

The approach by multinationals to engage in knowledge spillovers to advance the entrepreneurial ecosystem in South Africa

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## **Abstract**

The multinationals in the South African automotive manufacturing entrepreneurial ecosystem have challenges of growing capabilities and raising the competitiveness level of the local bottom tier suppliers required for deepening the local value chains and to realise increased local content in locally manufactured vehicles. This research aimed to generate insights and to gain an understanding of how the multinationals engage in knowledge spillovers to advance the automotive entrepreneurial ecosystem within the emerging market.

As the multinationals facilitate knowledge transfer, there are barriers that exist within the entrepreneurial ecosystem that inhibit the flow of knowledge to the local entrepreneurs. Identifying as well as understanding these challenges was found to be useful, to enable the multinationals to succeed in facilitating knowledge spillovers. In addition, having insights into the created value from the successful knowledge spillovers, may influence multinationals to increase their efforts thereto.

This was an explorative qualitative research that sought to identify the outcome, the processes and the barriers of the knowledge spillovers. Research data was collected from 12 semi-structured interviews, with participants from multinationals that had the experience of transferring knowledge to local entrepreneurs across seven multinationals from three auto manufacturing groups namely, the automotive, the heavy-duty as well as the parts and components manufacturers. These groupings were useful to the study as they allowed comparisons of data collected. A narrative analysis approach was used to analyse the qualitative data.

A conceptual framework on how the multinationals facilitate the knowledge spillovers is the end-product of the study. The study's similarities to the extant literature added to the existing body of literature. The identified differences to the extant literature generated a potential new addition to the existing body of theory on a country-specific approach to the knowledge spillovers.

## **Keywords**

Knowledge spillovers, entrepreneurial ecosystem, emerging markets, multinationals

## **Declaration**

I declare that this research project The approach by multinationals to engage in knowledge spillovers to advance the entrepreneurial ecosystem in South Africa is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Philosophy in International Business at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

27 November 2023

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## **List of Acronyms and Abbreviations**

AIDC - Automotive Industry Development Centre

AITF - Automotive Industry Transformation Fund

ASCCI - Automotive Supply Chain Competitiveness Initiative

BCtA - Business Call to Action

B-BBEE – Broad Based Black Economic Empowerment

ISO - International Organization for Standardization

JICA - Japan International Cooperation Agency

KD parts - Knocked Down parts

NAAMSA - National Association of Automobile Manufacturers of South Africa

NAACAM - National Association of Automotive Component and Allied Manufacturers

OEM - Original Equipment Manufacture

RFQ - Request For Quotation

R&D - Research and Development

SDG - Sustainable Development Goals

SEZ - Special Economic Zones

SMEs - Small and Medium Businesses

UN – United Nations

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# 1 CHAPTER 1: INTRODUCTION TO RESEARCH PROBLEM

## 1.1 Introduction

This chapter introduces the main research question, it presents the study's rationale and its academic relevance. The discussion starts with the research problem's background, as well as both the business and the theoretical relevance of the study. This chapter also covers the identification of the research problem and the gaps in the existing body of theory. As such, the study has a discussion on the entrepreneurial ecosystems and the related importance in the emerging markets. It investigated the multinational entities (multinationals), as the key role players in a host country through the knowledge spillovers.

The chapter also has a descriptive background of the automotive industry in South Africa as this research purported to understand the multinational knowledge spillovers within the local entrepreneurial ecosystems, their impact, and their contribution thereof.

The purpose of the research, its contribution to theory, and the scope of the research are covered in this chapter. These mentioned elements are discussed with regards to the approach by the multinationals to engage in the knowledge spillovers to advance the entrepreneurial ecosystem in South Africa.

## 1.2 Background to the research problem

The entrepreneurial ecosystems have attracted a lot of interest in scholarly literature over the past decade (Cao, 2018; Theodoraki et al., 2022), yet they remain under theorised in international business (Ratten, 2020a). The entrepreneurial ecosystem is defined by some scholars as a community that is made up of multiple stakeholders with actions that coevolve to provide a supportive environment that enables new venture creation to advance entrepreneurship within a region (Cao & Shi, 2021). This study viewed an entrepreneurial ecosystem as a holistic system, in which the interconnected actors interact interdependently (Theodoraki et al., 2022). According to Fu et al. (2021), the multinationals form part of these actors in their host country. Thus, it was crucial to study the causal link between host country's dynamics in an emerging market. This includes understanding the role that is played by the multinationals and the other actors within the ecosystem in the transfer of knowledge to advance the ecosystem. This study therefore, focused on the knowledge spillovers from the multinationals in the South African automotive industry (Fu et al., 2021; Jha et al., 2023).

The policy makers have in the past decade increased their focus on building thriving entrepreneurial ecosystems in their respective economies (Cao & Shi, 2021). According to Theodoraki et al. (2022), the policy makers in the emerging markets in particular, continue to embrace policies with an increased focus on developing their entrepreneurial ecosystems in an effort to stimulate vibrant entrepreneurship within their countries.

Andreoni et al. (2021) state that the local automotive industry is currently facing two challenges, the first being to achieve decent levels of local content in the locally manufactured vehicles. Secondly, it is having a less-developed value chain that has mostly affected the country's bottom tier suppliers. This is reflected in the small number of bottom tier suppliers, that are Small and Medium Enterprises (SMEs). The challenges that are faced by the SMEs within the automotive industry entail the lack of skills to advance the manufacturing activities within the sector which are exacerbated by the scarcity of financial and other resources such as infrastructure (Arnoldi, 2023). Similarly, the multinationals in the country's auto entrepreneurial ecosystem are facing a challenge of growing the skills gap that is reflected by the abundant workforce that is unskilled or that possess low-level skills (Arnoldi, 2023a). Arnoldi (2023a) states that this has subsequently driven up the cost of skilled labour, yet this was not matched with an increase in productivity in manufacturing.

This above mentioned socio-economic challenge has negatively impacted the localisation levels of the auto manufacturers in the country (Andreoni et al., 2021). The low levels are a direct result of the reduced manufacturing activity in the auto sector, the high labour costs, and low productivity which were found to have limited the ability by the SMEs to produce competitively (Abedian, 2023). Furthermore, Andreoni et al. (2021) argue that this is a direct consequence of the little focus by the multinationals with the manufacturing operations in the country, to grow the capabilities and the competitiveness of the local suppliers, amongst other reasons. As a result, the multinationals have in recent years increased their efforts that are directed at building the capabilities of the suppliers in the local supply chain. This was through participating in various programs that form part of the entrepreneurial ecosystem within the country's automotive industry through business incubators, accelerators, and other supplier development initiatives. This study highlights the multinationals' manufacturing operations in the country, that are aimed at building the capabilities within the local auto supply chain, with a focus on the automotive entrepreneurial ecosystem.

### 1.3 Business relevance of the study

As identified by the government of South Africa, entrepreneurship is a catalyst to fight the socio economic challenges such as poverty and the perpetual rising number of unemployed youth in the country (Fernhaber & Zou, 2022). As such, developing the local entrepreneurial ecosystem appears to be government led, as demonstrated by its policies and support that are aimed at developing the SMEs that are targeted at youth entrepreneurship. It was further reflected by the formation of a national department and other agencies to focus purely on policy and implementation as well as facilitating entrepreneurial funding.

Notwithstanding the efforts on entrepreneurship development by the government, it is important to note that the country's weak or institutional voids led to the poor implementation of its robust legislations and policies (Bendickson et al., 2021; Cao & Shi, 2021). As argued by Usman et al. (2021), the effectiveness of the institutions in the implementation of such regulatory policies is critical to foster and stimulate economic activities. Therefore, the South African government's ineffectiveness and weak institutions undermine its efforts on policy and support towards developing entrepreneurship and stimulating economic activity in this economic sector.

The impact of the country's weak or institutional voids and other factors appear to hold back the government policy interventions and support towards developing entrepreneurship. This has been reflected by the country's continued low rate of entrepreneurial activity as was reported by the Global Entrepreneurship Monitor (Hill et al., 2023). Lafuente et al. (2022) highlight that the Global Entrepreneurship Index (GEI) revealed that the country along with other African nations were reported to have the weakest results in the entrepreneurial ecosystems. The underperformance was noted to be significant in the areas of entrepreneurial development. This was in comparison to the Asian countries which were found to have the healthiest entrepreneurial ecosystems. Lafuente et al. (2018) also state that even though formal business activity was reported to have contributed positively to the economic growth across the continent, entrepreneurship in the African context including in South Africa, was mostly made up of informal business activity that was mostly necessity-led, as characterised by the small-scale businesses which are not capabilities led and are not geared towards productive entrepreneurship.

Bate (2021) states that South Africa's entrepreneurial ecosystem was reported to be performing poorly in providing the necessary skills for the creation of start-up, risk capital pillars, technology absorption, networking, as well as human capital in comparison to the other emerging markets. These were further exacerbated by the red tape and bureaucracy (Report, 2020). It must be noted that Lafuente et al. (2022) mention that low research and

development, coupled with the weak education that is focused on in entrepreneurship both at school and a tertiary level, as well as the social norms, significantly impact entrepreneurship.

Furthermore, Bate (2021) also states that the other social factors such as the oversupply of the unskilled population, as well as the low quality of schooling and tertiary education are not effective in equipping the nation to be successful in entrepreneurship. Therefore, the identified social factors were found to be posing a huge challenge for the policy makers whose role is to develop policies, and to create an enabling environment that stimulates increased economic activity. As such, calls were made for the other actors in the ecosystem including the multinational entities to actively play a role that will promote the development of entrepreneurship in the country, as the multinationals were reported by Bate (2021) to be dominant and to have a high growth orientation in the country.

#### 1.4 Academic relevance of the research

The entrepreneurial ecosystems researchers have made a great effort to advance the theory on the role of the multinationals as key actors where their presence in a host country was identified to have led to new resources, skills, advanced technology and the knowledge that is necessary for building the much needed capabilities in the emerging markets with an aim of building resilient economies (Fu et al. (2021). In addition Ryan et al. (2021) state that the multinationals have successfully anchored the foundation, and they have guided the genesis of the entrepreneurial ecosystems in the host countries through the spin-outs from the former employees. Furthermore, by driving improved competitiveness in the local suppliers as a result of upgrading the level of quality to meet the requirements towards becoming local service providers to the multinationals in the host country. In some instances, this market access has led to the local suppliers seizing export opportunities, and thus ultimately forming part of the multinationals' global value chains (Ryan et al., 2021).

It is without a doubt that the presence and the role of the multinationals in a host country bears more returns, than just being a key employer and a provider of goods or services. However, the social factors that are prevalent in the emerging markets require a comprehensive approach by the multinationals to achieve success in their efforts to promote and guide the entrepreneurial ecosystems. Cao and Shi (2021, p. 76) state that "little is known about how an entrepreneurial ecosystem operates in such environments". It is therefore, critical to understand the function of all the actors within the ecosystem in an emerging market with resource scarcity, weak institutions and structural gaps.

The role played by the multinationals in an entrepreneurial ecosystem was long established by the scholars to be directly linked to the multinationals' Foreign Direct Investments (FDI) inflow into a host country. This role is also demonstrated in the knowledge spillovers, as the FDI inflows promote exposure to both the resources and knowledge from the multinational (Jha et al., 2023). The scholars further argue that the emerging markets benefit from the knowledge spillovers as they promote social and economic development in a host country. This is demonstrated to be owing to the diversity of resources and knowledge that are transferred by the multinationals. These benefits were found to present learning opportunities and they encouraged upgrading the skillsets and the capabilities within a host country (Jha et al., 2023), further asserting the findings by (Fu et al., 2021).

In addition, the multinationals in South Africa were reported to have contributed to the development of the automotive (auto) local value chain with their continued investments in the resources towards developing a deeper supply value chain for the parts and components suppliers (Andreoni et al., 2021). However, the "spillovers have been modest and the industry has not developed into a competitive global hub" (Andreoni et al., 2021, p. 100). Owing to this, the role players in the sector have established various interventions in recent years and these include but are not limited to business incubations, industrial parks in the form of special economic zones, and industrial clusters, as a group all forming part of the entrepreneurial ecosystems in the South African auto industry that is located across seven provinces that have the automotive manufacturing of both vehicles and parts as well as components. These are aimed at promoting entrepreneurial activity through market, network and knowledge spillovers from the multinationals (Fubah & Moos, 2021), within the identified territorial context, which is South Africa (Theodoraki & Catanzaro, 2022). This study therefore focused on the knowledge spillovers in the form of the transfer of skills and capabilities, as well as innovative capacity amongst others, towards advancing the entrepreneurial ecosystem in the local automotive value chain and the related goods and services, that are required across the various business operations of the automotive multinationals.

### 1.5 Research questions

The main research question emanated from the literature review on the multinationals' spillovers and from a recommendation for future research that was made by Rammal et al. (2023) suggesting that there is a need for deeper insights on the process that is followed by the multinationals to facilitate the knowledge transfer as the existing theory is under-researched.

Owing to this, the below main research question was formulated:

How do the multinationals engage in knowledge spillovers to advance the automotive entrepreneurial ecosystem within an emerging market?

Furthermore, three sub-questions were formulated to expatiate the main research question.

Research question 1: What are the knowledge spillovers from the multinationals in an emerging market entrepreneurial ecosystem?

Research question 2: What are the processes that are followed by the multinationals to transfer knowledge spillovers within the entrepreneurial ecosystem?

Research question 3: What are the barriers in the entrepreneurial ecosystem that inhibit the transfer of knowledge spillovers and how do they do this?

Chapter 3 further below, expatiates on the formulation of the research questions.

## 1.6 Research aims

This study sought to understand the process that is followed by the multinationals to facilitate the flow of knowledge spillovers to advance the entrepreneurial ecosystem. In doing so, the researcher investigated the various types of knowledge spillovers that are found within the ecosystem, and the process to facilitate the transfer by the multinationals. The study also sought to understand the barriers that inhibit both entrepreneurship, and the transfer of knowledge spillovers within the ecosystem.

## 1.7 Research contributions

This study will contribute to the existing body of knowledge in twofold. Firstly, it serves to contribute to the existing under theorised scholarly literature by developing on the entrepreneurial ecosystems with a focus on the late comer emerging markets (Cao, 2018). Secondly, to better understand the multinational knowledge spillovers in an entrepreneurial landscape.

The automotive manufacturing industry in South African is the focus of this study. Automotive manufacturing has been instrumental in the development of countries, by driving structural transformation in both the developed and the emerging economies globally. In recent decades, this was observed in Asia and Latin America's emerging markets. Structural

transformation from automotive manufacturing was found to be instrumental in the industrialisation of many countries, and it is not only limited to the actual manufacturing of automobiles as it also includes the industry's multiplier effect to the local value chains (Bell & Monaco, 2021).

The academic scholars of the emerging markets' entrepreneurial ecosystems have previously called for contributions to the existing literature. Mainly as the current literature on the phenomenon is missing an in-depth understanding on the interconnectedness of the limited resources that are prevalent in the emerging markets and their impact on the social pre-existing conditions, impacting the flow of knowledge. This study therefore channelled a context-centric perspective with a focus on the role of the environmental factors, at an industry, regional or national contexts to induce entrepreneurial activity (Yan & Guan, 2019).

In addition, this study focused on the multinationals as one of the key actors within the ecosystem. Bendickson et al. (2021) state that the knowledge spillovers have the potential of mitigating the challenges that are presented by the structural barriers and institutional voids. Fu et al. (2021) argue that the knowledge spillovers in an entrepreneurial ecosystems are not an automatic process as they require the prevalence of a knowledge base, as productive entrepreneurship is reported to thrive in countries that provide favourable conditions with a rich knowledge base for start-ups (Lafuente et al., 2022). The multinationals in the developing markets have been identified to play a role that enables knowledge spillovers (Fu et al., 2021). Furthermore, the multinationals are found to enable a vibrant ecosystem. This includes the ability to create an enabling environment through the creation and sharing of technical, technological and entrepreneurial knowledge (Ryan et al., 2021; Stam & Van de Ven, 2021). It was therefore, the intention of the study to understand the willingness of the multinationals in creating an enabling environment (Ryan et al., 2021; Stam & Van de Ven, 2021).

According to Rammal et al. (2023), the existing studies mentioned the coordination of expertise by the employees as the known approach that is followed by the multinationals to transfer knowledge spillovers into an entrepreneurial ecosystem. Thus, this identifies a literature gap that positions this study to contribute towards furthering international business research in the field of knowledge spillovers. In addition, this research will further build on the research gap as identified in a study by Ratten (2020a), that suggested that more research is needed to understand and to increase the awareness of how specific ecosystems such as the automotive ecosystem in this instance, operate in various parts of the world such as South Africa. Currently, the South African entrepreneurial ecosystem is



under-represented in international business research. Given the country's contexts, this may lead to a more in-depth link between the entrepreneurial ecosystems to the knowledge spillovers theory.

### 1.8 Scope of the study

The scope of this inductive and explorative study focused on the entrepreneurial ecosystem in South Africa's automotive manufacturing industry. The dynamic nature of an entrepreneurial ecosystem entails multiple actors interacting and collaborating towards realising an effective knowledgebase within the ecosystem, whereby the flow of multinational knowledge spillovers is known to be an enabler to the entrepreneurs within the ecosystem (Theodoraki et al., 2022). Furthermore, Audretsch and Link (2019), also found that the disposition of the knowledge exchange and entrepreneurial enthusiasm is known to influence the depth of the knowledge spillovers, and this will most likely lead to high knowledge spillovers within the ecosystem.

This study positions the local automotive industry as an entrepreneurial ecosystem notwithstanding the current form and structure that is one that has territorial concentration of interacting firms within the same industry (Autio et al., 2018; Cavallo et al., 2019), which will classify the ecosystem to be traditional industry clusters because an entrepreneurial ecosystem should not be viewed as a concept that is industry specific. It can, however, be argued that the South African automotive ecosystem can be classified as an entrepreneurial ecosystem due to a presence of a prevalent shared knowledge base as defined by Autio et al. (2018), and it also has a wider reach encompassing firms and other actors with national and regional networks that are interconnected and that interact to advance entrepreneurial activity within a geographical territory as defined by Theodoraki and Catanzaro (2022).

Therefore, adopting the narrative research approach was found to be useful towards the study, as it intended to probe and uncover the general findings from the stories that are told by the managers within a multinational operating in South Africa in the automotive sector. These are the managers that interact with various entrepreneurs.

### 1.9 Structure of the report

The rest of this report will take a structure that starts with Chapter 2, with a flow that is structured to present the key constructs and related sub-sections from literature, by covering multinationals, the knowledge spillovers, and the entrepreneurial ecosystem in the emerging markets. Chapter 3 expatiates the research questions that were designed to provide an answer to this study. Chapter 4 outlines the research methodology that was adopted in the

collection of the data. The research findings are presented in Chapter 5, which is followed by Chapter 6 which has an outline of the comparison of the findings to academic literature. Chapter 6 also presents the outcome of the research process as reflected in the conceptual framework. Chapter 7 sets the conclusion to the study, together with the identified limitations of the study and the suggestions for future research.

Chapter 2 covers the literature review.

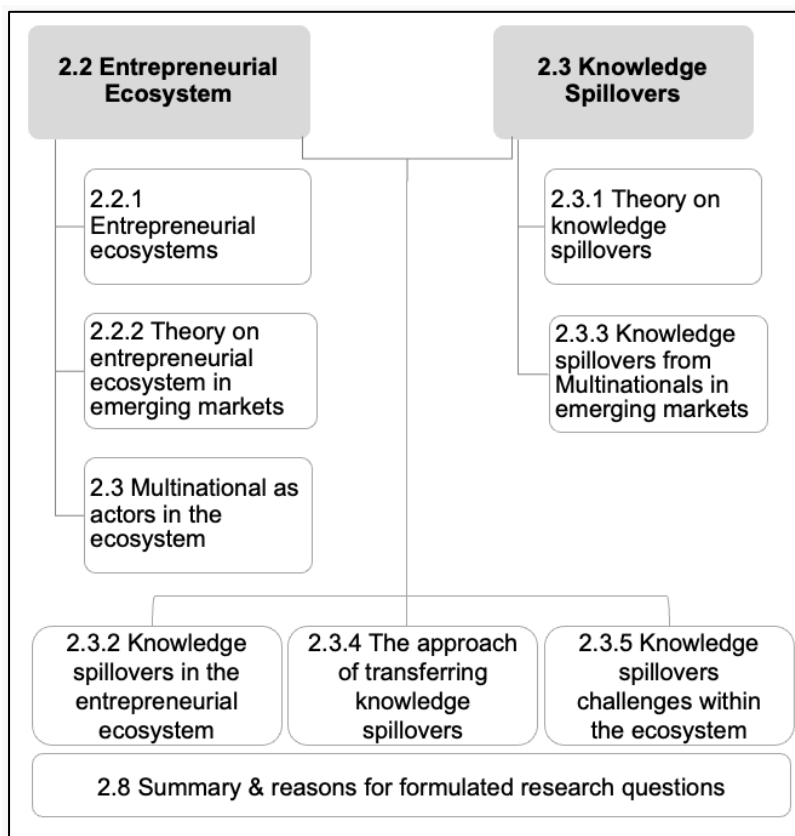
## 2 CHAPTER 2: LITERATURE REVIEW

### 2.1 Introduction

This chapter reviews the literature on the multinationals' knowledge of the spillovers within the entrepreneurial ecosystem in an emerging market. To provide an overview, the entrepreneurial ecosystem phenomenon is defined as an engine for economic growth towards the creation of new ventures and sustainable businesses, adopting the lenses of the knowledge spillovers theory (Acs et al., 2013). The role of the multinational entities in the ecosystems was studied, as well as the interaction of the other constructs as identified for this study.

In addition to the multinationals, the other two key constructs were systematically reviewed, and this included the definition, the identification of the key concepts or topic, the scope and the context. The two constructs and the related sub-constructs are summarised in each section as follows:

Figure 1: Structure of the literature review



Source: Author's own.

## 2.2 Entrepreneurial ecosystem

### 2.2.1 Entrepreneurial ecosystem defined

Johnston et al. (2018) define the entrepreneurial ecosystem as a wide range of factors that are likely to influence the formation of new business ventures. Such factors focus on various important areas including policy, markets, human capital, culture, and the required support which includes but is not limited to financial, and technical aspects. Furthermore, the entrepreneurial ecosystem is described as a “localised union of cultural outlooks, social networks, investment capital, universities and active economic policies that create environments supportive of innovation-based ventures” (Johnston et al., 2018, p. 222). Thus, the factors that are listed above, require the scholars to recognise that the ecosystem is influenced by, and it is dependent on the presence of various elements in a geographical location.

Stam (2015) places the entrepreneurial individual at the centre of the ecosystem. This shows the importance of the entrepreneurship role and driving the growth of the ecosystem through of productive entrepreneurship. Furthermore, the entrepreneurial ecosystem approach recognises the importance of regional economies, and the public as well as the private stakeholders’ role (Stam, 2015). This is captured in this definition, “The entrepreneurial ecosystem comprises a set of interdependent actors and factors that are governed in such a way that they enable productive entrepreneurship” (Stam & Van de Ven, 2021, p. 809). This definition, therefore, emphasises the importance of various actors within the ecosystem.

According to Cao and Shi (2021), the entrepreneurial ecosystem is dynamic in nature. This dynamic nature is described by Johnston et al. (2018), to be evolving and that these dynamics include having both the spatial and the relational dimensions. The relational dimension considers interdependent elements and actors so that their interaction can lead to the creation of new businesses. The spatial dimension recognises the creation of a new venture in a geographical area, where the entrepreneur’s interaction with the other elements in the ecosystem is enabled by the conditions that are conducive for a sustainable entrepreneurial success. It is therefore, found that the entrepreneurial ecosystem encompasses a holistic approach, further asserting a perspective by Cohen (2006).

### 2.2.2 Entrepreneurial ecosystem in emerging markets

The study took a context-centric perspective, with a focus on an entrepreneurial ecosystem in an emerging market. The literature on the entrepreneurial ecosystems in the emerging markets is at an exciting stage where the scholars continue to show a lot of interest,

however it was still found to be evasive (Ratten, 2020a). It is important to note that it is not possible for the emerging markets to sustain the driving force that enables the evolution of an ecosystem without the government's support by artificially creating entrepreneurial resources (Harima et al., 2021). Such an injection is facilitated by the public organisations that can be considered to anchor and are the central players whose actions spur the ecosystem creation and development by facilitating resource injections from the government to the entrepreneurial ecosystem. The strategic intent of such public organisations is to leverage synergies, and to equally seek to boost the entrepreneurial activities within the geographical territory towards advancing the economic development (Harima et al., 2021).

Ribeiro et al. (2023), mention that it is essential for the support towards the entrepreneurs in the ecosystem to entail the development of an inventory of resources in a region, where the inventory will provide the insights into the priority resources towards achieving a sustainable ecosystem as well as the available resources for various business types and maturity. In addition, Ribeiro et al. (2023) further identified the monitoring of the performance indicators that are required for identifying the critical gaps for growth and for connecting the entrepreneurs within the ecosystem with the experts and this is aimed at expanding their social network. The physical infrastructure such as the shared office space was also identified as an essential required support system in the ecosystem to foster knowledge spillovers from the successful entrepreneurs to the new start-ups as this can also facilitate the exchanging of cultural and societal norms as this will be instrumental to establish a community identity that will foster collaborations and cohesion among various actors. In addition, this can include access to finance by mapping available investors, access to market networks and human capital. To sum it up, the specified support measures towards the entrepreneurs in an emerging market were identified to enable various actors towards the development of a thriving ecosystem.

In addition to leveraging and integrating scarce resources to develop and apply compositional capabilities, the entrepreneurial ecosystems in the emerging economies are presented with opportunities and challenges that are unique to the developed economies (Prashantham et al., 2020). As a result, the knowledge that is applied in the developed economies is in some instances found to be inapplicable in the emerging markets. This makes the emerging market entrepreneurial in nature.

### 2.2.3 Elements of an entrepreneurial ecosystem

More importantly, the systemic conditions are found to be in the centre of the ecosystem (Malecki, 2018). As such, it was identified to be a community of various stakeholders that are

inter-connected, and that interact to enable an environment towards the formation of new ventures within a geographical area (Cao & Shi, 2021; Shwetzzer et al., 2019). Furthermore, the entrepreneurial ecosystems are characterised by interdependent, interacting elements and actors that may lead to the discovery, the pursuit and the generation of new ventures (Theodoraki & Catanzaro, 2022). Cavallo et al. (2019) highlight how the interaction between the entrepreneur and the other elements is, towards creating the conditions that are conducive for sustainable entrepreneurial success.

These elements include but are not limited to mentorships, co-working spaces, the accelerators of business ventures, the knowledge towards cultivating improved business models and innovations (Jones & Ratten, 2021). “Entrepreneurial ecosystems are a means to create and maintain a dynamic local process of entrepreneurship as cumulative causation” (Malecki, 2018, p. 5). Therefore, it is important that the interactions of elements and their complementarity be established, as this will afford the much needed support into the ecosystem to lead the creation of new ventures, along with the related growth thus, leading to a vibrant entrepreneurship within a region.

The vibrancy of the entrepreneurial ecosystem is beneficial for entrepreneurial performance, and it is clearly reflected with an increased number of entrepreneurs. To ensure that the vibrancy of the entrepreneurial ecosystem is not only measured by one dimension which focuses only on the number of created new ventures, this should incorporate ecosystem support to the existing industries towards promoting high growth industries, and increased economic activity within a region (Yan & Guan, 2019). Therefore, the vibrancy of the entrepreneurial ecosystem is reflected by the increase in a number of new ventures and the growth that is showed by the sustenance of such ventures over time.

Lai and Vonortas (2019) highlight two sets of factors that are identified to impact the related entrepreneurial activities directly and indirectly. Knowledge, human capital, market demand and financial resources, are argued to directly impact the entrepreneurial activities. The indirect factors were identified to include cultural and structural factors, the availability of research institutions, the dominance of multinationals and the domestic companies.

To conclude, and leaning on a simplified definition by Yan and Guan (2019), the entrepreneurial ecosystem is the entrepreneurs in a community interacting with their environment. A widely accepted description for an entrepreneurial ecosystem is one that recognises that the ecosystem is made up of interdependent actors and the coordination of elements, towards enabling the creation of new ventures and supports productive entrepreneurship (Stam, 2015; Stam & Van de Ven, 2021). It was found that the systematic

conditions must be at the centre of the ecosystem, and this will allow for the interaction of various elements that are present in the ecosystem to determine the success of entrepreneurship in the region. Furthermore, for an entrepreneurial ecosystem to be seen as dynamic and evolving over time, it is imperative that there is a prevalence of a creation of cumulative growth of new business ventures in the region or in the nation.

