

Constraints that Hinder the Sustainability of Small Businesses in Durban, South Africa

Ayansola Olatunji Ayandibu^{1,*}, Sindisiwe Ngobese², Idris Olayiwola Ganiyu³ and Irrshad Kaseeeram⁴

¹*Department of Business Management, Faculty of Commerce, Administration and Law, University of Zululand, South Africa*

²*College of Law and Management Studies, University of KwaZulu-Natal, South Africa*

³*School of Management, IT and Governance, College of Law and Management, University of KwaZulu-Natal, South Africa*

⁴*Department of Economics, Faculty of Commerce, Administration and Law, University of Zululand, South Africa*

Abstract: South Africa is viewed as one of the developing countries when compared to other African countries. However, the challenges that are experienced by the Small Business Enterprises (SMEs) continue to limit the economic growth of the country. Thus, these challenges are linked to the high rate of business failures. The main aim of the study is to evaluate constraints that hinder the sustainability of small businesses in Durban, South Africa. Employing the sociological entrepreneurship theory to understand the context of entrepreneurship and the challenges that pose a threat to the entrepreneurial activities, a qualitative approach was employed to achieve the objectives of study. A convenience sampling technique was employed to conduct in-depth interview among ten (10) entrepreneurs who participated in this study. NVivo 12 software was employed to analyse the data using a thematic and content analyses. The study findings revealed poor management, poor planning and lack of appropriate technology as some of the challenges confronting small businesses. Recommendations and conclusion are provided in this article.

Keywords: Challenges, Employees, Entrepreneurship, SMEs, Sustainability.

1. INTRODUCTION

The contribution of small and medium enterprises (SMEs) to many economies globally, cannot be over-emphasised. The importance of the SMEs contrasts from country to country in accordance with its development (Kennedy and Hobohm, 2012). Most developing countries, such as South Africa and other African countries have turned to SMEs as a tool for job creation and poverty alleviation. SMEs contribute to economic activities by addressing the economic ills and improving many citizens' livelihood (Goriwondo, 2011). In South Africa, SMEs are regarded as one of the best avenues to improve the economy of the country. SMEs appear to play an important role in terms of balanced and sustainable growth, employment creation, growth of entrepreneurial skills and contribution to the country's standard of living (Asah, Fatoki and Rungani, 2015; Jamali, Lund-Thomsen and Jeppesen, 2017). However, despite their importance to the economy, most SMEs are facing challenges to sustain their businesses. Most small businesses prove to be unsuccessful due to various factors that affect their

growth. Failure of small businesses is considered as a problem to the economy in the long run. The article explored the challenges of SMEs to the economy.

2. LITERATURE REVIEW

2.1. Importance of Small Businesses for the Economy

Jain and Chen, (2013) describe SMEs as catalyst for economic growth globally. Small businesses contribute in many countries' economy by creating more employment opportunities and through the introduction of new products and services (D'Imperio, 2012). Bouri, Breij, Diop, Kempner, Klinger, and Stevenson, (2011) agree with Jain and Chen, (2013) that the SMEs support many economies, especially the developing economies. D'Imperio, (2012) argues that the SME's contributions vary from country to country. This is because SME sectors are not equal; in most developed countries, they have larger SME sectors while developing countries have smaller informal sectors (The Association of Chartered Certified Accountants, 2010).

Wiese (2014) further describe SMEs as the multiplier of employment, subsequently the jobs generated by the SMEs further produce more jobs for

*Address correspondence to this author at the Department of Business Management, Faculty of Commerce, Administration and Law, University of Zululand, South Africa; E-mail: AyandibuA@unizulu.ac.za, ayansola.ayandibu@gmail.com

the people. They are also advancing the domestic consumption; therefore, they are considered to have the local multiplier effect. The SMEs are referred to the local multiplies effect because they have more impact to the domestic spending than the larger businesses. Shinozaki, (2012) refers to SMEs as a key driver of economic stability since they develop a competitive environment and offer more jobs to the people.

