Survival through innovation in manufacturing SMEs in emerging economies evidence from Zimbabwe

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Abstract

Globally Small Medium Enterprises (SMEs) have become engines for growth and most of these successful entities have grown into bigger companies through innovation. From the emerging economies perspective literature is scant on innovation especially in manufacturing SMEs and how they can leverage on it for success. This study sought to assess innovation in SMEs into furniture manufacturing in Zimbabwe. As SMEs seek to grow into larger firms, their ability to innovate becomes their key achievement if they remain operational. Though it is difficult to understand and collect information about SMEs innovation capabilities in the emerging economies it is important to try and unpack how they can leverage on some inherent characteristics they have as SMEs in developing economies. The study adopted a qualitative multiple case study approach where a total of 24 SMEs were interviewed after they were purposively sampled from the available database from the parent ministry. This study highlights the need for SMEs to invest in design education, register industrial designs, and improve social media presence, creation of clusters to lobby government support, and also training employees so that they can add more value to the design activities during production. The study also advocates for more support from government through design policy formulation that calls for active participation of all the SMEs concerned. The study findings will assist to develop special programmes for manufacturing SMEs to be innovative.

Introduction

Zimbabwe, as an emerging economy, has witnessed a sharp increase in rural to urban migration, providing much labour to the growing Small and Medium Enterprises (SMEs) sector. With the country’s economic meltdown experienced since the year 2000, major companies have closed doors leaving opportunities for growth of the SMEs in various sectors. Though the SMEs have failed to satisfy the market-demands fully, they have played a crucial role in contributing towards the general growth of the economy, providing employment opportunities, and improving livelihoods of many. On the other hand, innovation has been a topical subject for a long time in the manufacturing sector irrespective of the company's size. Mahemba & De Bruijn (2003), states that innovative SMEs contribute immensely to the Gross Domestic Product (GDP) of any nation as they create employment improving livelihoods. In most emerging economies where trade has been liberalised, SMEs have become the critical engines of growth as they have necessitated technological development. Through innovation, companies can launch new products onto the market, and this is a cycle that can be repetitive given that there is global competition. In Zimbabwe, SMEs are estimated to contribute approximately 50% of the nation’s GDP and control about 70% business activities (Research Council of Zimbabwe, 2019). This therefore implies that the SMEs are contributing massively towards the nation's development.

As cited by Tohidi & Jabbari (2012), Schumpeter opines that innovation can happen in many forms. This encompasses introducing a new product, new service, or process, establishing new supply chains, improvement of an existing product, and notable changes to organisational structure. Rogers (2003) says, "An innovation is an idea, practice, or project perceived as new by an individual or other unit of

adoption." According to the latter view, the individual's perception of the invention determines innovation irrespective of the time the invention might have been made. Forsman (2011), defines innovation as the creation and implementation of new or improved processes, products or services, and manufacturing methods in order to improve an organisation's competitiveness. In short, the critical aspects of innovation, therefore, are how ‘new’ the output is and the commercialisation aspect of the product or processes. Creativity is the generation of ideas whilst innovation is the process carried out to realise these ideas into a functional product or service. There is scant literature on creativity and innovation in SMEs operating in emerging economies (Abdul-Halim et al., 2019; Castillo-Vergara & García-Pérez-de-Lema, 2021; Haase et al., 2018). SMEs in emerging economies do face a lot of challenges in trying to convert creative ideas into innovations that can be meaningful, key among them is the lack of resources (Games, 2019).The ability of a business to stay afloat in a competitive market hinges on its capacity to continuously innovate. This is crucial for emerging economies as they seek to grow their economies. In all, this study discusses innovation from the perspective of manufacturing SMEs and how they design their products for the various markets. The paper also looks at the determinants of innovation from the emerging market context and how these affect the success or failure of product design in SMEs. According to Temel, Mention & Torkkeli (2013), the period before the 1980’s did not provide an incentive for manufacturing companies in emerging economies to invest into research and development (R&D) and innovation as they enjoyed protection from their governments from outside competition. But this started to change gradually as various trade agreements and economic groupings between nations started to collaborate in an effort to promote the competitiveness of their nations (Kabiraj & Yang, 2001). Zimbabwe was not an exception as this shift was evidenced by the various polices enacted to promote regional and international growth.

The Objective Of The Study

Economic issues that have affected Zimbabwe as a nation have provided a fertile ground for the small players to create thriving startups. As such, requiring more support to survive the global competition. To achieve this, the SMEs in the manufacturing sector have to provide innovative products to the worldwide market to expand their businesses. Games (2019) & Indarti (2010) argue that the SMEs in emerging markets lack proper structuring that can make it easy for them to implement radical innovation unlike those found in developed markets. This study seeks to advance literature on innovation in manufacturing SMEs in emerging economies by examining in depth the determinants of product innovation from an emerging market perspective. The study aims to measure the innovation capability in the context of SMEs found in emerging economies as these face a dilemma of trying to be profitable and at the same time keep their operations running. If innovation cannot be measured, it then becomes an uphill task for the organisation to improve its ability to innovate.

