Institutional and individual factors enabling the growth of Lesotho’s MSMEs in the manufacturing sector: Linking industrial and entrepreneurial ecosystems

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ABSTRACT

As a means of seeking more effective ways to curb the unemployment levels in Sub-Saharan countries, governments are beginning to include the development of the manufacturing sector in their country’s strategies, and Lesotho is not an exception. This paper aims to determine the role of various institutional and individual factors which when present and collaborating in an entrepreneurial ecosystem can contribute to the successful growth of MSMEs operating in the manufacturing sector. This paper is also aimed at developing a conceptual framework suitable for the growth of these MSMEs in Lesotho by linking concepts of industrial and entrepreneurial ecosystems. This study utilised a qualitative exploratory research approach and data were collected using semi-structured interviews. In total, 12 candidates from government, financial, and educational institutions as well as the media were interviewed. Data were analysed using thematic analysis. The main findings of the study demonstrate that a suitable ecosystem for MSMEs in the manufacturing sector in a country such as Lesotho should consist of policies and regulations that support and encourage financial institutions to assist MSMEs. Government regulated media institutions disseminate regular information relating to existing policies, regulations, and opportunities and educational institutions provide adequate skills assurance institutions to assure the quality of products and increase customer confidence.

Introduction

The term ecosystem is borrowed from biology, where natural habitats of living things are termed as their biological or ecological ecosystems. Stam and Van de Ven, (2021, p.811), define it as “a biotic community, its physical environment, and all the interactions possible in the complex of living and non-living components”. In recent years, the term ecosystem has been applied metaphorically in the business and entrepreneurial fields of study, by various scholars and researchers like Isenberg (2010); Stam (2015); Spigel (2017); Stam and Van de Ven, (2021). These researchers and practitioners have adopted this concept in the entrepreneurial setting to highlight the significance of a geographical environment to the success of entrepreneurship. Just as in biological ecosystems where the external environment influences the growth of living organisms, such is the case within the business environment. The growth of businesses operating in a particular geographical environment depends on and is influenced by the external environment.

Autio and Thomas (2022) mention that given the complexity of some phenomena, different types of ecosystems may not be isolated as a result adopting the ecosystem that conflicts with core ecosystem characteristics as well as merging different types of ecosystems is becoming a necessity. The authors therefore suggest that there is an “urgent need” to investigate the forces, processes, or systems that stimulate these progressions (Autio and Thomas, 2022).
In a study conducted by Kansheba and Wald (2020), the authors mention that even though there have been extensive studies done on the concepts of ecosystems, the focus has been on clusters and innovation systems as well as large high-risk companies with minimal focus on the individual entrepreneur’s characteristics and small businesses. As a result, Kansheba and Wald (2020) suggest that studies that place more emphasis on entrepreneurs and small businesses, while also looking at the role of other players within the system that support the entire entrepreneurial function, (a phenomenon that lies within the entrepreneurial ecosystem) are needed. This study, therefore, aims to respond to this call by focusing on micro, small and medium businesses (rather than large industries) in the manufacturing industry (a phenomenon that lies within the industrial ecosystems).

Studies show that jobs created in the manufacturing sector result in a positive contribution to a country’s economy and subsequently contribute to significant poverty reduction (Mokhethi, 2019). Sub-Saharan countries are now beginning to include strategies dedicated to the development of the manufacturing sector in their national strategies (Shibia, 2023). However, the manufacturing sector in these countries has not yielded favourable results, with the overall contribution to the country’s GDP of enterprises operating in this sector decreasing from 17% in 1980 to 11% in 2019 (Shibia, 2023). Whilst in Lesotho the manufacturing sector's contribution to GDP dropped from 25% in 2002 to 15% in 2022 (The World Bank, 2023).

In a country where the unemployment rate is as high as 22.5% (Sophonea, 2022), a more productive manufacturing sector that is resilient to environmental shocks is critical for reducing long-term unemployment and strengthening Lesotho’s presence in the global economy (Marie-Nelly and Baskaran, 2021). According to Marie-Nelly and Baskaran (2021), this will require creating an enabling entrepreneurial environment. Furthermore, given that most new jobs will be in MSMEs, the World Bank’s Jobs and Economic Transformation agenda prioritises support for MSMEs in the manufacturing and service sectors (Marie-Nelly and Baskaran, 2021). The development of a suitable conceptual framework that encompasses the collaboration and effective synchronisation of various factors and elements that will anchor the sustainable growth of MSMEs in the manufacturing sector will be most beneficial for the country in meeting these expectations (Marie-Nelly and Baskaran, 2021; Mokhethi, 2019).

This study, therefore, aimed to

i. Determine the role of various institutional factors as well as individual characteristics which when present and collaborating in an enabling ecosystem can contribute to the successful growth of MSMEs operating in the manufacturing sector;

ii. Determine how different ecosystems can interact

iii. Develop a suitable conceptual ecosystem framework for the growth of MSMEs in the manufacturing sector

To fulfill the main objectives of this study, the study followed a qualitative exploratory research approach. Data were collected using semi-structured interviews. In total, 12 candidates from government, financial, and educational institutions as well as the media were interviewed. These institutions were selected based on the role they play in entrepreneurial ecosystems as guided by literature. Data were analysed using thematic analysis.