### 2.3 Multinational entities as actors in the entrepreneurial ecosystem

In addition, Papanastassiou et al. (2020) defined the role of a multinational to be that of a strategic leader whose operations in a geographical location embody the strategic initiatives known to possess and demonstrate higher levels of in-house best practises and as such contribute to location-specific factors from the Research and Development (R&D) activities from the multinational. Such a subsidiary, therefore, secures this status by a practise of building their own resource and knowledge base and the related capacities from the market insights and technologies which are found to be accessible in the host country, owing to the R&D activities that are conducted by the multinational and thus encompass the knowledge spillovers into the ecosystem. As such the new R&D opportunities owing to the location-specific factors within the multinational's business activities have a positive effect in the spillovers that may result in the formation of new entrepreneurial opportunities within the ecosystem, as the research activities from the firms within an ecosystem are often found to be the source of the knowledge spillovers (Lai & Vonortas, 2019).

#### 2.3.1 Multinational entities FDI Inflow

This study focused on the multinationals as one of the key actors in an entrepreneurial ecosystem in the context of South Africa being an emerging market. Firstly, Dunning's eclectic Ownership, Location, Internalization (OLI) paradigm and the internalisation theory are considered to be dominant in the multinational FDI literature (Theodoraki & Catanzaro, 2022). The study looked at three ways that the multinationals leverage country resources to compete in foreign locations (Dunning, 2001). Leaning on Dunning (2001), Paul and Feliciano-Cestero (2021), studied the attractiveness of the host country's location advantages as the determinants for a multinational's entry and decision to invest in a country. These determinants include the host country's market size, its infrastructure, the government policies that are aimed at regulating the entry barriers as well as attracting FDI, as well as the cost of labour and production. Paul and Feliciano-Cestero (2021) found that the multinational's investment decision into a foreign country seeks to fulfil three identified strategies that are namely, the strategic seeking, the market-seeking, and the efficiency-

seeking activities. It is therefore found that MNE FDI is grounded in Dunning's OLI paradigm with a specific focus on the host country's location advantages.

In addition to Dunning's OLI paradigm, the researchers in IB have largely covered the entry of the multinationals into an emerging market to be one that mitigates the impact of resource scarcity through the transfer of resources, in the form of the FDI from one economy to the host country (Fu et al., 2021; Harima et al., 2021). As such, Fu et al. (2021) found that the FDI inflows from the multinationals have various positive effects on a host country, these are in the form of the product and services sophistication and diversification, improved productivity and the increase in export orientation and also the knowledge transfers and technology diffusion. Furthermore, the multinationals' entry into an emerging market can lead to structural transformation which can have lasting impacts through increased levels of manufacturing productivity and ultimately through industrialisation in the host country (Fu et al., 2021).

The multinationals' role is demonstrated in the knowledge spillovers, as according to Jha et al. (2023), the FDI inflows of a higher quality promote the exposure to resources and knowledge. The higher quality FDI inflows in this instance, refer to the FDI inflows that are associated with the structural transformation, and they lead to increased economic growth in the host countries. The FDI inflows are referred to as a multilateral phenomenon (Jha et al., 2023). The related global partnerships and networks enable access to a diverse knowledge of various contexts and the knowledge spillovers thereof, which lead to the development of the host country. Jha et al. (2023) further argue that the multinationals' resources and knowledge lead to learning opportunities, and these translate to the upgrading of skills, as well as capabilities in an emerging market host country. Furthermore, these allow for the emerging market to catch up with the capabilities and the technologies in the advanced markets. The knowledge spillovers, therefore, manifest in upgraded capabilities and in the specialisation of the local resources, and these ultimately result in the comparative advantages of the country.

The entry of the productive foreign firms in some instances render the domestic ones to be uncompetitive, thus leading to productivity losses within the domestic market with a simultaneous increase in the export of goods which were mostly sourced from the domestic market (Fu et al., 2021). This results in a shift in productivity distribution from domestic to global sourcing, which is negatively impacted by the lack or the limited knowledge spillovers between multinationals and the local suppliers. This is also heightened by the unintended lack of interest to support the local developmental objectives by the multinationals as they



may not contribute to the competitiveness of the multinationals operating in an emerging market (Fu et al., 2021).

### 2.3.2 Multinationals' role in contributing to the global sustainability efforts

The study on the multinationals also recognises that as the multinationals' operations are informed by the global practices, their actions in their host countries have in the recent decade been observed to respond to wider societal goals towards contributing to their global sustainability efforts. This indicates that to an extent, the discourse by the multinationals has moved away from solely seeking to grow their profitability (Prashantham & Birkinshaw, 2020). Prashantham and Birkinshaw (2020) shed insights on a model of cooperation amongst both the multinationals and the local entrepreneurs with a dominant perspective focusing on meeting the societal needs in the emerging markets.

In an entrepreneurial ecosystem, the actions by the multinationals thus seek to address the societal grand challenges such as promoting inclusivity by reducing inequality, and the provision of self-employment opportunities to advance economic growth (Fernhaber & Zou, 2022; Prashantham & Birkinshaw, 2020). To achieve sustainable economic development (Prashantham & Birkinshaw, 2020), the entrepreneurship in the emerging markets is observed to be focused on the opportunities that offer solutions to the societal challenges which mostly require innovative and bold stances. It is in this area where the multinationals have predominantly been found to engage with the emerging markets' local entrepreneurs in response to wider societal goals and equally towards achieving the multinationals' global sustainability targets.

Furthermore, Prashantham and Birkinshaw (2020) state that the Sustainable Development Goals (FUND, 2015) stand a great chance of being realised when the multinationals' sourcing strategies and supply chain practises promote inclusivity. This includes the adoption of a more equitable distribution of the sourcing of products or services, and thus the broadening of the opportunity set to local entrepreneurs, thereby granting market access and support towards building the required capabilities to these entrepreneurs (Prashantham & Birkinshaw, 2020). It is, therefore, crucial to note that the multinationals' engagement with the local entrepreneurs is such that it leads to collaborative efforts in offering lasting solutions to the grand challenge in the emerging markets.

Therefore, the role of the multinationals within an ecosystem is summarised to enlist various activities related to being a source of FDI inflows, and these are extended to engaging with

local entrepreneurs to respond to wider societal goals whilst achieving the multinationals' global sustainability targets.

### 2.3.3 Multinational's impact on human capital

The multinationals also assume the role of building absorptive capacity which is compatible with the global standards, by enabling knowledge dissemination into the emerging market through labour capability building that is done by imparting skills and the training of the employees (Amendolagine & Rabellotti, 2023) and through the hiring of the former employees of the other multinationals (Fu et al., 2021). Furthermore, Bhawe and Zahra (2019) highlight that the multinationals promote entrepreneurial development through employee spinouts as a direct effect of the knowledge spillovers and the employees' capabilities.

The presence of the multinationals also has negative effects on an emerging market, with skill retention practices in the multinationals as well as with the preference to the skilled labour from the other parts of the globe over the domestic skill pool, as this tends to slow down the knowledge diffusion in a country (Fu et al., 2021). Such also includes the crowding-out effect that the multinationals have on the local firms owing to the pressures of competitiveness.

Therefore, the multinationals' role includes competency building in the employees which in some instances led to employee spinoffs, the upgrading of capabilities of domestic firms and a natural player in industrial upgrading where these firms integrate into the multinationals' local network and the global value chains (GVC). The FDI inflows from the multinationals therefore are found to result in various positive effects in a host country, such as improved productivity and increased sophistication in export orientation. The other positive effects such as the knowledge transfers and technology diffusion, that are commonly referred to by the scholars as knowledge spillovers are addressed at length below.

## 2.4 Knowledge spillovers

### 2.4.1 Theory on knowledge spillovers

This study also postulates on the knowledge spillover theory of entrepreneurship as observed within an entrepreneurial ecosystem, as the theory positions entrepreneurship as a vehicle to transmit knowledge (Qian, 2018). The theoretical implications of this study outline the theoretical grounding of the existing research on the entrepreneurial ecosystems, in which the knowledge spillovers are applied to advance the entrepreneurial ecosystems research in the emerging market context. Understanding the knowledge spillovers in an

entrepreneurial ecosystem and the interaction of various actors is necessary to advance the dissemination of knowledge from the multinationals into the entrepreneurial ecosystem and also, the broader society within an emerging market. However, Jones and Ratten (2021) state that the existing literature does not prescribe detailed insights into the ways and methods on how to advance the dissemination of knowledge from the multinationals into the entrepreneurial ecosystem due to the unstructured nature of knowledge spillovers, and as such this study sought to uncover the research gap as highlighted by Jones and Ratten (2021).

The theory of the knowledge spillover of entrepreneurship was introduced by Lai and Vonortas (2019) who were seeking to explain how knowledge is utilised and thus transformed into marketable innovations. Lai and Vonortas (2019) therefore referred to newly discovered knowledge as a source of marketable opportunities, that led to entrepreneurship, where entrepreneurship is considered to be a conduit of knowledge spillovers. The scholars referred to new knowledge to represent the discovery of entrepreneurial opportunities. Within an ecosystem, the higher levels of knowledge are therefore considered to be the precursors of increased entrepreneurship (Lai & Vonortas, 2019). Therefore, newly discovered knowledge is a foundation of entrepreneurial ideas, and consequently the entrepreneurial activities are considered to be a conduit of the knowledge spillovers.

The knowledge spillovers are valuable within an entrepreneurial ecosystem (Theodoraki & Catanzaro, 2022), however, in an emerging market with institutional voids, the importance of the knowledge spillovers within an entrepreneurial ecosystems is much higher, as the knowledge spillovers can mitigate the challenges that are imposed by the institutional voids, through the sharing of information to navigate the situation (Bendickson et al., 2021).

The international business scholars have alluded to the crux of knowledge as being a firm-specific advantage which is idiosyncratic, and leveraged by the multinationals in their host countries where the knowledge spillovers inevitably occur outside the multinational firm itself (Belitski et al., 2023). The knowledge spillovers have been identified to promote the creation of mass knowledge and learnings within the social network in an ecosystem, as a result this may lead to persistent rapid growth and in some instances, is likely to lead to the organisational scaling of firms (Belitski et al. (2023)). Therefore, the knowledge spillovers amongst a network of firms are likely to result in the persistent rapid growth of the firms.

Qian (2018) defines knowledge spillovers as the increased societal knowledge that occurs without the recipient incurring costs to pay for the learning and as such, it is different to

knowledge transfer. Knowledge transfer occurs when knowledge is acquired at market related rates from the other entities or from individuals, without the recipient investing in research and development costs. Ferreira et al., (2023) refer to the practice as the knowledge sharing effect, as it provides society with access without paying for the acquisition of the new knowledge owing to the established relationships. The knowledge spillovers occur when knowledge flows unintentionally from an actor and directly influences the economic activity of the other. As such, the knowledge spills over from the firms to the society, and it has an impact of improving the technical level in a society (Fredin & Lidén, 2020). Therefore, the knowledge spillovers refer to the transfer of knowledge without the recipient paying for the shared knowledge, as a result of an existing relationship. The upcoming paragraphs look into the knowledge spillovers that occur within an entrepreneurial ecosystem.

#### 2.4.2 Knowledge spillovers in the entrepreneurial ecosystem

Noting the difference between the ecosystem perspective to that of a traditional competitive market place, it is imperative for the entrepreneurial ecosystems in the emerging markets to promote a culture and an environment that are conducive to the creation of new ventures, as highlighted by Fredin and Lidén (2020). This entails creating an environment where the risk tolerance is appreciable towards the failures and the mistakes in the same breath as the culture that embraces and celebrates the visible success stories, the attitudes and the international reputation. It is the learnings from the failures and the mistakes that are priceless to the entrepreneurs' journey to success. Furthermore, it is through learning that the ecosystem evolves and adapts (Fredin & Lidén, 2020). Fredin and Lidén (2020) state that in the evolution of the ecosystem, productive entrepreneurship is the key outcome of the system and it must be regarded as an important characteristic of the ecosystem which is evidenced by the success entrepreneurship stories, as well as by recognising the entrepreneurial ecosystem as a concept that emanated from the efforts to understand the complex process of entrepreneurship.

It was suggested that the individuals like to create business ventures when they are afforded access to knowledge spillovers (Fubah & Moos, 2021). Therefore, this suggests that the knowledge spillovers in an ecosystem are most likely to drive improved levels of entrepreneurship in a region. This was further affirmed by Cavallo et al. (2019) that the main objective of a thriving or a vibrant entrepreneurial ecosystem (EE), is not limited to venture creation but also to the generation of resilient and sustainable economic activity which embraces entrepreneurial innovation overtime, as a direct result of the flows of what is considered to be rich knowledge.

By design, the entrepreneurs are mostly dependent upon the other actors, and it is mostly required that they collaborate with different actors and institutions to access resources (Fredin & Lidén, 2020). As the emerging markets face multiple challenges including limited resources, the entry of a multinational into an emerging market not only represents the FDI inflow, but also the transfer of the other non-financial resources into the host country, such as the skills through human capital, knowledge and the advanced technologies (Harima et al., 2021).

Knowledge is an important and valuable resource in the organisations, as such the entrepreneurs find themselves in a disadvantaged position by competing for the knowledge that is generated by and is in the possession of the big firms, thus the entrepreneurial ecosystem bridges the gap with the knowledge spillovers within the ecosystem (Qian, 2018). This ecosystem is made up of co-dependent economic actors that are intentional about the creation of value (Ferreira et al., 2023a), and they are coordinated to create an environment that is conducive for productive entrepreneurship (Cao, 2018). Therefore, the intention of the ecosystem is to facilitate resource allocation, along with the creation of opportunities amongst the other actors and entrepreneurs, thereby forming the broader ecosystem (Ferreira et al., 2023a). Moreover, when the social capital is effectively utilised within an ecosystem, it will enable a more collaborative environment that is conducive for the creation of entrepreneurial activities (Jones & Ratten, 2021). Social capital is defined as the interactions between the actors in an entrepreneurial ecosystem that facilitate access to knowledge, to the market, and to financial resources (Kansheba & Wald, 2020).

The researchers have established a relationship between the knowledge spillovers and the entrepreneurial ecosystem (Bhawe & Zahra, 2019; Fu et al., 2021). Qian (2018) recognised knowledge as a key ingredient in regional economic development while Kansheba and Wald (2020) identified knowledge as one of the key factors that are critical to advance the productivity of an entrepreneurial ecosystem. Furthermore, the knowledge spillovers can lead to innovations in the entrepreneurial ecosystem, thus leading to improvements or enhancements in processes, cost saving and efficiency (Ferreira et al., 2023a). By design, an entrepreneurial ecosystem allows for collaborative ways to utilise knowledge, as such the social capital in an entrepreneurial ecosystem directly accelerates knowledge spillover entrepreneurship, through the enhanced networks embedded in the interconnectedness amongst the actors within an entrepreneurial ecosystem (Qian, 2018). Thus, affirming an insight by Jones and Ratten (2021) that the ecosystems that effectively enable interactions and collaborations, yield increased levels of knowledge spillovers that will also lead to new knowledge being commercialised (Qian, 2018).

Equally, literature has been instrumental in unpacking the benefits that are present in an entrepreneurial ecosystem, and these have been summarised by Yan and Guan (2019), to include the access to financial resources, the policies with a focus on promoting local entrepreneurship, the government programs replicating the learnings from successful local entrepreneurial cases, the research and development from the multinationals (Ferreira et al., 2023), the local universities and institutes of learning made available for the local SMEs, the market access to the existing industries with high barriers of entry and competition, the access to physical resources such as infrastructure, and finally the social norms that are prevalent in a community or in a region that encourages entrepreneurship.

In addition, Yan and Guan (2019) mention that the entrepreneurship related education and skills that are learned in a formal or informal setting as afforded by the ecosystem, are instrumental to advance self-efficacy in the individuals who seek to take part in the entrepreneurial activities. Therefore, the identified benefits were found to be present in the entrepreneurial ecosystems from both the developed and the emerging markets, however their benefits to an emerging market were found to be much more instrumental in closing the gap that was effected by the institutional voids or weaknesses. Therefore, the importance of the entrepreneurial ecosystem in an emerging market, cannot be overemphasised.

Lux et al. (2020) emphasise that the ecosystem is where the individuals discover and exploit business ideas in creating newly invented goods and services in a broader context. It is therefore necessary for the entrepreneurial ecosystem to possess business conditions that enable productive entrepreneurship. In an emerging market, these are evidenced by the innovation in products, in services as well as in business processes (Autio et al., 2018; Lux et al., 2020). As such, some entrepreneurial ecosystems are identified to be stagnant in a state of subsistence as they are unable to realise growth through the formation of new ventures or to promote the success of the existing enterprises (Lux et al., 2020). In such an instance, it is necessary to rectify such deficient business conditions to improve the performance of the individual enterprises and to drive the region towards having a vibrant economic activity.

#### 2.4.2.1 Knowledge base within the ecosystem

Fredin and Lidén (2020) suggest that the more knowledge-rich actors there are in the ecosystem, the more vibrant the entrepreneurial ecosystem will be. Furthermore, it was highlighted that the knowledge spillovers in a vibrant entrepreneurial ecosystem have the

potential to create an enabling environment for innovation (Ferreira et al., 2023a). The knowledge spillovers occur during the ongoing interactions between the people and firms, thus collaborating within an ecosystem (Fredin & Lidén, 2020), where knowledge as the key resource is utilised towards the creation of new ventures and innovation (Cao & Shi, 2021). Therefore, this emphasises the importance for the multinationals as one of the actors, to be knowledge-rich to contribute meaningfully to the ecosystem.

According to Audretsch et al. (2020), entrepreneurial activity is dependent on both new and existing knowledge to promote and drive economic development within an ecosystem. According to (Audretsch et al., 2020), the area of knowledge exploration and exploitation was changed by the adoption and the firms' interaction of the digital technologies, as this enables for new knowledge to spill over within the firms in an entrepreneurial ecosystem. In the ecosystem, entrepreneurship involves the role played by the entrepreneurs in the formation of knowledge and the related processes that result in the commercialisation of an opportunity. Within the digital economy, the argument for the speed of accumulating knowledge and related exchange within the ecosystem, presents a challenge of underinvestment in the knowledge by the firms within the ecosystem. The underinvestment in knowledge is likely to negatively impact the productivity and the innovation of a firm and therefore it will reduce the opportunity for the firm to generate and capitalise in new knowledge that is referred to as the key enabling technologies (Audretsch et al., 2020). Thus, this presents growing pressure for the entrepreneurs to improve the knowledge base to succeed when operating within a dynamic ecosystem (Bruton et al., 2018).

Another necessary upgrade from the entrepreneurs is the knowledge spillover that will drive the upgrading of the local technological capabilities which in most instances lead to structural development, as this will result in a direct impact of improved competitiveness and sophistication in products and services that are seen in increased product exports from the emerging market businesses (Fu et al., 2021; Ryan et al., 2021). Fu et al. (2021) refer to the structural development as being economic outputs where the enterprises in an emerging market move from having low processing capabilities towards the activities that lead to higher-value-adding production outputs and thus leading to industrialisation in a less developed market. Therefore, the knowledge spillovers can lead to structural developments which are transformative in nature.

In conclusion, therefore, the more knowledge-rich actors there are in the ecosystem, the more competitive the entrepreneurial ecosystem is as the knowledge spillovers are likely to result to in the innovations within the entrepreneurial ecosystem, thus leading to improved or

enhancements in processes, and structural developments which are transformative in nature.

#### 2.4.2.2 Innovations within the entrepreneurial ecosystem in the emerging markets

According to Sun et al. (2021), the conditions that are imposed by the institutional voids require the entrepreneurs in the emerging markets to be resourceful to cope, without the advanced cutting edge methods, further constrained by the scarcity of the core technologies and the other social factors, that contribute to low brand awareness and weak product differentiation. In such situations, the entrepreneurs in these markets have through the years leveraged their ability to integrate resources which are disparate, by imitating as well as innovating products and services and these are referred to as compositional capabilities (Prashantham et al., 2020; Sun et al., 2021). It was found that these compositional capabilities are crucial to compete in the emerging markets, as they are demonstrated by the high number of product and service imitations as well as innovations in the emerging markets (Sun et al., 2021).

Due to this, the emerging economies entrepreneurs have proven to be much more competitive, and this has repeatedly been reflected in the product and service innovations that offer solutions that are suitable to the emerging markets. (Prashantham et al., 2020) referred to be bottom of the pyramid strategies that are equally offered at price-value ratios that are appropriate for the conditions in the emerging markets and are disruptive in nature (Audretsch & Link, 2019; Prahalad & Hart, 1999). To assert that the entrepreneurship in the emerging economies is more competitive, Yan and Guan (2019) state that one of the indicators of entrepreneurship competitiveness is reflected in the level of entrepreneurial innovation within the ecosystem, where the product or service inventions were mostly conceived by the entrepreneurs from such economies.

As the entrepreneurial ecosystems evolve and mature, they promote the knowledge spillovers amongst the actors in the ecosystem by enhancing the knowledge capabilities that nurture value creation (Fubah & Moos, 2021), that will also contribute towards nurturing the innovation process within the ecosystem (Chen et al., 2021). The effect of knowledge spillovers creates a favourable environment towards the creation of innovation-based ventures which can be translated to commercial value (Theodoraki & Catanzaro, 2022). Thus, reflecting on the significance of knowledge in upgrading the knowledge capabilities that are prevalent in the ecosystem.



### 2.4.2.3 Knowledge spillovers leading to export orientation

To internationalise and tap into the export market access afforded by the multinational's global networks, the local entrepreneurs are required to demonstrate the application of the knowledge spillovers reflected in the improved sophistication of the exported products. This is critical as this represents the spillover in terms of the gain through the extent of local value-add in the exported products (Fu et al., 2021). As such, realising the knowledge spillovers from the multinationals was found to be conditional on a number of factors which were identified by Fu et al. (2021), to include the compatibility between the multinational and the host country dynamics. Even though Fu et al. (2021) mentioned that the industry's absorptive capacity within a host country is critical to enable the spillovers owing to the presence of a multinational, the spillovers are, however, not automatic, as they will often occur when there is a prevalence of active technology efforts and innovations from the local firms within the host country. Thus, the multinationals present attractive partners to the local entrepreneurs that are inclined to internationalisation thereby affording export market access within the multinational's global networks.

### 2.4.2.4 Knowledge spillovers leading to structural transformation

The IB scholars consider the sharing and consolidation of knowledge to be the purpose of existence for the multinationals (Meyer et al., 2020). Owing to the documented impact of the knowledge spillovers, the governments of the host countries, most notably those in the emerging markets, are in pursuit of attracting multinational investments which are focused on manufacturing activities, as it is widely understood that such knowledge spillovers will have positive ripple effects that will accrue to the local setting (Prashantham & Birkinshaw, 2020). These positive effects include poverty reduction, an increase in the labour market, increased economic productivity and the impact of the multinationals' FDI on structural development in the emerging markets as stated by Fu et al. (2021), and thus these will improve the economic and social standing in the host country. Therefore, the multinationals' FDI has resulted in structural development in the emerging markets.

Furthermore, Fu et al. (2021) also introduced the important role that is played by the multinationals in the emerging markets to be that which affects structural transformation, whereby the multinational would also invest in infrastructure building to enable economic productivity. The following were found to be the nature of knowledge spillovers from the multinationals, the vertical spillovers through the supply chain relationships referred to as the positive inter-industry are found to be significant and robust. In addition, often, the multinationals' activities in the upstream production activities were found to have a positive

impact thereby improving the productivity of the downstream activities by the local manufacturers. It was, however, observed that the value-add activities through processing and assembly by the multinational mostly involved limited domestic knowledge and as a result, this facilitated limited knowledge spillovers and capability building into the local manufacturers. Fu et al. (2021) state that this type of activity often leads to knowledge spillovers that are easy and quick, however, it does lead to limited structural change and shallow industrialisation in a host country which is an emerging market.

According to Prashantham and Birkinshaw (2020), over the past three decades, the multinationals have been globalising the value chains in their operations, and to achieve this, they have been consolidating the competence advantage from their effectiveness in the advanced markets, with the cost advantage from their efficiencies that were achieved from the emerging markets. This in turn, led the multinationals to leveraging their offshoring activities by outsourcing the related value chains. This has been beneficial for the host countries in the emerging markets, as this often translated to the creation of employment and the unintended knowledge spillovers of structural change. The drivers of structural change were identified to include the changes in a region's gross real income, the sources of production and related linkages, as well as the trading patterns (Van Neuss, 2019). Therefore, by globalising the value chains of their operations in the emerging markets, this has translated to the creation of employment and to the knowledge spillovers of structural change into the host country.

To conclude, the multinationals' FDI resulted in structural development in the emerging markets. In addition, the social network within the entrepreneurial ecosystem has led to the increased prevalence of the knowledge spillovers. The multinationals were found to present attractive partnerships to the local entrepreneurs that are inclined to internationalisation thereby affording them export market access within the multinational's global networks. Consequently, by the multinationals globalising the value chains of their operations in the emerging markets, this has shown to translate to the generation of employment opportunities and therefore, to the knowledge spillovers leading to structural change into the host country.

## 2.5 The approach of transferring knowledge spillovers

The ongoing scholarly discussions on entrepreneurial ecosystems has up to thus far, concentrated on what was referred to by Malecki (2018), as the essential ingredients that make up the entrepreneurial ecosystem, without looking into the processes that lead to the success of entrepreneurship such as the process seeking to understand the flow of the

knowledge spillovers. According to Rammal et al. (2023), the willingness in the sharing of the acquired knowledge and the related perceived value hereto, enables the transferring and the transmitting of knowledge and this is critical to influence the knowledge transfer process. Therefore, it is imperative that the scholars focus on understanding the process of transferring and transmitting knowledge spillovers within the entrepreneurial ecosystem.

#### 2.5.1 The unstructured approach of transferring knowledge spillovers

This study undertook to seek the understanding of the process and the approach that is employed by the multinationals to facilitate the transfer of knowledge spillovers. According to Ferreira et al. (2023), the unstructured nature of such knowledge transfer poses a challenge in understanding the transfer and the dissemination of knowledge towards the purposeful utilisation within an entrepreneurial ecosystem. In addition, Jones and Ratten (2021) state that the existing literature does not prescribe insights into the methods on how this is achieved, due to the unstructured nature of the spillovers. Rammal et al. (2023) further indicate that the role of the multinationals to facilitate the process of knowledge transfer remains under-researched in literature, as such this study sought and aimed to contribute towards the theory looking into the process that was followed by the multinationals to enable the flow of the knowledge spillovers in an entrepreneurial ecosystem.

#### 2.5.2 Structured approach of knowledge spillovers

Shwitzer et al. (2019) state that the dynamic interaction of the actors within an ecosystem can be both formal and informal. The multinationals are reported to engage with a larger number of entrepreneurs through a business model which is platform-based. This model enables the entrepreneurs to realise their internationalisation ambitions to become well established (Paul & Feliciano-Cestero, 2021). The knowledge spillovers occur through the sharing of best practises through the interactions with the multinationals' human capital either in the form of the current or the former employees.

In most instances, this occurs when the firm is going through rapid growth, as the organisations apply their capabilities and knowledge to consolidate internal and external knowledge to share and connect with the other firms within the ecosystem to realise the proliferation of best practices and excellence (Belitski et al., 2023). The study highlighted the role which human capital and the organisational knowledge spillovers are transferred to the external environment towards building and strengthening the capabilities within the ecosystem. According to (Belitski et al., 2023), this is realised through providing the best

practices, new insights, and ground breaking opportunities which can be adopted by the entrepreneurs.

Qian (2018) mentioned that with entrepreneurship, the knowledge flows are highly dependent on the knowledge base within an entrepreneurial ecosystem where a knowledge base is formed as a direct result of the accumulated knowledge that is shared and transferred through experiential learning (Theodoraki et al., 2022). The knowledge base within the ecosystem, is therefore critical to facilitate the sharing and the dissemination of the knowledge that is used for the entrepreneurial purposes.

### 2.5.3 Social networks as a means of support within the entrepreneurial ecosystem in the emerging markets

Islam and Chadee (2021) present a perspective that suggests that the process of knowledge dissemination is enabled by a social exchange, where the quality of social networks is illustrated in the interactions that occur within the entrepreneurial ecosystem. To boost the entrepreneurial activities within the ecosystem, Harima et al. (2021) state that such anchoring organisations must avail soft-landing support, ranging from community and networking services. Such support should capacitate the entrepreneurs to interact with the local entrepreneurs and the community with an objective of transferring their resources and knowledge. Furthermore, such support must enable the entrepreneurs to overcome the institutional barriers which are prevalent in the emerging markets.

The emerging markets are synonymous with turbulent and hyperactive business conditions, as such, the competitive advantages and the business strategies have become increasingly dependent upon the shared resources and knowledge spillovers afforded by social networks prevalent in an entrepreneurial ecosystem (Audretsch & Link, 2019). As such, the ecosystem is made up of multi-product markets, multi-firms from similar or various industries and markets, where the degree of competition and rivalry is not as pronounced as in the traditional markets (Audretsch and Link (2019). By design, the ecosystem is characterised by the cooperation and sharing of resources accessed in a social network which directly or indirectly shape a firm's value chain and as a result the existing firms within an industry relook and configure their existing networks to be part of the ecosystem.