Theoretical Framework

According to Desa & Basu (2013), there is limited information as to how SMEs in emerging economies mobilise resources especially in cases where the economy at large is not providing fertile grounds for

development. This study adopts the Resource Based View (RBV) theory formulated by Wernerfelt (1984) and later enhanced after Barney's (1991) studies. Authors like Barney et al., (2001) have made considerable contributions to the theory. The principle of the RBV theory is hangs on two key parameters which are resources and capabilities. These parameters are viewed as key in achieving a sustainable economic advantage. Saeedi et al., (2012) used the RBV framework to explain the internationalisation behaviour of successful SMEs in Iran and highlighted the effective blending of capabilities and resources leading to fast internationalisation of the SMEs. Rapid internationalisation of the SMEs from the new emerging markets means that firms can now compete on the global market, thus expanding their horizons. Entrepreneurship makes up the core element of the RBV framework (Barney et al., 2001) and SMEs with better Entrepreneurial Orientation (EO) detect quickly prospects of new business ventures in the markets and thus achieve rapid internationalisation (Ruokonen & Saarenketo, 2009). In SMEs, the manager is at the center of the operations and his or her managerial skills are put to the test in a number of ways. By nature in SMEs, it is the manager's or owner's vision that is developed into reality (Romijn & Albaladejo, 2000). The decision making process in SMEs becomes more individualistic as the owner-manager actions are limited to the closest business environment they are exposed to. According to Gay & Szostak (2019), SMEs make choices of where to set-up depending on a number of factors such as cultural activities, legislation, business activities, language and educational background of the market. Proximity to resources is a key decision in SMEs' management as it capacitates an SME to effectively compete with others. Nonetheless, the major problem is the capability of the SME to successfully disrupt the business environment especially where large companies exist. Through the RBV framework, the SME has to seek control of the resources it does not own for it to succeed. For new product development to be a success, resources have to be mobilised (Knizkov & Arlinghaus 2020) and this has a positive effect on the growth of the business especially SMEs targeting to grow their market share (Villanueva et al., 2012). The success or growth of any SME is directly related to its specific capacity to access the resources and according to Clough et al. (2019) these can be classified into human, social and financial resources.

Innovation In Smes

Due to limited resources, SMEs lack the formal process of new product development. SMEs with research and development departments usually allocate fewer funds for new product development as compared to big companies due to limited financial resources (Games, 2019). Vrgovic et al. (2012) reported that SMEs from emerging economies lack internal technical support thus forcing them to sub-contract certain aspects of their innovation endeavours. Liu et al., (2014), argues that it is not only the collection of ideas that are key to be able to innovate. The innovation process calls for a systematic process where one has to identify, collect and retain the best idea out of a pool of available ideas for them to innovate better (Cohendet & Simon, 2015; Liu et al., 2014). As SMEs face financial constraints, they end up ignoring or not affording to set up research and development departments or fully employ personnel responsible for R&D (Woy & Qing 2007), even though they show great efforts in involving their customers in their specific innovation processes (Vrgovic et al., 2012). Traditionally, studies to understand innovation were more

focused on the large companies in the areas of R&D and technology management. As the area has been developing and the emergence of SMEs worldwide, the scope of innovation has also widened.

Innovation has four categories namely: product, process, market, and organisational (OECD, 2005) and this can vary from company to company. It is also determined by the size of the company and the sector in which it operates and overall by the country's economic environment in which the company is using (Silva et al., 2011). Seo & Cho (2020) reported that the R&D process needs skilled professionals for planning, irrespective of the company's size, and this expertise is lacking in SMEs as they face resource challenges. Similarly, in their study on the SMEs in Tanzania, another emerging economy, Kiveu, Namusonge & Muathe (2019) state that, SMEs fail to translate R&D into innovation as they lack the human capital with the know-how to do it correctly. Investing in R&D in an SME shows the seriousness of the management to propel the company to greater heights as investment in R&D and innovation has a positive correlation. However, it is challenging to measure innovation using a single indicator or variable (Boonen, 2007). Indicators like the level of R&D investment and outputs like products, new services and or patents registered by the company can be the best measures of the company's innovation drive. Though SMEs are often at an advantage when it comes to radical innovation as they are more flexible, Liu et al. (2014), indicates that the majority of these innovations and new products developed by SMEs are cumulative as they are based on incremental changes in ideas. But if they adopt an open innovation strategy, SMEs can improve their innovation capability and thus engage in more radical and disruptive innovations. McAdam et al. (2007), cites that many SMEs are set up after just one technological innovation by the owner. This becomes the firm's essential product as it goes straight to the manufacturing process. Cohendet & Simon (2015) reported that if the SMEs invest in Research and Development (R&D), their knowledge will increase, thus improving their innovative capability and resulting in better productivity. But due to the risks associated with investing financial resources, many of the SMEs are not keen to invest in R&D, especially those in emerging economies, as they lack financial muscle. Several authors allude to a positive relationship between SME performance and innovation level (Indarti, 2010: Kiveu et al. 2019: Silva et al. 2011). According to Love & Roper (2015), the export capability of an SME is determined by its level of innovation, with those with the knowledge to innovate being more successful in their endeavours to export. Through export, SMEs can tap into the global market, which can be a springboard for success as they enter new markets that give them more business returns. The drive to innovate is determined by the manager or owner and the nature of the size of the SME. The agility in the decision-making process by these leaders in the particular SME also determines the innovation activities to be implemented. What they have learnt from other competitors and their passion for excelling better than their counterparts becomes a critical success factor as that gives a general platform for innovation stimulation. In their study on SMEs in Tanzania an emerging economy, Mahemba & De Bruijn (2003), argue that for innovation to succeed, SMEs must establish business relationships in their particular manufacturing sectors.

