ENVIRONMENTAL FACTORS AFFECTING INNOVATIVE LEADERSHIP TOWARDS SUSTAINABLE GROWTH OF MANUFACTURING SMALL AND MEDIUM ENTERPRISES

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ABSTRACT

Small businesses, particularly manufacturing SMEs perform a starring role in influencing economic growth, alleviation of poverty and creation of job employment, especially in South Africa where youth unemployment continues to be in the rise. The development, monitoring, support and protection of manufacturing SMEs in KwaZulu-Natal (KZN) need urgent priority, not only from business owners/managers but also from the government. This is due to concerns over the environmental challenges that hover on the existence of manufacturing SMEs. These influences affect manufacturing SMEs' production planning and manufacturing, market performance and their continued and successful existence. For manufacturing SMEs to foster economic stability and continue to contribute to the country's economic development, the identification and exploration of environmental factors influencing manufacturing SMEs needs Therefore, the empirical findings showed that inadequate support from to be addressed. shareholders/boards, capital and business performance were recognized as the main internal factors that had an impact on manufacturing SMEs, while social factors and rapid technological changes were the main external factors that influenced business sustainable growth. The recommendations were extended on various aspects which were essential to the sustainability and business growth of manufacturing SMEs

Keywords: Entrepreneurship, Environmental Factors, Smes, Manufacturing, Sustainability, Business, Growth.

INTRODUCTION

The environment in which businesses operates is a fundamental factor that has a considerable influence on manufacturing SMEs. Environmental factors are things over which manufacturing SMEs have little or limited control, other than to consider them within their strategic planning (Kokemuller, 2018). These influences affect their production planning and manufacturing (Ibrahim & Primiana, 2015). Not only do they influence the processes and operations of manufacturing SMEs, but they also affect their market performance (Braşoveanu & Bălu, 2014). In fact, they influence the continued and successful existence of manufacturing SMEs (Slitharam & Hoque, 2016). The business environment has important repercussions on the gross margins of the enterprise (Nguimkeu, 2013).

The concept of whether small businesses contribute to any country with the intentions of growing has been widely researched, with many authors (Ngibe & Lekhanya, 2019a; Rees, 2019; The World Bank (2020) indicating that small businesses are the spine of any developing and

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developed country, in fact they are responsible for driving sustainability growth and development. These small businesses manage to achieve this through the creation of job opportunities across regions and sectors, for both skilled and low skilled employees (OECD, 2018; International Labour Organization, 2019; Michael, 2019). The small business sector also plays an influential yet critical role in developing and steadying a country's economic status (Edmiston, 2017; Obi, Ibidunni et al., 2018; Rungani & Potgieter, 2018). This means that there is a huge responsibility placed upon a sector that is plagued with so many environmental challenges which constantly limit their intentions to attain rapid innovation and business sustainable growth. Scholars have long identified series of environmental factors likely to affect small businesses with management skills, financial access, technology adoption, competition, as well as business environment, being identified as the key challenges affecting SMEs (Msomi, et al., 2019; Ngibe & Lekhanya, 2019b). This study intends to further explore other unprecedented environmental factors that affect manufacturing SMEs ability to grow and be sustainable. This is conducted with the purpose of ameliorating the environmental struggles that pose a negative effect on the existence of manufacturing SMEs in KZN.

Primary Objective

This study's primary objective is to identify and explore the influence that environmental factors have on entrepreneurs towards sustainable growth of manufacturing SMEs. To achieve the intentions of this study, the following objectives need firm prioritization.

Secondary Objectives

- 1. To ascertain environmental factors negatively affecting manufacturing SMEs towards sustainable growth.
- 2. To explore the impact that environmental factors have on manager's/leaders ability to achieve sustainable growth of manufacturing SMEs in KZN.

LITERATURE REVIEW

The following section provides a broad literature review discussion, in support of the aims and objectives of this study. The literature is divided into two categories, namely, internal and external environmental factors.

Internal Factors

The internal factors exist inside the operational base of the company and straightforwardly impact the distinctive part of business. These are occasions, factors, HR, frameworks, authoritative material, and operational activities inside the firm which are commonly heavily influenced by the organization (Hartzell, 2018).

Resources Impact On SMEs Manufacturing Sustainability

Although known for their enormous growth potential and significance to the economy (Choi, & Lim, 2017) manufacturing SMEs have often failed to harness this potential. According to Beynon et al. (2014) manufacturing SMEs require resources, awareness and capabilities to rapidly improve their efficiency and operational effectiveness, since they are seriously oppressed by several obstacles in accessing these resources (Snyman et al., 2014; Chikozore, 2017). Added

pressure has resulted from the globalization of markets which creates tougher competition, often associated with more rapid technological changes (Dadfar et al., 2013). Specific barriers can prevent manufacturing SMEs from accessing these strategic resources, in turn hindering competitiveness in a globalized and digitalized economy (OECD, 2017).

For manufacturing SMEs to carry out innovation, they will need to address these factors and find strategic ways to acquire the resources needed for innovation (Woschke et al., 2017) and to maintain competitiveness (Zhang & Chen, 2009; Haron et al., 2013). Andrae and Beckma (2013); Mutambi (2013) maintain that these factors, if not addressed, will continue to hinder manufacturing SMEs from tapping into the available business opportunities or to achieve progressive innovation (Shemi, 2013). The decisions of business leaders to pursue innovation are a key determinant of the economic performance of the enterprise (Bayarçelic et al., 2014). However, innovation only becomes possible when leaders are given access to the appropriate resources including funds, materials, facilities, human resources and access to skills development (Horth, 2014).

Business Networking A Key Concept for Manufacturing SMEs Innovation

As early as 1934 the theorist Schumpeter pointed out that the innovative activities of a firm promote competitive advantage which is key to growth and sustainability. One of the key elements that can promote innovation within small businesses is business networking. Networks are strategic approaches created for expanding new ideas that promote innovation and growth initiatives (Ludmila & Stanisava, 2015; Schøtt, 2018). Kero et al. (2017) add that direct and indirect networking ties are formal sub-unit structures that larger firm are able to institute because of their greater capacity and resources, while small businesses have to be constantly alert to windows of opportunities in this regard, due to their more limited resources (Gunawan, 2015). Networking is seen to have an important positive influence on innovation and growth for manufacturing SMEs (Ueasangkomsate & Jangkot, 2017; Loanid et al., 2018; Oberg, 2018). Behncke (2015) demonstrated that networks and networking provide access to complementary knowledge that strengthens intangible knowledge and grants access, as well as contributing to, It may also allow manufacturing SMEs to gain access to other innovation initiatives. organisations' resources (Garg & Kumar De, 2014). These resources can enable innovation (Oskam et al., 2018).