As the entrepreneurial ecosystems are made up of interconnected actors and factors that form part of a social network, Ratten (2020a) state that the ecosystem entails complex interactions that develop overtime. The ecosystems value can be derived through collaboration and this entails understanding how the actors in the ecosystems can contribute

towards the improved performance outcomes through shared knowledge, which is a practice that is not synonymous in the traditional competitive markets (Ratten, 2020a).

Prashantham and Birkinshaw (2020) further draw attention to another role that is filled by the multinationals in an entrepreneurship ecosystem, where they are found to be instrumental in forming the interorganisational business networks, and thereby play a strategic leadership role in the local environment, that is external to their firms through engaging in activities other than the transactional relationships with the suppliers and customers (Meyer et al., 2020; Prashantham & Birkinshaw, 2020). In such instances where all the actors have a common goal, the relationships focus on the collaborations and the interorganisational cooperation that is aimed at finding solutions to the broader challenges that are present within an ecosystem to improve the conditions and the business environment. Therefore, the multinationals' interaction with the interorganisational business networks with a shared goal, can be concluded to be instrumental in finding and being part of the solutions that are encountered in the local environment.

The other multinationals' actions in a host country, tend to focus mainly on the activities that result in the firm being embedded in the local networks of partnerships, customers and suppliers (Prashantham & Birkinshaw, 2020). The social network within the entrepreneurial ecosystem presents strong links and ties for knowledge transfers, as the interconnected and the interdependent actors spend a considerable amount of time. This enables and allows for the assimilation of the sourced knowledge (Prashantham et al., 2020). The proactiveness of the partners within the network is more likely to grow into the formulation of richness, variety and diversified ideas (Prashantham et al., 2020). As such, this proactive disposition to partnering, will allow for the creation of new ventures from the extracted value from the networks with the entrepreneurial ecosystem. Therefore, the social network within the entrepreneurial ecosystem increases the presence of the knowledge spillovers.

In addition, the scholars have found that tapping into the social network is a critical means through which the local entrepreneurs that are smaller in size, can overcome their resource constraints. The multinationals represent attractive partnerships for the local entrepreneurs that are inclined to be the distribution conduits to the international markets, which are then accessed through the multinational's global networks and the related learnings about internationalisation (Prashantham & Birkinshaw, 2020).

In conclusion, the social network theory emphasises the role of the networks as a source of information knowledge. It is therefore critical that the learnings from entrepreneurship success or failure are embraced by the sharing of knowledge between various actors, which is a

practise that is not synonymous in traditional competitive markets as these are crucial for the evolution of the ecosystem which is reflected by the increased creation of new business ventures. The collaboration and interaction of various actors in the ecosystems such as public organisations, were found to be instrumental through the support that is afforded to the entrepreneurs to overcome institutional voids and other barriers which are prevalent in the emerging markets. As such the entrepreneurial ecosystem encompasses multiple interdependent actors, factors, dimensions and complementarities that lead to the development and the advancement of entrepreneurship within a geographical location.

#### 2.5.4 Sourcing strategies as an approach to facilitate knowledge spillovers

##### 2.5.4.1 Offshoring sourcing strategy

The global supply chains are an integral part of the multinationals' strategies. This involves offshoring the manufacturing activities across the value chain (Lampón & González-Benito, 2020). An offshoring sourcing strategy through the global value chain networks, was found to have key benefits, as the social network in the global value chain allows for the collaboration with and amongst the tier-1 suppliers, and the SME's (Lampón & González-Benito, 2020). This is mostly aimed at facilitating innovation and improved cost efficiencies, that are known to percolate to the SMEs', thus allowing for knowledge spillovers to advance their capabilities and technologies (Lampón & González-Benito, 2020).

It was also noted that, the more complex the value chain, the more risk of disruptions are reported as seen with the COVID pandemic, as well as with the Russia and Ukraine conflict (Sharma et al., 2022). The drawbacks of the global supply chains are that, as the global value chains become complex, the flow of information and knowledge can be interrupted, such that the firms are not able to get insights (Sharma et al., 2022). This includes the insights on operations such as the status of the flow of goods. In addition, the complexity of relationships in an offshoring outsourced strategy creates challenges to the transfer of knowledge, thus restricting the ability of the multinationals to create new solutions, owing to the power dynamics (Sharma et al., 2022).

Furthermore, it can lead to greater challenges in terms of both collaboration and the non-sharing of information, such as market information from the sourcing foreign country, as well as the ability for knowledge acquisition, transfer and the knowledge integration on the technological proficiencies. It was therefore found that, the offshoring sourcing strategy had benefits that can translate to cost efficiencies in the multinationals (Lampón & González-Benito, 2020). In contrast, it was also found that the complexities in the offshoring had a

direct impact on the access and the transfer of knowledge. Therefore, this can negatively inhibit the knowledge spillovers to the local entrepreneurs in the multinationals' host country.

#### 2.5.4.1 Reshoring sourcing strategy

This strategy contrasts with offshoring, as Sharma et al. (2022) mention that reshoring can enable rebalancing between the global supply chains and localisation. Integrating the resources and the transferable knowledge gained from the local suppliers improves the flexibility of the SME's as they have access to real time market and process information. Reshoring is defined as the generic change in sourcing location and back-shoring involves relocating previously offshored manufacturing activities to the home country (Dupuis & Greer, 2022). Reshoring can yield various benefits for the multinational such as a shortened supply chain and flexibility in responding to customer demands (Di Stefano & Fratocchi, 2019; Moradlou et al., 2022).

For the local economy, such benefits entail reduced unemployment, economic activity and knowledge spillovers (Di Stefano & Fratocchi, 2019; Lampón & González-Benito, 2020). Reshoring was found to lead to structural transformation through demonstrated capabilities in manufacturing (Lampón & González-Benito, 2020). Not only does a change in sourcing strategy allow for higher levels in efficient processes, it also re-integrates into the firm's value chain (Lampón & González-Benito, 2020). Furthermore, it can result in lasting impacts through increased levels of manufacturing productivity in the host country (Fu et al., 2021). Therefore, the reshoring sourcing strategy, can result in knowledge spillovers in a host country.

## 2.6 Knowledge spillovers challenges

### 2.6.1 Knowledge spillovers being impacted by the lack of social or network capital

The unstructured nature of the knowledge spillovers poses a challenge in understanding the knowledge spillovers channel, where the channel refers to the generation, to the dissemination, and to the integration of knowledge towards the purposeful utilisation of such knowledge (Ferreira et al. (2023). Therefore, it is crucial for the actors in the entrepreneurial ecosystem to mitigate the challenges to ensure the effective application of knowledge with the ecosystem.

The relational dimension of the entrepreneurial ecosystem brings forth the interaction of various actors and elements that are present within the ecosystem. Shwetter et al. (2019) recognise that the existing body of theory placed emphasis on the identification of the elements and their interaction. The lack of understanding of the relationship dynamics and

the important role of networks, makes it challenging to fully grasp how these dynamics in the ecosystem influence the knowledge spillovers thereof. Shwetzter et al. (2019) further state that the role played by the networks within the entrepreneurial ecosystem must not be overlooked as the lack of social ties which are defined as the social networks between the entrepreneur and the other actors in the ecosystem is likely to make it challenging for the entrepreneur.

In an entrepreneurial ecosystem, the social networks are prevalent. The social networks are defined by Prashantham et al. (2020) as comprising of nodes where both individuals and organisations have ties owing to a number of social relationships. According to Prashantham et al. (2020), knowledge sharing within an entrepreneurial ecosystem does not occur in isolation as it is embedded in the social networks and in the relational ties. These relational ties are useful as they tend to mitigate the institutional voids, as well as the institutional weakness owing to structural obstacles, resource scarcity and capability deficiencies.

As per Colombo et al. (2019), the social ties are identified as the kernel within the ecosystems more-so, since they cannot be replicated nor marketable. Furthermore, in any ecosystem, resources are critical for the creation as well as for the entrepreneurial success. Colombo et al. (2019) state that there is evidence supporting the importance of the presence of equity investors in the ecosystem as these have a direct impact to the survival of growth prospects of the business ventures. It is therefore crucial for the entrepreneur to be resourceful in the generation and in the mobilisation of resources, and these include financial resources, human capital, necessary technology, and infrastructure. To face the institutional weaknesses or the voids in the institutional environments that are synonymous with emerging markets, the entrepreneurs are left with limited options and they end to resort to relying on their social capital to proactively generate the resources that are required in the creation or in the sustenance of their business ventures (Prashantham et al., 2020). This, however, presents a challenge for those entrepreneurs that are foreign and do not form part of the social networks in an ecosystem due to the liability of newness. The implications for these entrepreneurs that lack these social ties are such that, they will most likely be derailed by the institutional weakness and the lack of access to the available resources within the social networks. Thus, this affirms a position that “building entrepreneurs’ social capital may improve their individual firm performance even in the most challenging business contexts” (Lux et al. (2020, p. 1032).



### 2.6.2 Resource scarcities as a challenge to the knowledge spillovers

According to (Cao, 2018), the resource scarcities within the entrepreneurial ecosystem in the emerging markets are emphasised as the inhibitors of entrepreneurship, namely, the financial, the knowledge, the human, and the physical infrastructures. Furthermore, the structural gaps that are prevalent in the emerging markets are found to result in the absence of the required actors and networks within the ecosystem. According to Lai and Vonortas (2019), the high stocks of human capital not only facilitate entrepreneurial activity, as they are also responsible for providing the firms with access to a large pool of well-endowed and competent employees within the ecosystem. Prashantham and Birkinshaw (2020) argues that the lack of financial resources was found to constrain the local entrepreneurs' ability to access the capabilities and the expertise that is afforded by the human capital from the multinationals. It is through the human capital spillovers which are realised from employing the multinationals' former employees that also facilitates the spillovers to the entrepreneurial ecosystem (Prashantham & Birkinshaw, 2020).

As such, the failure of the local entrepreneurs to attract the employees from the multinationals, may impede the entrepreneurs' access to the knowledge transfers from the human capital. Furthermore, Cao (2018) highlights that due to the culture of uncertainty avoidance, the highly skilled individuals in the emerging markets are more likely to remain in employment rather than move to high-risk entrepreneurial activities due to the lack of financial resources. Therefore, not only will the financial constraints faced by the local entrepreneurs further impact their ability to attract human capital from the multinationals, but this also limits the access to the human capital knowledge spillovers that are related to such human capital.

### 2.6.3 Institutional voids and institutional weaknesses

The emerging markets' challenges justify the need for the establishment of the entrepreneurial ecosystems as they afford the mechanisms that effectively address the challenges impacting entrepreneurship (Yi et al., 2021). The other themes include the structural gaps and the lack or the poor implementation of policies and processes, all leading to weak institutions (Cao, 2018). The institutional voids are a condition that is common in the emerging markets and they place major barriers for entrepreneurship (Bendickson et al., 2021; Khanna & Palepu, 1997). As such, the entrepreneurial ecosystems provide entrepreneurial support and they bridge a gap of the institutional voids and thus enable an appropriate business condition through an ecosystem that is specific to social solutions through networking and mentoring (Audretsch & Link, 2019), and relevant infrastructure

(Theodoraki et al., 2022) which collectively attribute to an effective and conducive ecosystem. It is therefore, noted that the ecosystem provides support to the entrepreneurs in the emerging markets.

In conclusion, it was therefore found that the known institutional voids or the weaknesses owing to the structural gaps, as well as the lack of implementation of the government policies and programs, can negatively impact the knowledge spillovers within an entrepreneurial ecosystem of the emerging markets.

## 2.7 Conclusion

This chapter delved into the literature review that set the context on the knowledge of the spillovers within the entrepreneurial ecosystems. The review covered the key constructs for this study which include the multinational entities, as well as the knowledge spillovers. The literature on entrepreneurial ecosystems in the emerging economies is extant and scholars have recognised the ecosystem to be made up of interdependent actors and the coordination of elements to enable the creation of new ventures and to support productive entrepreneurship. The literature looked into the ecosystem as being dynamic and evolving to gain an understanding of how these are influenced by the knowledge spillovers from the multinationals.

The reviewed literature of the key constructs indicated that the extant literature has identified the factors that enable and limit entrepreneurship in the emerging economies' entrepreneurial landscape. The need to look into the approach that is employed by the multinationals remains, and the research gap is still to be filled. It essential to get a deeper insight into the role that is played by the multinationals in advancing entrepreneurship and equally promoting sustainable and long-term structural activities by the entrepreneurs and thereby leading to economic success.

Chapter 3 covers the research questions.

### 3 CHAPTER 3: RESEARCH QUESTIONS

Chapter 3 presents the research questions as introduced in Chapter 1, with a purpose of aligning the practical problem with the grounding in theory. The research questions emanated from the literature review that was covered in Chapter 2. The literature covered three key constructs namely, the entrepreneurial ecosystem, the multinationals and the knowledge spillovers as the theory grounding the study. The research topic, the research question and the related sub-questions emanated from the research gap by Jones and Ratten (2021).

Jones and Ratten (2021) state that the existing literature does not prescribe detailed insights into the ways and the methods on how to advance the dissemination of knowledge from the multinationals into the entrepreneurial ecosystem, owing to the unstructured nature of the knowledge spillovers, and as such this study sought to uncover the research gap as highlighted by Jones and Ratten (2021). The main research question was therefore, formulated to respond to the call to action:

How do the multinationals engage in the knowledge spillovers to advance the automotive entrepreneurial ecosystem within an emerging market?

Upon probing the literature on the multinationals within the ecosystem, the need to identify and understand the type of knowledge spillovers from the existing multinationals in the ecosystem understudy became apparent, and this led to the first research question being formulated:

Research question 1: What are the knowledge spillovers from the multinationals with an emerging market entrepreneurial ecosystem?

The importance of identifying and understanding the existing knowledge spillover within the ecosystem is highlighted by Fu et al. (2021) to indicate the level of maturity of the ecosystem. In addition, it is equal to the extent to which the entrepreneurs in the ecosystem are able to mitigate and maximise the local conditions (Qian, 2018).

The study sought to understand the nature of the approach and the process that is employed by the multinationals as extant literature had highlighted that the knowledge spillovers are unstructured and that it is important to highlight that the multinationals as the actors have intentionally or unintentionally enabled the flow of the knowledge spillover to the entrepreneurial ecosystem, and thus the below research question was designed:

Research question 2: What are the processes that were followed by the multinationals to transfer the knowledge spillovers in an entrepreneurial ecosystem?

The emerging markets present the market dynamics that make well-tested and documented approaches adopted in other parts of the world, both advanced and other emerging, to not be easily replicable (Theodoraki et al., 2022). This is due to the socio-economic aspects and the level of competencies as well as the capabilities amongst the other factors (Prashantham et al., 2020).

It was also important to the study to gain the insights on the factors that limit the knowledge spillovers within the emerging market's entrepreneurial ecosystem. This led to the formulation of research question 3:

Research question 3: What are the processes that are followed by the multinationals to transfer knowledge spillovers within the entrepreneurial ecosystem?

High barriers of entry (Cao, 2018), the scarce resources and the prevailing socio-economic factors as mentioned by (Prashantham et al., 2020; Qian, 2018) indicated the need to gain insights on the ecosystem's understudy.

Upcoming is Chapter 4, which outlines the research methodology.

## 4 CHAPTER 4: METHODOLOGY

### 4.1 Introduction

The research methodology and the study's design are discussed in this chapter. The chapter covers the research strategy that was used to carry out the study. The research design was found to be appropriate and useful towards addressing the formulated research questions when collecting, interpreting, analysing, and when discussing the findings.

An exploratory study was found to be a fit for this study, as it sought to generate the answers to the primary question with a "how" question. The exploratory nature looked into the specified the gaps in the existing literature with a deliberate intention to advance the known and the yet to be understood theoretical explanations (Doz, 2011; Leitch et al., 2010).

### 4.2 Choice of methodology and design

#### 4.2.1 Choice of research paradigm

An interpretivist philosophy research was adopted as per Leitch et al. (2010). This philosophy looks into the social phenomenon with the individuals as the role players in their natural environment (Saunders et al., 2019). It was found to be ideal for the study on the entrepreneurial ecosystems, as the study was based on the established theories and it involved an investigation into the social reality, where the insights and their implications were considered from the activities that were conducted by the multinational entities that lead to the intentional or the unintentional transfer of knowledge spillovers. The phenomenon research approach thus looked to understanding the experiences of the social actors, individually and collectively within the entrepreneurial ecosystem, as stated by Saunders et al. (2019) to be a social phenomenon. The study of human beings and their interactions is necessary for a social phenomenon, as opposed to the scientific laws that govern material objects. Therefore, adopting a positivist or a realist philosophy was not ideal, and it would not have led to realising the research objectives.

The study being explorative in nature, aimed at understanding the flow of knowledge from the multinationals in an entrepreneurial ecosystem, as such it justifies the choice of paradigm being interpretivist. Interpretivism recognises the value of diverse perspectives (Leitch et al., 2010). This was found to be in line with the research aim that sought to get a better understanding of the approach that was followed by the multinationals to disseminate the knowledge spillovers to the entrepreneurs in the ecosystem.

#### 4.2.2 Assumptions of the research paradigm

This study was guided by the assumptions of both the epistemology and the ontology theories. Epistemology looks into the theories on the nature of knowledge, and ontology looks into theories on the nature of reality (Poulis & Poulis, 2018). The adopted interpretivist research paradigm considers epistemology as it guides on how to gain an understanding as such, it highlighted the different types of knowledge spillovers from the role that was played by the multinationals. In addition, it was underpinned by ontology, which considers told stories from the lived experiences from the representatives of the multinationals. Therefore, ontology made interpretivism to be a fit research paradigm for this study of a social phenomenon.

#### 4.2.3 Research strategy

For this qualitative research, it was found to be beneficial to follow a narrative approach as it focuses on the stories that are narrated by the individuals on their personal experiences with an aim of understanding their perspectives and the interpretation of the events as stated by Wolgemuth and Agosto (2019). As allowed for by the strategy, the narratives from up to four individuals from the same company were selected to participate in the interviews. This was found to be representative and encompassing of the differing perspectives, as the participants were put under a spot light individually or collectively as actors in the ecosystem to develop core narratives for this study (Saunders et al., 2019). As such, a narrative research strategy was found to be best suited for this research as it is mainly focused on the experiences of the individuals within different multinationals, as opposed to that of outsiders who would have interpreted the events according to their understanding.

For this research, the multinational entities or the subsidiaries of the global multinationals within the automotive industry were the focus of the study, where the participants in the data collection process were made up of the interviews with the managers that are actively involved in sharing knowledge with the local entrepreneurs. As the research was seeking for answers on how the multinationals engage in knowledge spillovers, the narrative approach was followed.

#### 4.3 Population

The population refers to a group of individuals, or a group in its entirety, or objects, or events with various characteristics that are of interest to the researcher as defined by Saunders et al. (2019). All the multinationals that have manufacturing operations in South Africa were the population for this study.

#### 4.4 Target population

Target setting for the study considered the multinationals as the actors in the local entrepreneurial ecosystem of auto manufacturing as a key selection criteria. This was made up of representatives from the foreign multinationals in South Africa, which is an emerging market with manufacturing and assembly operations of either automobiles as well as vehicle parts and components. The participants that were targeted for the study included the manufacturers of passenger and light commercial vehicles, as these are the subsidiaries of the foreign-owned multinationals with manufacturing activities in South Africa. The second target group was the manufacturers of parts and components, as these are the supply chain partners to the auto manufacturers. The second target group similar to the first group, were also the subsidiaries of the foreign-owned multinationals with manufacturing activities in South Africa. The lack of the availability of willing participants in the study led to the manufacturers of heavy-duty commercial vehicles being identified to supplement the participants. The participants in this group still met the selection criteria which was the multinationals that are engaged in manufacturing operations in the country.

The target population also included the parts and components industry as they are supply chain partners to the lead firms. These are found to be doing business with more than one multinational and they include both low and high-volume multinationals. Their interaction with the local entrepreneurs is informed by the regulatory requirements to comply to the B-BBEE Act and as such they have enterprise development activities that are focused on knowledge transfer to the small and medium businesses that supply the parts and components' raw material, goods and other services.

The target population included the heavy vehicle manufacturers as the third group. These are sub-lead multinational entities with the local assembly of trucks, and they have a relatively smaller market size. Their interaction with the local entrepreneurs is towards increasing their localisation efforts which is similar to the motor vehicle manufacturers.

The target groups as classified in the below table were identified to be three in total.

*Table 1: Classification of participants groups*

Participant group	Role in auto manufacturing	Type of business activities with local entrepreneurs
1. Motor vehicles manufacturers	Lead firm	Sourcing of manufacturing raw material, parts, components and services

		Sourcing of downstream parts and components
		Procurement of services and non-manufacturing goods and services
2. Part and components manufacturers	Supply chain partners	Sourcing of manufacturing raw material, parts, components and services
		Procurement of services and non-manufacturing goods and services
3. Heavy-duty vehicle manufacturers	Sub-lead firm	Sourcing of manufacturing raw material, parts, components and services
		Procurement of services and non-manufacturing goods and services
		Sourcing of downstream parts and components

*Source: Author's own.*

#### 4.5 Unit and level of analysis

The unit of analysis as defined by Yurdusev (1993) is the primary aspect from which the researcher looks at in the study and from which the data was gathered from. For the study, the knowledge spillovers from the multinationals were identified as the unit of analysis. Each manager or engineer that is employed by the multinationals who participated in the study by sharing their experiences, were the sampling elements that responded on behalf of the organisation.

The level of analysis is used in a social study to point to a size of a research target with an integrated set of relationship and thus it is different to the unit of analysis (Yurdusev, 1993). The level of analysis was identified at construct level thus it investigated the approach that was followed by the multinationals to disseminate knowledge. The level of analysis was therefore the organization, which is the multinational in this case.

#### 4.6 Sampling

##### 4.6.1 Sampling techniques and size

The sampling technique that is purposive and non-probable was used (Doz, 2011; Saunders et al., 2019). The selection focused on the managers from the multinational entities that have manufacturing operations of automobiles and vehicle parts as well as components within the South African automotive industry. Due to the non-existence of a data source in the form of a complete list of all actors in the study focus area, a non-probable sampling technique was



used. Purposive sampling also made it possible to select information that is relevant and has more depth and thus, the selected sample was found to be useful to the study (Doz, 2011; Saunders et al., 2019). A statistical method of selecting a sample that is random may not have led to collecting data that is useful to the research, as seen with a sampling technique that is non-probable.

The research focused on the multinationals as the key role players within the ecosystem and they were represented by the members of the management or the engineers who in their role interact with the local entrepreneurs. This considered the individuals who are employed by the multinationals meeting the criteria, and those who interact with the local entrepreneurs in their daily activities. Due to the nature of their roles, these individuals are involved in the flow of knowledge spillovers and thus they are considered as being instrumental in narrating their lived experiences.

Their position being managers, or engineers, and the role they play in interacting with the local entrepreneurs in the sourcing of raw materials, parts and components within the industry was considered when the sample was selected. A minimum requirement for each of them was that they currently or previously should have been directly involved in activities that led to the sharing of knowledge with the local entrepreneurs. It was important to understand the period in which the interview participants were in the employment of the multinational entity. This was considered when analysing and interpreting data, to assess the degree which each participant could contribute to the richness of data collected. This was instrumental in enabling the researcher to formulate an academic argument in response to the research questions, because a phenomenology strategy requires the research data to be of an appreciable quality and richness.

The sample selection criteria was set to best identify the research participants that would be useful in providing answers to the research question. The purposive sampling criteria considered the following as a basis for the selection of the industry:

The automotive industry was identified as a target sector. The industry was selected owing to the diverse of knowledge spillovers as identified in the literature review. The automotive manufacturing (both motor and heavy commercial vehicles) sector has been instrumental in driving structural transformation in both the developed and the emerging markets. In addition, automotive manufacturing was found to be instrumental in the industrialisation of many countries, not only limited to the actual manufacturing of automobiles but also, the industry's multiplier effect to the local value chains. The local auto manufacturing industry is under a lot of scrutiny owing to the government support and the incentives that are perceived

to be exorbitant. The local automotive industry is currently facing a key challenge, of achieving decent levels of local content in the locally manufactured vehicles. The manufacturers of parts and components were selected as the sub-sector, and they are commonly known to be slow to transform and they are also known for not having a wider inclusive driven agenda. The key challenge in the sub-sector is that it is directly impacted by the auto sector having an under-developed value chain and this has directly affected these manufacturers in the bottom tiers of the supply value chain.

The second selection criteria was that the identified manufacturer had to be a multinational which is a subsidiary of a foreign entity. This was because the study focused on the role that is played by the multinationals in their host country as identified in the literature review.

The third selection criteria was that the research participants must have been in a manager role and their duties must have entailed them interacting with the local entrepreneurs in their daily activities through procurement, or alternatively they must have been responsible for implementing company plans to achieve the localisation targets alternatively, as the managers who are responsible for enterprise development.

The three selection criteria were useful in ensuring that the research participants provided answers which led to insights being collected as they narrated the account of their experience. The diverse groups of research participants allowed for sampling rigour. As the purposive non-probability sampling technique is best suited for a qualitative study (Doz, 2011), it was also found to be useful to understand and to gather deep insights from the participants with appropriate experiences that allowed them to provide answers towards the research questions for the study. The purposive sampling selection technique defined the selection criteria to identify the potential research participants with a focus on the managers who form part of the decision-making team within a multinational entity and in their roles they interact with the local entrepreneurs in activities that result in knowledge spillovers as one of the outcomes. Conducting purposive sampling poses a risk that could have led to a homogenous sample. To mitigate this risk, the target was to include the participants from the lead firms and at least two participants from the sub-lead and the supply chain partners. This was achieved as most participants had a good mix amongst the three participant groups for the study, with the lead firm being the majority of the sample.

As a targeted approach was used for sampling, a diversified in-group and cross-group within the sample was considered and this allowed for diverse experiences by the participants of a narrative study. These categories allowed for the data triangulation of the findings which is

critical for purposive sampling. The variety of perspectives from each group were ideal for the study that is exploratory, and it allowed the researcher to gather deeper insights.

#### 4.6.2 Sample Size

There were 12 interviews in total that were conducted, and they were found to be adequate to gather deeper insights with a variation of perspectives. This therefore, allowed for the triangulation of the research findings from the three research groups. To be in a position to fulfil the objectives the research, the sample size of 12 participants from the seven multinationals was considered to be adequate for the data to generate new insights, as well as to reach research saturation and also provide a diverse perspective. According to Boddy (2016), a sample size of 12 participants is considered as being adequate for a qualitative study that is conducted in a single country, as it is considered to be from a relatively homogeneous population.

*Table 2: Interviewed research participants*

#	Unique identifier	Group of participants	Size of manufacturing
1	AMR1	Auto Manufacturer 1	Low volume
2	AMR2	Auto Manufacturer 2	Low volume
3	AMR3	Auto Manufacturer 2	Low volume
4	AMR4	Auto Manufacturer 3	High volume
5	AMR5	Auto Manufacturer 1	Low Volume
6	AMR6	Auto Manufacturer 1	Low Volume
7	AMR7	Auto Manufacturer 4	High volume
8	AMR8	Auto Manufacturer 3	High volume
10	PCMR1	Parts and Components Manufacturer 1	Multi parts
10	PCMR2	Parts and Components Manufacturer 2	Multi parts
11	HVMR1	Heavy-duty Vehicle Manufacturer 1	Low Volume
12	HVMR2	Heavy Duty Vehicle Manufacturer 2	Low Volume

Source: Author's own.

#### 4.7 Research instrument

The researchers of a narrative study, investigate the in-depth lived stories as told by the individuals from spontaneous conversations between strangers. In this case, the lived experiences were gathered using semi-structured interviews and the conversations were transcribed (Syed & Nelson, 2015). A semi-structured interview guide was utilised to collect

study data. This was considered as appropriate and as an ideal method for the open-ended questions that were asked when conducting interviews (Doz, 2011).

The research instrument was prepared prior to the interview sessions, mainly to control the flow of the interview session, without leading and restricting the responses from the research participants (Saunders et al., 2019). It was developed from both theory and the main research question. The interview session started with an overview of the interviews, followed by explaining the study's objective and purpose. The rest of the interview was conducted in a manner which allowed for flexibility. This allowed for the participants to express their experiences freely, thus allowing for the discovery of insights. The participants could therefore contribute meaningfully towards the study through the narratives of their experiences both personally and professionally. As per Saunders et al. (2019), such experiences consider the participants' professional background and factors at an organisational level.

