

INNOVATIVE LEADERSHIP CHARACTERISTICS OF MANUFACTURING SMES IN KWAZULU-NATAL

Musawenkosi Ngibe, Durban University of Technology
Lawrence Mpele Lekhanya, Durban University of Technology
Hari Lall Garbharran, Durban University of Technology

ABSTRACT

Manufacturing SMEs are confronted with various challenges, which have fundamentally influenced their growth and development, and, as a result, many have been forced to close down in recent years. The lack of a serious focus on sustainability within the manufacturing SME sector is generally attributed to the entrepreneurial characteristics of SMEs' and entrepreneurs who often lack the awareness, expertise, skills, financial support, and qualified personnel required to build the changes required for sustainable growth within the an organisation. The conception of this study was based on a quantitative research approach. Business leadership, owners, managers in the manufacturing SMEs in KwaZulu-Natal were identified as the target population for this study. A nonprobability (quota) sampling techniques was used to identify the sample size of 384. Primary data were collected using questionnaires and were analysed using SPSS version 24.0. The empirical finding of the study significantly identified that entrepreneurial characteristics, specifically ICT support, lengthy financial institutional processes, shortage of government financial assistance were critical drawbacks to innovative leadership effectiveness. The study concluded that innovative leadership need to urgently invest in appropriate technological advances as, across the globe, innovations involve the need to go through revolutionary changes (frequently technological) in order to be aligned with the current business dynamics.

Keywords: Entrepreneurial Characteristics, Manufacturing, SMEs, KwaZulu-Natal.

INTRODUCTION

South African SME failure rate is regarded as one of the highest failure rate compared to other developing countries (Olawale & Garwe, 2010; Fin24, 2011; Mthabela, 2015; Leboea 2017). According to Maladzhi (2012); Lekhanya (2015) this is due to several factors, including, leadership and business awareness. The principal reasons given for such high failure rates are poor management skills, lack of business know how, lack of leadership experience skills and a weak entrepreneurial culture, along with high barriers to market entry (NCR, 2011) are the main reasons why new SMEs fail. Akinwale et al. (2015); Rabie et al. (2016) discovered that manufacturing SMEs battle with financial difficulties, skills development, and poor marketing strategies, among other challenges. Despite manufacturing SMEs being regarded as one of the major contributors towards an economy's GDP and formal sector employment (Malepe, 2014) they find themselves, in South Africa and elsewhere, continuously obstructed and oppressed by financial difficulties in any attempt to innovate and grow (Pillay, 2006; Abor & Quartey, 2010; Bernard et al., 2010; Jafarnejad et al., 2013; Cassim et al., 2014; The Banking Association South Africa, 2017). This puts them under a lot of pressure as lack of funding and bank credits have an

adverse impact on overall performance and on any attempts at innovation. Their own funding and retained earnings are seldom enough to initiate the innovation that will give them a competitive advantage over larger entities (Gombarume, 2014; Ombongi & Long, 2018). Arham et al. (2013); Arham, (2014); Mthabela, (2015); Zarim & Zaki, (2015); Kimberlee (2019) identify leadership conduct and capabilities of leaders as essential factors that influence manufacturing SMEs' survival and growth. Growth in modern economies has focused and invested in enhancing productivity through innovation. Such innovation is seen as a necessary requirement for the attainment of technological and structural change, as well as being a contributor to growth and competitiveness (SiMODiSA, 2014).

AIMS AND OBJECTIVES

The aim of this research is to identify entrepreneurial characteristics of manufacturing SMEs that influence innovative leadership in attaining sustainable growth.

In order to achieve the above aim, the following objective will be address;

1. To identify critical entrepreneurial characteristics that influence innovative leadership towards the attainment of innovation and sustainable growth in manufacturing SME sector
2. To determine the implications of these entrepreneurial characteristics towards manufacturing SME sustainable growth.