Supplier's Involvement Influence Business Sustainability and Growth

Manufacturing SMEs currently operate in an uncertain and complex environment which includes inconsistent customer predilections and constantly advancement in technologies (Rodriguez-Ferradas & Alfaro-Tanco, 2016). One of the key strategies that they can adopt in order to maintain their relevance, is to shift from a closed, individual, innovation approach to an open approach, where external collaboration is identified and used (Okinwale, 2018). Bothof & van Weele (2018) identify suppliers as crucial external collaborators as they are clearly essential in new product development and process innovation. The inclusion of suppliers in a company's networks was seen by Reiss (2010) as a useful strategy given the suppliers' specific expertise and resources and their impact in product innovation (Sherman, 2018). Raassens et al. (2012) also find that the inclusion of suppliers allows for the expansion of manufacturing networks and an opening up to new innovative ideas. Sayed & Sunjka (2016) add that the benefits of supplier involvement include negotiation of prices, clearer product specification and better delivery

networks. Okinwale (2018) stated that manufacturing SMEs need to consider collaborations with prominent suppliers, especially since they do not independently possess all the skills necessary for successful innovation. This is due to the fact that firms that fail to innovate within its sector of the market will subsequently be eliminated (Adelowo et al., 2017).

External Factors

External environment encompasses all the events over which a company has no control as they happen outside of the organisation (such as competition, economic, training, financing and technology) and yet they have the power to positively and negatively influence the operations, production, business integration and innovativeness of any firm (Wahyuni et al., 2016; Ayandibu & Houghton, 2017).

Technology in Manufacturing Sector

Many businesses have come to the realisation that technology in the modern world of manufacturing is ever pervasive and essential. In the last decades preceding the 90s, technology has revamped the manner in which businesses are operated due to it being indispensable (Kolaski, 2018). Technology has created ease in the business lively-hood as it expedites business processes; performs complex tasks within a limited time frame with positive and accurate results (Mehra, 2019). This indicates that the influence of technology in manufacturing SMEs is pertinent, in particular to production processes, service delivery and business operations (World Economic Forum, 2017). Due to technological advancement, manufacturing and production has become more self-organized and more autonomous (World Economic Forum, 2018). Basically, technology contributes immensely towards strengthening competitive advantage of a firm which is needed for business sustainability and growth (Obunike & Udu, 2018). The need for manufacturing SMEs to adopt technology is of great importance if they are serious about competing in a global market and most importantly sustaining their business growth. However, a lot of manufacturing SMEs are constantly finding it excessively difficult to pursue technological innovation (Farsi & Toghraee, 2014), and South African manufacturing SMEs are no exception. The adoption of advanced technologies in SMEs in South Africa is of great concern owing to many businesses citing the lack of resources as an unavoidable factor (Sayed & Sunjka, 2016; Leboea, 2017). Kusumaningtyas and Suwarto (2015) further claim that limited financial resources, skills capabilities and staff training limit the adoption and to some extent the usage of advanced technology in manufacturing SMEs. It is therefore argued that for manufacturing SMEs wanting to utilize technology, they will have to identify technology that is going to best suite and intervene on functions and operations of the firm. Manufacturing SMEs need to start embracing modern technology if they are to sustain and grow their businesses. As the adoption of technology goes a long way in ensuring customer responsiveness, customer loyalty, decision making process and strategies, and improves the overall business operations (Madadipouya, 2015).

The Influence of Competition towards Business Sustainability in Manufacturing SMEs

Competition represents an extraordinary danger to the development and endurance of a firm, and yet it is frequently rivalry that is the primary factor in accomplishing monetary development as it propels and pushes firms to be increasingly profitable (Soini & Veseli, 2011).

A firm's rivals are a significant piece of its outer condition, since contending firms don't have command over items, costs and administrations offered by different firms (Beach, 2017). A firm has an upper hand when it executes techniques of significant worth creation that have not been presented by other plausible contenders. Competition amongst manufacturing SMEs is intensifying due to changing customer preferences and needs and to effectively adjust to the quickly changing business condition, the endeavours to keep up and improve operational execution through constant advancement are essential (Pickard-Whitehead, 2018). Zelga (2017) argues that a firm can only be sustainable if it has durability competition that is constantly nurtured and preserved in line with the changes in the business market environment. This can be executed by being responsive to the changes in the business environment and quickly adapting the operating strategies to help maintain competitive advantage. Having a firm with critical manufacturing competences such as human talent for technical and execution skills, manufacturing facilities, explicit technical skills, and technology skills can help manufacturing SMEs to utilise all that into its competitive advantage (Madadipouya, 2015).

Infrastructure Affects Innovation of Manufacturing SMEs

Infrastructure refers to the basic equipment, facilities and structures such as roads, bridges, electricity, telecommunication, education, water supply, sanitation and sewerage that are the government created services essential for the operations and functionality of manufacturing SMEs (Gaal & Afrah, 2017). Lack of good infrastructure that is accessible and well-functioning acts as a severe hindrance to economic development (Ehler, 2014). The need for efficient infrastructure, more especially in developing economies, before fact fundamental to the survival of manufacturing SMEs (Perkins, 2011). Electricity failure hinders the production process of goods, efficient service delivery, and poor roads affect the product circulation systems. This according to Agwu & Emeti (2014) greatly influences transportation costs as establishing alternative or dual transportation can hinder the firm's profits (Muriithi, 2017). These issues were further highlighted in a study conducted by Seda (2012) that found poor quality and inconsistency of supporting infrastructure stalled the innovative capacity of manufacturing SMEs. This means that the continued load-shedding in South Africa due to ESKOM's instabilities puts a heavy strain on manufacturing SMEs' operations.

Social Factors Affecting Innovation

Henry (2010) sees social factors as those that upset not only individuals, but business thought and behaviour within social settings. These factors affect the market strategies put in place by firms, whether big or small (Gachuhi, 2016). Indris and Primiana (2015); Luebke (2017) claim that entrepreneurs often lack the ability to study and understand social environment, of which it is one of the main hurdles that affect creativity and innovation. Therefore, it is imperative for entrepreneurs to study and understand social factors and use them to the enterprises advantage and to influence innovativeness and competitiveness (Rujirawanich et al., 2011). Being responsive to social factors enables entrepreneurs to instigate effective innovation which is responsive to the current social needs and preferences.