*Table 3: Research instrument*

Research questions	Literature	Interview guide
<p><b>Main research question:</b></p> <p>How do the multinationals engage in the knowledge spillovers to advance the automotive entrepreneurial ecosystem within an emerging market?</p>	<p>(Harima et al., 2021)</p> <p>(Fu et al., 2021)</p> <p>(Qian, 2018)</p>	<ol style="list-style-type: none"> <li>1. Can you please introduce and describe your role in your organisation?</li> <li>2. As per your understanding, please define what knowledge transfer from a firm to the local entrepreneurs entails?</li> <li>3. In your experience, does your firm share knowledge with the local entrepreneurs?</li> <li>4. In your role, or in previous roles working in the firm, have you been involved in the sharing of knowledge with the local entrepreneurs?</li> </ol>
<p><b>Research question 1:</b></p> <p>What are the knowledge spillovers from the multinationals with an emerging market entrepreneurial ecosystem?</p>	<p>(Prashantham et al., 2020).</p> <p>(Audretsch &amp; Link, 2019)</p> <p>(Theodoraki et al., 2022)</p> <p>(Dupuis &amp; Greer, 2022).</p>	<ol style="list-style-type: none"> <li>12. In your experience, has there been employee spin-offs from your firm where a former employee applied their skills and abilities that were acquired during their employment to form an entrepreneurial venture?</li> <li>13. By virtue of the MNE being present in this community, has there been a change in the entrepreneurial activity in the area?</li> <li>14. Mention a situation where a supplier got market access to your firm/industry?</li> <li>15. In your experience, are there entrepreneurs whose operations grew in size, after they started doing business with your firm?</li> <li>16. Please mention a case where your firm shared best practises with the local entrepreneurs?</li> <li>17. Do you know of a situation where your firm has made available the use of the firm's innovation for the use by the local entrepreneurs?</li> <li>18. How does your organisation share knowledge with the local entrepreneurs that express their interest in working with your firm? <ul style="list-style-type: none"> <li>- i.e. When they do not meet the minimum requirements</li> </ul> </li> </ol>

<p><b>Research question 2:</b></p> <p>What are the processes that are followed by the multinationals to transfer knowledge spillovers in an entrepreneurial ecosystem?</p>	<p>Belitski et al. (2023)</p> <p>Rammal et al. (2023)</p>	<p>19. Would you describe the process followed within your firm to share knowledge/best practises/innovation to be formal/informal?</p> <p>Probing questions:</p> <ul style="list-style-type: none"> <li>- If formal, is there an approved policy and are there any processes that are usually followed when sharing knowledge with the local entrepreneurs?</li> <li>- If informal, mention the process that is followed on various situations where knowledge is imparted on a case-to-case basis?</li> </ul> <p>13. If formal, is this information easily accessible to the local entrepreneurs?</p> <p>14. How is this process different to the one followed by your global organisation or other operations?</p> <p>15. Does your firm collaborate with other organisations on the programs/initiatives that facilitate shared knowledge/best practises/innovation to the local entrepreneurs?</p>
<p><b>Research question 3:</b></p> <p>What are the barriers in an entrepreneurial ecosystem that inhibit knowledge spillovers and how?</p>	<p>(Cao, 2018)</p> <p>Fredin and Lidén (2020)</p> <p>(Ferreira et al., 2023)</p>	<p>16. What are the barriers that are faced by the local entrepreneurs, that make it challenging for your firm to impart knowledge/best practises to the local entrepreneurs?</p> <p>17. Does your firm take any actions to address these barriers that are faced by the local entrepreneurs?</p>

Source: Author's own.

#### 4.8 Data collection process

The approach that was adopted for this study was qualitative in nature. According to Wolgemuth and Agosto (2019), the aim of a narrative study is to uncover context, and thus it considers the significance found in the meaning from the narrated experience of the individuals, as described by each participant. Prior to the collection of data process, ethical clearance on the project was applied for from the Research Ethics Committee at GIBS which was approved on the 23<sup>rd</sup> of August 2023. Non probability purposive sampling enabled the interview participants to meet the selection criteria, where only the participants who provided useful and relevant data for the research were selected (Doz, 2011).

The interview participants were sent a consent form in a separate mail confirming the scheduled interviews. When the signed form was not sent ahead by the participant, the researcher made it a point to call the participant to remind them to sign the form and send it by the start of the interview. This was done to ensure that the participants familiarise themselves with the content of the form and to reduce the bias of the participants. The

consent form clearly stated that the interview session would be recorded and that the provided information would not be disclosed to unintended people or organisations.

The research instrument was at all times used in the data collection process, through utilising the semi-structured interview protocol as per Table 3 above. The interview questions that were open-ended allowed for the participants to narrate in their own words and openly. The quality of the research findings was therefore enriched, thus allowing for the researcher to further probe their understanding and perspectives (Creswell et al., 2007; Gillham & Williams, 2022). As was expected, the semi-structured interviews led to useful insights. An interpretivism approach allowed for data gathering as the participants were able to narrate their experiences and the interpretation of the events in their own words (Moon et al., 2016).

Physical and virtual (Teams) interviews were conducted, and they were recorded using a mobile application on the researcher's cell phone. Audio recordings of all the interviews were done. Following the interview, the recordings were loaded onto a Cloud for safeguarding, and they will be kept there for a minimum period of ten years.. To avoid inconveniences from the technical problems, all the interviews, both physical and virtual meetings, were recorded with an alternate recording mobile application as a back-up. The participants' privacy was protected as all their personal details and the details of their organisations were removed to ensure anonymity and confidentiality as such, their privacy remained protected throughout the research process.

During the data collection process, meetings were scheduled, with 45 minutes being the minimum duration for both the virtual and the face-to-face interactions with the research participants. The parameters of the research were outlined in the consent form which was read out as a reminder to the participants at the beginning of the interview. This afforded the participants a chance to decide whether to proceed with the interview or not, and all the participants were in agreement, as they had familiarised themselves with the wording on the consent forms that were received ahead of taking part in the study. On average, the duration of the interview was 44 minutes, ranging from 28 minutes to 65 minutes, thus making the latter the longest interview. A total of 12 interviews took place. Data saturation in a qualitative study is when additional new codes stop generating with each interview (Boddy, 2016). The researcher started noticing that after the coding process of 10 interviews, new generated codes started diminishing in number. The sample size of 12 was considered to be adequate to ensure rigour. A total of 12 participants were therefore considered reasonable by the researcher.

For the collection of data, the researcher referred to theory when reviewing the interview guide that was used in the semi-structured interviews. The inductive and exploratory approach was instrumental during data collection where the main data was gathered through the use of the interviews (Saunders et al., 2019). A narrative analysis is a method that is used to interpret the research participants' stories and it provides valuable insights into the complexities of the decisions that were made, as well as the motivations behind them, the priorities, and the challenges (Syed & Nelson, 2015). The narrative qualitative approach took a well-rounded view of the lived experiences as narrated by the participants. This resulted in a better understanding of their narratives as such, it enhanced the richness of the collected data as opposed to breaking down their experiences into isolated components which would have compromised data quality (Bamberg, 2020; Wolgemuth & Agosto, 2019). This allowed for the gathering of new data which was found to be insightful as literature is still nascent in the entrepreneurial ecosystems within the context of African countries, as they are being referred to as late comer emerging markets (Cao, 2018; Theodoraki & Catanzaro, 2022).

An inductive approach was therefore, ideal in this regard because it made possible for the individuals to be interviewed in the collection of data, from which the occurrences were observed and used to identify similar trends or patterns, as well as the differences as required for a qualitative interpretivist study (Smith, 2016). These were then used to test the applicability and the relevance of the theory as outlined in Chapter 6 below (Leitch et al. (2010). Furthermore, (Smith, 2016) states that applying the inductive process allows for checking and validating the assumptions that are prevalent in the existing literature. In this study, the assumptions found in the Asian and Latin American literature, were tested for applicability and mostly for their relevance to the ecosystem in an African emerging market. This allowed for the gathering of new data which was found to be insightful as literature is still nascent in the entrepreneurial ecosystems within the context of African countries, and they are being referred to as late comer emerging markets (Cao, 2018; Theodoraki & Catanzaro, 2022).

To increase quality and reliability during the data collection phase, a triangulation method was used through a multi-perspective triangulation, as data was collected from various actors within various multinationals, where up to three participants were interviewed from each multinational (Bamberg, 2020). According to Doz (2011), this will reduce the bias of the interview participants and it will strengthen the validity of the findings.

#### 4.9 Data preparation process

Upon the completion of each interview, the generated Microsoft Word document was saved and without a delay, the researcher started with the self-transcription while listening to the audio file for each interview. According to Moon et al. (2016), a quick transcription following the research interviews enhances the validity of the data. The transcribing was therefore completed shortly after the interviews were conducted. The researcher listened to the audio recordings whilst reading and going through the transcripts to ensure validity by correcting errors based on the audio files. This process of removing the identifiers and of anonymising the transcripts was conducted from the transcript by the researcher. This process in its totality, allowed the researcher to be familiar with the collected data (Moon et al., 2016).

#### 4.10 Data analysis approach

A narrative interview strategy was adopted by the researcher to interrogate learnings, lived experiences and to gain insights into the peoples' lives with an aim of understanding the meanings that people attach to their stories. For a narrative qualitative nature of the study, Syed and Nelson (2015) recommend the adoption of an inductive approach. The data-driven bottom-up inductive approach was recommended to identify the common themes in the narratives on the experiences by the individuals using a variety of participants. This allowed for qualitative analysis methods that identified themes or patterns in relation to various positions that are epistemological and ontological as stated by Smith (2016).

A CAQDAS tool, was used for the qualitative study. All 12 interview transcripts were then uploaded onto the tool. The analysis of the data was performed in a four -step coding process. This started with selecting the sections of the transcripts to highlight quotations, the first order codes were assigned to the identified quotations in Atlas.ti. This created the list of the codes, from Atlas.ti and these are included in APPENDIX 3. This initial level of coding used typical language as used by the research participants throughout the interviews, thereby extracting core meaning.

This allowed for first order coding which created short phrases from the participants' language or business language as generated from the participants' quotations. The first order codes are included in Table 4 below. In the second step of coding, the researcher then classified the codes by various categories, this still entailed an inductive process, and business language was used to create the identified first order categories. The third step considered what is referred to in the context of qualitative research, as a conceptual leap thereby narrowing the gap between theory and empirical data (Moon et al., 2016). This involves transitioning from the business language to a conceptual language that is in alignment with the literature review in Chapter 2. The fourth and last step entailed mapping



the themes or patterns as observed in the findings. It is in this step where many of the themes were mapped into the existing themes and possible new themes were identified.

*Table 4: Codes: First order, Second order and Themes*

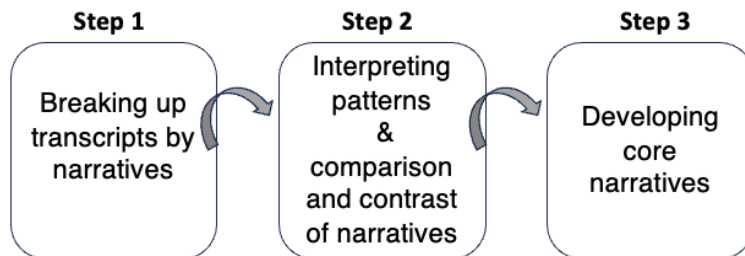
First order codes	Second order codes	Core narratives
Black female	BBEEE: Previously excluded	Transformation for the previously excluded society
Black owned business		
Previously excluded society		
Inclusive approach		
Industry transformation		
Transformation	Inclusive approach	
	Industry transformation	
	Transformation	
Innovation	Innovation	Innovative capacity
Innovation by improving process efficiencies		
Innovation is source of competitiveness		
No sharing of innovations with entrepreneurs		
Out-of-the-box-solutions		
Process improvements		
R&D		
Reverse engineering		
Sharing of innovation		
Technology centres		
Work together with supplier to find solution	COLLABORATIONS: with entrepreneur	
Market access	Market Access	Market Access
Sharing of information on existing opportunities	Sharing of information on opportunities	
Business needs	Business opportunity	
Best practice	Transfer: Method of skills transfer	Knowledge transfer by human capital
Capacity building		
Coaching on business		
Entrepreneurs as suppliers to Tier 1 & 2 suppliers		
Subsidy to local entrepreneurs	Support to entrepreneurs	
Supplier visits		
Support to entrepreneurs		
Support to local entrepreneurial centre		
support towards smaller suppliers		
Technical partner		
Technical support		
Going beyond normal activities when working with local entrepreneurs	Willingness in sharing knowledge	Willingness to create an enabling entrepreneurial environment
Multinationals' willingness		

*Source: Author's own.*

According to Smith (2016), the inductive methods of narrative analysis are conducted in three steps, as shown in Figure 2 below. The first step entails the process of breaking up transcripts by narratives as told by the research participants. It is in this step where the researcher observed the patterns from the narrated views of the interview participants. The second step entailed the researcher interpreting the patterns as identified in the first step

above. The researcher also performed a comparison and a contrast of the narratives from the identified patterns. The third and last step involved developing the core narratives from a generalised narrative as grounded in the stories that were told by the research participants.

*Figure 2: Inductive narrative data analysis*



*Source: Author's own.*

This is in line with the method stated by Syed and Nelson (2015), who indicate that thematic data analysis is useful to pick up the patterns that are present in the data. Furthermore, Smith (2016) explained the thematic analysis approach as a reflexive one to the research, in the process of finding meaning in the data. This involves comparing the narratives from the research participants with similar experiences, with the aim of exploring the reasons and the rationale of sharing knowledge (Smith, 2016). This approach was useful for this qualitative study and its research aims. During the data analysis, it was found that 21 themes emerged from the process of mapping and grouping the themes.

*Table 5: Data analysis steps*

Steps	Outcome	Quantity
1	First order codes	206
2	Second order codes	87
4	Themes	21

*Source: Author's own.*

#### 4.11 Quality and rigour of the study

Quality assurance was considered across the different stages of the research. In the research design stage, data gathering and storage, data analysis, documenting the discussion and the reporting of the findings finalised the research project. Credibility and authenticity are key in evaluating quality and rigour in a qualitative study. Smith (2016)

considers validity to be the outcome of a transparent and complex research process that leads to findings that reflect the lived experiences of the research participants and thus achieves credibility. This also refers to authenticity, thus representing the voices of all the participants, and the integrity shown by the researcher's critical assessment of the findings.

In the context of coding open-ended data, reliability is typically referred to as interrater reliability, meaning the extent to which the same units of data can be coded in the same way (Syed & Nelson, 2015). Objectivity is inherent in the definition of reliability, as it assumes and implies some underlying truth where different individuals in the coding process can arrive at the same assumption (Syed & Nelson, 2015). As such, consistency or replicability is an indication of the rigour of the research.

According to Smith (2016), the process of data analysis for this study was approached flexibly and it included core narratives, interview recordings, and the interview transcripts and constructs. The researcher also reviewed the semi-structured interview guide along with the theory adding to variety in the data collection techniques that facilitated triangulation for the researcher, and it was found to be useful in validating the findings.

Adequate time was afforded for each interview, to allow that the insights from the study participants are accurately captured without the pressure of time. The interviewer's preconceptions were expressed before conducting the interview, this ensured that the participants address and clear those during the interviews. The interviewer made sure that the participants understood the privacy protection afforded to them, for participating in the study and to ensure that the interview process yields quality insights.

The Atlas.ti tool was used where the data was numbered, categorised, reviewed and updated to correct typing and grammatical errors. Following this, data coding was conducted to limit the bias, which was likely to occur during the interpretation of the transcripts (Moon et al., 2016). This step also involved data integration and triangulation, which was conducted by comparing the patterns as generated from the experiences of all the research participants as identified in Figure 1 in Chapter 2 of the literature review.

In the review on the elements that demonstrate the quality and rigour of a qualitative research in social studies, Moon et al. (2016) considered these elements; credibility, transferability or external validity, reliability/ dependability, and confirmability/ objectivity. All these elements were found to contribute to the quality and to the rigour of the research results.

Credibility refers to validity and trustworthiness (Moon et al., 2016). To realise credibility, a systematic literature review of articles from credible highly rated journals was conducted. A sample size of 12 participants was purposively selected. Smith (2016) argues that the researcher's explicit acknowledgement that their analysis is an outcome of their views and understanding on theoretical frameworks or personal discourses, is a starting point to evaluate the credibility of a narrative analysis. The used data analysis method is supported by the adopted methodology and thus is credible.

To ensure that the study achieved transferability, the following was considered. The literature review was centred around recent and highly rated journals. The study was conducted as described. A systematic approach was adopted for the study to enable the replicability of the process, and therefore it has the potential to be transferred to other contexts (Smith, 2016). A systematic approach was followed for purposive sampling, thus eliminating researcher bias during the selection criteria and in the data collection process (Syed & Nelson, 2015).

To achieve the reliability and the dependability of the study, the following activities throughout the various stages of the research process were considered. Transcriptions were prepared after each interview, and these were reviewed by the researcher against the recordings, and they were updated for corrections where necessary, to achieve the accuracy of the transcript (Syed and Nelson (2015). An audit trail of records was used throughout the research steps and records were kept and accessible, thus reflecting dependability. The data was triangulated between three diverse groups of participants. A comparative analysis was conducted on the researching findings and the literature in Chapter 6.

According to Cutcliffe and McKenna (2004), confirmability is concerned with ascertaining that the data and the interpretation of the findings are derived from the data collected and they are not figments of the researcher's imagination. Objectivity is defined in management research to mean conducting the study without being influenced by personal opinions or any bias. To achieve confirmability and objectivity, the interview transcripts were updated to remove identifiers and they were uploaded on to the data repository at GIBS. The audio files of the recorded interviews will be stored with restricted access, for a period of up to ten years.

#### 4.12 Ethical considerations

This research complies in its entirety to the ethical conduct requirements that are outlined by the MPhil Research Ethics Committee of GIBS as per the provided ethical clearance towards

the research project. Data gathering started once the ethical clearance was obtained. A copy of the approved ethical clearance can be found in Appendix 2.

According to Wolgemuth and Agosto (2019), a narrative study includes an account of the personal stories and the researcher must be mindful of the ethical considerations surrounding privacy, and confidentiality thereby ensuring the respectful consideration of the narratives from each participant. As such, confidentiality and anonymity were ensured with the names and identifiers of the individual participants and the companies being removed ahead of being stored and before the finalisation of the report.

The new data for the study was solicited from human subjects, and it was qualitative in nature. No data was collected from any participants who were vulnerable in nature.

Furthermore, no incentives were offered to the participants of the study.

An informed individual consent letter was signed by each participant, and the letters were subsequently stored separately to the collected data. An unsigned copy of the consent letter can be found in Appendix 3.

There was no requirement for any organisations to take part in the study, as such written permission from any organisation was not required.

The collected data was password protected and stored safely on a personal computer. It was backed up on a secure iCloud.

#### 4.13 Study limitations

Subjectivity is one of the limitations of a narrative analysis, as it relies on the interpretation of the data by the researcher. This can be influenced by the researcher's biases and assumptions where the analysis of data can be subjective. To minimise the limitations, the researcher spent a considerable time to reflect on their biases and own assumptions to consider how their own perception may shape the interpretation of the narratives. A narrative analysis requires the researcher to illustrate reflexivity. Furthermore, the iterative nature of the research process allowed for the researcher to continually refine their understanding of the narratives and to identify patterns during the examination of data in the data analysis of one more interview transcript from the last.

In addition, the second limitation of the research design was that the narrative research method depends heavily on the memory of the participants and their understanding of the posed questions. Therefore, the data triangulation during the collection phase considered

asking the interview question in a different way, without leading the participant to ensure that they understood the question. The other research limitation was the time that was available for data collection which limited the sample size in the study to 12 participants. This limitation was mitigated by the study reaching saturation point which was identified to have been after coding the 10<sup>th</sup> research participant. The last limitation was that purposive sampling does not allow for the statistical representation of the overall population, and this was mitigated by the triangulation of the findings.

The upcoming chapter will discuss the research findings.

## 5 CHAPTER 5: RESEARCH FINDINGS

### 5.1 Presentation of findings

This chapter presents the key findings as gathered through the data collection and analysis, that was aimed at formulating a responses to the research questions that are outlined in Chapter 3. The research questions emanated from the literature review as outlined in Chapter 2, which then led to the formulation and the constructs. The related constructs were therefore summarised in Figure 1 in Chapter 2.

The main research question was concerned about the approach that is used by the multinationals to transmit the knowledge spillovers knowledge. During the interview process, the interview participants were in a better position, and they were able to narrate the various types of knowledge that was shared with the local entrepreneurs from their experiences. Thus, they provided details that outlined the process that was followed by their firms to disseminate the flow of knowledge spillovers to the entrepreneurs in the ecosystem.

The key findings are a summary of the collected data, and they were organised and analysed as collected from the 12 semi-structured interviews. Three participant groups were identified as in Table 5 below. These are the participant groups that were identified from the selected firms that have manufacturing operations for both auto mobiles as well as related parts and components. This allowed for the diversification of the participants as this is essential for an exploratory study.

*Table 6: Classification of the participants groups*

<b>Participant group</b>	<b>Role in auto manufacturing</b>	<b>Final number of Participants</b>
Automotive manufacturers	Lead firm	<b>8</b>
Part and components manufacturers	Upstream supplier	<b>2</b>
Heavy-duty Vehicle Manufacturers	Sub-lead firm	2
Total		12

*Source: Author's own.*

The three participating groups were created and classified in Atlas.ti, to identify each in line with the role they play in auto manufacturing to enable the triangulation of findings. Once the researcher identified the core narratives from the interviews, the themes were compared across the participants to identify the similarities and the differences. This is important for

this study as it involved performing comparatives between the similarities and the differences of the findings. The similarities and differences from each group sought to outline the business activities and the level of interaction that each multinational has with the local entrepreneurs, individually or at an organisational level. Hence, from the inductive nature of the analysis of data, 21 themes were developed.

## 5.2 Research Question 1: What are the knowledge spillovers from the multinationals with an emerging market entrepreneurial ecosystem?

### 5.2.1 Introduction

RQ1 starts with a “what” question thus, it is explorative in nature. The question sought to identify the type of knowledge spillovers that are presented by the participants of the study from the multinationals to the local entrepreneurs. The identified knowledge spillovers were presented from the data that was gathered from the accounts of the experiences across all the participant groups as listed in Table 6 below.

*Table 7: Types of knowledge spillovers identified by research participant group*

<b>Types of knowledge spillovers</b>	<b>Auto Manufacturers</b>	<b>Parts and Components manufacturers</b>	<b>Heavy Vehicle Manufacturers</b>
Knowledge spillovers from Multinationals' human capital	Yes	Yes	Yes
Employee spin-offs	Yes	Yes	Yes
Innovative capacity	Yes	No	No
Market access	Yes	Yes	Yes
Business incubation	Yes	No	No
Supply value chains	Yes	No	Yes

*Source: Author's own.*

The themes that are related to RQ1 identify the knowledge spillovers from the multinationals and they will be discussed in this section. A total of eight themes were developed from the data analysis, and four were found to be insightful and they are discussed further below.

*Table 8: Themes emerging from RQ1*



Theme	Similarities	Differences	Discussed [Yes/No]
	Existing Theme	New Theme	
Knowledge spillovers from Multinationals' human capital	X		Yes → Insights
Employee spin-offs	X		Yes → Insights
Innovative capacity	X		Yes → Insights
Market access	X		Yes → Insights
Business incubation	X		No
Upskilling and capacity building	X		No
Supply value chains	X		No
Lack of knowledge transfer	X		No

Source: Author's own.

## 5.2.2 RQ1 Theme 1: Knowledge spillovers from the multinationals' human capital

### 5.2.2.1 Evidence of findings on the knowledge spillovers from the multinationals' human capital

The first theme that is discussed in RQ1 is the knowledge spillovers from the activities that were performed by the human capital from the multinationals. These were found to be prevalent across the three participant groups.

The experiences as narrated by the participants in the auto manufacturing group illustrated the occurrence of the knowledge transfers from the human capital. AMR4 had experience in facilitating the flow of knowledge towards the entrepreneurs during on-site visits to the operations of the local entrepreneurs to provide technical support.

*"I had to do as part of my daily job as such that when you have identified the potential supplier you end up making a lot of site visits to their factory because we work to improve their processes and, in most cases, the firm team would assist with implementing the firm quality standards because most of the new suppliers were based at that supplier park which is closer to the firm's plant" AMR4.*

Furthermore, the experience by AMR4 narrated that even though the research participant does not facilitate the knowledge transfer personally, due to the required skills requiring a certain level of expertise, this does not usually limit the multinational's ability to transfer knowledge. The appropriate employee with the required skills would be identified within the firm and be made available to facilitate the dissemination of the required skill. As told by AMR5's and AMR7, their experiences were found to be similar, as knowledge was

transferred in the form of sharing best practises to improve the operations of the small and medium businesses, and this was also facilitated by the human capital of the multinationals.

The experiences of the participants from the parts and components manufacturers expressed that the human capital knowledge transfers are also prevalent. PMR1 expressed that the transferred know-how is of economic value that the multinational's human capital makes available to the local entrepreneurs at no cost. The experience by participant PMR2 indicated that human capital is indeed instrumental in the transfer of knowledge spillovers to those entrepreneurs that conduct business with the multinational.

The heavy-duty vehicle manufacturer, HVMR1 narrated an experience that indicates the human capital disseminating the knowledge spillovers to the local entrepreneurs, even though this was achieved through a partnership agreement with a Tier 1 supplier. This indicates experiential learning that is focused on building the capabilities of the local entrepreneurs. This evidence illustrates that the capability building enabled the local entrepreneur to be a manufacturer of parts and components and therefore supply the heavy-duty vehicle manufacturer and thus it formed part of the auto value chain.

*“The technical element there is no technical support so whenever we bring in local entrepreneur we expect them to run so instead of us giving them time to say okay, fine we are going to give you a year. In that year, we are going to then bring in experts or technical support from tier 1 supplier or our firm to come and mentor and coach you and show you what we want as our quality standards requirements entails okay” HVMR1.*

#### 5.2.2.2 Conclusion on RQ1 Theme 1: Knowledge spillovers from the multinationals' human capital

The comparisons between the three participants groups were found to have similar experiences with the human capital knowledge transfers. This was done through the transfer of best practices, as well as through the technical know-how with the local entrepreneurs who conduct business with the multinational or with the potential suppliers to the multinationals. This was found to be similar amongst the three participation groups. A noteworthy insight was identified from the auto manufacturers group that reflected that the flow of knowledge is present towards the entrepreneurship focused on the activities for the supply of goods and services in auto manufacturing as well as in the auto retailing sector. Similarly, this same insight was found to be present in the heavy-duty vehicle manufacturing group. The multinationals in the auto sector therefore do play a role by facilitating the flow of

knowledge spillovers towards the entrepreneurial ecosystem through the human capital activities in their interactions with the entrepreneurs. These interactions are focused on all the business types, as well as the small, the medium and big the corporates that are the suppliers or the potential suppliers of the goods and services to the lead multinationals that serve as the lead firms and value the chain entities in the manufacturing of auto mobiles.

### 5.2.2.3 Additional evidence on RQ1 Theme 1: Knowledge transfers from human capital

The quotations from each group are coloured to indicate the specific group as follows:

Table 9: Colour highlights for quotations as per each participation group

Colour highlight for quotations
Auto manufacturing group
Parts and components group
Heavy-duty vehicle manufacturing group

Source: Author's own.

<b>RQ1 Theme 1: Knowledge transfers from human capital</b>
<i>"The knowledge transfer or facilitation is done with support from the relevant line manager or relevant business expertise." 3:37 ¶ 25 in AMR2</i>
<i>"We got our engineers to go to this factory to look at the layout of the factory, to assess if it was structured in the best possible way? Should they change the layout how they run the factory, taking into account that the people who are doing these things cannot see?" 7:19 ¶ 51 in AMR5</i>
<i>"We tell them for example, how about you try like this or like that based on best practise and latest industry trends, it is not like we go there and we leave them alone" 11:22 ¶ 87 in AMR7</i>
<i>"And once you are onboarded as a distributor you go through training one of it, is skills development for that specific area you are doing and we've got application engineer that don't have to charge they can come and support you 8:4 ¶ 78 in PMR1</i>
<i>"our engineers provides technical support for those we do business with" 14:3 ¶ 30 in PMR2</i>
<i>"One of the things that we did before opening up the dealership, the entrepreneur who is a local guy went to Japan through the firm to attend training and workshops on the quality standards and branding requirements and operations of the brand. He has opened up a dealership well state-of-the-art dealership So that is one way of the best practice along with our global principals." 10:11 ¶ 77 in HVMR1</i>

### 5.2.3 RQ1 Theme 2: Employee Spinoff

The second theme to be discussed for RQ1 is employee spinoffs. These indicate the important role that is played by the multinationals to capacitate its employees with skills that enable them to actively take part in entrepreneurship.

### 5.2.3.1 Evidence of findings on RQ1 Theme 2: Employee spinoffs

To present the analysis of data for this theme in combination with the researcher's understanding of the evidence, the researcher draws to the similarities that are highlighted by all the three participant groups. In the auto manufacturing group, the narrative of the accounts showed the new venture creations that emanated from the employee spinoffs. AMR5 expressed that a former director left his employment within the multinational to pursue entrepreneurship within the auto sector as a retail partner to the multinational, and thus applying the knowledge that he acquired from the multinational and is now a big customer to the multinational.