LITERATURE REVIEW

Factors Influencing Financing of Manufacturing SMES

According to Fatoki & Odeyemi (2010); Pandula (2011); Ezeoha & Both (2012); Nizaeva & Coskan (2017) a firm's demographic factors, its size, ownership type, age and sector all influence their access to finance. Furthermore, any inability to declare assets, provide accounting records, or ensure creditworthiness and financial performance will adversely influence financial institutions' readiness to commit to medium, or long term, investments (Zarook et al., 2013; Ryan et al., 2014; Mutoko & Kapunda, 2017). This lack of access to credit is a major constraint for those manufacturing SMEs that wish to expand their activities (Seda Report, 2012). It is clear that SMEs present a high risk to the lender, as many of them have insufficient assets that can be used as collateral, and they suffer from low capitalization (Abraham & Schumker, 2017; Growing Micro and Small Enterprises in LCDs, 2018). Over and above this, Peprah (2016); Snijders et al. (2016) claim that lack of financial support is also due to entrepreneurs' incapacity to draft a well-planned and researched loan proposal for the bank.

These challenges severely affect the innovativeness and subsequent sustainable growth of South African manufacturing SMEs (Afande, 2015; Eniola & Entebang, 2015; Albuquerque et al., 2017). As shown in a study conducted by Bellone et al. (2014) manufacturing SMEs with better access to finance are better able to innovate, grow and venture into international markets than those facing financial constraints. Therefore, difficulties in accessing finance severely limits the ability of owners and managers of manufacturing SMEs to initiate the innovation which can support their firms' sustainable growth. This is exacerbated by issues of licensing.

Lack of Skilled Labour Affects Innovation of Manufacturing SMEs

As the employment rate plunged in recent years in South Africa, recruiting labour should have become easier. However, skilled labour has remained in short supply and has become a big

issue for many manufacturing SMEs. Even although manufacturing SMEs are such important contributors to the economy, and therefore can be regarded as long-term potential employers (de Kok et al., 2011), manufacturing SMEs are faced with severe labour challenges (Nasr & Rostom, 2013; Moore et al., 2010). Doh & Kim (2014); Lee & Sahu (2017) identify skills shortages as a critical challenge and a labour market crisis that influences performance, development and growth of business as well as the quality of local production. Zimmermann & Thoma (2016) agree that the issue of skilled labour is a serious concern as it adversely affects the innovation and development of manufacturing SMEs. Zimmermann (2017) claims that the second biggest barrier to innovation after funding difficulties is a shortage of skilled workers (Healy et al., 2015).

This extreme talent gap also puts a firm's productivity at risk (Nash-Hoff, 2016; Seda, 2016; Mutoko & Kapunda, 2017). Kunz (2015) agrees that without aggressive action, the next decade is expected to bring an increasing shortfall of skilled labour. Donnelly (2018) also cautions that this lack acts as a barrier to entrepreneurs taking advantage of such internal and external opportunities as may be available to them to expand and grow their firms. Thus, skills shortages may be seen as yet another significant factor which deprives South African manufacturing SMEs of economic growth and global competitiveness (Rasool & Botha, 2011). Turyahikayo (2015); Rasmulia (2016) claims that improving the quality of human resources is essential, more especially in the field of competencies such as knowledge, skills, ability and attitude to entrepreneurship.

Influence of Adopting Up-To-Date ICT Support for Business Growth

The adoption of Information Technology (IT) by manufacturing SMEs nationally and worldwide has to be regarded as fundamental to any firm's successful operation (Agwu, 2018). Its adoption is one of the key elements for remaining competitive (Jabar et al., 2010; Tarute & Gatautis, 2013; Cuevas-Vergas et al., 2015; Agwu, 2018). Ghobakhloo et al. (2012) claims that there is a need for manufacturing SMEs to invest significant amounts of their financial resources in IT if they wish to strengthen their competitive position and maintain the firm's sustainable growth (Clibanu & Neamtu, 2017). Choi & Lim (2017) maintain that the various forms of technological innovation are significant drivers of manufacturing SMEs towards achieving ever higher production levels (Moghavvemi et al., 2012; Rahab & Hartono, 2012; Stratopoulos, 2015; Al Bakri, 2017).