Shareholder and or Stakeholder Impact on Business Sustainability

Corporate governance is a broad term that describes the processes, customs, policies, laws and institutions that direct organisations and corporations in the way they act, administer and control their operations (Khan, 2011). Therefore, corporate governance is an expect framework intended to coordinate and deal with the firm, based on respectable corporate governance values which are transparency, responsibility, accountability, freedom and impartiality (Naimah & Hamidah, 2017). With comprehensive corporate governance, the rights and responsibilities are dispersed amongst management, a board of directors, shareholders and stakeholders of the firm, and decisions, procedures and other highly prioritized operations concerning the affairs of the firm are simplified (Feleaga, et al., 2011). Through corporate governance, it is expected that the overall performance of the firm is enhanced through strategized innovation, allocation of required resources and proper management (Duca, 2012). Fundamentally, shareholders and boards of directors are essential in intensifying proper governance and control of management of resources in order for a business to achieve its planned goals (Basu, 2018). This means that the manufacturing SMEs needs to start considering the involvement of shareholders that are going to influence business decision making and the functionality of the enterprise, for the purpose of achieving profitable returns. Therefore, sustainability of the firm is a prerequisite for attracting more investors to the enterprise.

METHODOLOGY

This study adopted a quantitative research approach where a questionnaire was identified and utilized as a suitable primary data collection instrument. The study's population consisted of manufacturing SME owners/manager whose businesses were situated in KwaZulu-Natal, South Africa. Out of the 74976 recorded SMEs in KwaZulu-Natal as per the Seda report, 2012, a sample size of 384 was established using a convenience sampling method. A population of 74976 is well represented by a sample size of 384 (Sekaran & Bougie, 2010).

Due to the large sample size, statistical software was sought to relieve any human errors. The data gathered from participants was therefore cleaned, coded and cross-checked for any errors, and was analysed using SPSS version 26.0. A descriptive analysis was performed with frequency testing, reliability test, Chi-square test and component matrix being deemed essential for this study. Tables have been used to present the findings of the study.

Reliability Test

In order for reliability of the instrument to be tested, the usage of Cronbach's Alpha was identified and used to test for reliability. A reliability coefficient was tested at 0.70 which is the generally accepted and considered figure. This indicates that a coefficient score that is higher is considered as "acceptable." For this study, a reliability test score achieved was 0.798 under the category of environmental factors that affected business sustainability of manufacturing SMEs.

FINDINGS

The empirical findings of this study address the environmental factors affecting innovative leadership in achieving sustainable business growth. The section that follows discusses the

internal and external factors proving to be impacting on innovative leadership quest to maintaining and sustaining the business growth.

INADI	Table 1 INADEQUATE SUPPORT FROM SHAREHOLDERS/BOARDS OF DIRECTORS HAS AN INFLUENCE ON BUSINESS SUSTAINABLE GROWTH							
	Frequency Percent Chi-Square Significance (p-value)							
	Strongly Disagree	10	2.6	186.125	0,000			
	Disagree	33	8.6					
	Neutral	66	17.2					
	Agree	153	39.8					
	Strongly Agree	121	31.5					
	Total	383	99.7					
	System	1	0.3					
Total		384	100.0					

The results as depicted in Table 1 above shows that 39.8% agreed and 31.5% strongly agreed that inadequate support from shareholders/boards of directors has an influence on business sustainable growth. These findings illustrate that almost 3 quarters (71.3%) of the respondents viewed inadequate support from shareholders/boards of directors as one of the significant internal factors that influence business sustainability and growth. The Chi-Square test (X^2 =186.125; df = 4; P = 0.000) further affirms that inadequate support from shareholders/boards of directors poses as a serious threat to manufacturing SMEs sustainable growth. Fewer respondents (17.2%) were neutral to the statement, whilst 11.2% viewed inadequate support from shareholders/boards of directors as insignificant to business sustainability.

]	Table 2 LACK OF SUPPORT FROM EMPLOYEES AFFECTS BUSINESS SUSTAINABILITY AND GROWTH						
	Frequency Percent Chi-Square Significance (p-value)						
	Strongly Disagree	10	2.6	148.188	0,000		
	Disagree	50	13.0				
	Neutral	72	18.8				
	Agree	152	39.6				
	Strongly Agree	99	25.8				
	Total	383	99.7				
Missing	System	1	0.3				
Total		384	100.0				

The results as depicted in Table 2 above show that 39.6% and 25.8% of the respondents agreed and strongly agreed respectively that lack of support from employees affects business sustainability and growth. These findings show that almost 2 thirds (65.4%) of the respondents agreed that inadequate support from employees has a negative impact on entrepreneur's ability to sustain and maintain business growth and sustainability. The Chi-square test ($X^2 = 148.188$; df = 4; P = 0,000) further confirmed that inadequate support from employees in driving the motives and objectives of the business affects business sustainability and growth. Fewer respondents

(15.6%) were in disagreement to the statement whilst only 18.8% of the respondents were neutral.

(Table 3 CAPITAL AND BUSINESS PERFORMANCE INFLUENCE BUSINESS SUSTAINABLE GROWTH							
	Frequency Percent Chi-Square Significance (p-value)							
	Strongly Disagree	5	1.3	251.807	0,000			
•	Disagree	38	9.9	1				
	Neutral	50	13.0	1				
•	Agree	181	47.1					
	Strongly Agree	110	28.6	1				
•	Total	384	100.0	100.0				

The results as depicted in Table 3 above show that 47.1% agreed and 28.6% strongly agreed respectively that capital and business performance influence business sustainable growth. These findings show that slightly above 3 quarters (75.7%) of the respondents regarded capital and business performance as the highly influential factor towards the realisation of business sustainability and growth. The Chi-square test (X^2 =251.807; df = 4; P = 0,000) further confirmed that there is significant impact between capital, business performance and business sustainable growth of a firm. Very few respondents (11.2%) were in disagreement with the statement whilst only 13.0% of the respondents were neutral. Based on these findings, manufacturing SMEs capital and business performance needs to be progressively monitored and preserved if they are to achieve business sustainability and growth.