*"I can think of a group Company X, started by a guy who was a finance director, and he left the firm and opened up the group. OK, Company X. So, he knew how to run businesses or how dealers perform. One of the things that dealers need to be looking out for and then he created the product and this one which is a very successful dealer group" AMR5.*

Furthermore, an experience from AMR8 showed evidence on an employee spinoff from a former employee who applied the industry specific skillsets to form a business venture that is outside the auto sector.

*"So, he is on LinkedIn he is one person I think also that you can check maybe he might be willing to talk to you. I remember there was a point someone wanted some information around the painting and also, I reached out to him on LinkedIn, and he said give the person my details and then they can. I think from an entrepreneurship side you can get quite some insight in terms of because he was in an OEM then he came out now he is handling his own business and at some point I know the last time I spoke to him and when I actually met him it appeared that he was getting some business because he was making his own paint, and he was also painting some houses" AMR8.*

AMR6's experience also illustrates the evidence on the employee spin-offs, where an enterprise by the former employees became the suppliers of the multinational. Furthermore, a similar experience was found in the narrative by AMR4, that showed that the business enterprise from an employee spinoff resulted in the small enterprise supplying parts to the actual manufacturer of the vehicles in the former employer's operations, thus it formed part of the local auto value chain. AMR4's experience is thus, similar to that of AMR6 and AMR5, that the local entrepreneur became successful to the extent of either becoming a supplier and a customer to the multinational.

*“And quite recently I localized apart with one of those suppliers. So not only does he do spray of the bed liner, but he also now supplies the physical part and is part of the firm’s value chain” AMR4.*

From the parts and component manufacturing group, PMR1 expressed that the cases of former employees leaving their employment for entrepreneurship, were a well-known occurrence. This also extended to the former employee identifying the business venture within the business activities of a multinational. Consequently, the former employee became a supplier to the multinational.

In the heavy-duty vehicle manufacturing group, the experience from HVMR1 captured two cases of employee spinoffs. One of the two experiences by HVMR1 presents evidence that is similar and that was seen in the parts and component manufacturing group, where a business venture emanated from the employees’ duties and roles during their employment, and this function was being outsourced to the employee’s enterprise and it led to the former employee conducting business with the former employer.

*“Yep, there’s one lady when I was at my previous firm, she basically left and started something I have forgotten her name though, but it is a black woman though. And then currently where I am right now one of the employees took up the opportunity through our enterprise development program, the firm was seeking to appoint a service provider to service and clean up the forklift” HVMR.*

Additional evidence of quotations from the research participants is shown further below in 5.2.3.3.

#### 5.2.3.2 Conclusion on RQ1 Theme 2: Employee spinoffs

The evidence presented for the theme of employee spinoffs reveals the similarities across all the three participating groups. The told experiences show that the former employees of the multinationals do apply the knowledge and skills that were attained during their employment towards new venture creation. In addition, the evidence presented across the three participant groups indicates that many of the employee spinoffs do lead to such enterprises becoming suppliers to the multinationals. As such, three insights are presented by the evidence for theme 2, the first one is that the knowledge spillovers from the multinationals have resulted in employee spinoffs. The second insight being that the business enterprises by the former employees had to conduct business with the multinationals, either as a supplier of goods and services or as auto retail partners. Finally, the third insight is that such enterprises were not only found to conduct business with the multinational, but they also

supply parts and components to the multinational, thus they form part of the multinational's local auto value chain.

### 5.2.3.3 Additional evidence on RQ1 Theme 2: Employee spinoffs

<b>RQ1 Theme 2: Employee Spinoffs</b>
<i>"We've got K***a, as an example, these were all ex firm employees that have set up a business and we currently sourcing from them"</i> 9:5 ¶ 25 in AMR6
<i>"In my business group and the business group I've played before, yes, there's been employees, spinoffs and the different types. The one which was quite very successful from my business group perspective was one of our Lady who was a marketing lady in our business was identified for development"</i> 8:5 ¶ 90 in PMR1
<i>"One of our former employees has a contract to supply forklifts and this was a good engineer in supply chain. For those who have an entrepreneurial bone, it is easy to identify these opportunities from within. I mean our containers are also leased from a former employee who went to business, and they supply a few companies in Rosslyn."</i> 14:4 ¶ 34 in PMR2

### 5.2.4 RQ1 Theme 3: Innovative capacity

The third theme to be analysed sought to reflect the innovative capacity that is present in the auto entrepreneurial ecosystem as it is an indicator of the prevalence of the knowledge spillovers within an ecosystem. The evidence shows the prevalence of innovative capacity that is reflected through the new product innovations and the process innovations. The automotive sector innovations entail the design of a part or a component toward the manufacturing of a vehicle. The process entails the multinational sharing of innovations such as the part designs with the suppliers which will in turn demonstrate their innovative capacity by designing the manufacturing of the part efficiently using the latest technologies. The other innovations that are present within the industry and were presented during data collection include the software tool that is used to capture and process data. The other type of innovation that is identified in the data collection is the process improvements that are aimed at achieving efficiency within the manufacturing process, by eliminating the wastage of time, raw materials and other resources that are necessary for the manufacturing process.

#### 5.2.4.1 Evidence of findings on RQ1 Theme 3: Innovative capacity

The participants in the auto manufacturing group stated that the sharing of innovation with the entrepreneurs is not something that is common within their business activities. The narrative of the experience by AMR7, revealed that the design of the parts and the components is only shared with the existing suppliers, the big corporates, as well as with the medium and small entrepreneurs that currently are eligible to conduct business with the

multinational. This excludes the local entrepreneurs that do not conduct business with the firm or that have not satisfied the requirements to be onboarded onto the supplier sourcing platform of the multinational.

*"So, we only share the design information with suppliers that are onboarded into our database, this includes SMMEs. And for you to be there, you will sign a non-disclosure agreement." AMR7.*

Furthermore, AMR7 expressed how the multinational does share innovations with the local suppliers.

*"But on let's say normal production parts we do. We have a supplier excellence team, they go, and they review the process of our suppliers. And they do 5S lean manufacturing etcetera waste reduction, so they help them to maybe optimize the workflow and for them to be efficient" AMR7.*

Similarly, AMR5 narrated that innovation is only shared with the big suppliers. These include new trends that are focused on process improvements to increase efficiencies.

*"If there are any global trends that are coming out, I think the firm does share these with some of their big suppliers now we have to remember that the type of industry that we are in, it is a very complex" AMR5.*

The participants revealed that the nature of business within the auto sector is complex, as such the latest innovations are not openly shared with the small and medium enterprises. Similarly, AMR2 expressed that innovation is only shared with the big suppliers that are already part of the auto value chain.

Interestingly, the experience by AMR1 was found to be unique and different to the experiences as shared by the three mentioned participants within the auto manufacturing group.

*"Then we partnered in the development of the tool which they actually did for us. This was on a smaller scale, and I heard that they actually trying to do it for other businesses, so that's our idea because we started with them here. We brainstormed so I would call that innovation, because it's actually trying to improve how we do things. Yes, he then got a solution for it, and he feels that solution can be used to solve problems somewhere else for other businesses with the same need" AMR1.*

The experience is unique as it revealed how the multinational shared the firm's intellectual property with a small enterprise. This led to the development of a new software tool by the local entrepreneur. As narrated by AMR1, the two parties worked together to formulate an

innovative solution. It is important to note that the entrepreneur was not conducting business with the multinational, prior to this partnership as was observed during data collection. This, therefore, indicates that the nature of relationship between the multinational and the entrepreneur was explorative in nature as it was based on the needs of the multinational and the innovative partnership was pursued purely as the entrepreneur could demonstrate their competencies. In the normal course of business, the multinational would have contracted an established supplier to find a solution to the challenge that was faced by the multinational. During the interview, a sense of pride was observed from the research participant, who made the decision to explore the partnership with the local entrepreneur. As a senior engineer that had extensive knowledge on the processes and challenges faced by the multinational, his expertise was instrumental in working together with the entrepreneur to develop and implement the innovative solution.

A contrasting narrative was recounted by the other participants within the auto manufacturing group, AMR4 expressed that the firm does not share innovation with the local entrepreneurs. Similar experiences were expressed by the participants in both the parts and components manufacturers and heavy-duty manufacturing group. Additional evidence on the narratives on this theme are included further below.

#### 5.2.4.2 Conclusion on RQ1 Theme 3: Innovative capacity

The evidence presented reflected the presence of the innovative capacity within the entrepreneurial ecosystem. This was illustrated by a unique experience from the auto manufacturing group, and it was illustrated by an instance when both the multinational and the local entrepreneurs worked together to discover an innovative solution in what appeared to be an explorative partnership. The presented evidence revealed varied views on the sharing of innovation in terms of the part designs with the local small and medium enterprises. The evidence also reflects that even though it is common practise within the industry to share parts designs with big suppliers that are already entrenched in the auto value chain, it was also revealed that there are some instances where the multinationals do share the parts design and specifications with small and medium enterprises. An opposing view was also found where the multinationals do not share innovation, as presented by the evidence from the participation groups in the parts and components, as well as the heavy vehicle manufacturers. Due to this practise, the local entrepreneurs are limited in demonstrating their innovative capacity.

#### 5.2.4.3 Additional Evidence on RQ1 Theme 3: Innovation



### RQ1 Theme 3: Innovation

*"generally with the big suppliers, that manufacture vehicle production parts for tooling we share our innovations, sometimes from other the firm global plants" 3:35 ¶ 53 in AMR2.*

*" It doesn't happen in my line of work" 5:29 ¶ 65 in AMR3.*

*"No. Innovation has IP, that we never share with entrepreneurs" 6:14 ¶ 54 in AMR4.*

*" I am laughing because it is, from an innovation point of view, yeah, yes okay just thinking out loud or localization, we have got local filters that you buy from big supplier. So, supplier is a first-tier suppliers yeah. So, what we have done is with them is we have basically taken a couple of the guys to their plant okay and we said to them this is what, the filters we want in South Africa can they be locally manufactured in South Africa? Because remember a filter you might look at the filter and say but this is just nothing, let me speak for the firm because it's longevity and durability for as per firm's standards it depends on certain functions in a truck and that innovation belonged to the firm. We still own the IP but we've then given the innovation to Donaldson to manufacture yeah, those filters for us" 10:39 ¶ 85 in HVMR1.*

*" No, that is our technology and competitive advantage. We don't share at all. I mean we are talking die tools, and we usually sign strict contracts for parts designs with auto makers and that is our business, we can't even contract out smaller parts to capable manufactures which is something we attempted doing previously and that meant we would infringe our contractual obligation" 14:9 ¶ 62 in PMR2.*

#### 5.2.5 RQ1 Theme 4: Market access

The auto manufacturing industry is identified as an industry with high barriers of entry. All the research participants expressed experiences in relation to market access. The theme was selected due to the frequency of mentions of the two words "opportunity" and "market access" by the research participants across all the groups. The two words indicated the entrepreneurial opportunities that the multinational made available to the local entrepreneurs as such, it indicates the actions by the multinationals to advance the local entrepreneurial ecosystem.

##### 5.2.5.1 Evidence of findings on RQ1 Theme 4: Market access

In the auto manufacturing group, AMR2 expressed how the local entrepreneurs have expressed their dissatisfaction about not being able to conduct business with the auto manufacturers, amongst other things they are unhappy about.

*"They also complain with access to market" AMR2.*

AMR1 narrated that not only did the firm provide technical and financial support to the local entrepreneur to enable them to start conducting business with the multinational, but they were also instrumental in connecting the entrepreneur with the other auto multinationals. AMR3's experience reflected how an entrepreneur from a society which was previously excluded to participate in economic opportunities, was considered to be a supplier for one of

the services that was a business need by the multinational. AMR4 recounted that the multinational places a preference to conducting business and giving market access to the local enterprises situated in the SEZ that is in close proximity to the factory.

In the heavy-duty vehicles manufacturing group, the experience as expressed by HVMR1 illustrates that the multinational provided market access to a small business that would not have ordinarily been afforded an opportunity to provide the service that was previously provided by a bigger supplier that is well known within the industry. This therefore allowed the small business to tap into this market.

*“So in my current role we have just been able to put a couple back of black suppliers one of them is 100% black-owned woman, who is transporting parts to our local dealers and she is in competition well she is in competition with a big distribution company, okay so one thing that we did, we said let's start small, you're not going to be able to compete with the big company in terms of volumes, but we can be able to give you 20% of the operation” HVMR1. See additional evidence on this theme in 5.2.5.3 further below.*

#### 5.2.5.2 Conclusion on RQ1: Theme 4 market access

The experience as narrated by AMR2 is an outlier, as it illustrates that the local entrepreneurs have expressed the need to be afforded the opportunity to conduct business with the multinationals. Similarities were found amongst the experiences by the three participation groups. These entailed the small enterprises including those located in close proximity to the multinational being considered in the business opportunities, and thus they were afforded market access to conduct business with the multinationals. This was found to be prevalent in the narrative accounts by all the participants. It is important to note that the market access theme was enabled by the activities conducted by the multinational human capital through capacitating the local entrepreneurs. This entailed increased focus on upskilling and providing technical support to the local entrepreneurs as outlined in RQ 1 Theme 1. The identified knowledge spillover thus enabled the entrepreneurs to be competitive and thus they became eligible to be considered for the business opportunities that existed within the multinationals.

#### 5.2.5.3 Additional Evidence on market access

**RQ1 Theme 4: Market access**

*“For our Milk-run RFQ that we’ve recently launched, and we are assisting the supplier to actually start ticking all the boxes. We’re doing that for our vehicle distribution as well, our car carriers. We are looking into speaking with the neighbouring OEM and other OEMs to make sure we get the right volume mix for this supplier for them to start participating” 2:35 ¶26 in AMR1.*

*“There’s a lady that does our paint shop laundry. It’s a black supplier. Black woman owned to be specific, and they go by the name of Company B. We gave her an opportunity” 5:5 ¶41 in AMR3.*

*“Many new suppliers got market access at the firm especially those that provide indirect good or services that are not used in the manufacturing of the key model. the firm prioritizes local entrepreneurs who are from neighbouring communities around the area and that is the reason why they built the SEZ next to the factory” 6:9 ¶38 in AMR4.*

**5.2.6 Summary of Findings on RQ1**

RQ1 aimed to identify the various types of knowledge spillovers that are present within the automotive entrepreneurial ecosystem in South Africa. Four of the eight knowledge spillovers as presented by the research findings were discussed as shown in Table 10 below. The table also shows the number of mentions for each theme from the three participation groups.

*Table 10: Frequency of discussed themes on RQ1*

<b>Theme</b>	<b>Auto Manufacturers</b>	<b>Parts and Components manufacturers</b>	<b>Heavy Vehicle Manufacturers</b>
Human capital	Many Lead firm activities	Many Lead firm influence	Many Sub-lead firm activities
Employee spin-offs	Many Low value chain activities	Many No value chain activities	Many Downstream activities
Innovative capacity	Some Consider inputs	Low to none Consider inputs	Low to none Consider inputs
Market access	Many Made possible by experiential learning	Many Made possible by coaching	Many Made possible by capacity building

*Source: Author’s own.*

As shown in Table 10 above, the knowledge spillovers from RQ1 Theme 1 on human capital, was mentioned by many participants from all the participation groups. The presented findings illustrate that the multinationals in the auto sector do play a role by facilitating the flow of knowledge spillovers towards capacity building across all the business types, that is in the small, in the medium and in the big corporates through their human capital. The findings illustrate that the interaction of the employees of a multinational leads to skills transfers and best practises by imparting knowledge to the local entrepreneurs. The

knowledge is focused on the process improvements within their operations to satisfy the multinational's quality standards. As such, similarities on human capital knowledge transfers were identified across the three participation groups.

RQ1 Theme 2 of employee spin-offs was mentioned by all the participants across the three participation groups, as shown in Table 10 above. The evidence on employee spinoffs illustrates that the former employees of the multinationals utilise their learnings and skills during their employment to start business ventures, with some of the businesses being within the auto sector. Lastly, such enterprises are suppliers of parts and components to the multinational, thus they form part of the multinational's local auto value chain. Furthermore, the evidence shows that the existence of the employee spinoffs forms part of the local auto value chain. This was expressed by many of the research participants in the auto manufacturing group to have low value chain activities. In contrast, the evidence from the remaining two groups of participants, revealed that, even though the employee spinoffs are prevalent, they however, had no value chain activities.

The insights on RQ1 Theme 3 on innovative capacity revealed the presence of innovative capacity within the entrepreneurial ecosystem by some of the research participants as reflected in Table 10 above. It was, however, noted that this is limited by the practices of the multinationals of not sharing the parts designs with the local small and medium enterprises as presented by many research participants as per Table 10. On this front, the varied experiences from the three participating groups were observed. Notable insight on the innovative capacity was presented, and it was reflected by both the multinationals and the entrepreneurs coming up with out-of-the-box innovative solutions that led to the development of software as well as process improvements to increase efficiencies.

Similarities were observed from the findings presented on RQ1 Theme 4 on market access across all the participant groups. The findings revealed that the market access afforded to the small and medium enterprises was as a result of the human capital knowledge spillovers as covered in RQ theme 1. It was found that the multinationals' human capital facilitated experiential learning, coaching and capacity building to the small businesses that were afforded market access by the multinationals, as reflected in Table 10 above.

### 5.3 Research Question 2: What are the processes followed by the multinationals to transfer knowledge spillovers in an entrepreneurial ecosystem?

#### 5.3.1 Introduction

RQ2 sought to understand the approach that was followed by the multinationals to actively facilitate the flow of the knowledge spillovers. The introduction of the findings from research question 2 is reflected with an overview of the identified themes as per Table 7 below. There were five themes that were developed from the data analysis, and all were considered to be insightful and are discussed as follows:

Table 11: Themes emerging from RQ2

Theme	Similarities	Differences	Discussed [Yes/No]
	Existing Theme	New Theme	
Social networks	X		Yes → Insights
Sourcing strategy		X	Yes → Potential New insights
Sustainability	X		Yes → Insights
Communication	X		No

Source: Author's own.

### 5.3.2 RQ2 Theme 1: Social networks

The theme was selected due to the frequency of mentions of the words “collaborate” “collaborations” “partnerships” and “working together” by the participants across all the groups.

A collaborative approach was selected as a theme, as it was identified in Chapter 2 on the literature review as one of the ways that the knowledge spillovers are facilitated. The evidence on this theme is analysed and discussed below:

#### 5.3.2.1 Evidence on finding on RQ2 Theme 2: Social networks

The evidence presented by the auto manufacturing participants revealed findings on the social networks that are summarised below. The evidence from AMR2 revealed the collaboration between the multinational and another established corporate in the financial sector with a focus on partnering to provide financial resources towards the development of entrepreneurship in the automotives.

*“There is also small enterprise from an agency perspective. There is also presently an opportunity to also tap into the private sector funding as we currently working with a Financial institution to establish some form of a relationship because they want to tap into the automotive entrepreneurial development” AMR2.*

The experience by AMR4 specified the collaboration between the multinational and the state agency in an incubation program that was run by the multinational that focused on capacitating the local former employees from the auto manufacturers to develop them to become suppliers and to form part of the auto value chain. AMR4 also mentioned another partnership with the local government on establishing a Special Economic Zone (SEZ) that focused on the development of the auto value chain in the area. AMR5 narrated about the collaboration between the small and big corporates within the city, that was facilitated by a local business chamber as one of the many collaborations that focused on creating an enabling environment for entrepreneurship.

The participants from the parts and components manufacturing group narrated the experience that illustrates the value of collaborations within an industry body to support the needs of the players in their industry.

*“It is not formal it is just a partnership arrangement with NAACAM. So NAACAM does the marketing of the event and all”* PMR2.

Similarly, the heavy vehicle manufacturing participation group expressed the partnership with a local university towards providing the much-needed entrepreneurial support with the competency skills that are required to run a business.

*“we started the program now with Tshwane University of Technology that’s number one from a local entrepreneurship in their Business School where small businesses are coached on how to improve their current operations, marketing and managing their funds etc”* HVMR1.

### 5.3.2.2 Conclusion on RQ2 Theme 2: Social networks

The evidence presented for the RQ2 theme 2 on the social networks illustrates the similarities among all the participation groups. The similarities were observed between the auto manufacturing group, the parts and components group and the heavy-duty vehicle group. The experience illustrated that the multinationals do leverage their social networks within the auto entrepreneurial ecosystem to collaborate with the other organisations particularly to transfer knowledge to the local entrepreneurs. The identified social networks are with the industry bodies, the local government, the government agencies and the universities. The evidence presented on the theme on collaborations illustrates that the multinationals have an approach that entails working with other organisations towards creating an entrepreneurial ecosystem that is conducive for venture creation and for achieving sustainable business activities. Furthermore, the evidence illustrated that such collaborations closed the gaps that were prevalent in the ecosystem by serving the needs of

the entrepreneurs through the provision of financial resources, and capacity building amongst others.

### 5.3.2.3 Additional evidence on RQ2 Theme 2: Social networks

#### **RQ2 Theme 2: Social networks**

*“The incubation is a collaboration with AIDC and SEZ is with City of Tshwane those are the ones that came to mind. In partnership with AIDC the firm set up a place called the modification centre and there is an assembly line, when incubatees graduate they set up their operations into the modification center and they operate from those facilities as they are not a typical entrepreneur” 6:17 ¶ 70 in AMR4.*

*“Capital City Business Chamber, which is a grouping, as the name suggests, it's a business chamber. It's a grouping of people who are trying to put small businesses and big businesses together” 7:11 ¶ 51 in AMR5.*

### 5.3.3 RQ2 Theme 2: Inclusivity for the previously excluded groups in the society

The theme was selected due to the frequency of mentions of the words “black people” “transformation” “previously excluded” and “B-BBEE” amongst others by the participants across all the participation groups. The third theme for RQ2 was developed from the codes and patterns that were centred around the inclusion of the previously excluded racial groups in the society, which in South Africa this group is widely referred to as the black people. The researcher observed that most of the activities that focused on the development of the local suppliers were centred around black people. The data analysis and discussion in this theme presents the evidence on the multinational’s interactions with the local entrepreneurs that have not conducted business with the firm.

#### 5.3.3.1 Evidence of findings on RQ2 Theme 2: Inclusivity for the previously excluded groups in the society

The evidence presented by the experience by AMR1 within the auto manufacturing participation group, expressed that the increased efforts in the multinational’s business activities are directed towards conducting business with the previously excluded members of the society.

*“We look at empowering previously overlooked sections of the society and move to having a more inclusive approach. When we do an RFQ for sourcing, we're looking at lesser people that are normally not considered”.*

Additional evidence is that AMR1 expressed that their firm has started being more detailed and descriptive to ensure that their request for goods and services are easily understood by

the suppliers who have not conducted business with the multinational, or the industry and they have moved away from the use of a more technical and industry specific language.

*“We are looking at our documentation when we publish an RFQ to be more descriptive. Explaining what we're looking for detailed in a way a lot of people can understand it”* AMR1.

The experience by AMR2 also captured that the focus of the multinational’s business activities are directed towards promoting the inclusivity that is aimed at working with the black entrepreneurs with an aim of redressing racial exclusion.

*“As such the focus is different. In this country we have a legacy of racial exclusion that we are trying to redress that's the purpose of this office and the initiatives that we are doing”* AMR2.

In the parts and components participation group, PMR1 expressed that the enterprise development initiatives pursued by the firm are mainly directed towards compliance to the B-BBEE regulations.

*“We've tried to leverage such things as enterprise development so we will the profile of our enterprise development will be such as to align with the government directions on B-BBEE compliance”* PMR1.

Participant HVMR1 in the heavy-duty vehicles manufacturing group recounted the experience that indicates that the multinational’s activities are focused on promoting inclusivity mainly to comply with the laws of the country.

*“Our approach was to be inclusive because this is required to be able to conduct business in this country”.*

#### 5.3.3.2 Conclusion on RQ2 Theme 2: Inclusivity for the previously excluded groups in the society

The evidence as presented on the RQ2 theme 3, demonstrated the efforts that promote inclusivity, and they were found to be similar across all the research participation groups. The evidence illustrated that the multinationals embarked on the activities that led to the increased level of conducting business with the local entrepreneurs with a racial classification of black people. The experience recounted by the auto manufacturing group revealed that the multinational mode of communication to the local entrepreneurs moved to being more descriptive so that they may be easily understood by the entrepreneurs that are not familiar with the technical automotive jargon. Similarities were observed in the heavy



vehicles manufacturing group, as the multinational's activities are not only focused on the great good through promoting inclusivity. Furthermore, their activities are aimed at compliance to the B-BBEE regulation, where compliance is not enforceable, but it is an indication of good citizenry by the multinational. Similar observations were present in the parts and components participation group, as their activities were directed towards compliance to the B-BBEE regulation through their enterprise development program.

#### 5.3.4 RQ2 Theme 3: Sourcing strategy

The data analysis and discussion in this theme presents the evidence on the multinationals' sourcing strategies. For this theme, the researcher paid attention to the experiences that give account of the localisation efforts by the multinational.

##### 5.3.4.1 Evidence of findings on RQ2 Theme 3: Sourcing strategy

In the auto manufacturing participation group, AMR1 expressed that the need to localise is bigger and that the firm has increased the focus to advance the level of local content. The evidence also illustrates that the decision to localise, therefore changes the sourcing strategy from offshoring which is not easily understood by the principals or the parent company. The rationale for moving away from offshoring is mentioned by AMR1 to be to manage the currency fluctuations.

*“And the need here is bigger than the need elsewhere. So, sometimes you might actually miss each other trying to go fast to try and localize. And then they're saying what's the need. We've got a solution already. Thailand is our solution. We're getting from Thailand. They don't want to rock the boat. Our challenge however if our Rand depreciates what then? So, we need to think out-of-the-box a bit more to protect ourselves from those kind of challenges which they necessarily don't have” AMR1.*

AMR4 expressed that the multinational's approach for localisation is strategic, as this is shown by the responsibilities which were to focus on increasing localisation. AMR4 further expressed the experience that illustrated a successful localisation activity. This was achieved though providing enabling support to the local entrepreneur.

*“It's more of a strategic function because I was responsible for growing localisation for parts which are supplied in the Aftermarket and dealerships” AMR4.*

*“There is a supplier that I localised. This supplier was supposed to be localizing detachable a wireless cell phone charger. I remember at the beginning of our*

*sourcing, we carried on and, in the middle, we found out that there's certain certifications that are required for that supplier. I think it's the certification that you need if you make a cell phone from ICASA. We basically walk them through what they need. How to approach ICASA” AMR4.*

AMR6's account shows that the multinational has ambitions of their sourcing strategy moving away from offshoring. However, the firm is facing a challenge of not being able to localise competitively and this is a direct result of the multinational's level of volume and the country's economic conditions.

*“Then you need to see if you can localize competitively. Which is I think one of our biggest challenges at this point in time. We are not able to localize competitively because of A, our volumes and B our local and Economical situation” AMR6.*

PMR2 from the Parts and Component Manufacturing group, expressed that the firm changed their sourcing strategy from in-shoring to offshoring to Thailand. The multinational is currently importing competitively the auto grade steel from Thailand.

*“In the past it used to happen a lot because we were sourcing our steel locally and we started importing from Thailand a lot of the auto grade steel and that is one of the reasons because I have been with the firm for 17 years in different roles. We don't do that very often lately” PMR2.*

In the heavy vehicles manufacturing participation group, HVMR1 stated that the firm has a target of improving the level of local content in the production output. This will be achieved by increasing the level at which the multinational conducts business with the local entrepreneurs. The evidence shows that improving the local content is mentioned as the rational for the set target.

*“It is not specifically for B-BBEE because our aim was to improve our local content in the upstream and downstream” HVMR1.*

#### 5.3.4.2 Conclusion on RQ2 Theme 3: Sourcing strategies

Diverse experiences were observed across the three participation groups. These are illustrated by the multinationals' sourcing strategies that range from local sourcing, offshoring with evidence shown on imports from Thailand, and the evidence showed in-shoring or back shoring with successful localisation. In the auto manufacturing group, the evidence showed successful localisation. A similar experience was observed in the heavy-duty manufacturing group. A difference was observed in the evidence as presented in the auto manufacturing

group, where localisation remains a target and the multinational faces more challenges that holdback the set target. In the parts and component group, the sourcing strategy moved towards offshoring.

#### 5.3.4.3 Additional evidence on RQ2 Theme 3: Sourcing strategy

<b>RQ2 Theme 4: Sourcing strategy</b>
<p><i>“So, there will be a report and the report show whether the audit results are successful or not, which would enable the supplier to bid on our tenders or if the audit result is not successful, they’ll be like measures discussed with the team and the supplier together, how to solve or improve those findings and then depending on how big they are and how many they are there. Maybe after three to six months or depending on how big it is, maybe sooner, maybe later, OK and then hopefully the re-audit will be successful and then they can be included in the in the bidders list” 11:11 ¶ 79 in AMR7.</i></p>
<p><i>“In the past it used to happen a lot because we were sourcing our steel locally and we started importing from Thailand a lot of the auto grade steel and that is one of the reasons because I have been with the firm for 17 years in different roles. We don’t do that very often lately” 14:15 ¶ 70 in PMR2.</i></p>

#### 5.3.5 Summary of findings on RQ2

RQ2 aimed to understand the approach that is followed by the multinationals to actively facilitate the flow of knowledge spillovers. There were four themes that were presented as the findings for RQ2. Table 12 below shows the number of mentions for each theme by each participant group.