Sayed & Sunjka (2016) claim that South African SMEs in particular were slow to adopt the latest technologies and this was confirmed in a study conducted in South Africa by Leboea (2017). This puts a strain on the production process and ultimately results in SMEs being uncompetitive in relation to larger firms. This situation has been put down to a range of factors such as limited financial resources, entrepreneurs' limited technical skills capacity, and age and lack of training opportunities (Kumar et al., 2008; Elbeltagi et al., 2013; Jafarnejad et al., 2013; Kusumaningtyas & Suwanto, 2015). The lack of technical skills and knowledge amongst entrepreneurs is a contributory factor when taking decisions relating to an IT adoption approach Steyn (2012). While the need to overcome these critical factors poses major obstacles to manufacturing SMEs' innovation abilities, Migiro (2006); Alam & Noor (2009) and Xero Report (2017) asserts that despite technology adoption being expensive, its benefits and significance in innovation and sustainable growth are of paramount importance. Rapid technology adoption has been found to enhance the success of manufacturing SMEs significantly (Eke et al., 2015). Thus, as cautioned by Mustafa & Yaakub (2018) manufacturing SMEs who fail to innovate and adopt

technology are more likely to experience reduced production, business performance and profits due to aggressive competitive business environment.

Infrastructure

Das (2017) claims that infrastructure is key to improving the growth of developing countries. Well-functioning infrastructure is said to be the principal driver of business growth, competitiveness, access to markets, unlocking of economic opportunities and promotion of job creation (Jafta, 2017). Furthermore, suitable infrastructure provision is a key requirement for efficient export growth within the manufacturing SME sector (Ajakaiye & Ncube, 2010). Without proper infrastructure, manufacturing SMEs' operations such as production, importing, exporting and servicing will be severely negatively affected. Electricity failure affects the production of goods and services, and inaccessible roads affect the distribution networks. This also has an impact on transportation costs, while developing alternatives can prove costly, threatening the existence of the enterprise (Okpara, 2011; Agwu & Emeti, 2014). Frequent interruptions in service supplies impose extra backup costs on manufacturing SMEs, affecting their business operations which ultimately narrow profit margins (Muriithi 2017; Iimi, 2011).

METHODOLOGY

A quantitative research approach was used for this study. This approach was therefore designed to assist in understand the underpinning reasons for South African manufacturing SMEs inability to be innovative and acquire sustainable growth. The population of this research study consisted of manufacturing SMES business leadership, owners and managers. Primary data was collected using questionnaires which were designed to capture the respondent's level of agreement and disagreement to the statements. A quota sampling techniques was used with 384 participants forming the sample size of this study. Data analysis was performed using SPSS (24.0) version and it was reliable at 0.838 for the six items tested.

Findings

Innovation is affected by the Lengthy Processes Required by Financial Institutions

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	26	6.8	6.8	6.8
	Disagree	42	10.9	10.9	17.7
	Neutral	83	21.6	21.6	39.3
	Agree	123	32	32	71.4
	Strongly Agree	110	28.6	28.6	100
Total		384	100	100	

As reflected in Table 1: a moderate number of respondents 123 (32%) agree and 110 (28.6%) further strongly agreed that innovation is affected by the lengthy processes required by

financial institutions. A considerable number of the respondents 83 (21.6%) were neutral, while 42 (10.9%) disagreed and only 26 (6.8%) strongly disagreed with the statement. A Chi-square test was conducted to determine whether innovation is affected by the lengthy processes required by financial institutions. The results show that ($X^2 = 92.016$; $df = 4$; $P = 0.000$) for this variable, indicating that innovation is indeed affected by the lengthy processes required by financial institutions.

Innovation is affected by Lack of Government Financial Assistance

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	25	6.5	6.5	6.5
	Disagree	62	16.1	16.1	22.7
	Neutral	52	13.5	13.5	36.2
	Agree	125	32.6	32.6	68.8
	Strongly Agree	120	31.3	31.3	100
	Total	384	100	100	

As shown in Table 2 a moderate number of respondents 125 (32.6%) agreed and 120 (31.3%) further strongly agreed that innovation is affected by lack of government financial assistance. A smaller number of the respondents 62 (16.1%) disagreed with the statement while 52 (13.5%) were neutral and only 25 (6.5%) strongly disagreed. This result is supported by a Chi-square test that was conducted to determine if innovation is affected by the lack of government financial assistance. The results show that ($X^2 = 100.349$; $df = 4$; $P = 0.000$) for this variable, indicating that a lack of government financial assistance affects manufacturing SMEs' ability to be innovative and develop new technological advances.