Poschen (2010) stipulate that in order for SMEs to continue providing jobs to the people; guidance for the desired jobs in these businesses is required. The required guidance should focus on constructing the appropriate conditions that will allow SMEs to create jobs and encourage the entrepreneurs to accomplish the goals of their businesses. Additionally, Jain and Chen, (2013) recognise that SMEs are also important to improve innovation in the country. The SMEs are involved in innovative activities. Through innovation, they are able to make relevant impression to the investors and customers. Economic growth created by innovation can improve and sustain the overall economy (Connolly, Norman, and West, 2012).

2.2. The Sustainability of Small Businesses

Small businesses involve the variety of initiatives, such as family businesses that employs more than a hundred of employees and the survivalist, which refers to the individual from the poor background (Berry *et al.*, 2002). Nieuwenhuizen and Kroon, (2003) states that Small Business Enterprise (SMEs) sector in South Africa do not only focus on encouraging growth of high productivity, but it also play an important role in creating job opportunities for the people. Vermeulen, (2011) identifies four most significant drivers of SMEs, namely, they improve country's economic growth, they are important for a competitive and efficient market; SMEs they are critical for poverty alleviation and they play a vital role in developing countries. It is therefore important that the sustainability of SMEs be taken into consideration.

According to Rainville, (2012) business sustainability can add value to the environment, customers and society. The effective business performance results to a sustainable business. Spense, (2012) stipulate that sustainable businesses possess the ability to adjust to transformation within the business and they typically have the long-term financial value. Most South African small businesses fail because they lack an adequate entrepreneurial skill and education. This therefore, obstructs the

sustainability of the small businesses in the long term. Booyens, (2011) states that small businesses must be creative and be able to introduce new products and services that can allow them to gain business sustainability to the market.

2.3. Problems that Hinders the Sustainability of SMEs

Research about the matter why small businesses fail has been made before. According to Mbonyane (2006), many new businesses are started every year, but also many of these businesses are failing annually. The South African business owners are experiencing a high failure rate for the start-up businesses.

There has been a significant research into the reasons for the high failure rate of SMEs, indicating that an increase in crime, poor customer satisfaction, poor employee empowerment, failure to add value, inappropriate use of technology, limited finances, poor customer relations, underdeveloped infrastructure and lack of attentiveness in business are the primary reasons for small business failure (Seeletse, 2012). Bowen *et al.* (2009) points out that poor education and lack of infrastructure are critical issues that may lead to SME failure. The common issues that result into business failures according to Mbonyane, (2006) includes poor budgeting, poor stock control, poor personal relations and a lack of staff training. According to Petrus, (2009) the factors that limits the success of SMEs includes poor planning, poor marketing strategies, poor business management, regulations, poor financial management, inability to manage access to markets and information.

Ropega, (2011) indicate that SMEs are not only affected by the internal environment, but failure of SMEs is also due to the external factors such as changes in the behaviour of customers, suppliers and competitor. Van Aardt, van Aardt and Bezuidenhoud, (2002) recognized eight main reasons for small business failure. Such reasons includes the poor management skills, poor record-keeping and too little effort to market the business, poor pricing practices, poor human resource management and the inability to adapt to the changing demands of a business. The existence of these problems in the business affects their effectiveness in operations and business growth.

Another study by Ayandibu & Houghton (2017) stated that small businesses do not just lack finances, but they misappropriate funds. Some entrepreneurs do

mix up personal spending with company's expenses. This needs to be clarified. Entrepreneurs' should pay themselves salaries, there after they can use their salaries for personal expenses.

3. THEORETICAL FRAMEWORK

The sociology of entrepreneurship is a growing field of research. Over the years, numerous theories have been used to clarify how socio-cultural environment have impact on the emergence of entrepreneurship. One of the earliest theories that focused on the socio-cultural environment on entrepreneurship was Max Weber's sociological theory. Max Weber was a German sociologist who explained that a society have an important role to play in developing entrepreneurs (Hisrich and Peters, 2002).