В	Table 4 BUSINESS SUSTAINABILITY AND GROWTH IS AFFECTED BY INFRASTRUCTURE					
Frequency Percent Chi-Square Significance (p-value)						
Valid	Strongly Disagree	24	6.3	55.655	0.000	
	Disagree	94	24.5			
	Neutral	106	27.6			
	Agree	92	24.0			
	Strongly Agree	67	17.4			
	Total	383	99.7	100.0		
Missing	System	1	0.3			
Total		384	100.0			

The results as depicted in Table 4 above show that 24.0% agreed and 17.4% strongly agreed respectively that business sustainability is affected by infrastructure, whereas, 30.8% of the respondents were in disagreement with the statement. A notable number (27.6%) of the respondents were impartial, reflecting that the respondents were unsure on whether business sustainability and growth is affected by infrastructure. These findings indicate that just above 3 thirds (41.4%) of the respondents viewed infrastructure as influential to business sustainability. The Chi-square test $(X^2 = 55.655; df = 4; P = 0,000)$ confirmed that infrastructure has an influence on businesses sustainability. It is important to indicate that, based on these findings;

infrastructure was not conclusively regarded as the most significant influence towards the attainment of business sustainable growth by manufacturing SMEs in KZN. Probably, this is due to the fact that manufacturing SMEs operate in different industries and the respondents' perceptions about infrastructure will differ in many aspects.

INADI	Table 5 INADEQUATE BUSINESS NETWORKING AFFECTS BUSINESS SUSTAINABLE GROWTH						
	Frequency Percent Chi-square Significance (p-value)						
Valid	Strongly Disagree	13	3.4	190.036	0.000		
	Disagree	37	9.6	1			
	Neutral	72	18.8	1			
	Agree	170	44.3	1			
	Strongly Agree	92	24.0	1			
	Total	384	100.0	100.0			

The results as depicted in Table 5 above show that 44.3% agreed and 24.0% strongly agreed respectively that inadequate business networking affected business sustainability and growth. This means that more than 3 thirds (68.3%) of the respondents identified networking as a component that is seriously being neglected by manufacturing SMEs in KZN. A Chi-square test (X^2 =190.036; df = 4; P = 0,000) further supported these findings. Fewer respondents were neutral to the statement with 18.8%, whilst only 13% of the respondents were in disagreement with the statement, probably believing that networking has no influence on business sustainable growth.

Table 6 INTERNAL FACTORS INFLUENCING SUSTAINABLE GROWTH OF MANUFACTURING SMEs				
Internal factors	Component			
internal factors	1			
Inadequate support from shareholders/boards of directors has an influence on	0.670			
business sustainable growth	0.070			
Lack of support from employees affects business sustainability and growth	0.744			
Capital and business performance influence business sustainable growth	0.724			
Business sustainability and growth is affected by infrastructure	0.690			
Inadequate business networking affects business sustainable growth	0.870			

To complement the findings above, a component matrix test was conducted for the above discussed figures (Tables 1 to 5). This was performed to establish whether the respondents collectively viewed (based on the statements above) internal factors as key factors that influenced manufacturing SME owners and managers to achieve business sustainability and growth. Based on these results, the respondents' only responded to only one category of component, with all components tested reflecting a positive significance. These results conclusively reflect that the tested statements were viewed by the respondents as internal environmental factors that greatly influenced business sustainability and growth.

The section below discusses the findings on external factors that affect business sustainability and growth of manufacturing SMEs.

	Table 7 BUSINESS SUSTAINABILITY IS AFFECTED BY SUPPLIER COSTS						
	Frequency Percent Chi-Significance (p-value)						
Valid	Strongly Disagree	22	5.7	82.458	0.000		
	Disagree	71	18.5				
	Neutral	87	22.7				
	Agree	133	34.6				
	Strongly Agree	71	18.5				
	Total	384	100.0	100.0			

The results as depicted in Table 7 above show that 34.6% agreed and 22.7% strongly agreed respectively that business sustainability is affected by supplier costs. These findings show that more than half (57.3%) of the respondents perceived supplier costs as one of the key influence to business sustainability. The Chi-square test (X^2 =82.458; df = 4; P = 0.000) confirmed that supplier costs has an influence on business sustainability. However, 24.2% of the respondents were in disagreement with the statement whilst 22.7% of the respondents were neutral.

BUS	Table 8 BUSINESS SUSTAINABILITY IS INFLUENCED BY SOCIAL FACTORS						
		Frequency	Percent	Chi-Square	Significance (p-value)		
Valid	Strongly Disagree	13	3.4	175.837	0,000		
	Disagree	49	12.8				
	Neutral	70	18.2				
	Agree	169	44.0				
	Strongly Agree	80	20.8				
	Total	381	99.2				
Missing	System	3	0.8	7			
Total		384	100.0				

The results as depicted in Table 8 above show that 44.0% and 20.8% of the respondents agreed and strongly agreed respectively that social factors influence business sustainability. These findings indicate that almost 3 thirds (64.8%) of the respondents perceived social factors as an external factor that influences business sustainability. This means that entrepreneurs who are timely responsive to the needs of the customers are more likely to achieve business sustainability and growth. The Chi-square test (X^2 =175.837; df = 4; P = 0,000) further confirmed that social factors which are beyond the control of the firm influences business sustainability. Therefore, as an entrepreneur, it is wise to study the market trends and customer preferences so that you can make be more alert and make informed decisions which can positively influence business sustainability.

Table 9 BUSINESS SUSTAINABILITY IS INFLUENCED BY SOCIAL FACTORS						
		Frequency	Percent	Chi-Square	Significance (p-value)	
Valid	Strongly Disagree	14	3.6	287.386	0,000	
	Disagree	21	5.5			
	Neutral	33	8.6			
	Agree	167	43.5			
	Strongly Agree	146	38.0			
	Total	381	99.2]		
Missing	System	3	0.8			
Total		384	100.0			

The results as depicted in Table 9 above show that 43.5% and 38.0% of the respondents agreed and strongly agreed respectively business sustainability is affected by rapid technological changes. These findings indicate that business sustainability is affected by rapid technological changes. This means that a significant number (81.5%) of the respondents perceived technological changes as a key catalyst to business sustainability. The Chi-square test $(X^2 = 287.386)$; df = 4; P = 0,000) further confirmed that there is a strong significance between business sustainability and technological changes. These findings indicate that for manufacturing SMEs to achieve business sustainable growth, they will have to invest on modern technologies. Therefore, decisive strategies are needed from manufacturing SMEs on how they intend to keep up with the constant changes in technology whilst operating on limited financial resources. Very few respondents (9.1%) were in disagreement with the statement, whilst only 8.6% of the respondents were not quite sure whether technological changes had any significant impact towards business sustainability.

