of great assistance in identifying resources to start a craft business. The researcher recommends that African immigrant entrepreneurs should attend municipal workshops. African immigrant entrepreneurs should also enroll for business programs at local colleges or universities to improve managerial skills.

Suggestions for future research: The researcher believes that continuing research will assist in improving current circumstances of African immigrant entrepreneurs and create an environment which is conducive to them starting craft businesses in South Africa. This study was limited to four selected craft markets, being Greenmarket Square, Stellenbosch, Franschoek and Hout Bay. Future studies should focus on other craft markets in South Africa. This study did not include South African entrepreneurs at the craft markets. Future studies should include South Africans.

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