This paper is organized as follows: following the introduction part, a second part is a literature review with theoretical and empirical studies that shed light on the linkage between theory and practice. The theoretical and conceptual constructs include a discussion of business, innovation, industrial as well as entrepreneurial ecosystem concepts. Essential individual characteristics that are necessary for those operating in the manufacturing sector are also discussed in the literature. These were found to be entrepreneurial alertness, creativity and innovation, as well as the entrepreneurs’ knowledge and skills. Whilst the empirical discussion of the literature review provides a detailed discussion of ecosystem elements suitable for the growth of micro, small and medium enterprises in developed as well as developing countries, emphasizing the differences between the two contexts. The third part introduces the background information on research methodology. After analysis and findings of the study, the author provides discussions of the various themes that arose from the analysis and provides a summary of the individual and institutional factors that a rendered suitable for the growth of MSMEs in the manufacturing sector in Lesotho. Finally, this paper concludes with key points, recommendations, future research directions, and limitations.

**Literature Review**

The literature review provides a brief outline of the various ecosystem constructs that have been researched and constructed up to this point, thus shedding light on how these concepts have contributed to the conceptual model of this research. The empirical discussion in this review discusses how the elements of ecosystems differ in developed countries as compared to those in developing countries.

**Ecosystems: Theoretical and conceptual constructs**

The concepts of ecosystems has emerged in recent years as frameworks for understanding the nature of places in which entrepreneurial activity flourishes by sharing spaces, activities and resources. Through these shared endeavours, ecosystem members mutually adapt to provide joint solutions that exceed organisational boundaries; and, in so doing, co-evolve their capabilities, creating value that no single firm could achieve on its own (Riquelme-Medina, Stevenson, Barrales-Molina and Llorens-Montes, 2023). Thomas and Auhtio (2012), suggested three different types of ecosystem models which are; the business ecosystem model, the
innovation ecosystem as well as the entrepreneurial ecosystem. Whilst, Aarikka-Stenroos, Ritala, and Thomas (2021) added industrial ecosystems, urban and knowledge ecosystems to the list. Business ecosystems can have quite a broad scope, for instance, Thomas and Autio, (2020, p.17) mentions that a business ecosystem is “the community of organisations, institutions, and individuals that impact the enterprise and the enterprise’s customers, regulatory authorities, standard-setting bodies, the judiciary, and educational and research institutions” . Business ecosystem concepts, are depicted as a “large number of loosely interconnected participants who depend on each other for their mutual effectiveness and survival” (Riquelme-Medina, Stevenson, Barrales-Molina and Llorens-Montes, 2023, p. 660). This implies that business ecosystem members have a shared fate whilst simultaneously competing for resources in the same manner and intensity. Accordingly, when a member enters or exits the business ecosystem, the value of the whole ecosystem increases or decreases, respectively (Riquelme-Medina, Stevenson, Barrales-Molina and Llorens-Montes, 2023). This generally highlights the flaws of the business ecosystem model which fails to recognise the need for a strong interconnectedness and synergy amongst the actors within the ecosystem, also the interdependencies amongst the actors within the ecosystem are not highly emphasised. Rather the concept illustrates the competitive nature of the actors within the business ecosystem.

Literature on the innovation ecosystem, similar to the other concepts of the ecosystem in management, experienced significant growth in recent years. Innovation ecosystems represent communities of interacting actors that support innovation processes and create technologies and innovations (Ianioglo, 2022). The main features of the ecosystem are universities and research institutions, sufficient financing of new companies, a symbiotic combination of large established companies and new start-ups, a sufficient market for new innovative products as well as a risk-taking entrepreneurial culture (Ianioglo, 2022). Predecessors of the innovation ecosystem are considered to be the innovation system and the business ecosystem (Ianioglo, 2022).

The focus of the innovation ecosystem is on value creation through the creation of innovations which differs from the industrial ecosystem (IE) model where the focus is on the production of these innovations (goods and services) on a commercial scale. Aarikka-Stenroos, Ritala, and Thomas, (2021, p.268) describe industrial ecosystems as “a regional community of hierarchically independent, yet heterogeneous set of actors who, sustainably produce industrial goods and services in symbiotic collaborations and resource use”. The main actors are the manufacturers, service and resource providers as well as the resources used in the industries (Autio and Thomas, 2022). This model differs from the business ecosystem model in that rather than emphasising the competitive nature of the actors within the system, the model emphasises the synergistic existence and collaboration of the actors. One of the positive characteristics of industrial ecosystems is that they contribute to job creation on a large scale, as, a large number of employees are required, especially when the industry grows. A key ingredient that this type of ecosystem shares with the entrepreneurial ecosystem is.