In Weber's view, culture and religion has a prodigious impact in the making of entrepreneurs. This is because the attitude and the behaviour of the people is mainly controlled by their culture or religion. According to Akpor-Robaro, (2004) religious teachings and principles create discipline in people and their economic activities, which is vital for the preparation of an individual entrepreneur. According to the sociological theory of entrepreneurship, learning from the religions assisted in the growth of entrepreneurship the societies (Ilesanmi, 2000). Emmanuel, (2008) adds that entrepreneurship sociological perspective describe that an environment is the significant factor that motivate entrepreneurship.

The Max Weber's sociological theory of entrepreneurship is the appropriate theory for this study. This theory indicates that the behaviour of entrepreneurs is most likely to emerge under particular religion, culture and social norms (Simpeh, 2011). Therefore, the challenges that are being investigated in this study can be linked to religion, culture and social norms. Challenges faced but the entrepreneurs can be associated with religion, culture and social norms of the environment in which they operate. Entrepreneurs in South Africa today emerge from the social conditions that still bare the fruits of the pre-1994 government regime. The level education and training challenge that is faced by entrepreneurs today in South Africa, emerges from the social conditions and education policies that were made by pre-1994 government and post-1994 government. This is seen by the quality of education that is offered in the public schooling system of the country. Moreover, historically, the access to education and training was only limited to the minority

group. This has given birth to the limited number of entrepreneurs in South Africa with adequate level of education and training.

As the society plays a major role in improving the entrepreneurs (Ikeije and Onuba, 2015), the entrepreneur should be aware of the culture and religion of the society and the environment where they operate. The importance of the culture and religion of the environment where an entrepreneur operate lies to the fact that an entrepreneur will need the customers from that particular environment in order to sustain their business. Taking into consideration culture and religion of the society is important; it allows an entrepreneur to search for possible viable business ventures into the society (Virtanen, 2004). As sociological perspective suggest that culture, environment, society and religion play a significant role in the entrepreneurial activities, it is important that the small businesses entrepreneurs consider different cultures and religions of their customers in building customer relationship.

4. METHODOLOGY

This is an exploratory study using qualitative approach for data collection and analysis. An exploratory research design is employed for a study when the researcher aims at gaining insight, learn new ideas and enhance the knowledge of a phenomena (Saunders, Lewis and Thornhill, 2016; Sekaran & Bougie, 2016). Babbie and Mouton (2008) points out that the research design is a functional plan that links together certain research methods and the procedures to obtain a reliable and effective data for empirically grounded analyses and conclusions. This study adopted exploratory research design to put in perspective, the constrains that hinder the sustainability of small businesses in KwaZulu-Natal, South Africa.

The study site for this was Durban in the province of KwaZulu-Natal, South Africa. Durban was considered for this study because of its status as the third largest city and commercial hub of South Africa (Ojong, 2017; Preston-Whyte and Scott, 2017). The target populations were small businesses that fall in the category of SMEs. A convenience sampling technique was employed to select ten (10) SMEs owners for in-depth interview. The researcher employed the interview in order to understand the operational challenges of the SMEs, the impact of the challenges and how the SMEs operators can respond to these challenges.

The qualitative data collected via in-depth interview were transcribed and categorised into themes in

preparation for analysis using NVivo 12. NVivo is a software for analysing qualitative data by organising transcribed data into themes and sub-themes. NVivo was employed in this study to conduct thematic analysis. Thematic analysis helps to identify patterns, pinpoints and examines data for recurring themes. Braun and Clark (2006) suggest six processes to use when using thematic analysis, they include: getting familiar with the data, generating codes from the data, searching for themes from the coded data, quick review of themes, redefining of the themes after the review and renaming the themes, and presentation of the analysed data. In NVivo, information regarding a particular theme are coded in 'node'. A node is like a container that house the emerging pattern about a theme. Once the node is opened, all the patterns that emerged from a theme are revealed.