Determinants Of Innovation In Smes

Romijn & Albaladejo (2000) highlighted that the technical expertise of the personnel employed by the SME, the innovation drive of the manager or owner of the SME and the level of investment in R&D by SME are the primary internal factors that drive the agenda on innovation in SMEs. A number of studies have also tried to unpack the determinants of innovation. Bougrain & Haudeville (2002) cite technical partnerships, R&D efforts, and a design office as the critical determinants of innovation while Rahmouni (2013) argues that SMEs must maximise their internal and external knowledge capabilities. SMEs have to try to match up to copy what other successful enterprises would have done in terms of technology adoption. Chudnovsky et al., (2006) & Gonçalves et al., (2007) both indicate the direct beneficial association between R&D activities and innovation in emerging economies. They did their studies in Argentina and Brazil economies, respectively. In his research on SMEs in Tanzania, Goedhuys (2007) confirmed that R&D strongly supports innovation in emerging economies. Other studies as indicated by Rahmouni (2013) show that the partnerships between the SMEs and institutions of higher learning and other research organisations can improve the level of innovation in SMEs. In her study on Polish SMEs, Szczepańska-Woszczyna (2014) reports that SMEs need support from the government by setting up of innovation policy that will motivate SMEs to improve their operations. She argues that such a policy framework reduces the level of risk to the entrepreneurs as it encourages them to implement innovation. The innovation policy framework also offers advisory services to SMEs, given that they lack skilled personnel in their operations to help implement innovative ideas either for product or product or process improvement.

SMEs face several barriers in their operations, and one of them is uncertainty in demand as fear of investing in developing a product that will not perform well on the market is common. They will have invested heavily in its development (Lesakova, 2009). Prominent companies are however at an advantage as they can absorb such losses whenever a product fails on the market as they have a better financial capacity. The former operate with a very tight budget. Szłapka, Stachowiak, Batz, & Fertsch (2017), report that drivers of innovation in an SME include the size of the company, management skills, organisational culture, market segment, technology investment, financial capacity or performance, consumer preferences and competitiveness of the SME.

Innovation Capabilities Of Manufacturing Smes

The innovation capacity of an SME is determined by its financial potential, material potential, human potential, and knowledge or technological potential. Innovation capability helps SMEs attain high levels of competitiveness in their local and export markets but it is rarely measured in these SMEs (Saunila, 2016). Therefore, managers in these SMEs should prioritise promoting and supporting the SMEs' innovation capability (Çakar & Ertürk, 2010). According to Sen & Egelhoff (2000), there are two types of innovation capability: radical innovation and incremental innovation. Neely et al. (2001), states that innovation capability is the potential ability of the organisation to come up with innovative products. Lawson & Samson (2001) defines innovation capability as a theoretical framework that outlines the numerous activities or actions that may be taken to improve the success of inventions. SMEs have

different behavioural traits in operations, and how they innovate among those in the same sector. Large companies' policies, theories, and models that can be suitable for use do not translate to successful outcomes when implemented in SMEs. Human capital is significant as it also affects the innovation adoption in the SME. The educational background of the personnel employed in the SMEs determines how they view innovation as an essential facet of the organisation's success. Sulistyo (2016) states that external factors such as the level of financial support given by the government and collaborations with external players like customers, suppliers and banks are also critical determinants in measuring the innovation capability of the SME.

Innovation And Performance Of Smes

Konsti-Laakso, Pihkala & Kraus (2012), state that most 20th century innovations are attributed to SMEs, which have been instrumental in bringing about competition in various market segments. A study by SMEs furniture manufacturer Hajar (2015), revealed the vital link between innovation and performance of the SME. Hajar states that a strategy adopted by the business entity and the innovation culture of the small business are crucial determinants to the success or performance of the SME. In a similar study undertaken in Kenya, scholars Ndesaulwa & Kikula (2016) discovered that SMEs owned by entrepreneurs who are keen to explore new methods and ideas resulting in new inventions had better performance ratings. Ndesaulwa & Kikula (2016) further argued that there has been very few studies in Africa that tackle issues of SME performance and innovation. One of the biggest challenges SMEs face is competition from large companies. Large companies have better financial resources to invest in technology.