As (Isenberg, 2010; Spigel 2017; Hakala, O'Shea, Farny, and Luoto, 2020) mention; in the entrepreneurial ecosystem (EE) model the key theme is that entrepreneurial ecosystems are said to be energised by high rates of entrepreneurship in a local region resulting in rapid job creation and long-term productivity. The entrepreneurial ecosystem includes local entrepreneurs, finance, knowledge and skills, support services, and institutions (government, financial, universities, media) that interact together in the region within which the entrepreneurial ecosystem exists. Researchers such as Isenberg (2010) cited in (Hakala, et. al 2020), state that it is vital to pay close attention to the interconnected nature of the ecosystem elements and to ensure that governments focus on tailor-making conducive entrepreneurship dimensions, and a climate based on realities of their regions. Although entrepreneurial ecosystems are constrained to specific locations, ecosystem participants themselves are mostly focused on entrepreneurial opportunities outside the ecosystem and not being members of the ecosystem (Autio and Thomas, 2022).

As the various concepts of ecosystems suggest, an ecosystem consists of actors, processes, and institutions all working together to yield a particular entrepreneurial result (Shwetz, Maritz and, Nguyen, 2019). Among the actors in the EE model are the individual entrepreneurs who either start the business, operate or manage the enterprise.

In the literature, a few common elements regarding the individual abilities and characteristics that are needed to drive entrepreneurial growth and success crop up. Thus, while viewing the institutional factors of an ecosystem, it is vital to consider the individual elements that can influence one to succeed and grow an entity. These are the level of innovativeness and the entrepreneurial mindset that one possesses (what Tabas, Kansheba and, Komulainen (2022) term the ‘cognitive drivers’) as well as the individual's entrepreneurial skills and knowledge (the ‘human capital’ and ‘leadership components’ in Isenberg’s (2010) model).

Innovativeness may be defined as “the degree to which an individual is relatively earlier in adopting an innovation than other members of his system” (Ali, 2019, p. 39). Innovation is also the “application and development of new techniques and methods in an enabling condition to manufacture goods and (provide) services” (Arthur, Afenyia, Larbi and, Aduku, 2022 p. 40). Therefore, innovation is applying knowledge and ideas to generate new goods or services or bring about improvements in the systems or properties of goods or services (Arthur, Afenyia, Larbi and, Aduku, 2022).

In the literature, it is argued that innovativeness is an essential characteristic in entrepreneurship and entrepreneurial growth as the one who possesses such a trait can recognise opportunities for developing new products, create new value within the business and problem-solve (Cao et al., 2022). The creation and development of products require creativity – a cognitive ability that enables one to recognise opportunities, generate ideas, and innovate; as such, creativity has been identified as a major component of entrepreneurship (Cao et al., 2022). This, therefore, invites one to conclude that creativity and innovation are essential components
of entrepreneurship and cannot be separated when discussing individual characteristics that contribute to the success and growth of businesses, more especially those in the manufacturing sector.

Cao et al. (2022) point out that an entrepreneur's innovativeness (and, therefore, creativity) is stimulated by environmental factors. For instance, Pratomo, Siswanderi and, Wardani (2021) posits that one can be trained to be creative and, therefore, it is a cognitive ability that can be honed through entrepreneurship learning. Entrepreneurial alertness is another cognitive ability that can be developed through entrepreneurial training and is essential in enabling one to recognise entrepreneurial opportunities (Pratomo, Siswanderi and, Wardani, 2021). In its origin, alertness has been conceptualised as a process that enables individuals to be more aware of changes, opportunities, and overlooked possibilities (Montiel-Campos, 2022).

Research suggests that an entrepreneur who possesses alertness can scan through given information and identify underutilised or unemployed resources, as well as new capabilities or technologies that may offer possibilities to create new products for a particular market or industry. Given the relevant training and adequate information, such an entrepreneur may be most successful (Montiel-Campos, 2022).

**Empirical Review**

**Ecosystem elements suitable for the growth of micro, small and medium enterprises in developed versus developing countries**

Cowell, Lyon-Hill and, Tate (2018, p.180) show that, according to the Centre for Rural Entrepreneurship in the US, for an EE to be effective it ought to consist of the following elements which the Centre coins the five Cs: “capital (financial resource), capability (entrepreneur and owner skillset), connection (resource and relationship network), culture (the local communities’ perceptions and support of entrepreneurship) and climate (regulatory, economic development and policy environment)”. These elements make up the basic elements of an EE.

Other elements that are considered essential in an ecosystem include the presence of large firms, universities, and service providers (Cowell, Lyon-Hill and, Tate 2018). The presence or absence of these elements, and the extent and manner in which they relate and connect, differentiate ecosystems from one another and play a role in the overall effectiveness of an ecosystem.

In a study conducted by Tabas, Kansheba and, Komulainen (2022), the authors examine the elements and factors that impel an individual entrepreneur to succeed and grow in a particular EE in Finland, a developed European country. The authors concluded that individual entrepreneurs require social drivers (networking and cooperating with others in the industry), resource drivers (tangible and intangible resources, access to markets, and institutional support), and at an individual level, cognitive drivers (the level of innovativeness and an entrepreneurial mindset).