5. DATA ANALYSIS AND DISCUSSION

This study explored the constrains that hinder the sustainability of small business in KwaZulu-Natal, South Africa. The study was guided by two objectives. The thematic analysis conducted using NVivo 12 identified various patterns which were grouped under various themes as presented in Figure 1 below. The world 'child' as used in Figure 1 is NVivo generated label which indicates the link between themes and sub-

themes that emerged in the analysis (Dyili, Ganiyu, Mahlobelana, Singh & Naicker, 2018).

Small businesses are considered impetus for the increasing unemployment in South Africa. However, a major constrain to the sustainability of small businesses identified by the study participants was the Lack of education and training by the business owners (Ayandibu and Houghton, 2017). Seven out of the ten respondents all confirmed that lack of adequate knowledge on the sustainability of the small businesses is a major challenge resulting in short life span. Consistent with this outcome, a study by Campos *et al.* (2017) suggest that standard business training for small business owners could help to boost the sustainability and profitability of such businesses thereby ensuring their survival over long period of time.

“Even though the staff are not degree holders, i have to train them once they are employed. The government does not have training initiatives for aspiring entrepreneurs”.

The above statement resonate the general views of the study participants.

The second theme emerging on the major challenges experienced by small businesses is poor

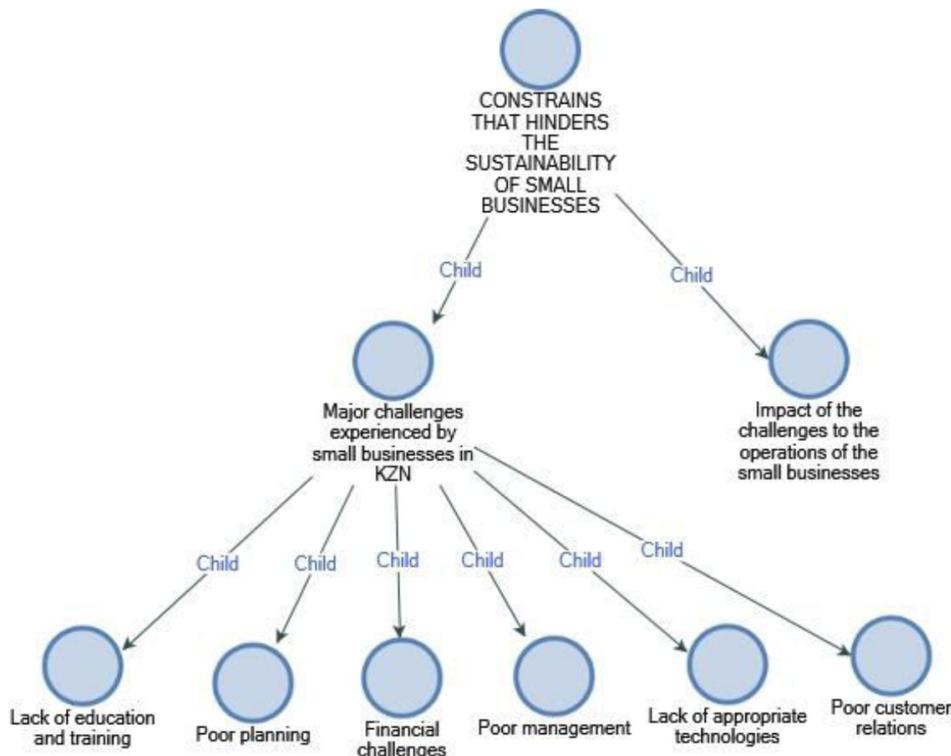


Figure 1: Constrains that hinder the sustainability of small businesses.

planning. The views of participants were divided on the issue of poor planning as a bane to small businesses sustainability. While six of the interview participants claimed that poor planning on the part of business manager is a major challenge, the other four participants did not consider planning as a challenge to small businesses sustainability.

“Planning is not a major issue as the resources to operate daily is adequate”.

The third theme that emerged from the analysis is financial challenge. Many of the small business owners who participated in this study affirm that accessing credit facilities is a major challenge constraining the growth and sustainability of their businesses (Fatoki and Garwe, 2010). Many of the entrepreneurs claimed they are not receiving appropriate support from government, financial institutions and non-governmental organisations (NGOs), as many of the development initiatives advertised by government NGOs are not getting to them.