Small Medium Enterprises In Zimbabwe

In Zimbabwe, small enterprises are entities which employs maximum of 50 people, and have a maximum of up to $500 000 USD in annual turnover. Medium enterprises include those who employ not more than 100 people with an annual turnover of not more than $830 000 USD. SMEs have smaller structures that allow a quick decision-making process by their size. They are willing to take risks, thus making their innovation process faster, unlike the more prominent, more established companies (Love & Roper, 2015). Though SMEs the world over face synonymous challenges, their size makes them early innovators in various sectors of their economies. Their major hindrance comes in the availability of raw materials and finances in contrast to large companies. The relative strengths of SMEs are more of a behavioural character as they exhibit entrepreneurial dynamism, flexibility, and motivation in the way they operate. From the SME standpoint, innovation is frequently considered as introducing new items that will answer to clients’ wants more competitively than existing products on the market (Adam & Alarifi, 2021). SMEs compete with large companies already established in the market; therefore, they should offer more than what prominent players do. In other words, their products should be designed expertly so that they attract customers and at the same time be priced competitively. Despite the rising global competition, SMEs in the industrial sector play an important part in the Zimbabwean economy. Ncube (2017), reports that the

competitiveness of Zimbabwean SMEs is low, and these SMEs need to appreciate the crucial role of innovation. He further suggests the need to create awareness through an "innovate and succeed" campaign. He proposes using models of regional and global SMEs that have achieved growth through innovation adoption. For such firms to remain operational there is need to revamp productivity performance continuously. Though it can be risky and resource-consuming, adopting innovative pathways can lead to SMEs opening new growth paths.

SMEs in Zimbabwe face similar challenges parallel to any other SMEs in emerging economies, and these include limited access to finance, a volatile economic environment, poor infrastructure, poor management skills and lack of entrepreneurial skills (Zindiye, Chiliya & Masocha, 2012). Wadesango (2015) argues that while the government of Zimbabwe has enacted various policies to enable development of the SMEs, this support has not been enough, given the turbulent nature of the economy, as the SMEs are not achieving meaningful growth. Several studies (Wadesango 2015; Zindiye et al., 2012) have shown that SMEs fail to survive in their early years of operation, especially in emerging economies, as they face stiff competition from those already established in the particular sector. According to a study by Adam & Alarifi (2021), when personal engagement efforts achieve innovation, it is referred to as user-driven innovation. This involves the users from the early stages of design development up to production. Given that SMEs in furniture manufacturing for instance take the innovation ideas from the customers, it means the customers are key informants to the innovation process in SMEs. The creative potential of staff employed by SMEs makes them attain competitive advantage as they can create differentiated products for the niche markets. The need for having creative minds within the design stage of the development is significant as innovation and creativity go hand in hand. One cannot innovate without being creative and vice versa. Most SMEs found in emerging markets cannot afford to fail even though they have limited resources available for innovation. However, the recent drive globally towards sustainable design and cleaner production systems has increased the importance of collaborations at the beginning of new product development. SMEs from emerging markets are no longer safe in their local markets. They are exposed to stiff competition globally and continuously have to innovate to outpace their competitors. Therefore, this pushes innovative SMEs in the manufacturing sector to be more inclined to network with other SMEs or other establishments linked to the line of products they also produce.

Challenges Facing Smes In Zimbabwe

Makanyeza & Dzvuke (2015), conducted a study on SMEs in Zimbabwe, and concluded that there is some innovativeness in SMEs even if this was only evident in the manufacturing and service sectors. Nyoni & Bonga (2018) also studied SMEs in Zimbabwe and found that most SMEs were formed due to the economy's collapse as more prominent companies laid off many workers. Tinarwo (2016) focused on challenges in the operations of SMEs in an industrial area in Harare, Zimbabwe and his results showed that they lack access to capital, access to markets, stiff competition, and lack of technology and lack of skilled workforce. Gombarume & Mavhundutse (2014) also studied SMEs in Chitungwiza, Zimbabwe and found that SMEs lack access to financial support lending institutions and recommended that SMEs be

assisted financially through schemes managed by the government so that they can also be formalised. Studies on SMEs in Zimbabwe, an emerging economy, show a similar trend to all other SMEs in emerging economies and yet take a silent approach to SMEs' capabilities that are related to innovation. This study assumes that for manufacturing SMEs, design innovation is a key success factor in achieving growth in developing economies.

Methodology

Research context

The study focuses on the innovation activities within the SMEs involved in furniture manufacturing. The study chose the furniture sector amongst other sectors in which SMEs in Zimbabwe operate due to its resilience and growth levels it has shown even when the economy was performing badly. Zimbabwe has a very competitive timber industry supported by the large timber plantations in the Eastern Highlands of the country and also in the South Western region in the Lupane area where teakwood and hardwood are popular products. The cases used in the study were selected using the following guidelines, (a) the number of years of existence (should have been in existence since 2010), (b) the SME should show that it is commercially successful (operational at the time of study), (c) the SME should be a manufacturer of furniture and or related products. To collect data for this study, information on furniture manufacturing SMEs was sought from the parent government ministry, which is the Ministry of Women Affairs, Community, Small and Medium Enterprises (MWACSME). Gathering data from SMEs in emerging economies such as Zimbabwe is a significant problem as most are not registered. Therefore, one will not easily find information about them from the parent ministry (Cirera & Muzzi, 2016). This necessitated the use of the Small Medium Association of Zimbabwe (SMEAZ) to assist with another database of SMEs in the furniture manufacturing.