Balawi and Ayoub (2022) extended the studies of Tabas, Kansheba and, Komulainen (2022) by making a comparison of Finland with two other countries in the Nordic region, namely Sweden and Norway, using the Global Entrepreneurial Index (GEI) as a comparison tool. In this instance, the authors looked at 14 elements consisting of both individual factors and institutional factors. The authors concluded that with regards to Sweden, the stumbling blocks at the individual level included the individual’s ability to recognise opportunities (opportunity recognition) among both entrepreneurs and potential entrepreneurs, entrepreneurial skills, level of education, and the extent of their entrepreneurial knowledge. These factors were relatively low when compared to Finland and Norway. Recommendations that were made for Sweden were that government intervention was needed through relevant regulatory frameworks and policies that support entrepreneurial activities.

Entrepreneurial skills can be enhanced by designing curricula to improve entrepreneurial skills among would-be entrepreneurs (Balawi and Ayoub, 2022). The reason why Finland scores higher in these areas is the fact that educational institutions incorporate entrepreneurship into their curriculum immediately after a student completes their secondary education. Furthermore, the country has made the innovation and collaboration of MSMEs both within and among different sectors a part of its culture. In Norway, MSMEs grow successfully due to the efficiency of their information sharing and the ease of resource availability. Moreover, there is incessant knowledge of technology development and innovation (Balawi and Ayoub, 2022).

This concept of incorporating entrepreneurial studies in the curricula of educational institutions at an early stage and facilitating the collaboration of educational institutions with the manufacturing industry has been exercised productively in Germany. The German government crafted policies that enabled and encouraged MSMEs, also known as Mittelstand, to collaborate with regional educational institutions (Parella and Hernández, 2018). The government ensured that students who were in post-secondary education were required to execute a project in these nearby industries to complete their course and receive a degree. The advantage of this strategy was that manufacturing units achieved lean production by applying concepts from vocational training colleges, polytechnics, and universities in local industries, resulting in the creation of an adequately trained workforce for the manufacturing units (MSMEs).

In as much as the Mittelstand companies faced challenges such as high capital costs, the contribution of the students placed them in good stead as they were able to continuously develop innovative products for both niche and highly productive markets (Parella and Hernández, 2018).

It is not surprising, therefore, that in a study conducted by Parracho (2017), which compared the key success factors of EEs in Germany, the USA, and Portugal, it was found that in the German ecosystem, the success of start-ups relied on the types of products
produced, people-oriented factors which included the knowledge and skills of the entrepreneurs (both the founders and the employees) and the means of accessing the necessary talent. Thus, the need and the success of the collaboration of industry with educational institutions were emphasised.

Furthermore, in Parracho's (2017) findings, it became evident that access to affordable and talented entrepreneurs was an advantage in the Portuguese ecosystem, and as talented entrepreneurs are products of Portuguese universities, universities that want to promote themselves as entrepreneurial leaders are encouraged to continue improving their offer of specialised courses in entrepreneurship.

Apart from entrepreneurial knowledge, other factors that were featured high on the list in the Portuguese ecosystem were access to international markets and the need for rapidly growing businesses to meet market needs (Parracho, 2017). The intervention of government policies, though necessary in the EE of start-ups, as seen in the studies carried out in Sweden and Germany, ranked quite low in Portugal and the US (Parracho, 2017).

Even though not a lot of research has been conducted in developing countries, research that was done in Sudan, an emerging economy in the lower-middle-income group in Africa, showed that the need for finance, government policies, and supporting regulatory frameworks were crucial factors in the success and growth of MSMEs (Arabi and Abdalla, 2020). These were followed closely by human capital (skills and knowledge), infrastructure, and innovation; cultural factors and outside markets were insignificant factors in the entrepreneurial development of Sudan.

Based on the findings of this study, it can be said that entrepreneurship in lower-middle-income economies is a challenging issue. According to Arabi and Abdalla (2020), entrepreneurship will not be (easily) tackled unless policymakers in the country give due consideration to the EE. These issues were also highlighted by Bate (2021) when referring to the Republic of South Africa (RSA), a sub-Saharan African country.

Bate (2021) stipulated that despite it being one of the economically better-developed countries in this region, the RSA is still not a favourable environment for the growth of MSMEs. The country’s production is dominated by large firms and government policies do not support the growth of MSMEs. Moreover, when compared to India and China, its counterparts in the BRICS community, the country performs poorly concerning entrepreneurial skills both at the institutional level as well as the individual level. Bate (2021) postulates that weak scores on education (institutional level) affect the educational level of individuals. Hence, one can conclude that, despite their willingness to grow their businesses, the education curriculum of the country has not made individuals competent enough to start and grow businesses successfully.

From the discussions and evaluations undertaken in this study, it is evident that access to finance is not a major contributing factor to the success of MSMEs in developed countries but is a factor in African countries. An indicator is that in developed countries, access to finance is not a scarce resource for MSMEs, which is in stark contrast to that indicator in developing countries. Government intervention, through policies and regulations that support the growth of MSMEs, is needed in developing countries. Another area that seems to be lacking in African countries is the knowledge and skills of the individuals who enter into entrepreneurship.

This study sought to explore the elements that are crucial for the growth of MSMEs in the manufacturing sector in Lesotho, a developing country in the sub-Saharan region of Africa.