	Table 10 Business sustainability is influenced by competition						
	Frequency Percent Chi-Square Significance (p-value)						
Valid	Strongly Disagree	5	1.3	337.937	0,000		
	Disagree	17	4.4				
	Neutral	33	8.6				
	Agree	152	39.6				
	Strongly Agree	174	45.3				
	Total	381	99.2	100.0			
Missing	System	3	0.8				
Total		384	100.0				

The results as depicted in Table 10 above show that 45.3% and 39.6% of the respondents agreed and strongly agreed respectively that business sustainability is influenced by competition. These findings show that a significant number of the respondents (84.9%) perceived competition as influential to business sustainability. The Chi-square test ($X^2 = 337.937$; df = 4; P = 0,000) confirmed that competition amongst businesses affect business sustainability. These findings provide an outlook on the importance of a firm to establish competitive advantage over its

competitors if they are to survive on this congested business environment. Very few respondents (5.7%) were in disagreement with the statement, with only 8.6% being neutral to the statement.

Table 11 COMPONENT MATRIX: EXTERNAL FACTORS INFLUENCING BUSINESS SUSTAINABILITY AND GROWTH OF MANUFACTURING SMEs					
Component					
External factors	1	2			
Business sustainability is affected by supplier costs	0.079	0.878			
Business sustainability is influenced by social factors	0.712	0.344			
Innovation is affected by rapid technological changes	0.785	0.206			
Business sustainability is influenced by competition	0.635	0.024			

This component matrix is an additional statistical analysis of the above figures Table 7-11. A component test was conducted on the statements on external environmental factors that had an influence on manufacturing SMEs towards sustainable growth. The respondents have indicated to two categories of components, and a strong to moderate significance was identified, indicating that respondents believed that external environmental barriers had an impact on business sustainable growth of manufacturing SMEs. The test further revealed that the respondents had a split view on whether supplier costs (0.079) had an impact on sustainable growth of manufacturing SMEs. This means that even though supplier costs and affected manufacturing SMEs, not all the respondents viewed them as critical environmental barriers that affected the sustainability of the firm.

CONCLUSIONS AND RECOMMENDATIONS

It is concluded that both internal and external factors were identified and considered to have a significant influence on business sustainable growth within manufacturing SMEs. The empirical findings showed that capital and business performance, inadequate support from shareholders/boards of directors, employee support and inadequate business networking were identified as the main internal factors that had an impact on business sustainability. In terms of external factors, competition, fast changes in technology and social factors were the main identified significant external factors that influenced business sustainability and growth. It is therefore concluded that if entrepreneurs of manufacturing SMEs are serious about the firm's continuity and successful existence, they will need to place a greater focus on these environmental factors. Therefore, recommendations of this study are based on the most significant factors that influenced business sustainability of manufacturing SMEs in KZN.

Internal Factors

For manufacturing SMEs to be able to achieve business sustainability, they will have to extensively analyse the firm's strength and weaknesses. Here, they should be identifying exactly their strongest points (such as responsiveness, excellent customer services, quality products, resources, educated employees, location) and use them as a competitive strategy to achieve business sustainable growth. A business has its own distinct characteristics and manufacturing SMEs in KZN need to place value on those characteristic and use them optimally for their business sustainability.

Capital and business performance: Manufacturing SMEs operate in a very congested yet dynamic business environment, where capital and business performance is affected by many factors. The study recommends that, manufacturing SMEs need to invest heavily on technology and automation for manufacturing purposes and service delivery if they are to compete in local and international markets. They further need to strengthen their business capital by inviting potential shareholder/investors who are interested in making returns on investments. The study further recommends that there is also a serious need for manufacturing SMEs in KZN to invest properly on governance and control of these firms. This is to ensure proper usage of scarce resources and enhancement of decision making amongst these firms.

Inadequate support from shareholders/boards of directors: Many manufacturing SMEs seem to be lacking the influence that shareholders/boards of directors have, especially in big organisations. The acquisition of shareholders/boards of directors has been lauded in large organisations as a strategic instrument towards business sustainability and growth. The inadequate support from shareholders/boards of directors can be attributed to manufacturing SMEs inability to attract investors due to their instabilities on the market. It is therefore recommended that manufacturing SMEs need to formulate firm governance and control policies that are going to oversee the overall management and performance of the firm. The utilisation of this document can be essential in fast tracking the irregularities within the firm and provide corrective measures which can improve the stability of the firm. The stability of a business in the market will increase its chances of attaining potential investors, which can foster and promote business sustainable growth.

Inadequate business networking: Networking is seen to have an important positive influence on business sustainability and growth for manufacturing SMEs. It is recommended that manufacturing SMEs need to start pursuing potential business networks as they are very useful in building a strong relationship with customers and suppliers and thus they help to provide competitive advantage. The study encourages manufacturing SME leaders/managers to be more dynamic and engage in business networks as they have the capability to support a firm to seize opportunities, and to integrate knowledge use to exploit those opportunities including the exchange of resources. Failure to strengthen business networks can pose serious challenges for manufacturing SMEs, particularly their sustainable growth.

Employee support: Staff training and development provided on a yearly basis needs must be seen by manufacturing SME leadership as a strategic tool to business sustainability and growth. This is because professional development provides skills that will help employees maintain and enhance the knowledge and skills needed to perform their jobs and this will also positively improve staff influence on business operations. The study further recommends that manufacturing SMEs need to begin hiring qualified workers to support the operations of the business. On the off chance that this isn't feasible, at that point, inside staff advancement ought to be distinguished as a key arrangement for getting ready and prepping workers for certain activity profiles inside the firm. This will improve employee influence and support towards the realisation and attainment of business goals which has a positive influence on business sustainability and growth.

External Factors

An awareness of social factors and a willingness to implement continuous technological changes in line with external developments were identified by the empirical study as key factors that affected business sustainability and growth. It is therefore important that leadership

understands the wider business environment in order to produce and introduce products that are needed and wanted by consumers which in turn will improve the sales figures and revenues earned. Furthermore, it is recommended that manufacturing SMEs should keep up with current technological trends.