Data Collection

The number of active furniture-manufacturing SMEs were predicted from SMAEZ and MWACSME databases. Yin (2014) notes that a case study can be a single company or a multiple case study but controlled by certain parameters. For this study, a multiple case study approach was adopted so that more information could be obtained from various SMEs into furniture manufacturing as this could validate and triangulate the results obtained in the study. A total of 24 cases were adopted and these were identified through extensive desk research. The SMEs were purposively sampled from each city they are operating from based on the researcher's vital informing indicators and their willingness to participate in the study. The study adopted a qualitative methodology using the Denzin and Lincoln (2011) view that this method is appropriate when the questions expect more than a yes answer and when there is no hypothesis. A qualitative survey was used as it seeks to get responses by asking open-ended questions that can be in the form of feedback, suggestions, and comments. These responses were not as easily classified or tallied as a number. The survey interview guide was initially pilot tested with two SMEs to

check the validity and reliability of the instrument and the questions in the survey. The survey questions were validated through the pilot test with 2 (two) SMEs in order to remove wording problems and these were then re-phrased so that content validity of the instrument was improved. Results from the pilot study were not included in the final results of the study. The study used an innovation survey spanning ten years that was used from the year 2010 up to the year 2020. A total of 24 SMEs were assessed on the innovation attributes using guidelines designed according to the innovation survey manual (OECD, 2005). In Harare, the capital city, ten SMEs were surveyed as it has the most significant number of SMEs, given it is the country's capital. A total of seven (7) SMEs were surveyed in Mutare, the eastern border town, which is the hub of timber processing from the eastern highlands. The other seven (7) SMEs were sampled from Bulawayo, the second-largest city in Zimbabwe, which is also home to hardwood and teakwood furniture products due to its closeness to Lupane town, where this timber comes from. Interviews were conducted in all the cases to determine input on innovation activities from SMEs perspective. The interviews were recorded and in the data analysis process. The scheduling of the face to face interviews was done in consultation with the participants so that they could identify the times they were more comfortable to participate in the study and all the interviews ended when the data saturation point was reached. The interviewer also took time with some randomly selected SMEs to spend the day within the company premises to observe and learn how their daily operations are carried out from the time an order or a customer walks in enquiring about a product. Field notes from the observations were also collected and included as other sources of input data. The key informants in all the SMEs were the owners, managers and product designers.

Data analysis

In this study, a qualitative multiple case method as proposed by Yin (2014) was adopted and this method is also popular with a number of authors who have studied innovation and entrepreneurship in SMEs (Marri et al., 2017; Urban, 2021). The NVivo software was used for data analysis where all the transcribed data was uploaded to the NVivo software portal for analysis. According to Hutchinson et al. (2010) using NVivo allows one to analyse the data, develop theories and also present the findings in a much more clearer way. The data was subjected to thematic coding so that core themes were chosen systematically and the results were published.

Results

All the 24 SMEs responded to the innovation survey translating to a 100% response rate. In terms of their export capacity, 60% of the SMEs indicated they have managed to export to regional countries, including Botswana, Malawi, Zambia, Mozambique, and South Africa. The other 40% reported that they have not yet tried to export due to various challenges. One respondent indicated there was little motivation to get documentation to enable SMEs to export products due to the bureaucratic process. The respondents highlighted that the documentation process requires registration with various government departments. Another respondent also stated that those who have managed to export have done so because their product ranges are diversified as they make furniture products not only from wood.

Research and development

Out of the 24 surveyed SMEs, only four (16%) have R&D sections or departments. Most SMEs seem to push this responsibility to the marketing and sale representatives. In one response, there was mention that they do not see the value of adding more employees for R&D as they do not think it is necessary as they have big customers already. Another respondent indicated that the size of their SME does not allow them to have an R&D section. This study showed that more than half of the SMEs interviewed do not have a designer specifically responsible for coming up with fresh ideas. This implies they are still growing and would like to have R&D as an active section for their company, but lack financial support for such an expansion. One respondent said:

"*We do not have the financial muscle to have a stand-alone R&D section because it means employing more people whom we won't be able to pay in terms of salaries since we are still a small company*" (Respondent 8).

SMEs are not comfortable in collaborate or outsource designs to other enterprises. For example, one respondent indicated that,

"*As an SME designer, if I share my designs with another company, what can stop them from replicating my work and selling it off as their original idea and who will know that it was me the owner of the design in the first place, or they can even modify a bit of my creative idea to make it different but originally it would have been my idea*" (Respondent 5).

New product development

The innovation levels in the studied SMEs showed high levels of innovativeness. All of the respondents have launched new or improved the existing products meaning they are very active in product innovation. The level of competition against similar SMEs was cited as the push factor that inspires the SMEs to excel against their competitors. One respondent alleged that,

"*When we see a trendy design in the market, we always sit down and try to understand why the market has been impressed by design and how we can also improve our existing portfolio to have the same effect*" (Respondent 4).