Innovative Leadership is affected by Profits

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	20	5.2	5.2	5.2
	Disagree	61	15.9	16	21.2
	Neutral	88	22.9	23	44.2
	Agree	135	35.2	35.3	79.6
	Strongly Agree	78	20.3	20.4	100
	Total	382	99.5	100	
Missing	System	2	0.5		
Total		384	100		

As shown in Table 3 a moderate number of respondents 135 (35.2%) agreed and 78 (20.3%) further strongly agreed that profits affects the intention and level of innovation in the firm. A significant number of the respondents 88 (22.9%) were neutral while 61 (15.9%) disagreed and only 20 (5.2%) strongly disagreed. A Chi-square test was conducted to determine whether a lack of technical skills affects Innovation process due to project management skills. The results show that ($X^2=91.482$; $df =4$; $P=0,000$) for this variable, indicating that a lack of technical skills affects the innovation process.

Innovative Leadership is affected by Lack of Educated Employees

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	24	6.3	6.3	6.3
	Disagree	47	12.2	12.2	18.5
	Neutral	77	20.1	20.1	38.5
	Agree	150	39.1	39.1	77.6
	Strongly Agree	86	22.4	22.4	100
	Total	384	100	100	

As shown in Table 4 a moderate number of respondents 150 (39.1%) agreed and 86 (22.4%) further strongly agreed that innovation is affected by lack of educated employees. A number of the respondents 77 (20.1%) were neutral about the statement, while 47 (12.2%) disagreed and only 24 (6.3%) strongly disagreed with the statement. This means that around 60% of the respondents viewed an educated workforce as instrumental in innovation. The results show that ($X^2=118.734$; $df =4$; $P =0,000$) for this variable, indicating that having uneducated employees affects the level of innovation the firm is able to achieve. Therefore, it can be agreed that having educated and knowledgeable employees serves as an important asset for a firm's sustainability.

Innovation is affected by Failure to Adopt Up-to-Date ICT Support within the Business

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	8	2.1	2.1	2.1
	Disagree	39	10.2	10.2	12.3
	Neutral	92	24	24.1	36.4
	Agree	171	44.5	44.8	81.2
	Strongly Agree	72	18.8	18.8	100
	Total	382	99.5	100	
Missing	System	2	0.5		

Total	384	100		
-------	-----	-----	--	--

As shown in Table 5 a significant number of the respondents (171 or 44.5%) agreed and 72 (18.8%) strongly agreed that innovation is affected by failure to adopt up-to-date ICT support within the business. A number of the respondents 92 (24%) were neutral, while 39 (10.2%) disagreed and only 8 (2.1%) strongly disagreed with the statement. To determine the impact of ICT adoption towards innovation, a Chi-square test was conducted. The results show that ($X^2=200.12$; $df=4$; $P=0,000$) for this variable, indicating that innovation is affected by the inability of manufacturing SMEs to acquire and maintain technological advances.

Innovative Leadership is Affected by ICT Implementation Costs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	9	2.3	2.3	2.3
	Disagree	36	9.4	9.4	11.7
	Neutral	102	26.6	26.6	38.3
	Agree	163	42.4	42.4	80.7
	Strongly Agree	74	19.3	19.3	100
	Total	384	100	100	

As shown in Table 6 a significant number of the responses (163 or 42.4%) agreed and 74 (19.3%) further strongly agreed that innovative leadership is affected by ICT implementation costs. A considerable number of the respondents 102 (26.6%) were neutral, while 36 (9.4%) disagreed and 9 (2.3%) strongly disagreed with the statement. A Chi-square test was further conducted to determine whether innovative leadership is affected by ICT implementation costs. The results show that ($X^2=186.651$; $df=4$; $P=0,000$) for this variable, indicating that the implementation costs of ICT negatively influence the adoption of ICT and can be considered as a critical hindrance in achieving technological innovation in manufacturing SMEs (Table 7).

Component Matrix: Entrepreneurial Characteristics that Affects Innovative Leadership of Manufacturing SMEs

B7	Component 1
Innovation is affected by the lengthy processes required by financial institutions	0.713
Innovation is affected by lack of government financial assistance	0.751
Innovative leadership is affect by profits	0.743

Innovative leadership is affected by lack of educated employees	0.682
Innovation is affected by lack of failure to adopt up-to-date ICT support within the business	0.789
Innovative leadership is affected by ICT implementation costs	0.807
Extraction Method: Principal Component Analysis.	
a. 1 components extracted.	