The responses from the participants showed that lack of education and skill in business has resulted in poor management of the business. Many of the owners of the small businesses have poor financial literacy which result in the poor financial management of the businesses. A study by Ahmad (2016), affirm that financial literacy which results in sound financial judgement is sacrosanct to the survival of small businesses. The lack of appropriate training has resulted in many mismanagements of many small enterprises.

Lack of appropriate technologies to work with is also a challenge for the small businesses. There are several different technological tools that could be deployed to make work easier at the small businesses, but the inadequate finances hinder the acquisition of such tools. Six participants also affirmed that appropriate technological tools were not available, thus a big challenge for the business.

Customer relations is also said to be one of the major challenges for the business. Majority of the respondents affirmed that their businesses find it difficult to retain customers due to poor customer relations, which could be linked to the lack of training. Wynn, Turner, Banik and Duckworth (2016) suggest that customer relationship is major of businesses which could help build customer loyalty and, enhance business profitability and sustainability.

The impact the above-mentioned challenges posed to the business varies with the nature of the challenges. Poor customer retention is one of the impacts emanating from the challenges. Customers will opt to patronise another business if they are not well treated or service as they would expect, which may result in low patronage. Another impact is reduction in sales; the low sales will definitely reduce profitability for the business with adverse effect on employees' retention. Poor planning and poor business management also have great impacts such as: low stock of goods at the store, poor remuneration, reduced sales patronage, high turnover rate of employees, and a high unsustainable business for the duration of the business.

6. RECOMMENDATIONS

Entrepreneurship education and training of managers, supervisors and their employees are very important to the sustainability of small business. This will instil the required skills and correct the challenge of poor business management. Appropriate support systems such as financial incentives, credit facility and training should be provided to many of the small businesses.

After the study has been conducted, the gaps about sustainability of the small businesses were identified. In this study, lack of education and training is indicated as the most important factor. Therefore, recommendations regarding this factor is that the Government should look at empowering aspiring entrepreneurs and new entrepreneurs with adequate training and development. Based on the findings presented in the study, it is clear that the Convenient Stores experiences numerous challenges and those challenges have an impact to their business operations.

Another recommendation is that Government should empower entrepreneurs with funds and make sure that Government employees should follow up with how the money is being disbursed and managed by the small businesses. Funds can be disbursed based on how it's being needed.

7. CONCLUSION

This article contributes to the existing knowledge of sustainability of SME's. The managerial implication of the study is derived from the findings of the analysed qualitative data. SME's can be more sustainable through proper education and training, right planning,

getting the right funds and managing the funds well, adequate technology etc. Bigger SME's can also be motivators to small SME's. NVivo 12 software was employed to analyse the data.

LIMITATIONS OF THE STUDY

This is a qualitative study, which limits data collection to ten entrepreneurs in Durban Metroplis in KwaZulu-Natal, South Africa. There is a need for a more robust study to be conducted to cover more entrepreneurs in KwaZulu-Natal