**Research and Methodology**

This study sought to explore the elements that are crucial for the growth of MSMEs in the manufacturing sector in Lesotho, hence employed a qualitative exploratory research methodology to learn more about the research phenomenon and gain new insights. Data were collected using face-to-face semi-structured interviews following a question guide in which the questions asked were intended to answer the main objectives of the study.

The interviews, each lasting between 30 and 70 minutes, were recorded with a total of 12 candidates from different sectors interviewed.

Data were analysed using thematic analysis following these steps to carry out the data analysis: transcribing, coding and labeling, and conceptualising. For this study, the researcher opted for the ‘naturalised’ transcription process, where the transcriber made subjective decisions regarding what to include (or not) and whether to correct mistakes and edit grammar and repetitions (McMullin, 2021). The themes from the interviews conducted were labeled according to the most significant and relevant and then decided on how the identified themes connected. This connection between the identified themes formed the conceptual model of knowledge that emerged from the perspectives of the participants of the study.

**Data Sampling**

The sampling method that was used in this study was non-probability purposive sampling as each of the participants was purposely selected due to their role in the different institutions.

The target population for this study was the government, registered financial institutions, higher education institutions (universities), and the media. From the studies conducted in developing countries in Africa, it became apparent that government intervention through
policies and regulations in these countries was needed. Moreover, in the proposed models of Isenberg (2010) and Mason and Brown (2014), these researchers include government and educational institutions as the pillars of successful EEs. As such, it was necessary to find out what role these institutions played in Lesotho and what improvements could be made to conceptualise a conducive environment for Lesotho’s MSMEs in the manufacturing sector.

Therefore, government officials from the Ministry of Small and Medium Enterprises (hereafter, the Ministry) and two lecturers from each of the three universities who teach entrepreneurship or related modules were included in the sample.

Al-Albri, Rahim and, Husain (2018) posit that in most developing countries, entrepreneurs find it difficult to grow their businesses and remain competitive due to the financial constraints they face and the lack of financial support from financial institutions. Moreover, research suggests that financial institutions require support from existing policies and regulations to support small businesses (Al-Albri, Rahim and Husain, 2018). Thus, it was necessary to get a deeper understanding of how the existing policies and procedures enhance the confidence of the financial institutions to assist entrepreneurs in the country.

One high-ranking officer in the department that deals with MSMEs was selected from the four main registered commercial banks in the country; however, only one institution agreed to participate in the research. The last group of stakeholders from which the qualitative data were collected was the media. Hang (2020) points out that a lot of attention has been placed on examining entrepreneurial activities within different sectors of the media but there has been minimal focus placed on investigating the media’s influence on the entrepreneurial phenomenon. As such, it is necessary to examine the role of the media in Lesotho’s ecosystem to offer a more holistic view of Lesotho’s ecosystem in the manufacturing sector.

Lesotho’s telecommunications include television, radio, mobile telephones, print and online newspapers, and the internet. Data were collected from the local television station, one newspaper, and the two main radio stations. Table 1 provides a summary of the participants.

<table>
<thead>
<tr>
<th>Sector</th>
<th>Role</th>
<th>Number of years in the institution</th>
<th>Number interviewed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government</td>
<td>Director</td>
<td>Over 10 years</td>
<td>1</td>
</tr>
<tr>
<td>Government</td>
<td>Enterprise Development Manager</td>
<td>11 years</td>
<td>1</td>
</tr>
<tr>
<td>University</td>
<td>Business and Management Development Manager and Lecturer</td>
<td>2 and 10 years</td>
<td>2</td>
</tr>
<tr>
<td>University</td>
<td>Programme Leader – Entrepreneurship</td>
<td>6 and 4 years</td>
<td>2</td>
</tr>
<tr>
<td>University</td>
<td>Academic Fellow/Lecturer</td>
<td>5 and 8 years</td>
<td>2</td>
</tr>
<tr>
<td>Finance</td>
<td>Enterprise Manager</td>
<td>15 years</td>
<td>1</td>
</tr>
<tr>
<td>Media</td>
<td>Programme Manager</td>
<td>20 years</td>
<td>1</td>
</tr>
<tr>
<td>Media</td>
<td>Head of Sales and Marketing</td>
<td>12 years</td>
<td>1</td>
</tr>
<tr>
<td>Media</td>
<td>Brand and Administration Manager</td>
<td>13 years</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>12</td>
</tr>
</tbody>
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Source: Author’s work

Findings and Discussion

Findings

Theme 1: Policies and regulations

When analysing the Ministry’s responses, it became apparent that the policies and regulations were not disclosed to all the relevant stakeholders. When asked specifically about the policies and regulations that affect MSMEs, the interviewer was informed that a draft of the policies was available on the hard drive and could be sent to the researcher by email. When probed further on where they can be accessed other than being sent to the researcher via email, the response was that there was no other way. The documents are thus not easily accessible to relevant stakeholders, including MSME owners.

The interviewee further mentioned that the Ministry does not have a fully functional website where information, including the policy draft in question, can be posted. This implies, therefore, that the business owners, financial institutions, universities, and the media do not have access to the policies and regulations, specifically the MSME policy of 2016 as well as the newly drafted policy of 2021. This limits them from knowing what is relevant to them and what affects them in business or business-related issues.