Competition: Fierce competition breathes amongst small businesses particularly in KZN and it requires businesses with resolute durability. One of the greatest and yet cheapest ways to obtain competitive advantage is by revamping and innovating the internal processes to suit the needs and expectations of the customers and potential customers. Competition can further be obtained through the introduction of technology and automation. Although this innovation can be problematic to some manufacturing SMEs due to insufficient resources, they are however forced by competition to find ways to innovate if they are to maintain their sustainability and keep any competitive advantage.

Fast changes in technology: Technology in the modern business has been seen as a strategic tool for almost every operational activity that occurs within a firm. Leaders/managers of manufacturing SMEs who fail to adopt and use technology set themselves for failure, due to technology's versatility and support that it injects to business operations. The need for manufacturing SMEs to invest on viable technological advancements to be incorporated with the firm is of great agency if their intentions are focused on sustaining the business.

Social factors: In order for manufacturing SMEs to be able to exploits the social factors, they will need to start studying and understanding business trends and customer preferences and their changes. By this, they will gain enough needed knowledge on how they can best cater for their customers and potential customers and be more responsive to any changes on the market. Therefore, it is further recommended that manufacturing SMEs need to establish working teams that are going to be responsible for keeping track on any significant changes on customer preferences and trends, and on niche markets. Manufacturing SMEs must be flexible enough to accommodate any prominent beneficial change that may arise. This will not only broaden customer base, but it will strengthen profit margins and maintain business sustainability and growth of manufacturing SMEs.

Even though manufacturing SMEs play an essential socio-economic role in KZN, they are clouded by serious challenges which they need to regularly combat by constantly formulating strategies and models that are going to drive their vision pass all the predicaments that stand before them.

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REFERENCES

- Adelowo, C.M., Akinwale, Y.O., & Olaopa, O.O. (2017). Innovation and knowledge transfer in Nigeria. *International Journal of Research, Innovation and Commercialisation*, 1(1), 57-73.
- Agwu, M.O., & Emeti, C.I. (2014). Issues, challenges and prospects of small and medium scale enterprises (SMEs) in Port-Harcourt City. *European Journal of Sustainable Development*, *3*(1), 101-114.
- Andrae, G., & Beckman, B. (2013). Lagos tailors, trade unions, and organizations in the informal economy. *African Studies Review*, 56(3), 191–208.
- Ayandibu, A.O., & Houghton, J. (2017). External forces affecting small businesses in South Africa: A case study. Journal of Business and Retail Management Research, 11(2), 49-64.
- Basu, C. (2018). The importance of shareholders in business. https://smallbusiness.chron.com/importance-shareholders-business-20844.html [Accessed 01.09.2018].
- Bayarçelic, E.B., Taşel, F., & Apak, S. (2014). A research on determining innovation factors for SME. *Social and Behavioral Sciences*, 15, 202-211.
- Beach, J. (2017). External environmental factors in business. https://bizfluent.com/info-8489735-external-environmental-factors-business.html [Accessed 28.11.2018].
- Behncke, N. (2015). Networks and product innovation across European SMEs. *Center for European Governance and Economic Development Research*, 229, 1-23.
- Beynon, M.J., Jones, P., Pickernell, D., & Packham, G. (2014). Investigating the impact of training influence on employee retention in small and medium enterprises: A regression-type classification and ranking believe simplex analysis on sparse data. *Expert Systems*, 32(1), 141-154.
- Bothof, D., & Van Weele, A. (2018). Supplier involvement by SMEs: The effects of knowledge sharing on SME innovation project performance. https://www.arjanvanweele.com/42/records/84/paper_44.pdf [Accessed 07.11.2018].
- Brașoveanu, I.V., & Bălu, P.E. (2014). The influence of the business environment on small and medium enterprises. Journal of Knowledge Management, Economics and Information Technology, 4(2), 1-13.
- Charman, A. (2017). Micro-enterprise predicament in township economic development: Evidence from Ivory Park and Tembisa. *South African Journal of Economic and Management Sciences*, 20(1), 1-14.
- Chikozore, O.F. (2017). SMEs *need education and motivation*. https://www.bolanderlifestyle.co.za/news/smes-need-education-and-motivation-9042515 [Accessed 26.07.2018].
- Choi, Y.S., & Lim, U. (2017). Contextual factors affecting the innovation performance of manufacturing SMEs in Korea: A structural equation modeling approach. *Sustainability*, *9*, 1-15.
- Dadfar, H., Dahlgaard, J.J., Brege, S., & Alamirhoor, A. (2013). Linkage between organisational innovation capability, product platform development and performance. *Total Quality Management*, 24(7), 819–834.
- Duca, F. (2012). Does corporate governance enhance firm performance? An empirical literature evidence. http://www.revistadestatistica.ro/suplimente/2012/1/srrs1_2012a09.pdf [Accessed 01.09.2018].
- Edmiston, K. (2017). The *role of small and large businesses in economic development*. https://www.researchgate.net/publication/5044046 The Role of Small and Large Businesses in Economi c Development/link/5a12f4aa4585158aa3e1c8eb/download [Accessed 18.03.2020].
- Ehler, T. (2014). Understanding *the challenges for infrastructure finance*. BIS Working paper No. 454. https://www.bis.org/publ/work454.pdf [Accessed on 23 March 2019].
- Farsi, J.Y., & Toghraee, M.T. (2014). Identification of the main challenges of small and medium sized enterprises in exploiting of innovative opportunities (Case study: Iran SMEs). *Journal of Global Entrepreneurship Research*, 4(4), 1-15.
- Feleaga, N., Feleaga, L., Dragomir, V.D., & Bigioi, A.D. (2011). Corporate governance in emerging economies: The case of Romania. *Theoretical and Applied Economics*, 9(9), 5-16.
- Gaal, H.O., & Afrah, N.A. (2016). Lack of Infrastructure: The impact on economic development as a case of Benadir Region and Hir-shabelle, Somalia. *Developing Country Studies*, 7(1), 49-55.
- Gachuhi, S.M. (2016). An evaluation of socio-economic factors influencing the growth of small medium enterprises in Kenya: A case study of Nairobi Country. Masters dissertation, School of Business, United States International University Africa.
- Garg, A. (2016). ICT adoption and SME's: A contextual framework. *International Journal of Engineering Technologies and Management Research*, 3(12), 1-11.
- Glackin, M. (2016). Office space shortage 'stifling Edinburgh growth. Available: https://www.thetimes.co.uk/article/office-space-shortage-stifling-edinburgh-growth-nc6pknstmkt [Accessed 04.09.2018].