The abundance and variety of timber found in Zimbabwe is also a pivotal contributor to SMEs' success in Zimbabwe. These SMEs have entered the regional export market as they try to grow their business through various designs. Several authors argue that manufacturing SMEs copy designs (Scozzi et al., 2005; Iduarte et al., 2010) from other SMEs or rather try to imitate the large companies. In this study, the respondents cite that by using different designs from other furniture manufacturing companies, they can start new designs or use these as the design inspiration for them to come up with contemporary furniture designs for the market. One respondent said,

"*We get inspiration to design better from other products; therefore, similarities might exist, but they will not be a complete replication of someone's design*." (Respondent 7).

Intellectual property

To assess the level of innovative SMEs in Zimbabwe, participants were asked how many designs they have registered with the Patents Office. The data revealed low patent registration with the Patent Office. From one interview, the respondent said,

"*We do not know how it is done to protect our design ideas, but even if you protect them, what can stop someone outside the country from copying it and manufacturing the furniture piece in their country? Can the property laws go beyond our borders, and after all, we don't have time to spend in the courts as this can take years dragging*" (Respondent 2).

Competitive strategy

The study reveals that SMEs in furniture manufacturing in Zimbabwe face stiff competition from imports from China. They cite that manufactured timber boards, or semi-finished furniture products are taking them out of business. Amongst themselves, they compete on the price and quality of their products. Some SMEs indicated that they depend on getting orders from big companies that might have failed to take the order into their production lines, so they end up being sub-contracted by the big companies to help finish the order quickly. The study also revealed that most SMEs managed to invest in high-tech equipment during the dollarisation period (starting 2009). This has proved to be one of the major success factors of their stories, as they can match quality output at the global level. The study also showed that SMEs that have managed to export their products have invested significantly in new machinery or equipment in the past few years. This evidence also confirms the positive linkage between investment in design and innovation and the competitive performance of the SME (Adam & Alarifi, 2021; Love & Roper 2015). Another respondent reported that,

"*Most of our sales now come from social media activity, especially on Facebook, as they usually post new products on offer. These reach a wider audience, and one can make enquiries easily from the comfort of their homes, and we respond by a follow-up communication*" (Respondent 9).

She confirmed that their social media presence had improved their market effect as they are now getting orders from all over the country. The presence of social media was an after-effect of the Covid-19 outbreak, which introduced nationwide lockdowns. To remain afloat, most SMEs then opted to keep producing various designs of furniture products they would market on platforms such as Facebook and WhatsApp.

Barriers to innovation in SMEs

In this study, the SMEs stated the internal and external barriers to innovation. The most common barriers cited by the studied SMEs were a lack of finances and the latest technologically advanced machinery. A

lack of adequately trained staff who can think creatively and whom they can employ to improve their innovation capability was cited as another barrier. One manager reported that,

"*We would want to employ properly trained designers, but usually these designers will come here expecting a huge salary that we can't afford since we are still small, and some will come to steal our ideas and work for 2–3 months then leave, and you hear they have started their own small company also making products that we also make*" (Respondent 3).

This forces the SMEs to try as much as they can not to employ new people and thus rely on the staff already employed to develop new design ideas. It was also reported that institutions of higher learning have not fully developed the design education curriculum so that it can help the design industry. At the lower levels of education, high schools have now embraced the new subjects such as Design and Technology up to advanced levels, but this is still missing at tertiary colleges. At the external level, the SMEs note that government involvement is not visible regarding innovation in SMEs. The absence of industrial linkages or partnerships is also another weakness cited by SMEs. These results show that SMEs in emerging economies and in particular Zimbabwe face many challenges that need to be addressed if they are to adopt innovation and do it successfully.

Discussion

The study's findings on lack of investment in R&D is consistent with Ortega-Argilés et al. (2009) as they reported that SMEs view R&D as an expensive and risky process that can negatively affect their financial position. This behaviour is however not the same for SMEs in developed economies as they have government support and benefit from various government policies (Seo & Cho, 2020). It can therefore be argued that governments in emerging economies need to plan how they assist SMEs to make them appreciate the importance of R&D as this is a crucial success factor for innovation. The growth of SMEs translates to direct development of the economy. Governments should therefore take the leading role in capacitating SMEs so they can contribute meaningfully to the economies' success. Results showed that SMEs lack financial resources to implement R&D activities. One can therefore argue that SMEs have an inherent fear of investing in R&D operations as they might not be able to project a growth trajectory that can come through taking risks as investing in R&D (Booltink& Saka-Helmhout, 2018). On the other hand, R&D is also responsible for the highly successful innovations from SMEs and has impacted positively in various industries. From this study, it can be concluded that lack of access to financial resources has a negative impact on the SMEs' drive to set up R&D facilities. Concerning outsourcing design, only 8% of the respondents cited that they usually collaborate with other design companies when developing their manufacturing products. This can be attributed to the fears prevalent with most SMEs in emerging economies as they feel they will lose their design ideas through collaborations. There is a general fear of loss of rights or failure in intellectual property when SMEs collaborate with another company. This results in a general lack of knowledge sharing among SMEs. In the furniture design sector, companies compete for relevance through innovative and creative products. Overall, the study's findings show that there is still fear regarding collaborations as SMEs rarely work together to complement each other's strengths or