Table 12: Frequency of mentions of themes from RQ2

	<b>Auto Manufacturers</b>	<b>Parts and Components manufacturers</b>	<b>Heavy Vehicle Manufacturers</b>
Collaborations	Many Value chain activities	Many Down-stream activities	Many Value chain activities
Sourcing strategy	Some Value chain activities	Low to none Down-stream activities	Low to none Consider inputs
Sustainability	Many Value chain activities	Many Down-stream activities	Many Downstream activities

Source: Author’s own.

The evidence presented for RQ2 theme 1, reflected that the multinationals do leverage their social networks within the auto entrepreneurial ecosystem to collaborate with other organisations particularly to transfer knowledge to the local entrepreneurs. The identified social networks are with the industry bodies, the local government, the government agencies and the universities. The evidence presented on the theme on collaborations illustrates that the multinationals have an approach that entails working with other organisations towards creating an entrepreneurial ecosystem that is conducive for venture creation and for achieving sustainable business activities. Furthermore, the evidence illustrated that such collaborations closed the gaps that were prevalent in the ecosystem by serving the needs of the entrepreneurs through the provision of financial resources, as well as capacity building amongst others.

For RQ2 theme 2, the evidence demonstrated that the multinationals embarked on activities that led to the increased level of conducting business with the local entrepreneurs that meet the B-BBEE classification of black people. The evidence also illustrated that the multinationals do promote inclusivity by redressing the racial exclusion of qualifying local entrepreneurs. This was further demonstrated by the multinational's mode of communication to the local entrepreneurs which moved to being more descriptive so that they may be easily understood by the entrepreneurs that are not familiar with the technical automotive jargon. Lastly, the evidence showed that the multinational's activities were directed towards compliance to the B-BBEE regulation through their enterprise development program.

In conclusion, the activities reflected in the sourcing strategy by the multinationals that are willing to create an enabling environment to the local entrepreneurs to enable the multinational to realise the sourcing strategy. As presented by the evidence, the multinationals have set a target to increase the localisation levels. This will be achieved by moving away from the offshoring resource strategies. The reasons to localise include managing the currency depreciation that impacts the cost competitiveness of the multinational's locally produced vehicles. The evidence collected illustrated the diverse experiences ranging from local sourcing, offshoring with evidence shown on imports from Thailand, and evidence showed in-shoring or back shoring with successful localisation.

#### 5.4 Research Question 3: What and how do the barriers in the entrepreneurial ecosystem inhibit the transfer of knowledge spillovers?

##### 5.4.1 Introduction

RQ3 aimed to bring an understanding of the factors that hold back the flow of knowledge from the multinationals to the local entrepreneurs. The nature of RQ3 is explorative with a “what” and “how” question. As such the data analysis for RQ3 starts with the identification of the factors, as illustrated in the table below.

*Table 13: Factors inhibiting the flow of knowledge from the multinationals to the local entrepreneurs*

Theme	Similarities	Differences	Discussed [Yes/No]
	Existing Theme	New Theme	
Offshoring	X		Yes → Insights
Direct impact of scarce resources to knowledge transfer	X		Yes → Insights
Entrepreneurs' absorption capacity	X		No
High barriers to entry	X		No
Communication by multinational inhibiting knowledge transfer	X		No

*Source: Author's own.*

To understand the nature of the identified factors, the second question of the “how” for RQ3, sought to understand how the identified inhibitors impede on the flow of knowledge as well as on the activities by the multinationals to address the identified factors, to ensure the flow of knowledge to the local entrepreneurs.

#### 5.4.2 RQ3 Theme 1: Impact of scarce resources to knowledge transfer

This theme sought to identify and understand the factors that are influenced by the scarce resources as a condition that is prevalent within the emerging markets. Such factors are considered in seeking to understand the impact they have to knowledge transfer within the entrepreneurial ecosystem.

##### 5.4.2.1 Evidence of findings on RQ3 Theme 1: Impact of scarce resources to knowledge transfer

The evidence presented from the experiences from the auto manufacturing group identified the barriers of entry to have a direct impact to the lack or to the limited knowledge spillovers within the auto sector. These barriers of entry are towards the local entrepreneurs who are interested in becoming both a supplier of goods and services and to also form part of the local auto value chains. Such barriers were identified to include the certification requirements, as well as the technical competencies as expressed by the account of

experiences by AMR3 and AMR4. AMR7 narrated that the required quality standards which are high in auto manufacturing require substantial financial resources. The above-mentioned factors are key barriers that act a first level of barriers that hold back the small and medium business access to conduct business within the auto sector.

*“For example, we need a mechanism to incorporate that when an entrepreneur doesn't have the required accreditations, how much time are we going to allow them to correct and get accredited in parallel to the firm committing to give them that business opportunity” AMR3.*

*“The key point to note, is that in this industry entrepreneurs must have skill, experience, and access to capital because the lack of funds becomes a big inhibitor for most entrepreneurs because you need to pay to get your operations certified and sometimes even when an entrepreneur works hard, they end up losing steam because of lack of funding” AMR4.*

In the heavy-duty vehicle manufacturing group of participants, the experience by HVMR2 illustrated that the quality standards that are required by the auto manufacturers and the related quality certifications do hold back the local entrepreneurs to access the automotive supply chains.

*“One of the issues that we have for small entrepreneurial ones is the quality and the certification and the everything that needs to be achieved to actually become a supplier” HVMR2.*

The second factor looked into the inhibitors that makes it challenging for the SMEs to conduct business within the sector. The evidence by PMR2 from the parts and component manufacturing group illustrated that the scarce resources hold back the SMEs' financial capability to offer competitive remuneration packages to attract the skilled human capital from the multinationals.

*“There is no shying away from the fact that the small and medium enterprises cannot attract key talent from multinationals. That cross transfer of skills and knowledge really remains one-sided, and the SMMEs don't get to tap into that knowledge” PMR2.*

#### 5.4.2.2 Conclusion on RQ3 Theme 2: Direct impact of scarce resources to knowledge transfer

The data presented several similarities between the recount of experiences between the two groups, which are the auto manufacturing and the heavy-duty vehicle manufacturer. These similarities were identified to be the barriers of entry to the industry's supply chains and they include high quality standards and certification levels in auto manufacturing which requires substantial financial resources. In addition, the scarce financial resources were found to be a deterrent for the local entrepreneurs to attract skilled labour as the small and medium enterprises are not able to offer competitive remuneration packages to attract the human capital from the multinationals.

### 5.4.3 RQ3 Theme 2: Offshoring

#### 5.4.3.1 Evidence of findings on RQ3 Theme 2: Offshoring

The evidence presented for the RQ3 Theme 2 on offshoring, was identified. In the auto manufacturing participating group, the research participants have experiences that show evidence of offshoring, or the changing location of sourcing from a local supplier and importing from a global supplier. The evidence as presented by AMR, indicates that localising is seen as disturbing the status quo. AMR1 also mentioned Thailand to be the solution for sourcing the parts that are required for local production.

*"We've got a solution already. Thailand is our solution. We're getting from Thailand. They don't want to rock the boat" AMR1.*

Furthermore, the evidence presented for this theme considers a narrative that shows actions that are not supportive of localisation, as reflected in the two narratives by AMR6. The evidence shows that the level of localisation has decreased and that the multinational is moving backwards as it is not localising as much as it was done previously.

*"The level of industrialisation has decreased. We are not localizing as much as we did previously. One would conclude that we are going backwards with our localization efforts" AMR6.*

*"This could be, an indication that we are deindustrialization, and it's seen within our operations" AMR6.*

The evidence presented from the collected data from the parts and components participant group, was analysed and it was found to indicate the experience that is relevant for the theme. PMR2 narrated that the multinational stopped sourcing steel from a local supplier and started importing from Thailand.

*"In the past it used to happen a lot because we were sourcing our steel locally and we started importing from Thailand a lot of the auto grade steel and that is one of the*

*reasons because I have been with the firm for 17 years in different roles. We don't do that very often lately" PMR2.*

#### 5.4.3.2 Conclusion on RQ3 Theme 2: Offshoring

The evidence from the data analysis reflected experiences that were found to be similar, between the auto manufacturing group and the parts and components group, thus illustrating that the multinationals in auto manufacturing do conduct activities that indicate offshoring. The evidence shows that the level of localisation has decreased in the auto manufacturing group and that more parts and components are imported from Thailand. The evidence from the parts and components group illustrated that the multinational stopped sourcing steel from a local supplier and started importing from Thailand.

#### 5.4.4 Summary of findings on RQ3

*Table 14: Frequency of discussed themes on RQ3*

Theme	Similarities	Differences	Discussed [Yes/No]
	Existing Theme	New Theme	
Offshoring	X		Yes → Insights
Direct impact of scarce resources to knowledge transfer	X		Yes → Insights
Entrepreneurs' absorption capacity	X		No
High barriers to entry	X		No
Communication by multinational inhibiting knowledge transfer	X		No

*Source: Author's own.*

RQ3 aimed to identify the practises within the business activities of a multinational that hold back and limit the flow of knowledge, and how the multinationals support the entrepreneurs to mitigate those. Communication therefore looked into the mechanisms that were employed by the multinational to communicate with the local entrepreneurs, and the point of contact is during the sourcing process when the firm seeks to fulfil a business need, and such is communicated with both the local entrepreneurs and the established suppliers. The evidence revealed that the multinationals have not established knowledge sharing platforms or made information on the available business opportunities that will open access to the local entrepreneurs to start conducting business with the multinationals in the industry. This has led to the local entrepreneurs reaching out informally through social media, to the employees



in the multinationals to enquire about the available business opportunities. Due to the lack of sharing, the industry is perceived to be secretive and mysterious to the general public. It was found that the sourcing of the required goods and services remains close to the existing suppliers that have a profile of the predominantly established companies.

Furthermore, RQ3 sought to understand the factors that are influenced by the scarce resources as a condition that is prevalent within the emerging markets. These factors were identified to be the barriers of entry which were identified to include the certification for quality standards requirements, the required technical competencies which are high in auto manufacturing and that require substantial financial resources. The above-mentioned factors are key barriers that act as a first level of barriers that hold back the small and medium business' access to conduct business within the auto sector. In addition, the scarce financial resources were found to be a deterrent for the local entrepreneurs to attract skilled labour as the local entrepreneurs are not able to offer competitive remuneration packages to attract the human capital from the multinationals, and thus this inhibits the knowledge transfer through the limited movement of human capital. These were considered as they have directly impacted the flow of knowledge spillovers within the entrepreneurial ecosystem.

The evidence presented for RQ3 Theme 2 on offshoring, illustrated the changing location of sourcing from a local supplier and importing from a global supplier.

The evidence from the data analysis reflected experiences that were found to be similar, between the auto manufacturing group as well as the parts and components group, thus showing that the multinationals have been backwards by not localising as much as it was done previously. The evidence from the parts and components group illustrated that the multinational stopped sourcing steel from a local supplier and started importing from Thailand.

That concludes the chapter on the presentation and the discussion of the research findings. The next chapter covers the discussion of the findings and the comparison to the literature.

## 6 CHAPTER 6: DISCUSSION OF FINDINGS

### 6.1 Introduction

To consider the insights that were gained from the narrative analysis, this chapter seeks to reflect on the relationship between the findings in Chapter 5 and the literature as reviewed in Chapter 2. The structure of this chapter is the same as that of Chapter 5 and it is guided by the research questions. The findings for each research question are presented, and each of the identified ten themes in Chapter 5 are systematically compared to the ongoing conversation in the theory as covered in the extant literature. The systematic process is to compare and validate if the analysis of the findings in Chapter 5, formed part of the existing literature or if is a new contribution to the literature.

The approach that was taken to perform a systematic comparison of the key findings to the literature followed three steps for each of the ten themes and it was as follows:

Step 1 entailed a targeted word search that was conducted by the researcher, within the literature reviewed in Chapter 2. Step 2 focused on the scholars of the top articles that were identified for each research question. A targeted word search was conducted in the existing literature review. In addition, the search was extended to include additional journal articles from the scholars of the top articles that were published on the topic in the last five years. Step 3 involved a wider search using constructs and it was conducted within the researcher's Endnote Library, and Google Scholar using a Boolean search string focusing on the recently published articles in the past three years. When the word search generated no results, the researcher considered this to be an indication of a potential new contribution to the literature. New literature was introduced when conducting steps 2 and 3, and it was used in the discussion in Chapter 6, and it was also included in the reference list without making an update to the literature review in Chapter 2.

### 6.2 Research Question 1: What are the knowledge spillovers from the multinationals with an emerging market entrepreneurial ecosystem?

RQ1 sought to identify and discuss the types and the knowledge spillovers as presented by the findings of the study.

The findings on RQ1 successfully identified the types of knowledge spillovers that were found to exist within the auto manufacturing entrepreneurial ecosystem in South Africa as reflected in Table 15, below as extracted from Table 7 in chapter 5 of this study. The identified types of knowledge spillovers were affirmed by the scholars.

*Table 15: Knowledge spillovers that were found within the auto manufacturing entrepreneurial ecosystem under study*

<b>Types of knowledge spillovers</b>	<b>Literature covered in chapter 6</b>
Knowledge spillovers from the multinationals' human capital	(Harima et al., 2021; Lai & Vonortas, 2019).
Employee spin-offs	(Bhawe & Zahra, 2019; Park & Park, 2018)
Innovative capacity	(Jones & Ratten, 2021; Rovere et al., 2021)
Market access	(Ferreira et al., 2023; Koria et al., 2020)
Business incubators	(Meyer et al., 2020; Vardhan & Mahato, 2022)
Supply value chains	(Kansheba & Wald, 2020; Ryan et al., 2021)

*Source: Author's own.*

The discussions in this chapter highlight the dominant themes that are presented as the type of knowledge spillovers that are prevalent within the entrepreneurial ecosystem under study.

## 6.2.1 RQ1 Theme 1: Knowledge transfers from human capital

### 6.2.1.1 Discussion of the findings on knowledge transfers from human capital

The findings reveal evidence from the three participants groups, and they showed that the multinationals played a role by facilitating the flow of knowledge spillovers through the multinationals' employees interacting with the local entrepreneurs. The presented findings illustrated that the employees facilitated the flow of knowledge during the on-site visits to the operations of the local suppliers to provide technical support. Additional evidence illustrated that it can be established that during the interaction with the entrepreneurs, a certain level of expertise is required by the entrepreneur, as the multinational would avail an employee with the appropriate skillset to facilitate the knowledge transfer.

The entry of a multinational into a country represents an inflow of resources including non-financial resources such as knowledge spillovers that entail improved productivity and increased levels of sophistication, as well as advanced technologies (Fu et al., 2021), and advanced skills (Harima et al., 2021). Harima et al. (2021) highlight that the skills transfer through the multinational's human capital is instrumental in upgrading the skillset and the competencies in the host country. The evidence presented by the findings on the multinational's human capital interacting with the local entrepreneurs therefore confirms the assertion that the multinational's inflow of FDI results in the non-financial resources that are identified as skills transfer.

This is in agreement with a perspective by Lai and Vonortas (2019) that recognises the importance of developing access to knowledge, where human capital is instrumental in knowledge creation and access thereto, which is aimed at establishing a conducive environment for entrepreneurship. This assertion by Lai and Vonortas (2019) fits with the presented findings that reflected that the interactions from the human capital of multinationals with the suppliers, small, medium and big corporates, indicates the access to knowledge that is present within the ecosystem from the multinational's human capital. Qian (2018) mentioned that the knowledge flows within the ecosystem are highly dependent on the knowledge base, where a knowledge base is formed as a direct result of the updated accumulated knowledge and it is also transferred through experiential learning (Theodoraki et al., 2022). It is therefore critical to facilitate the sharing and the dissemination of knowledge that is used for entrepreneurial purposes.

The presented findings illustrate that the human capital spillovers entail transferring best practices and the technical know-how to the local entrepreneurs, and this is referred to as experiential learning (Ferreira, 2020). According to Ferreira (2020), experiential learning involves the practical espousal of skills, competencies, and the knowledge that is needed for the running and the sustenance of the business. It was therefore found that, experiential learning was facilitated by the human capital knowledge spillovers to the entrepreneurs. Furthermore, Belitski et al. (2023) stated that the knowledge spillovers occur through the sharing of the best practises by the multinationals' human capital either from the current or the former employees. The discussed findings have illustrated that the knowledge transfer was conducted by the current employees of the multinationals. This finding therefore validates the human capital knowledge spillovers that lead to the espousal of experiential learning by the entrepreneur.

The additional findings illustrate that the capability building activities by the multinational's human capital were instrumental in the local entrepreneur becoming a manufacturer of parts and components, as they supplied the heavy-duty vehicle Manufacturer and thus formed part of the auto value chain. According to Belitski et al. (2023), capability building involves providing best practices, new insights, and ground breaking opportunities that can be adopted by the entrepreneurs. It was therefore found that, the role played by the human capital knowledge spillovers was found to be instrumental in building and strengthening the capabilities within the ecosystem.

#### 6.2.1.2 Conclusion on the findings for knowledge transfers from human capital

The research findings presented for this theme showed that the multinationals played a role by facilitating the flow of knowledge spillovers through experiential learnings as illustrated by the on-site visits to the operations of the local suppliers to provide technical support, by transferring best practices, and by the capability building activities that were instrumental in the local entrepreneur becoming a manufacturer of parts and components. Thus, they formed part of the auto value chain. According to Ferreira (2020), experiential learning involves the practical espousal of the skills, competencies, and the knowledge that is needed for the running and the sustenance of business. Furthermore, Belitski et al. (2023) state that the knowledge spillovers occur through the sharing of best practises by the multinationals' human capital either from the current or the former employees. Belitski et al. (2023) further state that more capability building involves providing best practices, new insights, and ground breaking opportunities that can be adopted by the entrepreneurs.

It is therefore found that the findings in the imperical literature are similar to the extant literature.

## 6.2.2 RQ1 Theme 2: Employee spinoff

### 6.2.2.1 Discussion of findings on employee spinoff

The presented findings illustrate that the skills acquired by the employees of the multinationals in the auto sector do enable the employees to start business ventures. The evidence also showed that not only do the former employees become entrepreneurs, but their business opportunities are within the local auto sector where they conduct business with their former employers. These include services being outsourced and goods being procured from the former employee. This was found to be similar across the three participating groups. This according to Bhawe and Zahra (2019) was realised when the local entrepreneurs adopt knowledge spillovers from the multinationals combined with the local knowledge that exists within the ecosystem, to form new business ventures.

As per Bhawe and Zahra (2019), the multinationals' knowledge spillovers occur through the interaction of its employees with the other players in the ecosystem including the entrepreneurs, through human capital mobility. Human capital mobility entails the employees' employment being terminated and moving to be employed by another organisation or to venture into entrepreneurship. During employment, the employees get exposed to technologies, competitive strategies, business models, and to the marketing prowess of the multinational (Bhawe & Zahra, 2019). It is such skills that spill over to the entrepreneurial ecosystem through human capital mobility, which according to Bhawe and Zahra (2019) are considered to be unintentional knowledge spillovers. Such unintentional

knowledge spillovers are also illustrated in the employee spinoffs where the employee utilises and applies the industry-specific knowledge in the creation of a new venture.

Entrepreneurship, in its core, is the act of creating new ventures. According to Park and Park (2018), the creation of new ventures thus requires an entrepreneur to have motivation, a certain level of creativity, but most importantly an appreciable level of skills. The scholars have written about one of the key benefits of the FDI inflow into a country to be the high stocks of human capital as the multinationals are responsible for providing access to a large pool of well-endowed and competent employees to a country's entrepreneurial ecosystem in this instance (Amendolagine & Rabellotti, 2023; Lai & Vonortas, 2019). The findings from this theme illustrate how the endowment of human capital with skills, competencies and the capabilities attained during their employment in the multinational entities were applied by the former employees to contribute to the entrepreneurial activities within the ecosystem.

The presented findings showed that the former employee applied this industry-specific knowledge and skill-sets towards venture creation. This is corroborated by Park and Park (2018) who state that the creation of new ventures from the spinoffs is not limited to knowledge and the skill-sets that are industry-specific, and they relate to mostly a generalised working experience learnings and relationships that can be applied to other business activities in various sectors. The findings affirmed by Park and Park (2018) show that a former employee's work or industry-specific experience does play a part in their venture creation as an entrepreneur.

A noteworthy insight from the findings revealed that some of the business enterprises from the employee spinoffs end up forming part of the local auto value chain as suppliers of parts and components towards the manufacturing of automobiles by the multinationals. This is given credence by a statement by Bhawe and Zahra (2019), that the knowledge spillover from the multinationals may spur the discovery and the emergence of the entrepreneurial opportunities that lead to the creation of new ventures that become suppliers and form part of the multinationals' global value chains. A difference is noted between the evidence presented in the findings and the assertion by (Bhawe & Zahra, 2019), as literature refers to the entrepreneur forming part of the multinationals' global value chains.

#### 6.2.2.2 Conclusion on the findings for employee spinoff

The presented findings illustrate that the skills acquired by the employees of the multinationals in the auto sector do enable the employees to start business ventures. The evidence also showed that not only do the former employees become entrepreneurs, but

their business opportunities are within the local auto sector where they conduct business with their former employers. These include services being outsourced and goods being procured from the former employee. An insight from the findings revealed that some of the business enterprises of employee spinoffs do form part of the local auto value chain by being a supplier of parts and components towards the manufacturing of automobiles by the multinational. From the extant literature reflected in Chapter 2, Park and Park (2018) state that the creation of new ventures from the spinoffs is an outcome of the knowledge and the skill-sets that are industry-specific. In addition, Bhawe and Zahra (2019) assert that the knowledge spillover from the multinationals may spur the discovery and the emergence of the entrepreneurial opportunities that lead to the creation of new ventures that become suppliers and form part of the multinationals' global value chains. The findings from the imperical data are similar to extant literature. Even though a finding presented illustrates evidence on the business that emanated from an employee spinoff forming part of the local value chains and not necessarily forming part of the global value chain as stated by Bhawe and Zahra (2019).

The findings in the imperical data are similar to the extant literature, and therefore they confirm the literature.

### 6.2.3 RQ1 Theme 3: Innovative capacity

#### 6.2.3.1 Discussion of findings on innovative capacity

The third theme discussed for RQ1 looked into the innovative capacity that is present in the auto entrepreneurial ecosystem as it is an indicator of the prevalence of knowledge spillovers within an ecosystem. The account of experiences by the auto manufacturers reflected varied views. Some experiences indicated that the multinationals do share innovation in terms of the parts designs and the process improvements with the local entrepreneurs that conduct business with the multinationals.

One of the key characteristics of an entrepreneurial ecosystems is that it creates an environment that is supportive of the innovation-based ventures (Johnston et al., 2018). This view is shared by Jones and Ratten (2021) who have listed innovation as one of the elements that are present within an ecosystem. "Innovation is defined as the manifestation of innovation capacity" (Rovere et al., 2021, p. 3). Innovation capacity is further explained to be influenced by factors such as the risk aversion by the entrepreneurs where they perceive failure as a learning experience (Rovere et al., 2021).

To further give credence to the evidence on the multinational working together with the local entrepreneur that resulted in the development of an innovative tool, Bhawe and Zahra (2019) state that the knowledge base of the small enterprise is mostly enriched and expanded from the interaction with the multinational, whereby the entrepreneur apply the knowledge spillovers to explore opportunities and this is influenced by the entrepreneurs' absorption capacity. Where the absorption capacity refers to the ability to recognise, acquire, understand and assimilate the knowledge flow that lead to such knowledge being exploited by an entrepreneur (Kirschning & Mrożewski, 2023). Notwithstanding, the absorptive capacity of the entrepreneurs within the ecosystem, Rovere et al. (2021) argue that the innovative capacity within the entrepreneurial ecosystem is mostly influenced by the willingness and the approach that is followed by various players to disseminate knowledge. Therefore, this opposes the view that isolates the existence of innovation within the ecosystem to be the sole function of the entrepreneur. As such the argument by Rovere et al. (2021) highlights the willingness of the multinationals on sharing knowledge to be a confirmation of the evidence that is presented when sharing innovation with the local entrepreneurs. It is, therefore, evident that such multinationals were able to tap into and benefit from the demonstrated innovative capacity of the local entrepreneurs.

Sun et al. (2021) state that the compositional capabilities are crucial to compete in the emerging markets. These capabilities are demonstrated by the prevalence of the product and service imitations and/or the innovations in the emerging markets. The presented evidence demonstrated the innovative capacity with the exploration that led to the development of the software tool, thus it reflects the compositional capabilities that are available within the ecosystem. This is also consistent with the assertions that innovation has been repeatedly reflected in the product and service innovations that offer solutions that are suitable to the emerging markets (Prashantham et al., 2020; Yan & Guan, 2019). The explorative innovation according to Prashantham et al. (2020) is owing to the likelihood of mutual interests, that resulted in the multinational benefiting from the innovation output from the local entrepreneur.

A different practise was also observed to be present within the ecosystem where the multinationals refrained from sharing innovation with the local entrepreneurs, as they had a perception that innovation is to be protected as their competitive advantage. This practise by the managers within the multinationals would be justified if the multinational was in direct competition with the local entrepreneurs, where the managers of the multinational would prevent the knowledge spillovers from taking place (McGaughey et al., 2020).



The presented evidence illustrates that the local entrepreneurs are not in competition with the multinationals' understudy. The local entrepreneurs appear to have what is referred to by McGaughey et al. (2020) as the backward linkages. The knowledge spillovers that occur in this type of linkages are vertical spillovers. Vertical spillovers take place between a multinational and a local suppliers, and they are aimed at improving the product quality and the process efficiencies (McGaughey et al., 2020). The findings reflecting the vertical spillovers were presented with process improvements taking place where the multinational was sharing knowledge with the local entrepreneurs. This activity was aimed at the process improvements that would enable the supplier to realise the efficiencies within the manufacturing process, by eliminating the wastage of time, raw materials and other resources that are necessary for the manufacturing process. It is therefore important to note that the findings on the process improvements were validated by the literature.

#### 6.2.3.2 Conclusion on the findings for innovative capacity

Empirical data illustrated the presence of innovation in the auto entrepreneurial ecosystem as illustrated by both the multinational and the local entrepreneurs working together to explore an innovative solution in an exploration that led to the development of the software tool. Jones and Ratten (2021) state that innovation is one of the elements that present within an ecosystem. "Innovation is defined as the manifestation of innovation capacity" (Rovere et al., 2021, p. 3). Innovation capacity is further explained to be influenced by factors such as the risk aversion by the entrepreneurs where they perceive failure as a learning experience (Rovere et al., 2021). Furthermore, the presented evidence demonstrated the innovative capacity with the exploration that led to the development of the software tool, thus it reflects the compositional capabilities that are available within the ecosystem.

The similarities between empirical findings and literature are established, therefore it confirms the extant literature.

#### 6.2.4 RQ1 Theme 4: Market access

##### 6.2.4.1 Discussion of findings RQ1 Theme 4 on market access

The discussion of findings for this theme starts by highlighting that knowledge sharing within the auto manufacturing ecosystem is mostly limited to the enterprises that conduct business with the multinationals and it is rarely extended to the potential suppliers. The presented evidence showed that the ecosystem is perceived to be closed to the general public. Consequently, the

knowledge spillover in the form of market access is not afforded to all the local entrepreneurs within the ecosystem. The literature indicated that the function of any entrepreneurial ecosystem heavily relies on the entrepreneurs' ability to exploit the local resources that are present within the ecosystem through value creation (Lafuente et al., 2022). The scholar therefore prescribes for the entrepreneurs to exploit the available business opportunities. This implies that the findings on knowledge sharing only with the existing suppliers limits the ability of the broader entrepreneurs to exploit the business opportunities that are available in auto manufacturing.

The findings on market access to the local automotive manufacturing industry, which is identifiable as an industry with high barriers of entry, revealed similarities in the experiences as narrated by the research participants from across the three participation groups. The findings revealed that the small enterprises were afforded market access to conduct business with the multinationals. Literature has been instrumental in enlisting the benefits that are available within an entrepreneurial ecosystem, as market access was identified to form part of these benefits (Ferreira et al., 2023; Yan & Guan, 2019). This benefit is much needed in the auto manufacturing industry and it is characterised by having high barriers of entry (Ferreira et al., 2023). Furthermore, the importance of the activities that support market access within an entrepreneurial ecosystem were highlighted, where market access in this instance considers the access to the local markets (Koria et al., 2020). The literature corroborates the findings on the market access that are afforded by the auto manufacturing entrepreneurial ecosystem. Market access is necessitated by the industry's barriers of entry.