REFERENCES

- Akpor-Robaro M., (2004). Introductory Notes on the Theories of Entrepreneurship, Bendona and Associates, Lagos.
- Ahmad, N. N. (2016). Cash management practices in micro and small businesses in Malaysia. *Journal of Education and Social Sciences*, 4, 331-335.
- Asah, F., Fatoki, O. O., & Rungani, E. (2015). The impact of motivations, personal values and management skills on the performance of SMEs in South Africa. *African Journal of Economic and Management Studies*, 6(3), 308-322. <https://doi.org/10.1108/AJEMS-01-2013-0009>
- Ayandibu A. O & Houghton J. (2017). The role of SME's in Local Economic Development. *Journal of Business and Retail Management Research*. 11(2) 133-139
- Babbie, E. & Mouton, J. (2008). *The practice of social research*. 8th ed. Cape Town: Oxford University Press.
- Babbie, E. (2014). *The practice of social research*. 14th ed. Boston Mass: Cengage Learning
- Bouri, A., Breij, M., Diop, M., Kempner, R., Klinger, B. & Stevenson, K. (2011). *Report on support to SMEs in developing countries through financial intermediaries*. Available: http://www.eib.org/attachments/dalberg_sme-briefing-paper.pdf. [Accessed 21 May 2017].
- Berry, A., Von Blotnitz, M., Cassim, R., Kesper, A., Rajaratnam, B. & Van Seventer, D.E., (2002). *The Economics of SMMES in South Africa*. Available: <http://www.tips.org.za/files/506.pdf>. Accessed: [20 May 2017].
- Bowen, M., Morara, M. & Mureithi, S. (2009). Management of business challenges among small and micro enterprises in Nairobi-Kenya. *KCA Journal of Business Management*, Vol. 2(1). <https://doi.org/10.4314/kjbm.v2i1.44408>
- Burns, N. & Grove, S. K. (2011). *Understanding Nursing Research, Building an evidence based practise*. 5th Ed. Texas: Elsevier Saunders.
- Campos, F., Frese, M., Goldstein, M., Iacovone, L., Johnson, H. C., McKenzie, D., & Mensmann, M. (2017). Teaching personal initiative beats traditional training in boosting small business in West Africa. *Science*, 357(6357), 1287-1290. <https://doi.org/10.1126/science.aan5329>
- Connolly, E., Norman, D. & West, T. (2012). *Small business: An economic overview. Small business finance roundtable*. Available: <http://www.rba.gov.au/publications/workshops/other/small-bus-fin-roundtable-2012/pdf/01-overview.pdf>. Accessed: [23 May 2017].
- Dyili, N. F., Ganiyu, I. O., Mahlobelana, N., Singh, S., & Naicker, A. (2018). The influence of supply risk in the procurement of construction materials. *Journal of Contemporary Management*, 15(Special Edition 1), 18-36.
- D'imperio, R. (2012). *Growing the global economy through SMEs. Edinburgh Group*. Available:<http://www.cpaireland.ie/UserFiles/File/Business%20Development/Publications/Edinburgh%20Group%20Research%20Project.pdf>. Accessed: [20 May 2017].
- Emmanuel, C.L. (2008). *Entrepreneurship: A conceptual approach*. Lagos, Pumarik Nigeria Limited.
- Fatoki, O. & Garwe, D. (2010). "Obstacles to the Growth of new SMEs in South Africa: A Principal Component Analysis Approach." *African Journal of Business Management*: 729-738..
- Goriwondo, W.M. (2011). An evaluation of Risk Management Practices in SMEs in the Manufacturing Sector of Gweru, Zimbabwe. *GE International Journal of Management Research*. Vol. 2(9).
- Hisrich, R. D. & Peters, M.P. (2002) *Entrepreneurship* 5th ed Irwin, London: McGraw-Hill. <https://doi.org/10.1787/9789264169425-en>
- Ilesanmi, O.A. (2000) *Entrepreneurial Development*, Kola Success Publications, Ilorin.
- Ikeje, U. U. & Onuba, C.O., (2015). Contributions and Challenges of Entrepreneurship in Nigeria: A Sociological Analysis. *European Journal of Business and Innovation Research*. Vol. 3(3).
- Jain. A.I. & Chen, B. (2013). *Reinvigorating global economic growth. Unleashing small and medium-sized businesses may be the answer*. Available: http://www.mastercardadvisors.com/_assets/pdf/130530_SME_Global_Growth.pdf. Accessed: [23 May 2017].
- Jeppesen, Søren, Peter Lund-Thomsen, & Dima Jamali. "SMEs and CSR in Developing Countries." (2017).
- Nieuwenhuizen, C., & Kroon, J. (2003). The relationship between financing criteria and the success factors of entrepreneurs in small and medium enterprises. *Development Southern Africa*, 20(1), 129-142. <https://doi.org/10.1080/0376835032000065525>
- Nyakala, K. S. (2014). *Evaluation of Quality Management Practice in the Ekurhuleni Public Hospital*. (Doctoral Dissertation).
- Ojong, V. B. (2017). The economics of hairdressing and its implications for gender power in Durban South Africa. *Journal of Social Development in Africa*, 32(1), 91-111.
- Preston-Whyte, R., & Scott, D. (2017). *Urban tourism in Durban. In Urban tourism in the developing world* (pp. 245-264). Routledge. <https://doi.org/10.4324/9781351300483-15>
- Rainville, P. (2012). *SMEs set their sights on sustainability. Case studies of small and medium-sized enterprises (SMEs) from the UK, US and Canada*. Available: http://www.aicpa.org/interestareas/businessindustryandgovernment/resources/sustainability/downloadabledocuments/sustainability_case_studies_final%20pdf.pdf. Accessed: [21 May 2017].
- Riffe, D., Lacy, S. & Fico, F. (2014). *Analyzing media messages Using quantitative content River*, NJ: Pearson Prentice Hall. <https://doi.org/10.4324/9780203551691>
- Saunders, M. N. K., Lewis, P. & Thornhill, A. (2012). *Research Methods for Business Students*. 6th Ed. Financial Times/ Prentice Hall.
- Saunders, M., Lewis, P. & Thornhill, A. (2016). *Research methods for business students*. 7th edition, Pearson Education Limited.
- Sekaran, U. & Bougie, R. (2010) *Research Methods for Business: A Skills Building Approach*. 5th Ed. New York: John Wiley and Sons.
- Sekaran, U., & Bougie, R. J. (2016). *Research methods for business: A skill building approach*. 7th edition, John Wiley & Sons.
- Shinozaki, S. 2012. A new regime of SME finance in emerging Asia: Empowering growth-oriented SMEs to build resilient national economies. ADB Working Paper Series on Regional Economic Integration. No. 104.