The Ministry representative acknowledged that they do not use the media enough to inform relevant parties about developments in newly drafted policies or potential business opportunities that the government sources for MSMEs beyond Lesotho's borders. The Ministry does, however, use the media – newspapers, television, and radio – to communicate some opportunities but this happens only when a trade agreement has been signed, for instance.
During their interviews, the university and media representatives concurred and pointed out that the “government uses media very minutely to raise awareness of existing policies and opportunities for businesses” but not frequently enough for the information to reach different stakeholders such as business owners, educational institutions, even some media houses and the public at large. This lack of access to information negatively impacts the chances of entrepreneurs knowing of entrepreneurial opportunities and decreases entrepreneurial alertness among entrepreneurs and potential entrepreneurs in Lesotho.

**Theme 2: Entrepreneurial alertness**

Tang, Kacmar, and, Busenitz (2012) emphasise that alertness has been central in the context of the recently developing area of ‘opportunity’ in entrepreneurship research and argue that opportunities are either discovered or created. Another approach points out that opportunities can be recognised, discovered, or created (Tang, Kacmar and, Busenitz 2012). In this research, it became apparent from the interviews that the entrepreneurial alertness concept needed to be included when evaluating whether Lesotho's ecosystem enables entrepreneurial opportunities to be available so that they can be recognised or discovered by potential entrepreneurs.

Potential business opportunities related especially to manufacturing are not communicated to Basotho to create awareness of existing opportunities. For instance, it became apparent in the interviews that there is a lack of information dissemination from the Ministry and its sectors, namely the Basotho Enterprise Development Corporation (BEDCO), to business owners, universities, the media, and financial institutions. Potential business opportunities that come out of the trade agreements between Lesotho and the African Growth and Opportunity Act (AGOA), bilateral agreements between Lesotho and the US, and the most recent between Lesotho and the European Union (EU) are not communicated effectively. In the interview with the universities, this deficiency was also emphasised with interviewees indicating that government does not do enough when it comes to informing them of opportunities that could be to their advantage. One interviewee specified the following:

“Lesotho now has an agreement with the EU where the EU says they can buy locally produced products or raw materials, especially if they are sourced from Lesotho; this information is not known by an institution and many other people in the communities. I only heard it from the grapevine.”

This unequivocal statement was made to show that such opportunities when communicated to the relevant stakeholders through the various media platforms in an efficient manner could increase entrepreneurial alertness. A one-time slot on the radio or a once-off article in a newspaper (as it was stated during the interviews held with the media) is insufficient. When communicated regularly using various media platforms, such as radio – including the community radio stations, television, newspapers, and digital platforms, entrepreneurial alertness is fostered.

Awareness of entrepreneurial opportunities can lead to universities incorporating related information into their educational programmes so that Basotho can gain the skills and knowledge related to the relevant industries in which they can become involved in areas where there is already a market need.

**Theme 3: Entrepreneurial knowledge and skills**

Knowledge and skills were further concepts that were highlighted. Once existing entrepreneurial opportunities have been discovered, knowledge and skills enable one to be able not only to enter into the manufacturing sector or be engaged in manufacturing but also to be successful in entrepreneurship within the sector. Gurteen (1998) made the noteworthy assertion that for knowledge to be productive and of value to the one who possesses it, information is necessary.

With regards to the universities themselves, only one university has successfully incorporated entrepreneurial knowledge and skills into their curriculum; they do not only impart knowledge but aim to instill an entrepreneurial mindset within their students. An entrepreneurial mindset is described as "a set of characteristics, behaviours, and skills that drive action. … A person with an entrepreneurial mindset recognises an otherwise overlooked opportunity, develops the confidence to take a risk, communicates their ideas clearly, and can adjust to and learn from setbacks” (NFTE, 2017, p. 2).

The students begin to study and learn entrepreneurial modules from year one of their studies through to graduation. Not only do they engage in theoretical studies but also do practicals, where the result involves creating and producing a product that can be sold beyond graduation. The purpose is not for students to do this so that they can pass the module but the aim is for them to establish viable businesses, develop a business model, source financing where possible, and market their products. Students are encouraged to create innovative ideas; some have developed and manufactured skin care products using natural products from Lesotho's indigenous plants. Others produce their wine. Students are also encouraged to collaborate with other parties be it for mentorship, guidance, or business partnerships to gain more knowledge, skills, and support. For instance, the students who produced their wine collaborated with a larger company – the beverage-producing industry in Maseru.