A component test was conducted on the entrepreneurial characteristics that affect innovative leadership of manufacturing SMEs. The respondents have responded to one category of component, where a strong positive significance of 0.807 is shown on the statement as to whether innovative leadership is affected by ICT implementation costs. A figure of 0.789 is reflected for respondents who indicated that manufacturing SMEs' innovation is affected by failure to adopt up-to-date ICTs. On the variable regarding government financial assistance, the component test shows a positive significant of 0.751, indicating that the respondents believed that with government financial assistance manufacturing SMEs will be more innovative and most importantly be able to obtain sustainable growth which will benefit South African economy. The other variables on whether innovative leadership is affected by profits and by the lengthy processes required by financial institutions showed 0.743 and 0.713 respectively. Therefore, the above tested variable showed a very strong significance on entrepreneurial characteristics that affects innovative leadership of manufacturing SMEs.

CONCLUSIONS

In view of the empirical findings of this study, it is concluded that the entrepreneurial characteristics, specifically, shortage of government financial assistance, up-to-date ICT support, lack of educated employees, ICT implementation costs are critical drawbacks to innovative leadership effectiveness. The study further concludes that due to manufacturing SMEs limited profit margins to support their business growth and sustainability also lengthy processes required by financial institutions oppress their intentions to develop and sustain their businesses. It is therefore concluded that for innovative leadership to be more business operative and effective, the above mention entrepreneurial characteristics needs to be urgently ironed out in order to promote business sustainability and growth.

The study also concludes that innovative leadership in KZN manufacturing SMEs can be more sustainable and grow if they were more conscious about business characteristics that play a critical role in their sustainable growth.

RECOMMENDATIONS

The study recommendations are drawn in line with the aims and objectives of this study, and the empirical findings. The following recommendations have been made to help support innovative leadership in their quest to achieve business growth and sustainability, specifically manufacturing SMEs in KwaZulu-Natal.

Government support mechanisms, especially monetary resources, need to be documented, advertised, communicated, and made easily available to all SMEs regardless of the type or location of the business. This information should also be available in all departments that engage, support and promote business development. The government has set R1.4 billion to support small businesses with finance, incubation and mentoring. This is a recent announcement made by

President Cyril Ramaphosa in 2019 with the intentions of promoting entrepreneurship which will in the long run improve and strengthen the economic status of the country. It is therefore, recommended that a rigid systematic approach should be implemented to monitor the progress and effectiveness of the support provided to small businesses. An independent department with qualified business experts should be identified and appointed to administer these funds and facilitate business incubation programmes.

The study recommends that it is an urgent requirement for manufacturing SMEs to invest in appropriate technological advances as, across the globe, innovations involve the need to go through revolutionary changes (frequently technological) in order to be aligned with the current business dynamics. This alignment promotes competitiveness and improves manufacturing processes and strategies in accordance with the requirements of modern technology that needs to be on a par with international standards. The adoption of advanced technology will not only enhance the manufacturing processes but will yield positive results for trade facilitation in both local and international markets.

The study further recommends that manufacturing SMEs need to start employing qualified employees to help improve the overall performance of the firm. If this is not viable, then, internal staff development should be identified as a key strategic plan for preparing and grooming employees for certain job profiles within the organization. Thus, innovative leadership needs to be cautious of these entrepreneurial characteristics because if not attend to, they will have a detrimental effect on business growth and sustainability.