The findings further reflect that market access was enabled by the activities conducted by the multinationals' human capital knowledge spillovers through capacitating the local entrepreneurs. The experience by the research participants illustrated that this enabled the entrepreneurs to be competitive and thus became eligible to be considered for the business opportunities that existed within the multinationals. As stated by Pankov et al. (2021), market access was found to play a critical role to advancing the entrepreneurs' organisational growth, and this importance was equated to that which is played by the finance and human capital to entrepreneurship.

Literature also listed activities within the ecosystem to include the adoption of a more equitable distribution of sourcing of products or services, and thus broadening of the opportunity that is set to the local entrepreneurs, thereby granting market access and

support towards building the required capabilities to these entrepreneurs (Prashantham & Birkinshaw, 2020). Literature, therefore, corroborates the findings on broadening the available business opportunity to the local entrepreneurs and it is enabled by the role that is played by the human capital to build the capacity to the local entrepreneurs.

The experience as narrated by AMR2 is an outlier, as it illustrates the dissatisfaction that the local entrepreneurs have expressed the desire to be afforded the opportunity to conduct business with the multinationals. The relevance of this finding is that it reflects the necessity for the multinationals to increase the levels at which they make available the business opportunities to the local entrepreneurs. Purbasari et al. (2019) state that the limited market access negatively impacts the level of competitiveness of the entrepreneurs. The literature indicates that restricted market access will not advance entrepreneurship and thus this validates the findings. This is further affirmed by a statement that the market access within an entrepreneurial ecosystem, forms part of the conditions for development to create high-growth firms that have a greater impact to entrepreneurial activity to increase the level of economic activity within a country (Martínez-Fierro et al., 2020).

#### 6.2.4.2 Conclusion on findings RQ1 Theme 4 for market access

The research findings also revealed that the small enterprises were afforded market access to conduct business with the multinationals, where in many cases this was enabled by the human capital knowledge spillovers. As stated by Pankov et al. (2021), market access was found to play a critical role to advancing the entrepreneurs' organisational growth, and this importance was equated to that which is played by the finance and human capital to entrepreneurship. In addition, the scholars mentioned the benefits that are available within an entrepreneurial ecosystem to include market access (Ferreira et al., 2023; Yan & Guan, 2019).

The similarities between the empirical findings and the literature are established, therefore it confirms the extant literature.

#### 6.2.5 Conclusion on RQ1

The imperial data on the themes for RQ1 were found to be similar to the existing literature.

### 6.3 Research Question 2: What are the processes that are followed by the multinationals to transfer knowledge spillovers in an entrepreneurial ecosystem?

The research aims for RQ2 entailed understanding the approach that is followed by the multinationals to actively facilitate the flow of knowledge spillovers. A discussion of findings

under this research question included a literature analysis to validate the findings for the analysed themes. The dominant themes are highlighted and considered towards the generation of insights for RQ2.

### 6.3.1 RQ2 Theme 1: Social networks

#### 6.3.1.1 Discussion of Findings RQ2 Theme 1: Social networks

The findings presented for the social networks theme indicate that collaborations are valued within the auto manufacturing ecosystem. The evidence illustrates that the collaborative approach was followed across all the groups of research participants, and it places importance to the relationships within the ecosystem. To assert this finding, the finding by Shwetzter et al. (2019) indicate that the role that is played by the networks within the entrepreneurial ecosystem must not be overlooked as knowledge sharing within an entrepreneurial ecosystem, does not occur in isolation as it is embedded in the social networks and relational ties (Prashantham et al., 2020).

The study was conducted in an emerging market, which is South Africa, and the collected evidence showed that there are challenges that are synonymous with emerging markets that are present in the ecosystem, and these include resource scarcity, structural gaps and institutional voids or weak institutions. This is supported by literature, as to face the institutional weaknesses or voids, the entrepreneurs in the country are left with limited options and they tend to rely on their social capital to proactively generate the required financial resources for the sustenance of their businesses (Prashantham et al., 2020). This was demonstrated in the findings that the multinationals leverage the existing relationships within the entrepreneurial ecosystem and the other organisations outside of the auto industry, a case in point is the collaboration with a financial institution, that does not have product offerings within the auto sector. The social networks are therefore found to be instrumental in making scarce funding towards entrepreneurship (Prashantham et al., 2020).

The presented findings revealed a partnership between the multinational with the local government, that resulted in the establishment of a special economic zone (SEZ). The main purpose of the SEZ is to develop the auto value chain in the area, which is a shared goal between the multinational, the entrepreneurs, and the various levels of government. The literature asserts that the availability of the shared physical infrastructure and office space is an important support to foster entrepreneurship (Ribeiro et al., 2023; Theodoraki et al., 2022). The shared facilities can be useful in exchanging cultural and societal norms as this will be instrumental to establish a community identity that will foster relationships and cohesion among the various actors, mostly the entrepreneurs. In addition, the relational ties

that were formed in the shared facilities were reported to be useful in mitigating the challenges that were presented by the liability of newness (Audretsch & Link, 2019). The findings presented on the shared facilities that were afforded by the SEZ are therefore validated by literature.

Prashantham and Birkinshaw (2020) further draw attention to another role that is filled by the multinationals in an entrepreneurship ecosystem, where they are found to be instrumental in forming interorganisational business networks, and thereby play a strategic leadership in the local environment, which is external to their firms through engaging in activities other than the transactional relationships with the suppliers and the customers (Meyer et al., 2020; Prashantham & Birkinshaw, 2020). In such instances where all the actors have a common goal, the relationships focus on the collaborations and the interorganisational cooperation that is aimed at finding solutions to the broader challenges that are present within an ecosystem to improve the conditions and the business environment. Therefore, the multinational's interaction with the interorganisational business networks with a shared goal, can be concluded to be instrumental in finding and being part of the solutions that are encountered in the local environment.

The evidence illustrated that the multinationals also collaborate with the universities as it is one of the approaches they utilise to disseminate knowledge spillovers to the entrepreneurs. This is affirmed by a finding by Johnston et al. (2018) that the knowledge spillovers within an entrepreneurial ecosystem are facilitated through the social networks, and the universities were identified as one of the actors that contribute to create a supportive environment. The presented evidence reflected that the multinational leveraged its existing relationship with the university to transfer knowledge spillovers in the form of entrepreneurial competencies. As such, the literature demonstrates that the entrepreneurial ecosystems provide entrepreneurial support through specific social solutions such as coaching and mentoring (Audretsch & Link, 2019), thus contributing to an effective and conducive ecosystem.

The findings showed that the interorganisational body such as the National Association of Automobile Manufacturers of South Africa (NAAMSA) play a collaborative role to action strategic industrywide initiatives. The findings further show that the Japan International Cooperation Agency (JICA), the Automotive Supply Chain Competitiveness Initiative (ASCCI) and the National Association of Automotive Component and Allied Manufacturers (NAACAM) are instrumental in facilitating knowledge spillovers through the best practises to the local entrepreneurs within the ecosystem. This finding is affirmed by the literature, as within the ecosystem, value can be derived through collaborations and this entails

understanding that the actors in the ecosystems can individually and collectively contribute towards improved performance outcomes through shared knowledge (Ratten, 2020a).

The usefulness of the social networks to transfer knowledge through social networks was illustrated in the business incubation. The findings emanated from the collaborations between a state agency, AIDC, the multinationals and the former employees. The AIDC provides services that entail closing deficiencies in the technical know-how and in the entrepreneurial competencies. The multinational plays a role that fulfils capability building and provides facilities for the potential entrepreneurs to perform manufacturing activities. The collaborative efforts aim to develop former employees to become suppliers and form part of the auto value chain. The findings by Audretsch and Link (2019) state that the ecosystem is characterised by cooperation and the sharing of resources that are accessed in a social network and are directly or indirectly used to shape a firm's value chain. This affirms the findings on the auto business incubation as it encompasses a collaborative effort, the as well as the sharing of resources, and they are accessible only within the social network with an objective of developing the local value chain (Audretsch & Link, 2019). It was therefore, found that the findings are supported by literature.

The findings further revealed that the multinational was instrumental in the establishment of the business chamber and another interorganisational business forum in the geographical location of the factory. The members of the business chamber range from the government and various state bodies, and they have a network of businesses and organisations in various sectors that would not have ordinarily interacted. This finding is confirmed by the literature when Prashantham and Birkinshaw (2020) affirm that the multinationals are found to be instrumental in forming interorganisational business networks, and thereby they play a strategic leadership in the local environment, with the external firms through engaging in activities other than the transactional relationships with the suppliers and customers (Meyer et al., 2020; Prashantham & Birkinshaw, 2020). These interorganisational network encompass actors with a common goal, as the relationships focus on the collaborations that are aimed at finding solutions to the broader challenges that exist. Therefore, the findings presented on the multinational's playing an instrumental role in the interorganisational business networks are critical for the social networks that are available to the entrepreneurs within the ecosystem.

#### 6.3.1.2 Conclusion on the findings for the social networks

The discussion of the findings that are presented for the theme on social networks illustrated that the collaborative approach was followed and that various actors place importance to the

relationships within the ecosystem. The social networks were found to be instrumental in mitigating the emerging market challenges such as resource scarcity including funding, structural gaps and institutional voids. The type of business activities that were presented by the findings for this theme are discussed and they include shared facilities in a partnership between the multinational with the local government. It was also found that the multinationals were instrumental in forming interorganisational business networks. Findings further show that through social networks, knowledge spillovers such as best practises and entrepreneurial competencies were facilitated to local entrepreneurs. Lastly, the auto business incubation through a collaboration displayed the sharing of resources, that are accessible within the social network with an objective of developing the local value chain.

It was demonstrated that these findings were given credence by the scholars.

### 6.3.2 RQ2 Theme 2: Inclusivity for the previously excluded groups in the society

#### 6.3.2.1 Discussion of findings RQ2 Theme 2: Inclusivity for the previously excluded groups in the society

The findings on RQ2 theme 3, are discussed in this section. The presented evidence in Chapter 5 demonstrated the experiences by the research participants on the narratives that promote inclusivity. The findings indicate that the multinationals embarked on the activities that led to the increased level of conducting business with the local entrepreneurs with a racial classification of black people. This was realised through the mode of communication to the local entrepreneurs that is more descriptive to be easily understood by the entrepreneurs that are not familiar with the technical automotive jargon. The Black people in South Africa were previously excluded from taking part in various economic sectors. This exclusion was enforced for decades before the establishment of a democratic South Africa in 1994.

The approach that was utilised by the multinationals to promote inclusivity embraces the principles of shared value and the ideals of the UN SDG goals (Fernhaber & Zou, 2022; Prashantham & Birkinshaw, 2020). This is captured in the related Business Call to Action (BCtA) through the UN's Inclusive Business approach (Ghosh & Rajan, 2019; Okada et al., 2021). The Inclusive Business approach is a business model that is commercially viable, that aims to include the low-income communities into the multinationals' value chain mostly as producers and entrepreneurs (Ghosh & Rajan, 2019). The Inclusive Business approach is therefore one that embraces the principles of shared-value, through the alignment of the business values to social impact.

### 6.3.2.2 Conclusion on the findings for inclusivity for the previously excluded groups in the society

The findings demonstrated that the actions by the multinationals are directed towards promoting inclusivity by conducting business with black owned small and medium enterprises. The multinational's activities are not necessarily to advance the principle of Inclusive Business as per the UN's SDG goals. This was therefore enabled by the compliance to the B-BBEE regulations, through the multinational's enterprise development programs.

The nuanced differences were identified as the multinationals in South Africa facilitate knowledge spillovers through capabilities building as well as through the learning experiences to comply to the B-BBEE regulation that is a country specific regulation that is aimed at promoting the inclusivity of the previously excluded racial group in the society.

### 6.3.3 RQ2 Theme 3: Sourcing strategy

#### 6.3.3.1 Discussion of findings RQ2 Theme 3: Sourcing strategy

The findings for this theme are discussed with an aim of understanding the multinationals' sourcing strategies. It is through the sourcing strategies that the researcher was able to understand the approach that was followed by the multinationals in transmitting the knowledge spillovers. For this theme, the researcher paid attention to the experiences that give account of the localisation efforts by the multinational.

The characteristics of the global automotive industry are having high levels of globalisation, and the presence of high levels of competitiveness. According to Lampón and González-Benito (2020), competitiveness is impacted by ownership, location and the internalisation advantages, in Dunning's Eclectic Paradigm Theory (Dunning, 2001). Thus, the decisions on location for production activities require an understanding of the resource strategies that are strategic and are not made from a cost perspective only (Lampón & González-Benito, 2020).

For South Africa's automotive industry, the location based advantages are the dominant factor and these entail the attractiveness afforded by the country's economic policy on the automotives, for the multinational automotive producers (Paul & Feliciano-Cestero, 2021). Furthermore, the strength, the modern and competitive automotive industry is a key focus of economic policy. This is owing to the existing manufacturing linkages that are prevalent in the industrial ecosystem and the potential positive effects that can spillover to the other economic sectors within the country (Andreoni et al., 2021). It must be noted that even with



the level of maturity and competitiveness that is found in the South African automotive industry, the country is found to be lagging in comparison to Thailand's automotive sector (Lampón & González-Benito, 2020).

The scholars have made findings that assert that the production location decisions are influenced by the multinational's internal capabilities and the capabilities of the local suppliers (Dupuis & Greer, 2022). The topic of sourcing strategies particularly re-shoring and back-shoring have attracted the attention of the scholars globally post the COVID pandemic, owing to the supply chain disruptions that hugely impacted the global auto industry (Dupuis & Greer, 2022). Reshoring is defined as the generic change in sourcing the location from offshoring and back-shoring involves relocating previously offshored manufacturing activities to the home country (Dupuis & Greer, 2022). The findings have illustrated that the multinationals' sourcing strategies range from local sourcing offshoring with evidence shown on the imports from Thailand, and the evidence showed in-shoring or back shoring with successful localisation. The research findings are thus found to align, and they are confirmed by literature.

Furthermore, the findings have demonstrated successful localisation. Localisation meets the definition of reshoring as it involves a generic change in sourcing location from offshoring. Thus, this localisation is a change in the sourcing strategy by the multinational in South Africa. Reshoring can yield various benefits for the multinational such as shortened supply chain and flexibility in responding to customer demand (Di Stefano & Fratocchi, 2019; Moradlou et al., 2022). For the local economy, such benefits entail reduced unemployment, economic activity and knowledge spillovers (Di Stefano & Fratocchi, 2019; Lampón & González-Benito, 2020) Furthermore, localisation can lead to structural transformation which can have lasting impacts through increased levels of manufacturing productivity and ultimately industrialisation in the host country (Fu et al., 2021). The findings on sourcing strategy, as validated by the scholars, present an argument for localisation as a sourcing strategy that can result in knowledge spillovers as demonstrated above.

#### 6.3.3.2 Conclusion on the findings for sourcing strategy

To conclude, the findings on the sourcing strategy sought to understand the approach that was followed by the multinationals in transmitting the knowledge spillovers, this led to the study paying close attention to the reshoring efforts as conducted by the multinationals. The presented findings demonstrated the evidence of successful localisation. Reshoring was found to involve a change in sourcing location from the offshorings. It is important to note

that this, was an indicator of a change in the sourcing strategy by the multinational in South Africa. As a result, the multinationals that were successful in realising the increased levels of localisation provided evidence of the knowledge spillovers to the local entrepreneurial ecosystem. With this in mind, the localisation therefore, led to the structural transformation from the increased levels of manufacturing productivity within the ecosystem.

It is important to note that, the findings as validated by the scholars provided new insights for this study.

#### 6.3.4 Conclusion on RQ2

Imperial data on the themes for the RQ2 was found to be similar to the existing literature. However, the nuanced differences were identified for the theme on inclusivity to the previously excluded group. The multinationals in South Africa facilitate knowledge spillovers through capabilities building as well as through the learning experiences to comply to the B-BBEE regulation that is a country specific regulation that is aimed at promoting the inclusivity of the previously excluded racial group in the society.

#### 6.4 Research Question 3: What are the barriers in the entrepreneurial ecosystem that inhibit the transfer of knowledge spillovers and how?

The research aim that sought to answer RQ3 was twofold. Firstly, it was to identify the barriers in an entrepreneurial ecosystem that inhibit the knowledge spillovers. Secondly, it was to understand the ways through which the identified barriers can be mitigated. The findings on RQ3 identified the factors that inhibit the flow of knowledge spillovers from the multinationals to the local entrepreneurs in the ecosystem in the table below, as extracted from Table 13 in Chapter 5 of this study.

*Table 16: Factors inhibiting the flow of knowledge from the multinationals to the local entrepreneurs and literature*

Theme	Literature
Offshoring	(Lund & Steen, 2020; Wan et al., 2019).
Direct impact of scarce resources to knowledge transfer	(Cao, 2018; Prashantham & Birkinshaw, 2020)
Entrepreneurs' absorption capacity	(Amendolagine & Rabelotti, 2023; Fu et al., 2021)
High barriers to entry	(Cao, 2018); (Paul & Feliciano-Cestero, 2021)

*Source: Author's own.*

##### 6.4.1 RQ3 Theme 1: Offshoring sourcing strategy

#### 6.4.1.1 Discussion of findings RQ3 Theme 1: Offshoring sourcing strategy

The findings presented for RQ3 Theme 1 reveal that the multinationals were found to auto conduct activities that indicate the offshorings. The findings demonstrated that the level of local content in the locally manufactured vehicles have decreased. An offshoring as defined by Wan et al. (2019) entails discontinuing the local manufacturing by shifting towards imports, as such relocating the manufacturing processes to a foreign country. This is also referred to as a process of globalisation (Koerner, 2023). According to Koerner (2023), globalisation has been a catalyst in developing the international value chains. This was evidenced by the findings that were showed that more parts and components were being imported from Thailand by the multinationals. Furthermore, the findings illustrated that the multinational stopped sourcing steel from a local supplier and started importing from Thailand.

The literature illustrates that the offshorings through the outsourcing of manufacturing, are the deliberate strategies by the multinationals to achieve their competitive advantages of the low-cost strategies. These entails low costs of labour costs as well as the multinationals' entry to the emerging markets (Lund & Steen, 2020). Mainly as the emerging markets have in the previous decades been characterised by low cost advantages in labour and processing costs that were realised through the economies of scale, afforded by the market size of the emerging markets (Wan et al., 2019).

Following the supply chains disruptions that affected the global value chains by the recent historic and economic events, such as COVID19, Brexit and most recently the Russia and Ukraine conflict, these have resulted in the multinationals from the advanced markets in Europe and America changing their sourcing strategies from offshoring to back-shoring or reshoring. Back shoring entails relocating the manufacturing processes back to the home countries, and reshoring is changing the location to another location. Both were observed to be prevalent in the advanced markets in the recent years (Mitze & Kreutzer, 2023).

Back-shoring or reshoring therefore involves a combination of investments mostly in the advanced production technologies, as well as accessing a workforce that is highly skilled with sophisticated competencies that are valuable in running highly automated manufacturing processes that are found to enable reshoring in the advances markets (Mitze & Kreutzer, 2023; Wan et al., 2019). The sophisticated manufacturing processes, are found to translate the knowledge spillovers to the workforce (Mitze & Kreutzer, 2023). Offshoring can lead to the disinvestment by the multinationals. In contrast to reshoring, the disinvestment consequently will inhibit the knowledge spillovers. The subtleties of offshoring

can lead to lack of knowledge spillover that will not be available for exploitation by small and medium enterprises (Mitze & Kreutzer, 2023). Therefore, offshoring can lead to the lack of a knowledge base in an ecosystem in the long run, as a result of the loss of human capital and a shortage of skills and competencies that are required for industrialisation.

In addition, the scholars in the IB literature have long established that the multinationals do engage with the local entrepreneurs in their host countries for various reasons. This relationship was understood by the scholars to be one that is centred around manufacturing linkages as well as the collaborations that are innovation-related (Meyer et al., 2020), and thus Prashantham and Birkinshaw (2020) referred to these as being sophisticated in nature. In the emerging markets, such collaborations are found to be exploitative (Deng et al., 2020; Meyer et al., 2020; Prashantham & Birkinshaw, 2020).

The multinationals in the host countries focus on the various ways that the domestic firms can be embedded in their networks of partners, customers and suppliers (Meyer et al., 2020). This is achieved through the upgrading of the capabilities of the domestic firms and improved competitiveness which affords the local firm through vertical forward integration to form part of the multinational's Global Value Chains (GVC) (Kansheba & Wald, 2020; Ryan et al., 2021). According to (Meyer et al., 2020), the local firms take different positions within the multinational's GVC, and this includes specialising on specific tasks or various stages within the value chain. This also entails a model where different locations specialise on different processing and value addition stages within an integrated international network of the multinational.

#### 6.4.1.2 Conclusion on findings for the offshoring

As demonstrated and validated by literature, it was found that the multinationals in the auto manufacturing ecosystem conduct activities that are indicative of offshoring. This was demonstrated by the reduced levels in the local content on the locally manufactured vehicles. It was further found that the raw materials in the form of auto grade steel, as well as the parts and components used in local manufacturing, were imported from Thailand. These findings were therefore, given credence by the scholars.

### 6.4.2 RQ3 Theme 2: Direct impact of the scarce resources to knowledge transfer

#### 6.4.2.1 Discussion of Findings RQ3 Theme 2: Direct impact of the scarce resources to the knowledge transfers

The findings for this theme demonstrated that the scarce financial resources that are prevalent within the entrepreneurial ecosystem, the high-quality standards as well as the certification levels in auto manufacturing, were the barriers of entry to the industry, and they

were identified by many research participants as the inhibitors to the knowledge spillovers. According to (Cao, 2018), the resource scarcities within the entrepreneurial ecosystem in the emerging markets are emphasised as the inhibitors of entrepreneurship, namely, financial, knowledge, human, and physical infrastructure. The scholar's finding thus, confirm presented finding. The dire impact from the scarce financial resources not only posed barriers of entry to the industry but it was also found to inhibit the related knowledge spillovers thereto.

Furthermore, the scarce financial resources were found to be a deterrent for the local entrepreneurs to attract skilled labour as the small and medium enterprises are not able to offer competitive remuneration packages to attract the human capital from the multinationals. According to Lai and Vonortas (2019), the high stocks of human capital not only facilitate entrepreneurial activity, as they are also responsible for providing the firms access to a large pool of well-endowed and competent employees within the ecosystem. Prashantham and Birkinshaw (2020) argue that the lack of financial resources was found to constrain the local entrepreneurs' ability to access the capabilities and the expertise afforded by the human capital from the multinationals (Prashantham & Birkinshaw, 2020). Such human capital spillovers would ordinarily be realised as a result of human capital mobility, from employing the former employees of the multinationals as mentioned by Bhawe and Zahra (2019). It was therefore found that the human capital mobility has been instrumental in facilitating the knowledge spillovers to the entrepreneurial ecosystem, and this finding is corroborated by literature.

Of equal importance, the failure of the local entrepreneurs to attract the employees from the multinationals, may impede the entrepreneurs' access to the knowledge transfers from the human capital. Furthermore, according to Cao (2018), due to the culture of uncertainty avoidance, the highly skilled individuals in the emerging markets are more likely to remain in employment rather than to move to high-risk entrepreneurial activities due to the financial security that is afforded by the employment in the multinationals. Therefore, not only will the financial constraints faced by the local entrepreneurs' further impact their ability to attract the human capital from the multinationals, but this also limits the access to the human capital knowledge spillovers that are related to such human capital.

#### 6.4.2.2 Conclusion on the direct impact of the scarce resources to knowledge transfer

To conclude, the findings presented for this theme emphasised the extent to which the barriers of entry to the industry's supply chains inhibit the related knowledge spillovers. It is important to note that the scarce financial resources were found to also inhibit the local

entrepreneurs to attract skilled labour, due to the inability to attract human capital from the multinationals. The above-mentioned findings were corroborated by the scholars.

#### 6.4.3 Conclusion on RQ3

The imperial data on the themes for the RQ2 was found to be similar to the existing literature.

#### 6.5 Chapter conclusion

To conclude this chapter, a summary of the outcomes of the comparative analysis of the findings from the study with the literature is presented. This chapter highlighted the dominant themes that are found in the imperial data.

The research yielded a total of nine themes. The imperial data on eight of the nine themes was found to be similar to the existing literature. However, the nuanced differences were identified for themes on inclusivity to the previously excluded group. The multinationals in South Africa facilitate the knowledge spillovers through capabilities building as well as through the learning experiences to comply to the B-BBEE regulation that it is a country specific regulation that is aimed at promoting the inclusivity of the previously excluded racial group in the society.

The upcoming chapter sets out the conclusions of the study, for each research question.

## 7 CHAPTER 7: CONCLUSION

### 7.1 Introduction

This chapter formulates the conclusion on the outcome of the study for each research question. The comparative analysis on the research findings and the literature as discussed in Chapter 6, for each research question is presented herein. The conclusion will consider the conceptual framework as developed in Chapter 6, based on the findings and on the comparison to the literature. The conceptual framework illustrates the factors and the elements that contribute to the facilitation of the knowledge spillovers from the multinationals within an entrepreneurial ecosystem.

This research's aim entailed understanding the role that is played by the multinationals to disseminate the knowledge spillovers within the automotive entrepreneurial ecosystem in South Africa. The chapter emphasises the research contributions, the limitations of the study, together with the recommendations for the management and the other stakeholders. The suggestions for future research are also discussed towards the end of the chapter.

### 7.2 Principal theoretical conclusion

This section is grouped by the research questions. The theoretical conclusions consider the key research findings with a comparison to the extant literature, with a discussion on the key similarities and differences. Furthermore, these are discussed, to identify the possible new insights as additions to the literature.

#### 7.2.1 Conclusions on Research Question 1

What are the knowledge spillovers from the multinationals within an emerging market entrepreneurial ecosystem?

The research aim of research question 1 was to identify the types of knowledge spillovers that are found to exist within the auto manufacturing entrepreneurial ecosystem in South Africa. A conclusion is made for four themes that were discussed in Chapter 6, namely, the knowledge spillovers from the human capital, innovative capacity, employee spin offs and market access.

The empirical findings for the four themes were consistent to the literature and they were found to be similar to the extant literature. The similarities are discussed by theme, and the conclusions are made towards the end of this section.

For human capital knowledge spillovers, the research outcomes as identified in Chapter 6 were similar to the literature. The human capital spillovers were found to entail transferring the best practices and the technical know-how to the local entrepreneurs, and this is referred to as experiential learning ((Ferreira, 2020). This was realised as human capital was instrumental in establishing a knowledge base within the ecosystem, as a direct result of the accumulated knowledge that is shared and is also transferred through experiential learning by the human capital activities (Qian, 2018). Lastly, Belitski et al. (2023) affirmed that capacity building involves providing best practices, new insights, and ground breaking opportunities that can be adopted by the entrepreneurs, as demonstrated in the local entrepreneurs becoming the manufacturers of parts and components and thus formed part of the local auto value chain and thus being part of the manufacturing linkages as affirmed by the scholars (Meyer et al., 2020; Prashantham & Birkinshaw, 2020).

In relation to the employee spin offs, it was shown that the research outcomes that were identified in Chapter 6 were similar to the extant literature, particularly as the skills acquired by the former employees of the multinationals in the auto sector enabled them to start business ventures, thereby applying the industry-specific knowledge and skill-sets as asserted by Park and Park (2018). This also enabled the former employees to become suppliers to their former employers. It was further affirmed that the employee spinoffs also formed part of the local auto value chain as the suppliers of the parts and components towards the manufacturing of automobiles by the multinationals, thereby confirming the argument by Jha et al. (2023) and that made by Fu et al. (2021), that knowledge spillovers can lead to development within an emerging market through structural transformation that is demonstrated by increased levels of manufacturing productivity.

The research further confirmed as seen in Chapter 6, that the entrepreneurs in the ecosystem have demonstrated innovative capacity, and this is corroborated in the extant literature. This was found to be an indicator of the prevalence of the knowledge spillovers within an ecosystem as Rovere et al. (2021) affirmed that innovation is manifested and demonstrated through the entrepreneurs' innovative capacity. Sun et al. (2021) state that the compositional capabilities are crucial to compete in the emerging markets and these findings are demonstrated by the innovative development of the software tool. An argument by Prashantham et al. (2020) indicates that the exploration was owing to the mutual interest between the multinational that benefited from the innovation, and the local entrepreneur that was afforded an opportunity to demonstrate the competencies to grow their business venture.



With regard to the knowledge spillovers that lead to market access, the research outcomes were similar to the literature as was identified in chapter 6. The local automotive manufacturing industry was demonstrated to have high barriers of entry Ferreira et al. (2023). Furthermore, Pankov et al. (2021) highlighted that the market access plays a critical role in advancing the entrepreneurs' organisational growth. This was supported by a finding by Martínez-Fierro et al. (2020) that asserted the market access to form part of the conditions for development to create high-growth firms, and it is understood that it will have a greater impact to the entrepreneurial activity within the ecosystem.