The other universities are still lagging when it comes to entrepreneurship, especially when it comes to instilling or encouraging students to think along those lines. One university only introduces entrepreneurship in the final year for all students even for those who are not in the faculty of business. Another is yet to incorporate such modules in the coming years. Currently, students are still taught the theory of business management and are not exposed to the practical side of doing business at all.
All universities have highlighted the importance of the dissemination of information by the government as this can lead to the education sector realising existing opportunities that can be incorporated into their syllabi in the business management faculty or other faculties. For instance, one candidate gave an example of Lesotho's diamonds. Lesotho has mines that produce diamonds that are at times ranked among the best in the world but these are sold as raw diamonds; none of the diamonds in Lesotho are processed in the country because there are no skills and technical know-how. If the government were to raise awareness of these potential entrepreneurial opportunities or create opportunities through negotiations or agreements and the drafting of policies and or regulations, then entrepreneurs could be in a position to recognise, discover and come up with innovative products using these raw materials. One university interviewee suggested:

"Let's take for example Botswana. In Botswana, the diamonds are sorted, cut, and nowadays sold in the country and they have educational institutions that train people in these areas. Lesotho’s educational institutions should by now have entrepreneurship within their curricula but because there is currently no possibility of this being a viable business for anyone or an opportunity for employment at least, neither businesses nor educational institutions are considering it.”

Another factor that hinders the growth of MSMEs in the manufacturing sector is what one interviewee termed "perceived low quality". Consumers still do not have trust in the quality of products that Basotho produces, especially those who manufacture cosmetics, creams, soaps, and lotions. It was suggested that this low perception can be improved if Lesotho introduces its bureau of standards that drives quality standards and does quality checks and analyses in the country. This can increase consumer confidence.

**Theme 4: Creativity and innovation**

Creativity is the process of generating ideas and innovation is the taking of new or existing ideas and turning them into action. Acar, Tarakci and van Knippenberg, (2019) indicate that to be successful in entrepreneurship, being creative is not enough. Another ingredient that is a necessity is innovation and this in turn requires the application of existing knowledge and the development of appropriate new knowledge.

Based on the interviews held with the different sectors, the connection of these concepts – knowledge, creativity, and innovation – which encourage entrepreneurial alertness is limited or non-existent in Lesotho's EE. One of the interviewees pointed out that in Lesotho, the main problem is the “copycat syndrome”. Explaining that if one person came up with an idea – setting up a popcorn-making machine, you will find that within a short space of time, the entire street is filled with street vendors popping popcorn.

**Theme 5: Access to finance**

A further two issues – cost and access to finance – were highlighted in the interviews held with the financial institutions. Basotho are unable to get financing for their businesses and this hampers growth for most businesses. Due to poverty and lack of jobs, a lot of graduates enter into business out of desperation and because they do not have any finances for their businesses, they cannot reinvest their profits into the business nor can they afford to invest in advertising.

Most MSMEs cannot get financing from financial institutions for various reasons, including that financial institutions have certain standards that MSMEs find difficult to meet. To open an account, businesses need to hire registered accountants who are approved by the banks to prepare their financials. These accountants charge high fees for their services and if a certificate of solvency needs to be prepared that also costs a lot. Additionally, MSMEs are required to have collateral in the form of money that is equivalent to the amount they need to borrow. This is not feasible for MSMEs, especially those who enter into manufacturing, because they require larger sums of money to meet their capital needs.

The government introduced the Partial Credit Guarantee Fund (PCGF) to assist MSMEs in accessing funds from banks. The expectation is that the banks should use this fund as a guarantee should MSMEs not be able to pay the banks. MSMEs are expected to raise a third of the money that they need from the bank. This used to be 50% which MSMEs could not easily achieve. According to the financial institutions, no start-ups or MSMEs have successfully been given or qualified for this grant.

**Theme 6: Collaboration and quality assurance**

Highlights were made that small businesses can benefit from collaborating with large corporations to succeed. An example was given of students in the wine-making business. Students from one university produced wine for their school-leaving project and due to the quality of the product were encouraged and supported by the university to approach large industries that could offer further support or collaborate with the students to get them into the wine market. It became evident from the interviews that the various sectors need to collaborate more efficiently instead of working in silos. The collaboration will drive the success of MSMEs in the country and action on the suggestions made by the different sectors.

Another issue that stood out in the interviews was the quality of products produced by Basotho. It was mentioned that consumers lack confidence in buying Lesotho-made products. Consumers doubt the quality of the products made in their own country so to remedy this situation; the establishment of government-run quality assurance institutions could increase consumer confidence.
Discussions

According to the outcomes of the interviews as discussed in the results section, the following themes seemed to be appropriate and needed for the growth of MSMEs operating in the manufacturing sector in Lesotho. These were policies and regulations, where the institution responsible is the government, entrepreneurial skills and knowledge where the institutions that contribute would be the universities, and access to finance where financial institutions play a role. The fourth sector is the media, whose role is to disseminate information to individual entrepreneurs who are willing to enter into and grow their businesses in manufacturing.

In addition to these factors, collaboration with large firms and the need to establish quality assurance institutions proved to also be a necessity. Along with these themes that identified the institutional elements required for MSMEs in the manufacturing sector, individual factors; entrepreneurial alertness, creativity and innovation, and knowledge and skills, also seem to be of vital importance for individuals operating in this sector. The themes that were identified are summarised in Table 2.