weaknesses. Fear with sharing design is the other player or contributor might end up claiming full ownership of the design at the end at the expense of the other partner. Legal advice comes at a cost, and given the financial capacity in SMEs, it becomes a problem for them to outsource design or collaborate using a legally binding document. It should be noted that most of the studied SMEs fail to comply with government regulations regarding tax obligations, and the moment they require some paperwork, they always prefer not to go that route. This finding is similar to what Makanyeza & Dzvuke (2015) reported in their study on SMEs in Zimbabwe. On the issue of copying designs or being innovative, respondents argued they try to differentiate their products with other competitors. Despite products' design having similar technical or functional features, SMEs try to distinguish themselves using the various aesthetic features so that their products become different from the existing product on the market. For the SMEs in the same industry, the study reveals that there is no single owner of a design as SMEs shun registering their designs with the Patents Office. To come up with new product ideas or designs means there has to be designers employed within the SMEs. Millward & Lewis, (2005) observed rightly when they said SMEs think design is costly, time-consuming and unnecessary. Design is one tool that can be used to improve the innovation capability of any manufacturing entity, and SMEs can opt for an incremental innovation plan that will not be costly to their operations. It can be concluded that there is a severe lack of knowledge among the SME players on what they could do to protect their designs. The findings show that SMEs lack information on how they can register their designs. Organisations such as African Regional Intellectual Property Organization (ARIPO) and Zimbabwe Intellectual Property Office (ZIPO) are expected to make their operations known to local SMEs as this can be another source of financial income for these SMEs. SMEs with little knowledge of the design registration argued that registering a design is cumbersome and they quit along the way. But one company that has managed to register three patents reported that they are now knowledgeable and confident of the process though it was difficult in the beginning. The study also reveals that SMEs in emerging economies are not exposed to the benefits of intellectual property rights irrespective of the economic benefits (Mets et al., 2010).

Theoretical Contribution

The study highlights the strong relationship between R&D and innovation in SMEs. Using the RBV theory, the study shows that SMEs in emerging markets have to direct their efforts at the non-tangible resources for leverage to gain a better competitive advantage. These include looking at the way staff is recruited as creativity from within the employed staff can be a key differentiator from other competitors. This will improve the innovation orientation of the staff and hence lead to more positive results for the SME (Cohendet & Simon 2015). SMEs in emerging economies face limited resources (Makanyeza & Dzvuke 2015; Zindiye et al., 2012) but creativity is not financially dependent but rather depends on the employees' competence. Employing creative minds and maintaining a positive atmosphere at the workplace therefore become key. The study also makes a contribution to the way innovation should be formulated in manufacturing SMEs. The study points out to design innovation as a key ingredient to the success of manufacturing SMEs in emerging economies. Design innovation calls for the SME to do step by step improvements to the products they make and in this case on furniture related products. Products in the

furniture manufacturing sector for example tables, chairs, and sofas do not radically change in terms of their functionality but it is the customer needs or expectations that alter each and every time they make purchase decisions. Therefore, SMEs in furniture manufacturing should look at design innovation as a competitive strategy as it does not necessarily require scientific knowledge or technology. Design innovation can be a huge investment in the manufacturing SMEs as it has positive rewards (OECD, 2005).Nevertheless, it also needs to be complimented with a good workforce that can be become key in developing and designing of the new products. The study contributes to the existing theory through the framework shown in Fig. 1. The internal and external drivers of innovation also link together as they inform policy makers from both the government and firm perspectives. SMEs in emerging economies can tackle the innovation drive through an assessment of the drivers shown in Fig. 1 so they can achieve the results shown in the indicators.

Managerial Implications

The study manages to bring out some key implications for the SMEs and for various policy makers. The government has a key role in promoting growth of the country's economy and SMEs in emerging economies are vital for this process to be a success. Through enacting of policies that promote design and innovation in SMEs, governments have to further support protection of patents generated in SMEs as it is another source of income that can make a significant contribution to growing economies. Another implication to the manager/owner of the SMEs in an emerging economy is the need to embrace technology investment as it complements R&D efforts despite the need for financial resources which are sometimes scarce. There is need to establish SME networks or partnerships to assist each other in developing products that could be in uncharted territories. The identification of innovation opportunities is everyone's responsibility in the SME. The owner-manager could also recruit employees with questions such as: "*Could you suggest new design ideas to our current product ranges*?" The SME owner-manager have to take ownership of the risks associated with investing or implementation of new ideas as these risks might affect their passion to innovate. Romijn & Albaladejo (2000), argue that the manager in any SME setup is the key decision making individual and as such should take a leading role towards the identification of opportunities. The study challenges the management of the SME to fully utilise the internal resources if they are to be innovative as this builds a culture of the organisation and improves the level of teamwork among its employees so that they become the first innovators and this is also in support of the RBV framework (Barney et al., 2001). These resources can be tangible or intangible and given the challenges generally faced by the SMEs in emerging economies, the ability to differentiate through unique strengths and capacities in design innovation becomes the key competitive advantage to SMEs.