REFERENCES

- Abor, J., & Quartey, P. (2010). Issues in SME Development in Ghana and South Africa. *International Research Journal of Finance and Economics*, 39, 218-228.
- Abraham, F., & Schmukler, S.L. (2017). Addressing SME finance problem. *Research & Policy Briefs*, 9, 1-4.
- Afande, F.O. (2015). Competitive strategies and firm performance in the mobile telecommunication service industry: A case of Safaricom Kenya limited. *Developing Country Studies*, 5(3), 15-34.
- Agwu, M.E. (2018). Relevance of information technology in the effective management of selected SMEs in Lagos State Nigeria. *Academy of Strategic Management Journal*, 17(1), 1-15.
- Ajakaiye, O., & Ncube, M. (2010). Infrastructure and economic development in Africa: An overview. *Journal of African Economies*, 19(1), 3-12.
- Akinwale, O.P., Adu, E., & Seriki, I. (2015). Exploring challenges faced by small business owners on poverty reduction in rural Eastern Cape, South Africa. *American Research Journal of Humanities and Social Sciences*, 1(2), 33-39.
- Al Bakri, A.A. (2017). The impact of social media adoption on competitive advantage in the small and medium enterprises. *International Journal of Business innovation and Research*, 13(2), 255-269.
- Alam, S.S., & Noor, M.K.M. (2009). ICT adoption in small and medium enterprises: An empirical evidence of service sectors in Malaysia. *International Journal of Business and Management*, 4(2), 112-125.
- Albuquerque, F., Quirós, J.T., & Justino, Jr. (2017). Are the cultural accounting values a relevant issue for the SMEs' financing options? *Contaduría y Administración*, 6(2), 279-298.
- Arham, A.F. (2014). Leadership and performance: The case of Malaysian SMEs in the service sector. *International Journal of Asian Social Sciences*, 4(3), 343-355.
- Arham, A.F., Boucher, C., & Muenjohn, N. (2013). Leadership and entrepreneurial success: A study of SMEs in Malaysia. *World Journal of Social Sciences*, 3(5), 117-130.
- Bellone, F., Musso, P., Nesta, L., & Schiavo, S. (2014). Financial constraints and firm export behaviour.
- Bernard, A., Stabilito, A., & Yoo, J.D. (2010). Access to finance and exporting behaviour in transition countries.
- Cassim, S., Soni, P., & Karodia, A.M. (2014). Entrepreneurship policy in South Africa. *Arabian Journal of Business and Management Review*, 3(9), 29-43.
- Choi, Y.S., & Lim, U. (2017). Contextual factors affecting the innovation performance of manufacturing SMEs in Korea: A structural equation modelling approach. *Sustainability*, 9, 1-15.