Table 2: Lesotho’s individual and institutional ecosystem factors suitable for the growth of MSMEs in the manufacturing sector

<table>
<thead>
<tr>
<th>Factors</th>
<th>Elements</th>
<th>Responsible or contributing institution(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual factors</td>
<td>Knowledge and skills</td>
<td>Universities</td>
</tr>
<tr>
<td></td>
<td>Creativity and innovation</td>
<td></td>
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<tr>
<td></td>
<td>Entrepreneurial mindset</td>
<td></td>
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<tr>
<td></td>
<td>Entrepreneurial alertness</td>
<td></td>
</tr>
<tr>
<td>Institutional factors</td>
<td>Government policies and regulations</td>
<td>Government</td>
</tr>
<tr>
<td></td>
<td>Development of infrastructure appropriate for manufacturing that is accessible</td>
<td></td>
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<tr>
<td></td>
<td>Dissemination of information on entrepreneurial opportunities opened markets and signed treaties</td>
<td>Government and media</td>
</tr>
<tr>
<td></td>
<td>Introduction of compulsory entrepreneurship modules in the curriculum</td>
<td>Universities</td>
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<td></td>
<td>Instilling an entrepreneurial mindset at an early stage in the syllabus</td>
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<tr>
<td></td>
<td>Access to finance</td>
<td>Financial institutions assisted by supporting Government policies and regulations</td>
</tr>
<tr>
<td></td>
<td>Establishment of quality assurance institutions</td>
<td>Government/ Licensed independent institutions</td>
</tr>
</tbody>
</table>
According to Ianioglo, (2022); Autio and Thomas, (2022); Aarikka-Stenroos, Ritala, and Thomas, (2021) in an entrepreneurial ecosystem the main actors are the entrepreneurs, government, financial institutions, universities, non-governmental organisations, and the media. The industrial ecosystem comprises various manufacturers, service providers, resources, and utility providers. Industrial ecosystems focus on industrial sustainable production where various actors are in symbiotic collaboration with one another and, value is extracted from each participant at no significant cost to the other (Aarikka-Stenroos, Ritala and Thomas, (2021). In line with these explanations and reviewing of the institutional and individual factors required for the successful growth of MSMEs in the manufacturing sector in Lesotho as illustrated in Table 2 and Figure 1 above it can be deduced that the factors of these two types of ecosystems ought to be linked to establish an ecosystem that is conducive for the growth of MSMEs operating in the manufacturing sector, as illustrated in Figure 2 below.
Figure 2: Linking the Entrepreneurial ecosystem and Industrial Ecosystem Factors

The union of the two sets of factors from the EE as well as the IE yields the following results: manufacturing industries in union with government, financial institutions, universities, media, and quality assurance institutions and, in collaboration with larger institutions assist individuals as manufacturers to gain appropriate knowledge and skills, entrepreneurial alertness and creativity and innovation. All of which are necessary to grow their businesses in the manufacturing industry.

Conclusions

The main purpose of this research was to develop a suitable ecosystem framework that highlights the elements and factors that, when working together, could create an environment suitable for the successful growth of MSMEs in the manufacturing sector in Lesotho; a developing country in sub-Saharan Africa. It was vital for this research not only to indicate these elements and factors but also to show how these could interrelate with one another. For a country such as Lesotho, government intervention is needed to create supportive legal and regulatory frameworks for MSMEs in this sector. At a very early stage in their curriculum, educational institutions should include entrepreneurial courses to foster the knowledge and skills necessary for all students to start and grow businesses in this sector. For Lesotho graduates, possessing sound business knowledge should be a way of life not just a supporting skill.

Financial institutions, through the support of the government, should offer financial support to those in the industry by lowering the stringent regulations that make it difficult for MSME owners to access funding. The media should disseminate information through various programs to increase awareness of existing entrepreneurial opportunities so that universities can continuously provide new and relevant programs for potential business owners. This should extend to those who are already in the industry. For individuals, having the necessary knowledge and the right skills increases their chances of entrepreneurial awareness, creativity, and innovation and enables them to recognize existing and potential entrepreneurial opportunities of which they can take advantage, turning them into businesses that grow.

Two new factors that have not been included by researchers to date were deduced from this study: quality assurance institutions and forming collaborative mentorships with larger firms. MSMEs in the manufacturing sector in developing countries, more so than their counterparts in developed countries, have to convince customers of the quality of their products. Therefore, a nationwide quality assurance institution that is run by the government is needed. This will help increase consumer confidence in locally manufactured products. Also, the collaboration of MSMEs with larger firms in a mentorship capacity is vital to have a good support system for the MSMEs throughout the value chain.

The outcomes of this analysis led to the conclusion that to create a conducive ecosystem framework, it is vital to link the elements of an industrial ecosystem with those of an entrepreneurial ecosystem. This shows therefore that as the business environment changes due to changing economic and entrepreneurial environmental demands, as is the case in Lesotho, so do the various concepts of the various ecosystem models. The need to merge or link various ecosystem models rather than regarding them as single isolated packages is no longer feasible.
The minimal availability of literature on studies done on EEs and even less so on other ecosystem models in Africa indicates that there is a gap in the research done in Africa, more especially in the sub-Saharan region of Africa. This research contributed to filling this gap, however, as there are still very few research articles produced regarding EEs in sub-Saharan African countries, more still needs to be done in terms of focusing on other industries in which MSMEs operate.

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References


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