To conclude, the themes on the human capital knowledge spillovers namely the knowledge spillovers from human capital, innovative capacity, employee spin offs, and market access were found to be similar and therefore they are corroborated by the extant literature.

### 7.2.2 Conclusion on Research Question 2

What are the processes followed by the multinationals to transfer the knowledge spillovers in an entrepreneurial ecosystem?

The research aim of research question 2 was to gain an understanding on the approach that is followed by the multinationals to facilitate the flow of knowledge spillovers. This section makes a conclusion on the three themes that are discussed in Chapter 6.

The empirical findings for the two themes, which are the social networks, and the sourcing strategies were identified to exist in literature, and they were found to be similar to the extant literature. However, in relation to the inclusivity for the previously excluded groups in the society, a nuanced difference was identified on the process that was followed by the multinationals to facilitate the knowledge spillovers by complying to the B-BBEE regulations, and it does not appear to exist in the literature on the knowledge spillovers. As a result, a potential new addition to the existing literature was identified.

To make a conclusion for this research question, the similarities are discussed first, and the identified differences last.

The similarities were identifiable to the existing literature on the research outcomes in Chapter 6 for the established social networks and they were found to be validated by the extant literature. The social networks were found to be instrumental in mitigating the emerging market challenges such as the resource scarcity including funding, the structural

gaps and the institutional voids as stated by Prashantham et al. (2020). In addition, it was found that the collaborations afforded by the social networks led to an establishment of shared facilities within the entrepreneurial ecosystem as stated by some scholars (Ribeiro et al., 2023; Theodoraki et al., 2022). In addition, the social networks were found to include the strategic partnerships with the interorganisational business networks (Meyer et al., 2020). Furthermore, universities and other institutions of learning, were found to have collaborative activities that are focused on transferring knowledge to the local entrepreneurs (Johnston et al., 2018; Ratten, 2020a).

The research outcomes on the sourcing strategies from Chapter 6 were identified and they were found to be similar to the extant literature on the knowledge spillovers as per the statement by Lampón and González-Benito (2020) highlighting that reshoring can lead to structural transformation through the demonstrated capabilities in manufacturing. This was affirmed by Lampón and González-Benito (2020) that reshoring as a sourcing strategy allows for higher levels in efficient processes, as it re-integrates into the firm's value chain the activities that were previously offshored. Di Stefano and Fratocchi (2019) listed the knowledge spillovers to be one of the key benefits of reshoring to the multinationals' host country. These knowledge spillovers can lead to structural transformation in an emerging market through demonstrated capabilities in manufacturing as argued by Lampón and González-Benito (2020), they can also lead to reduced unemployment, while increasing the economic activity and knowledge spillovers (Di Stefano & Fratocchi, 2019; Lampón & González-Benito, 2020). Furthermore, the production location decisions that consider reshoring are influenced by the multinational's internal capabilities and the capabilities of the local suppliers within a country (Dupuis & Greer, 2022).

The presented findings demonstrate that the knowledge spillover approach that is followed by the multinationals within the auto sector is promoting inclusivity.

This approach by the multinationals entails both the social and economic implications of inclusivity with the main focal point being to conduct business with the black SMEs.

Concluding on the theme of inclusivity for the previously excluded groups on the society, the differences were noted in Chapter 6, as no literature was found on the multinational knowledge spillovers in the context of inclusivity for the previously excluded groups in the society. It appears that the identified nuanced difference is that multinationals in South Africa facilitate knowledge spillovers through capabilities building as well as learning experiences, mainly to comply to the B-BBEE regulation. This being a country specific regulation aimed at

promoting inclusivity of the previously excluded racial group in the society, does not exist in literature. To conclude, this is therefore a potential addition to the existing body of literature.

In conclusion, the themes to research question 2, the social networks and sourcing strategies were identified in literature, and they were similar to the existing literature. However, for the inclusivity theme for the previously excluded groups on the society, the nuanced differences were identified as the multinationals in South Africa facilitate the knowledge spillovers through capabilities building as well as through the learning experiences to comply to the B-BBEE regulation that is a country specific regulation that is aimed at promoting the inclusivity of the previously excluded racial group in the society. This theme was identified as a potential new addition to the existing body of theory.

### 7.2.3 Conclusion on Research Question 3

What and how do the barriers in the entrepreneurial ecosystem inhibit the transfer of the knowledge spillovers?

The research aim of research question 3 was to identify and to gain an understanding on the barriers that are prevalent within an entrepreneurial ecosystem, thus inhibiting the transfer of the knowledge spillovers. This entails a conclusion on the research outcomes as discussed in Chapter 6 for the two themes namely, the offshoring sourcing strategy and the direct impact of the scarce resources to knowledge transfer.

The empirical data for the two themes were found to exist in the literature and it was similar to the extant literature.

The conclusion for this research question starts with a discussion and it ends with a concluding summary.

There were similarities that were found to exist in the literature on the research outcomes as discussed in Chapter 6. This theme was identifiable in literature and was similar to the existing literature as per the statement by Mitze and Kreutzer (2023) that the implication of offshoring is the lack of knowledge spillover to the SMEs. This was further affirmed in an argument by (Sharma et al., 2022) on the complexities of the relationships of an offshoring outsourced strategy, as they can create challenges to the transferring of knowledge, due to power dynamics.

The empirical findings for this theme as discussed in Chapter 6, were identified to exist in the literature and they were similar to the extant literature, as stated by Prashantham and Birkinshaw (2020) that the lack of financial resources was found to constrain the local entrepreneurs' ability to access the capabilities and the expertise afforded by the human capital from the multinationals. This is further confirmed by an argument by Bhawe and Zahra (2019) that stated that the human capital spillovers would ordinarily be realised by the local entrepreneur within the ecosystem owing to human capital mobility, realised by employing the former employees of the multinationals.

Of equal importance, was the failure of the local entrepreneurs to attract the employees from the multinationals that may impede the entrepreneurs' access to the knowledge transfers from the human capital. Furthermore, Cao (2018), state that due to the culture of uncertainty avoidance, the highly skilled individuals in the emerging markets are more likely to remain in employment rather than to move to the high-risk entrepreneurial activities due to the financial security that is afforded by the employment in the multinationals. Therefore, not only will the financial constraints that are faced by the local entrepreneurs' impact their ability to attract the human capital from the multinationals, this further limits the access to the human capital knowledge spillovers that are related to such human capital.

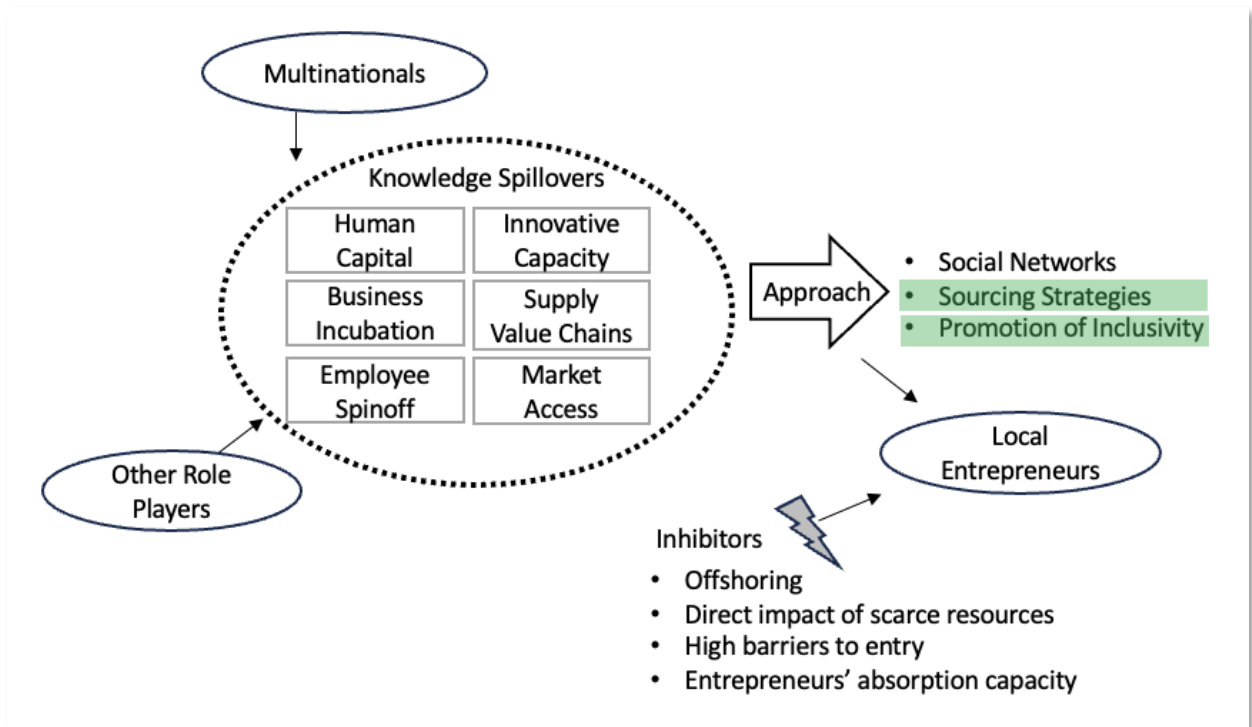
In conclusion, the themes on the barriers that inhibit the knowledge spillovers as identified to be the offshoring sourcing strategy and the direct impact of the scarce resources to the knowledge spillovers, were identifiable in literature and they were similar to the extant literature.

#### 7.2.4 Principal theoretical conclusions: Conceptual framework of knowledge spillovers from the multinationals within an entrepreneurial ecosystem

The conceptual framework of the knowledge spillovers from the multinationals within an entrepreneurial ecosystem presents the principal theoretical conclusion to this chapter, as reflected in Figure 3 below. The conceptual framework summarises the approach that is followed by the multinationals to transfer the knowledge spillovers to be within an ecosystem.

It also highlights the similarities and the differences in the research outcomes to the extant literature. The potential additional new insights are highlighted (in green) in Figure 3 below.

*Figure 3: Conceptual framework of the knowledge spillovers within the entrepreneurial ecosystem under study*



Source: Author's own. Compiled based on (Belitski et al., 2023; Bhawe & Zahra, 2019; Cao, 2018; Ferreira et al., 2023; Jha et al., 2023; Johnston et al., 2018; Jones & Ratten, 2021; Lampón & González-Benito, 2020; Pankov et al., 2021; Prashantham et al., 2020; Ratten, 2020b; Ribeiro et al., 2023; Sharma et al., 2022; Theodoraki & Catanzaro, 2022)

### 7.3 Research Contributions

This study aimed to gain an understanding on the process that is followed by the multinationals to facilitate the flow of the knowledge spillovers, to advance the entrepreneurial ecosystem. In doing so, the researcher investigated the various types of knowledge spillovers that are found within the ecosystem, and the process to facilitate the transfer by the multinationals. The study sought to understand the barriers that inhibit both entrepreneurship, and the transfer of the knowledge spillovers within the ecosystem.

By identifying the similarities with the literature, this study presented the potential contributions that could add to the existing body of theory. Additionally, the nuanced differences as the potential additional new insights to the literature were identified.

#### 7.3.1 The similarities between the research study and the literature

The study made conclusions on the themes that were identified to be similar to the literature, as such, there were considered in the developed conceptual framework, and they are discussed below.

The identified knowledge spillovers firstly entail the knowledge spillovers from the human capital as a result of a wider and a multiple set of business activities to facilitate experiential learnings and the capability building that were based on the internal processes. Secondly, the prevalence of innovative capacity was demonstrated by the compositional innovation that was found to be exploratory in nature, and this was afforded by the collaboration that was identified between the multinational and the local entrepreneur. Lastly, it was found that market access and other business opportunities were only afforded to the SMEs that were already conducting business with the multinationals. This was as a result of multinationals not having established the knowledge sharing platforms, through which information on available business opportunities within the multinationals can be made available to entrepreneurs that have not conducted business with the multinationals.

The study identified the approach followed by the multinationals to facilitate the knowledge spillover and these are discussed below.

The study found the social networks that are present within the entrepreneurial ecosystem instrumental in enabling the multinational to facilitate the knowledge spillovers that facilitate capability building. In addition, the sourcing strategies that involved reshoring were found to require much effort from the multinationals, as this was only realised through capacity building to both existing local suppliers and entrepreneurs. Owing to this, successful reshoring was found to be another approach that enabled multinationals to disseminate knowledge spillovers to the local entrepreneurs.

The barriers that inhibit the knowledge spillovers involved the offshoring sourcing strategy, where many multinationals were found to be heavily reliant on sourcing parts and components from foreign entities. This was found to constrain the knowledge spillovers to the entrepreneurial ecosystem, further adding to the low levels of domestic manufacturing activity taking place. Furthermore, another barrier that inhibit knowledge spillovers was identified to be the direct impact of scarce resources as they adversely affect the SMEs' ability to attract the available skilled labour present within the ecosystem, from the multinationals.

### 7.3.2 Differences identified between the research study and the literature: potential new additions to the existing body of theory

Considering the work that was done toward the research study, one potential new additional insight has been included in the conceptual framework, as per Figure 3 above. The potential new additional insight was identified in Chapter 6 to be the inclusivity for the previously excluded groups on the society. The nuanced differences were identified as the multinationals in South Africa that facilitate the knowledge spillovers through capabilities building as well as the learning experiences, with an aim of compliance requirements to the B-BBEE regulations. These regulations were found to be country specific to South Africa, and are aimed at promoting the economic inclusivity of the previously excluded racial group in the society.

#### 7.4 Limitations of the study in its entirety

The limitation of the study was imposed by the scope of the research being conducted in an emerging market namely South Africa as thus limited the focus of the study. This study explored the knowledge spillovers for the multinationals involved in the manufacturing sector in the automotive industry. Therefore, the other limitation was that the research outcomes may not be transferable to the knowledge spillovers from the other economic sectors that have manufacturing activities. Furthermore, the research sample size was limited to 12 based to the time that was available to the researcher to allow for data collection.

#### 7.5 Recommendations for management and other stakeholders

The identified knowledge spillovers from the human capital were found to be unstructured across all the multinationals. In collaboration with the government agency for the auto sector, the multinationals must establish a knowledge base for the entrepreneurial ecosystem. This generalised structured approach may afford the multinationals and entrepreneurs a coordinated approach in the exchange of knowledge and other resources accessible within the ecosystem. Consequently, this may present an opportunity for all the multinationals to have knowledge sharing platforms with existing and potential suppliers, thereby affording market access to entrepreneurs who have not engaged in business activities within the auto manufacturing industry.

Even though the presence of innovative capacity was demonstrated by the study, the willingness by the multinationals to partner more with the local entrepreneurs to drive innovation projects. This can be improved by leveraging the existing platforms, such as the AITF that are as afforded by the network capital within the ecosystem, to drive innovative projects aimed at increasing the entrepreneurs' compositional innovation. Furthermore, to facilitate the knowledge spillover within the ecosystem, the social networks identified through

industry bodies such as NAACAM, NAAMSA and ASCCI amongst others can be further leveraged to provide the knowledge sharing platforms between the multinationals and the entrepreneurs. Social networks should also be leveraged to support entrepreneurs to mitigate the impact of scarce resources to enable their access to the skills available in the ecosystem afforded by multinationals' human capital.

To mitigate barriers that inhibit knowledge spillovers within the entrepreneurial ecosystem, multinationals' sourcing strategies can be instrumental to increase the ongoing efforts on reshoring to deepen the local value chains. In addition, multinationals that currently have offshoring sourcing to move towards rebalancing and reducing the reliance on global value chain. The two sourcing strategies are crucial for the entrepreneurial ecosystem as they have a direct impact on enabling the SMEs to access opportunities to be suppliers to the multinationals.

#### 7.6 Suggestions for Future Research

Future research should extend the scope of the research to other late comer emerging markets, specifically in other African countries that have the prevalence of auto manufacturing to study the knowledge spillovers from multinationals to the entrepreneurial ecosystem. In addition, future studies may be extended to the other economic sectors that have the manufacturing industry, to test for the transferability of the study on the knowledge spillovers related multinationals in a host country. Furthermore, future studies should investigate the factors that influence the absorptive capacity in the manufacturing entrepreneurial ecosystem within an emerging market.



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## 9 APPENDICES

### Appendix 1: Consent statement

#### **Informed consent letter towards a qualitative study towards MPhil 2022/23**

I am conducting research on **“The approach by multinationals to engage in knowledge spillovers to advance the entrepreneurial ecosystem in South Africa”**. Our interview is expected to last *up-to 60 minutes* and will help us understand **how do multinationals engage in knowledge spillovers to advance the automotive entrepreneurial ecosystem within an emerging market?**

Your participation is voluntary, and you can withdraw at any time without penalty. By signing this letter, you are indicating that you have given permission for:

- - the interview will be recorded;
- - the recording will be transcribed by the researcher through the use of audio transcriber application;
- - verbatim quotations from the interview will be used in the report, and they will not identified with your name or that of your organisation;
- - the data will be used as part of a report that will be publicly available once the | examination process has been completed; and
- - all data will be reported and stored without identifiers.

If you have any concerns, please contact my supervisor or me. Our details are provided below.

Researcher: Name:

Email: [22027573@myqibs.co.za](mailto:22027573@myqibs.co.za)

Research supervisor : Name:

Email:

Signature of participant: \_\_\_\_\_ Date: \_\_\_\_\_

Signature of researcher: \_\_\_\_\_ Date: \_\_\_\_\_

Appendix 2: Interview Protocol

<b>Research questions</b>	<b>Interview guide</b>
<p>Main research question:</p> <p>How do multinationals engage in knowledge spillovers to advance the automotive entrepreneurial ecosystem within an emerging market?</p>	<ol style="list-style-type: none"> <li>1. Can you please introduce and describe your role in your organisation?</li> <li>2. As per your understanding, please define what knowledge transfer from a firm to the local entrepreneurs entails?</li> <li>3. In your experience, does your firm share knowledge with the local entrepreneurs?</li> <li>4. In your role, or previous roles working in the firm, have you been involved in sharing of knowledge with the local entrepreneurs?</li> </ol>
<p>Sub-question 1:</p> <p>What are the knowledge spillovers from the multinationals with an emerging market entrepreneurial ecosystem?</p>	<ol style="list-style-type: none"> <li>5. In your experience, has there been employee spin-offs from your firm, where and former employee applied their skills and abilities acquired during their employment to form an entrepreneurial venture?</li> <li>6. By virtue of the MNE being present in this community, has there been a change in the entrepreneurial activity in the area?</li> <li>7. Mention a situation where a supplier got market access to your firm/industry?</li> <li>8. In your experience, are there entrepreneurs whose operations grew in size, after they started doing business with your firm?</li> </ol>



	<p>9. Please mention a case where your firm shared best practises with the local entrepreneurs?</p> <p>10. Do you know of a situation where your firm has made available use of the firm's innovation for use by the local entrepreneurs?</p> <p>11. How does your organisation share knowledge with the local entrepreneurs that express their interest in working with your firm?</p> <p style="padding-left: 40px;">a. - i.e. When they do not meet the minimum requirements</p>
<p>Sub-question 2:</p> <p>What are the processes followed by multinationals to transfer knowledge spillovers in an entrepreneurial ecosystem?</p>	<p>12. Would you describe the process followed within your firm to share knowledge/best practises/innovation to be formal/informal?</p> <p>Probing questions:</p> <ul style="list-style-type: none"> <li>- If formal, is there an approved policy and processes usually followed when sharing knowledge with the local entrepreneurs?</li> <li>- If informal, mention the process followed on various situations where knowledge is imparted on a case-to-case basis?</li> <li>- If formal, is this information easily accessible to the local entrepreneurs?</li> </ul> <p>13. How is this process different to the one followed by your global organisation or other operations?</p> <p>14. Does your firm collaborate with other organizations on programs/initiatives that facilitate share knowledge/best practises/innovation to the local entrepreneurs?</p>
<p>Sub-question 3:</p> <p>What and how are the barriers in an</p>	<p>15. What are the barriers faced by the local entrepreneurs, that make it challenging for your firm to impart knowledge/best practises to the local entrepreneurs?</p>

entrepreneurial ecosystem that inhibit knowledge spillovers mitigated?	16. Does your firm take any actions to address these barriers faced by the local entrepreneurs?
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### Appendix 3: List of codes used

#	First order codes	Second order codes
1	2nd Tier supplier	2nd Tier supplier
2	Financial distressed suppliers	Access to funding
3	Financial resources	
4	Good financial standing	
5	Transformation fund	
6	B-BBEE compliance	BBEEE: Compliance
7	Black female	BBEEE: Previously excluded
8	Black owned business	
9	Previously excluded society	
10	Inclusive approach	Inclusive approach
11	Industry transformation	Industry transformation
12	Transformation	Transformation
13	Incubation program	Business incubation
14	Business needs	Business opportunity
15	Entrepreneurs not given business opportunities	Entrepreneurs not given business opportunities
16	Increased entrepreneurship in the surrounding areas to the multinational	Entrepreneurship growth
17	Sharing of information on existing opportunities	Sharing of information on opportunities
18	Aftermarket	Aftermarket
19	Aftermarket small businesses	Informal sector
20	Informal sector	
21	Street mechanics	
22	Township economy	
23	Community Automotive hub	Community Automotive hub
24	Non growth environment	Challenges in ecosystem
25	Tough economic environment	
26	Challenges with knowledge spillovers	Challenges: knowledge spillovers
27	Information easily available to public	Information easily available to public
28	Automotive sourcing opportunities restricted	Closed market: No sharing of Business Opportunities
29	Business opportunities closed to existing suppliers	
30	Business opportunities not shared with local entrepreneurs	
31	High degree of secrecy from multinationals	
32	Information not easily available	
33	Opportunities not shared with public	
34	Sourcing not openly published	
35	Work together with supplier to find solution	Collaboration with entrepreneur
36	Working together with entrepreneurs to improve and meet minimum requirements	
37	AIDC	Collaborator: External Party
38	AITF	
39	ASSCI	

40	Collaborations with other organization	
41	Collaborations with University	
42	Collaborators' filling the gap	
43	Community Automotive hub	
44	Cross auto company collaborations not common	
45	Entrepreneurs benefited from other collaborators to the multinational	
46	Equity equivalent	
47	Innovation centre	
48	JICA Program	
49	Joint venture	
50	Joint venture between global and small business	
51	NAACAM	
52	NAAMSA	
53	Private partnerships	
54	Government	Government
55	Government support to entrepreneurs	Government support to entrepreneurs
56	Collaborators' filling the gap	Collaborators' filling the gap
57	Partnership arrangements	Partnership arrangements
58	University	University
59	Competitiveness of local entrepreneur	Competitiveness of local entrepreneur
60	Initiative for improving competitiveness of local suppliers	Improved competitiveness of local suppliers
61	Conflict of interest	Conflict of interest
62	Corruption	Corruption
63	Deindustrialization	Deindustrialization
64	Increased imports	Increased imports
65	Downstream suppliers	Downstream suppliers
66	Economies of scale	Economies of scale
67	Different types of employee spinoffs	
68	Employee spin-off	
69	Employee Spinoff in the value chain	Employee spin offs
70	Fewer employee spin offs	
71	Former employees as suppliers	
72	Multinational employment offers security and deters employees to be entrepreneurial	Employment opportunities
73	Empowerment	Empowerment
74	Entrepreneur development	Entrepreneur development
75	Entrepreneurial support takes a lot of effort/resources	Entrepreneurial requires effort/resources
76	Hunger for informatic	Entrepreneurial trait
77	Entrepreneurship failure rate	Entrepreneurship failure
78	Failure rate	
79	Growth seen in entrepreneur's business	
80	Increased small businesses around auto multinationals	Entrepreneurship growth
81	Outsourcing creating new entrepreneurs	

82	Sub-contract work to a small enterprise	
83	OEM	Firm
84	Scarce financial resources	Inhibitors: Access to funding
85	Access to funding	Access to funding
86	High compliance standards	
87	Ease of access to information from multinationals	Ease of access to information from multinationals
88	Intellectual Property rights	Intellectual property rights
89	Entrepreneurs lack business skills	Entrepreneurs lack business skills
90	Barriers of entry into auto industry	Inhibitors: Barriers of entry
91	It is challenging to meet the standards	
92	Red tape	
93	Restriction	Innovation
94	Innovation	
95	Innovation by improving process efficiencies	
96	Innovation is source of competitiveness	
97	No sharing of innovations with entrepreneurs	
98	Out-of-the-box-solutions	
99	Process improvements	
100	R&D	
101	Reverse engineering	
102	Sharing of innovation	
103	Technology centres	Knowledge sharing
104	Feedback to potential suppliers	
105	Knowledge transfer	
106	Sharing information with entrepreneurs	Lack of willingness
107	Lack of willingness to support entrepreneurs by multinationals	
108	Entrepreneurial activity unique to local conditions	Local conditions
109	Multinational as a key customer to local businesses	Multinational as a key customer to local businesses
110	Multinational's activities focus is to grow local supplier database	Local supplier base
111	Import replacement program	Localisation
112	Local sourcing	
113	Localization efforts	
114	Localization is seen as rocking the boat	
115	Low levels and pace of localization	
116	Lower Tier suppliers	Market Access
117	Market access	
118	Multinationals activities not sufficient	Multinationals activities not sufficient
119	multinationals' efforts not enough	
120	Multinationals' key priority is not supporting entrepreneurs	Multinationals not supporting entrepreneurs
121	Nature of auto industry limits doing business with new suppliers	
122	Onboarded distributor	New supplier onboarding
123	Different knowledge sharing to parent company	Parent company processes

124	Capital intense	Process: Access to funding
125	Capital requirements is substantial	
126	Firm proactive with supplier development program	Process:: Knowledge sharing
127	Formal process of knowledge transfers	
128	Informal approach with connections from social media	
129	Informal knowledge sharing process	
130	Informal process	
131	Knowledge sharing process in host country is similar to parent country	
132	Lack of process	
133	Multinationals engage with potential suppliers	
134	No formal process of sharing knowledge with entrepreneurs	
135	No readily available information	
136	Parts manufacturer as a technical partner	
137	quality improvement activities	
138	Approach of knowledge spillovers	
139	Transfer of product knowledge	
140	Transfer of technical knowledge	
141	Costing/Pricing right their product or service	Product information
142	Production systems	Production systems
143	Anti-competitiveness regulations as an inhibitor to sharing of information	Regulations: Sharing of information
144	Anti-competitive practices	
145	Non-disclosure agreements	Non-disclosure agreements
146	Regulator enforcing access to information	Regulator enforcing access to information
147	Auto manufacturing experience required	Requirement: Automotive Experience
148	Entrepreneur's experience in business/automotive	
149	Entrepreneur's lack of non-technical skills	
150	Entrepreneurs track record	
151	Entrepreneurs unable to get opportunities to prove experience	
152	Entrepreneurs' lack on industry knowledge	
153	Meeting minimum requirements	
154	qualification criteria	Requirement: Qualifying criteria
155	Accreditation	
156	Certification requirements	
157	ISO Certification	
158	Quality standards	
159	REQUIREMENT: Quality Standards	
160	Dealerships	Retail partner
161	Distributorship	
162	Improved quality standards	Skills transfer
163	Skills acquired from being employed by multinationals	
164	Upskilling and training	
165	Upskilling for new suppliers	
166	Slow pace	Slow pace

167	Social capital	Social capital
168	LinkedIn connections	Social Media
169	Preferential procurement	Sourcing
170	Purchasing	
171	RFQ	
172	RFQ for sourcing	
173	Simplified and less technical RFQ	
174	Sourcing	
175	Sourcing Process	
176	Sourcing requirements	
177	Sourcing strategy	
178	Technical communication when sourcing	
179	Special arrangements	Special arrangements with entrepreneurs
180	Special arrangements made for small enterprises	
181	Special arrangements with suppliers	
182	Support to entrepreneur seen as conflict of interest	Support to entrepreneur seen as conflict of interest
183	Preferential credit terms	Support to entrepreneurs
184	Shared working spaces	
185	Subsidies	
186	Subsidy to local entrepreneurs	
187	Supplier visits	
188	Support to entrepreneurs	
189	Support to local entrepreneurial centre	
190	support towards smaller suppliers	
191	Technical partner	
192	Technical support	
193	Tier 1 as a technical partner to local supplier	
194	training programs for small businesses	
195	Technical license	Technical license
196	Tier 1 supplier	Tier 1 supplier
197	Best practice	Transfer: Method of skills transfer
198	Capacity building	
199	Coaching on business	
200	Entrepreneurs as suppliers to Tier 1 & 2 suppliers	
201	Business incubation not yielding entrepreneurs	Unsuccessful knowledge transfer
202	KD Parts supply	KD Parts supply
203	Supplier in the auto value chain	Supplier in the auto value chain
204	Value chain	Value chain
205	Going beyond normal activities when working with local entrepreneurs	Willingness in sharing knowledge
206	Multinationals' willingness	