- Clibanu, O., & Neamtu, D.M. (2017). The impact and importance of new technologies in business development in context of economic diversity.
- Cuevas-Vergas, H., Enriquez, L.A., & Adame, M.G. (2015). The use of ICTs and its relation with the competitiveness of Mexican SMEs. *European Scientific Journal*, 14(13), 294-310.
- De Kok, J., Vroonhof, P., Verhoeven, W., Timmermans, N., Kwaak, T. Snijders, J., & Westhof, F. (2011). Do SMEs create more and better jobs?
- Doh, S., & Kim, B. (2014). Government Support for SME innovations in the regional industries: The case of government financial support program in South Korea. *Research Policy*, 43(9), 1-13.
- Donnelly, E. (2018). Manufacturing SMEs widen incentives in bid to attract key staff.
- Eke, C., Aigbavboa, C., & Thwala, W. (2015). An exploratory study of the causes of failure in construction small business: A case of the Johannesburg construction industry, South Africa.
- Elbeltagi, I., Al Sharji, Y. and Hardaker, A. 2013. The role of the owner-manager in SMEs' adoption of information and communication technology in the United Arab Emirates. *Journal of Global Information Management*, 21(1), 23-50.
- Eniola, A.A. & Entebang, H. (2016). Financial literacy and SME firm performance. *International journal of Research Studies in Management*, 5(1), 31-43.
- Ezeoha, A., & Both, F. (2012). Firm age, collateral value, and access to debt financing in an emerging economy: Evidence from South Africa. *SAJEMS*, 15(1), 55-71.
- Fatoki, L., & Odeyemi, A. (2010). Which new small and medium enterprises in South Africa Have access to bank credit? *International Journal of Business and Management*, 5(10), 128-136.
- Ghobakhloo, M., Hong, T.S., Sabouri, M.S. & Zulkifli, N. (2012). Strategies for successful information technology adoption in small and medium-sized enterprises. *Information*, 3, 36-76.
- Gombarume, F. (2014). Challenges faced by small to medium scale enterprises: A case study of Chitungwiza, Zimbabwe. *Greener Journal of Business and Management Studies*, 4(4), 103-107.
- Iimi, A. (2011). Effects of improving infrastructure quality on business costs: Evidence from firm-level data in Eastern Europe and central Asia. *The Developing Economies*, 49(2), 121-147.
- Jabar, J., Soosay, C., & Santa, R. (2010). Organizational learning as an antecedent of technology transfer and new product development: A study of manufacturing firms in Malaysia. *Journal of Manufacturing Technology Management*, 22(1), 25-45.
- Jack, V. (2007). *Broad-based BEE: The complete guide*. Johannesburg: Frontrunner Publishing.
- Jafarnejad, A., Abbaszadeh, M. A., Ebrahimi, M., & Abtahi, S.M. (2013). Analysis of barriers to entrepreneurship in Small and Medium-sized Enterprises (SMEs). *International Journal of Academic Research in Economics and Management Sciences*, 2(4), 207-216.
- Jafarnejad, A., Abbaszadeh, M.A., Ebrahimi, M. & Abtahi, S.M. (2013). Analysis of barriers to entrepreneurship in Small and Medium-sized Enterprises (SMEs). *International Journal of Academic Research in Economics and Management Sciences*, 2(4), 207-216.
- Jafta, X. (2017). Infrastructure-led growth as a tool for economic transformation. Available:
- Kimberlee, L. (2019). The impact of leadership on organizational performance.
- Kumar, N., Rose, R.C., & D'Silva, J.L. (2008). Predictors of technology deployment among Malaysian teachers. *American Journal of Applied Sciences*, 5(9), 1127-1134.
- Kunz, J. (2015). SME speaks: Lack of skilled workers challenges manufacturers.
- Kusumaningtyas, N., & Suwanto, D.H. (2015). ICT adoption, skill and use differences among small and medium enterprises managers based on demographic factors. *Procedia-Social and Behavioral Sciences*, 169, 296-302.
- Leboea, S.T. (2017). The factors influencing SME failure in South Africa. Master of commerce in development finance degree. The Graduate School of Business, University of Cape Town.
- Lee, K.W., & Sahu, D.K. (2017). Training levy-rebate incentive scheme and SME training consortium program to address unemployment and low productivity in SMEs-A Korean Policy Case. *Global Delivery Initiative*, April: 1-26.
- Lekhanya, L.M. (2015). Key internal factors affecting the small, medium and micro enterprises (SMMEs) marketing strategies in rural South Africa. *Problems and Perspectives in Management*, 13(2), 411-417.
- Maladzi, W.R. (2012). Analysis of innovative leadership and sustainability of SMEs in the Western Cape Province, South Africa. Doctor of technology: Mechanical engineering in the faculty of engineering at Cape Peninsula University of Technology.