- Simpeh, K. N., (2011). Entrepreneurship theories and Empirical research: A Summary Review of the Literature. *European Journal of Business and Management*. Vol. 3(6).
- Spence, L. (2012). Primer: Business sustainability for SMEs. Available: <http://nbs.net/knowledge/primer-business-sustainability-for-SMEs/>. Accessed: [21 May 2017].
- Sukamolson, S. (2010). Fundamentals of quantitative research. *Language Institute, Chulalongkorn University*.
- Wilson, J. (2014). *Essentials of business research: A guide to doing your research project*. Sage.
- Van de Walle, B. A., Kakeeto-Aelen T. N., Van Dalen, J.C., & Van den Herik, H.J., (2014). Building Customer Loyalty among SMEs in Uganda: The Role of Customer Satisfaction, Trust, and Commitment. *Journal of Marketing Research*, Vol.9 (29).
- Vermeulen, B. 2011. *Press release issued by Sentient Communications. Importance of SME sector or why ARC exists*. Available: http://www.itweb.co.za/index.php?option=com_contentandview=articleandid=45967#pronta cts Accessed: [20 May 2017].
- Virtanen T., (2004). The role of Different theories in explaining entrepreneurship. Helsinki School of Economics and Business Administration, Small Business Centre, Finland.
- Wiese, J.S., (2014). Factors determining the sustainability of selected small and medium-sized enterprises. Mini-dissertation submitted in partial fulfilment of the requirements for the degree Magister in Business Administration at the Potchefstroom Campus of the North-West University.
- Wynn, M., Turner, P., Banik, A., & Duckworth, G. (2016). The impact of customer relationship management systems in small business enterprises. *Strategic Change*, 25(6), 659-674. <https://doi.org/10.1002/jsc.2100>

Received on 20-10-2019

Accepted on 13-11-2019

Published on 31-12-2019

[DOI: https://doi.org/10.6000/1929-7092.2019.08.123](https://doi.org/10.6000/1929-7092.2019.08.123)

© 2019 Ayandibu et al.; Licensee Lifescience Global.

This is an open access article licensed under the terms of the Creative Commons Attribution Non-Commercial License (<http://creativecommons.org/licenses/by-nc/3.0/>) which permits unrestricted, non-commercial use, distribution and reproduction in any medium, provided the work is properly cited.