- Guberna. (2016). Re-designing corporate governance to promote innovation. https://www.guberna.be/sites/default/files/pubs/Redesigning%20corporate%20governance%20%20-%20position%20paper%2020%201%202016.pdf [Accessed 31.08.2018].
- Gunawan, T. (2015). The determinants of innovative performance: A study of SMEs in a developing country. Eindhoven: Technische Universiteit Eindhoven.
- Haron, H., Said, S.B., Jayaraman, K., & Ismail, I. (2013). Factors influencing small medium enterprises (SMES) in obtaining loan. *International Journal of Business and Social Science*, 4(15), 182–195.
- Hartzell, W. (2018). How internal and external factors drive organisational change https://study.com/academy/lesson/how-internal-and-external-factors-drive-organizational-change.html [Accessed 27.08.2018].
- Henry, K. (2010). National micro and small enterprise baseline survey. Nairobi: GEMINI Studies.
- Horth, D., & Buchner, D. (2014). Innovation leadership: how to use innovation to lead effectively, work collaboratively, and drive results. https://www.ccl.org/wp-content/uploads/2015/04/InnovationLeadership.pdf [Accessed 01.08.2018].
- Ibrahim, R., & Primiana, I. (2015). Influence business environment on organization performance. *International Journal of Scientific & Technology Research*, 4(4), 283-293.
- Indris, S., & Primiana, I. (2015). Internal and external environment analysis on the performance of small and medium industries (SMEs) in Indonesia. *International Journal of Scientific & Technology Research*, 4(4), 188-196.
- International Labour Organization. (2019). *The power of small: Unlocking the potential of SMEs.* https://www.ilo.org/infostories/en-GB/Stories/Employment/SMEs#intro (Accessed 18. 03.2020).
- Kanali, N. (2018). Warehousing shortage hurting economic growth in Kenya. https://africabusinesscommunities.com/tech/tech-news/warehousing-shortage-hurting-economic-growth-in-kenya/ [Accessed 04.09.2018].
- Kero, E.C.A., Sogbossi, B.B., & Amoussouga, F.G. (2017). The effects of network ties on product innovation success: A study of SMEs. *Global Journal of Management and Business Research: A Administration and management*, 17(4), 14-30.
- Khan, H. (2011). A literature review of corporate governance. *International Conference on E-business, Management and Economics*, 25, pp. 1-5.
- Kokemuller, N. (2018). *The effects of environmental factors on small-scale business*. https://smallbusiness.chron.com/effects-environmental-factors-smallscale-business-66109.html [Accessed 24.08.2018].
- Kolaski, R. (2018). *The role and importance of technology in business*. https://industrytoday.com/the-role-and-importance-of-technology-in-business/ [Accessed 10.04.2020].
- Kusumaningtyas, N. and Suwarto, D.H. (2015). ICT adoption, skill and use differences among small and medium enterprises managers based on demographic factors. *Procedia Social and Behavioral Sciences*, Vol. 69, pp. 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, N. (2014). What holds back high-growth firms? Evidence from UK SMEs. *Small Business Economics*, 43(1), 183-195.
- Loanid, A., Deselnicu, D.C. and Militaru, G. (2018). The impact of social networks on SME's innovation potential. 11th International Conference Interdisciplinary in Engineering, INTER-ENG 2017, 5-6 October 2017, Tirgu-Mures, Romania. *Procedia Manufacturing*, Vol. 22, pp. 936-941.
- Ludmila, S., & Stanisava, G. (2015). The application of business network approach for small and medium enterprises (SME) with regard to their buying behavior. *Journal of Competitiveness*, 7(3), 62-74.
- Luebke, R. (2017). Impact of social factors on innovation. http://innovationexcellence.com/blog/2011/04/05/impact-of-social-factors-on-innovation/ [Accessed 07.12.2017].
- Madadipouya, K. (2015). A review on the strategic use of IT applications in achieving and sustaining competitive advantage. *International Journal of Managing Public Sector Information and Communication Technologies* (*IJMPICT*), 6(2), 21-30.
- Mehra, R. (2019). How automation and tech is important for business growth. https://economictimes.indiatimes.com/small-biz/security-tech/technology/how-automation-and-tech-is-important-for-business-growth/articleshow/69383631.cms [Accessed 10.04.2020].