Conclusion

SMEs in emerging economies face similar problems, which can be addressed by formulating an innovation policy that specifically targets the SMEs. The importance of SMEs should be evident through

engagement levels at the sector level. The study reveals that the design capabilities of SMEs are not precise; therefore, there is a need for investment in human capital so that their design capability is enhanced. The study also concluded that SMEs need to invest in new technologies that help their operations and design output. Given the financial rewards of Intellectual Property Rights, the SMEs showed a lack of knowledge on the process and the benefits that can be attained. Therefore, the Patents Office needs to educate the SMEs through various symposiums to realise what the sector is missing. SMEs can grow into more prominent entities if the proper support is afforded to them, and this can be an essential starting point for their growth in emerging economies.

Limitations And Further Research

The study identified one major limitation which was the absence of more recent statistics on the total number of active manufacturing SMEs in Zimbabwe and this necessitated the use of information from the parent government ministry and the existing association of SMEs namely SMEAZ. The study proposes future studies on SMEs that will look at how financing innovative activities can increase export potential for the SMEs and how owner-motivation or creativity affects the capacity of the SME to innovate. Secondly, only one data set from one emerging economy was used and therefore the study suggests another study to compare the innovation capability using two or more emerging economies for comparative analysis and there might be need to look differences between more cases and not just similarities. Finally, it could also be interesting to look at how culture and technology impact innovation outcomes in the design related SMEs or the creative industry SMEs.

Abbreviations

SMEs: Small and Medium Enterprises

RBV: Resource Based View

TAM: Technology Acceptance Model

SMAEZ: Small Medium Enterprises Association of Zimbabwe

R&D: Research and Development

Declarations

Availability of data and materials

The datasets used/literatures/during the current study will be available from the author on reasonable request.

Competing Interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Authors' contributions

All the authors listed made substantial contributions to the study as they drafted and revised together the content and approved the final manuscript submitted for publication.

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Figures

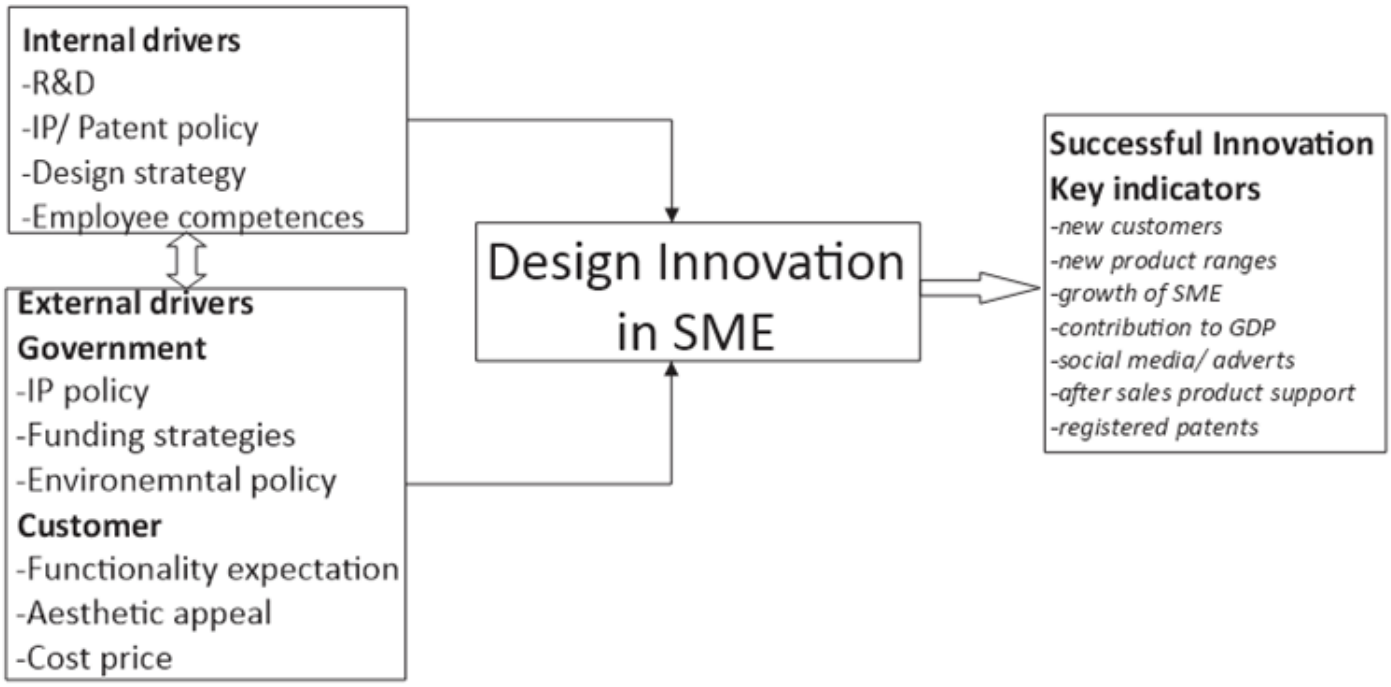

Figure 1

Drivers and indicators for successful innovation in SMEs