- Malepe, N. (2014). How's business? Manufacturing small, medium and micro enterprises' (SMMEs') contributions to the formal sector employment in Gauteng and the Western Cape between 2007 and 2013. Master's degree, Faculty of Arts and Social Sciences, Stellenbosch University. South Africa.
- Migiro, S.O. (2006). Diffusion of ICTs and E-commerce adoption in manufacturing SMEs in Kenya. *South African Journal of Library and Information Science*, 72(1), 35-44.
- Moghavvemi, S., Hakimian, F., & Feissal, T.M.F.T. (2012). Competitive advantages through IT innovation by SMEs. *Social Technologies*, 2(1), 24-39.
- Moore, C.W., Petty, J.W., Palich, L.E., & Longenecker, J.G. (2010). *Managing small business: An entrepreneurial emphasis*. 15th ed. New Delhi, India: South Western.
- Mthabela, T.E. (2015). Assessing the casual failures of emerging manufacturing SMEs in Johannesburg. Master's degree. Faculty of Commerce, Law and Management, University of Witwatersrand. South Africa.
- Muriithi, S.M. (2017). African small and medium enterprises (SMEs) contributions, challenges and solutions. *European Journal of Research and Reflection in Management Sciences*, 5(1), 32-48.
- Mustafa, H.K., & Yaakub, S. (2018). Innovation and technology adoption challenges: Impact on SMEs' company performance. *International Journal of Accounting, Finance and Business*, 3(15), 57-65.
- Mutoko, W.R., & Kapunda, S.M. (2017). Factors influencing small, medium and micro-sized enterprises' borrowing from banks: The case of the Botswana manufacturing sector. *Acta Commercii*, 17(1), 417-426.
- Nash-Hoff. (2016). Tooling U-SME report reveals manufacturers are not addressing skills gap.
- Nasr, S., & Rostom, A. (2013). SME contributions to employment, job creation, and growth in the Arab world.
- Nizaeva, M., & Coşkun, A. (2017). Determinants of the financing obstacles faced by SMEs: An empirical study of emerging economies. *Journal of Economic and Social Studies*, 7(2), 81-99.
- Okpara, J.O. (2011). Factors constraining the growth and survival of SMEs in Nigeria: Implications for poverty alleviation. *Management Research Review*, 34(2), 156-171.
- Olawale, F., & Garwe, D. (2010). Obstacles to the growth of new SMEs in South Africa: A principal component analysis approach. *African Journal of Business Management*, 4(5), 729-738.
- Ombongi, P.N., & Long, W. (2018). Factors affecting financial performance of small and medium enterprises (SMEs): A case of manufacturing SMEs in Kenya. *International Journal of Research in Business Studies and Management*, 5(1), 37-45.
- Pandula, G. (2011). An Empirical Investigation of Small and Medium Enterprises' Access to Bank Finance: The Case of an Emerging Economy. *Proceedings of ASBBS Annual Conference*, 18(1), 1-19.
- Peprah, C. (2016). Challenges SMEs face in acquiring loans from banks. A comparative study between Finland and Ghana. Degree Programme in Business Management. Centria University of Applied Sciences.
- Pillay, M.K. (2006). The internal and external environment for small business growth in Pietermaritzburg. Masters dissertation, School of Management, UKZN, Pietermaritzburg. South Africa.
- Rabie, C., Cant, M. C., & Wiid, J.A. (2016). Training and development in SMEs: South Africa's Key to survival and Success? *The Journal of Applied Business Research*, 32(4), 1009-1024.
- Rahab, S., & Hartono, J. (2012). Adoption of information technology on small businesses: The role of environment, organisational and leader determinant. *International Journal of Business, Humanities and Technology*, 2(4), 60-66.
- Rasmulia, S. (2016). Impact of human resources' knowledge and skills on SMEs' in Medan City, Indonesia. *International Journal of Management, Economics and Social Sciences*, 5(3), 95-104.
- Rasool, F., & Botha, C.J. (2011). The nature, extent and effect of skills shortages on skills migration in South Africa. *South African Journal of Human Resource Management*, 9(1), 287-299.
- Ryan, R.M., O'toole, C.M., & Mccann, F. (2014). Does bank market power affect SME financing constraints?
- Sayed, Z., & Sunjka, B.P. (2016). Investigating and evaluating the influence of supply chain structure on supply chain risk. *South African Journal of Industrial Engineering*, 27(3), 122-135.
- Snijders, J., van der Horst, R., Isusi, I., & Lindeboom, G. (2016). SME promotion agencies: Is there a best set-up? A quest for good practices.
- Steyn, A.A. (2012). Guidance for SMEs with the adoption of technology: A conceptual framework. *SAJESBM*, 5, 24-33.
- Tarute, A., & Gatautis, R. (2013). ICT impact on SMEs performance. *Procedia - Social Behavioral Science*, 110, 1218-1225.
- Turyahikayo, E. (2015). Challenges faced by small and medium enterprises in raising finance in Uganda. *International Journal of Public Administration and Management Research (IJPAMR)*, 3(2), 21-33.
- Zarim, Z.A., & Zaki, H.O. (2015). Key success factors for Malaysian SMEs companies' entrepreneurial leaders. *International Journal of Engineering Technologies and Management Research*, 2(1), 42-50.

- Zarook, T., Rahman, M.M., & Khanam, R. (2013). The impact of demographic factors on accessing finance in libya's SMEs. *International Journal of Business and Management*, 8(14), 55-65.
- Zimmermann, V., & Thomä, J. (2016). SMEs face a wide range of barriers to innovation – support policy needs to be broad-based. *KFW Research*, 130, 1-8.