- Michael, J. (2019). Fin24: 4 key SME trends that will drive job creation. https://www.fin24.com/Opinion/4-key-sme-trends-that-will-drive-job-creation-20190327-2 (Accessed 18.03.2020].
- Msomi, M.P., Ngibe, M., & Nyide, C.J. (2019). Factors influencing the adoption of management accounting practices (MAPs) by manufacturing small and medium enterprises (SMEs) in Durban, KwaZulu-Natal. *International Journal of Entrepreneurship*, 23(4), 1-18.
- 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.
- Mutambi, J. (2013). Stimulating industrial development in Uganda through open innovation business incubators. http://www.diva-portal.org/smash/record.jsf?pid=diva2%3A834399&dswid=6748 [Accessed 18.08.2018].
- Naimah, Z., & Hamidah, N. (2017). The role of corporate governance in firm performance. SHS Web of Conferences, 4, 1-6.
- National Credit Regulator Report. (2011). Literature review on small and medium enterprises' access to credit and support in South Africa. http://www.ncr.org.za/pdfs/Literature%20Review%20on%20SME%20Access%20to%20Credit%20in%20South%20Africa_Final%20Report_NCR_Dec%202011.pdf [Accessed 05.09.2018].
- Ngibe, M., & Lekhanya, L.M. (2019a). Innovative leadership in South African manufacturing Small Medium Enterprises within KwaZulu-Natal. *Journal of Contemporary Management*, 16(2), 1-32.
- Ngibe, M., & Lekhanya, L.M. (2019b). Innovative leadership characteristics of manufacturing SMEs in KwaZulu-Natal. *International Journal of Entrepreneurship*, 23(4), 1-12.
- Nguimkeu, P.E. (2013). Business environment and firm performance: The case of retailing firms in Cameroon. http://www2.gsu.edu/~econpn/Pierre_Nguimkeu/RESEARCH_files/bizclimate.pdf [Accessed 25.08.2018].
- Oberg, C. (2018). The role of business networks for innovation. Journal of innovation & Knowledge, 63(6), 1-6.
- Obi, J., Ibidunni, A.S., Tolulope, A., Olokundun, M.A., Amaihian, A.B., Borishade, T.T., & Fred, P. (2018). Contribution of small and medium enterprises to economic development: Evidence from a transiting economy. *Data in Brief, 18*, 835–839.
- Obunike, C.F., & Udu, A.A. (2018). Technological innovativeness and growth: A study of small scale manufacturing firms in Lagos state. *Economics of Development*, 17(4), 39-53.
- OECD. (2017). Enhancing the contributions of SMEs in a global and digitalized economy. https://www.org/mcm/documents/C-MIN-2017-8-EN.pdf (Accessed on 18 August 2018).
- OECD. (2018). Strengthening SME and entrepreneurship for productivity and inclusive growth. https://www.oecd.org/cfe/smes/ministerial/documents/2018-SME-Ministerial-Conference-Key-Issues.pdf [Accessed 02.03.2019].
- OECD. (2018). OECD SME Ministerial Conference. http://www.oecd.org/about/secretary-general/oecd-sme-ministerial-conference-mexico-2018.htm [Accessed 18.03.2020].
- Okinwale, Y.O. (2018). Empirical analysis of inbound open innovation and small and medium-sized enterprises' performance: Evidence from oil and gas industry. *South African Journal of Economic and Management Sciences*, 21(1), 1-9.
- Oskam, I., Bossink, B., & de Man, A.P. (2018). The interaction between network ties and business modeling: Case studies of sustainability-oriented innovations. *Journal of Cleaner Productions*, 177, 555-566.
- Papulova, Z. (2014). The significance of vision and mission development for enterprises in Slovak Republic. Journal of Economics, Business and Management, 2(1), 12-16.
- Pickard-Whitehead, G. (2018). What is competitive advantage? https://smallbiztrends.com/2018/04/what-is-competitive-advantage.html [Accessed 28.11.2018].
- Raassens, N., Wuyts, S., & Geyskens, I. (2012). The market valuation of outsourcing new product development. *Journal of Marketing Research*, 49(5), 682-695.
- Rees, L. (2019). SMEs key to driving sustainability growth and development in Africa. https://www.bizcommunity.com/Article/196/841/196072.html [Accessed 18.03.2020].
- Reiss, B. (2010). *Building a good relationship with suppliers*. https://www.entrepreneur.com/article/206530 [Accessed 26.11.2018].
- Rodriguez-Ferradas, M.I., & Alfaro-Tanco, J.A. (2016). Open innovation in automotive SME suppliers: An opportunity for new product development. *Universia Business Review*, 13(2), 142-157.
- Rujirawanich, P., Addison, R., & Smallman, C. (2011). The effects of cultural factors on innovation in Thai SME. *Management Research Review*, *34*(12), 1264-1279.

- Rungani, E.C. and Potgieter, M. (2018). The impact of financial support on the success of small, medium and micro enterprises in the Eastern Cape Province. *Acta Commercii: Independent Research Journal in the Management Sciences*, 18(1), 1-12.
- Rungani, E.C., & Potgieter, M. (2018). The impact of financial support on the success of small, medium and micro enterprises in the Eastern Cape Province. *Acta Commercii*, 18(1), 1-12.
- 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.
- Schøtt, T. (2018). Entrepreneurial pursuits in the Caribbean diaspora: networks and their mixed effects. Entrepreneurship & Reginal Development. https://www.tandfonline.com/doi/pdf/10.1080/08985626.2018.1515825?needAccess=true [Accessed 24.10.2018].
- Seda Report. (2012). Analysis of the needs, state and performance of small and medium businesses in the Agriculture, Manufacturing, ICT and Tourism Sectors in South Africa. http://www.seda.org.za/Publications/Publications.pdf [Accessed 13.08.2018].
- Seda. (2016). Accelerating SMME growth in South Africa. www.seda.org.za/publicans/Imbadu.pdf [Accessed 18.08.2018].
- Sekaran, U, & Bougie, R. (2010). Research methods for business: A skill building approach. 5th ed. New Jersey: John Wiley and Sons.
- Shemi, A.P. (2013). Challenges of e-commerce adoption in SMEs: An interpretive case study of Botswana. *Botswana Journal of Business*, 6(1), 17–30.
- Slitharam, S., & Hoque, M. (2016). Factors affecting the performance of small and medium enterprises in KwaZulu-Natal, South Africa. *Problems and Perspectives in Management, 14*(2), 277-288.
- Soini, E., & Veseli, L. (2011). Factors influencing SMEs growth in Kosovo. Bachelor's thesis. Turku University of Applied Sciences.
- The World Bank (2020). Small and medium enterprises (SMEs) finance: Improving SMEs' access to finance and finding innovative solutions to unlock sources of capital. https://www.worldbank.org/en/topic/smefinance [Accessed 10.03.2020].
- Ueasangkomsate, P., & Jangkot, A. (2017). Enhancing the innovation of small and medium enterprises in food manufacturing through Triple Helix Agents. https://ac.els-cdn.com/S2452315117303107/1-s2.0-S2452315117303107-main.pdf?_tid=66521659-24b0-458c-9f95-897e149db536&acdnat=1539166536_12fe29ddb4a4e7f4972d1775ef19888b [Accessed 10.10.2018].
- Wahyuni, S., Setyadi, D., & Hariyadi, S. (2016). The role of external environment, owner characteristics and mentoring for entrepreneurship in improving the business performance of Zakat Recipient in East Kalimantan Indonesia. *European Journal of Business and Management*, 8(15), 43-52.
- World Economic Forum (2017). Technology and innovation for the future of production: Accelerating value creation.

 http://www3.weforum.org/docs/WEF White Paper Technology Innovation Future of Production 2017.pd

http://www3.weforum.org/docs/WEF_White_Paper_Technology_Innovation_Future_of_Production_20 f [Accessed 10.04.2020].

- World Economic Forum. (2018). The next economic growth engine scaling forth industrial revolution technologies in production. http://www3.weforum.org/docs/WEF_Technology_and_Innovation_The_Next_Economic_Growth_Engine.p df [Accessed 10.04.2020].
- Woschke, T., Haase, H., & Kratzer, J. (2017). Resource scarcity in SMEs: effects on incremental and radical innovations. *Management Research Review*, 40(2), 95-217.
- Zelga, K. (2017). The importance of competition and enterprise competitiveness. World Scientific News, 72, 301-306
- Zhang, Z.Y., & Chen, J. (2009). Innovative features of SMEs and practice open innovation environment. *Studies in Science*, 26, 525-531.