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# **SME Internationalization Strategies in Different Institutional Contexts: A Qualitative Multi-Case Study in the European Pharmaceutical Industry**

*Using the Knowledge-Based Model of Internationalization to Carefully Examine how SMEs from Developed and Emerging Markets Differ in Internationalization Strategies to Overcome LOF and LOS*

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# 1) Introduction

The recent trends in international business environments have increasingly altered the way firms organise themselves and their way of acting, which impels them to consider the development of their activities in the international trade (Roque et al., 2019). This process, known as firm internationalization, is based on extending a firm's strategies to other countries (Roque et al., 2019) in order to adapt its operations to international environments (Calof & Beamish, 1995). Hence, internationalization can be defined as "the act of businesses increasing involvement in international operations" (Welch & Luostarinen, 1988, p. 36). Subsequently, this involvement is based on dimensions, such as market, product, time and performance (Ruzzier et al., 2006).

Internationalisation cannot be seen only as a process of "increasing progression", it must also be seen as contemplating some setbacks (Roque et al., 2019; Barkema et al., 2015). First described by Stephen Hymer (1960), he identified four types of disadvantages that foreign firms face: (1) information disadvantage, (2) risks in foreign exchange currency fluctuations, (3) facing discriminatory treatment at the hand of host governments and (4) home country governmental restrictions on internationalization (Hymer, 1960; Denk et al., 2012; Wu & Salomon, 2017). These disadvantages are known as 'costs of doing business abroad' (CDBA) (Buckley & Casson, 1976) and are inherently related to the concept of 'liability of foreignness' (LOF) (Gaur et al., 2019; Sauvart, 2008). To elaborate, when internationalizing, firms are subject to LOF, which is best described as "the social and economic costs firms face when entering and operating in novel foreign markets" (Gaur et al., 201, p. 2).

Besides, research notes that the overseas expansion of emerging market firms are primarily driven by the search for resources and other critical assets, while their developed peers from developed markets are generally more focused on exploiting their existing competitive advantage (Tsai & Eisingerich, 2010). In particular, analysing internationalization strategies from the perspective of small- and medium-sized enterprises (SMEs) has become an increasingly more relevant research avenue (Taylor, 2013) as these firms are responsible for the majority of economic growth and new-job creation through their participation in untapped markets (Fairoz et al., 2010).

In addition, due to their "smallness", these firms are often resource-constrained (Schwens et al., 2011; Lahiri et al., 2020). This phenomenon is commonly referred to as the 'liability of smallness' (LOS) and describes the fact that small firms have only a limited amount of resources and difficult access to new ones (Lefebvre, 2020). Hence, the generally smaller resource base of SMEs leads to more vulnerability to external and internal events (Eggers, 2020).

Existing literature in the field of international business and, in particular, the streams of knowledge on internationalization strategies by firms, acknowledges that the ability of SMEs to overcome LOF and LOS varies for different firms from different home environments (Gaur et al., 2019). Additionally, the research on internationalization strategies has been especially centered around the following two dichotomies: (1) the micro/macro-opposition, which opposes the national economy with a firm-level view and (2) the inward-outward polarisation, which described foreign operations 'from the inside out' (e.g., exports, overseas licensing) or 'from the outside to the inside' (e.g., imports, foreign investment) (Simões & Souza, 1997; Roque et al., 2019).

Given the existence of LOF and LOS, scholars working on this topic have offered many suggestions to mitigate its effects on foreign firms (Elango, 2008). To illustrate, some academics argue that the entry mode choices should be made to mitigate the pressures of entering a foreign business environment (Chen, 2006; Sethi & Judge, 2009; Luo et al., 2002). Alternatively, the importance of exploiting firm specific advantages is highlighted by other studies (Nachum, 2003; Haiyang et al., 2006). In the latter approach, firms use firm specific advantages to increasingly become 'insiders' into the newly entered foreign markets.

Hence, as synthesized by Elango (2008), several internationalization strategies to enhance the foreign firm survival are identified in the literature (Elango, 2008). Generally, these studies are mainly concerned with the unfamiliarity and relational hazards that appear to decline over time as a foreign firm acquires local market knowledge and gains experience in a particular location (Miller & Parkhe, 2002). In particular, SME internationalization strategies can be understood using the 'Knowledge-Based Model of Internationalization' by Mejiri and Umemoto (2010), which combines several theories of the International Business field into a comprehensive model based on "knowledge factors" that describe the knowledge utilization in each phase of the internationalization process (see APPENDIX 1) (Mejiri & Umemoto, 2010).

In particular, SMEs in the pharmaceutical industry are a relevant unit of analysis for the scope of this research as this industry is a breeding ground for innovative, rapidly internationalizing firms that need to adopt agile strategies to cope with the fast-changing nature of the industry (Wickhamm et al., 2016; Huang et al., 2015). Thus, drawing on the work of previous scholars (Gaur et al., 2019; Luo & Tung, 2018; Sim, 2006; Guiliani et al., 2014; Ozkan et al., 2022; Luo & Witt, 2021; Liu & Vrontis, 2017), this paper argues for a more nuanced and contextual understanding of the differences in the internationalization strategies to overcome LOF and LOS between SMEs from developed economies and emerging markets by analysing multiple case studies from firms in the pharmaceutical industry

and linking these findings to the Knowledge-Based Model of Internationalization. Hence, the aim of the paper is to answer the following question: 'how do the internationalization strategies differ between developed and emerging SMEs in the pharmaceutical industry to overcome LOF and LOS?'

This topic deserves extensive attention, as the international survival of SMEs is significantly affected by an increased knowledge on how to manage and learn from international environments (Elango, 2008). Additionally, it is often thought that firms from emerging markets are disadvantaged compared to firms from developed economies: the average asset base of firms from the developing world is about 15% of their counterparts from the developed world (World Investment Report, 2008). Therefore, research on the differences between the internationalization strategies of developed and emerging market SMEs, may provide a meaningful framework for managers and practices from both types of market environments to use when internationalizing (Barnard, 2010). Thus, a more well-rounded perspective on the issues and strategies of a firm's internationalization process, may result in firms and managers, in particular, to be better equipped to analyse and respond to internationalization problems and tactics.

Furthermore, this research contributes to the stream of knowledge on SME internationalization strategies in three ways. First, research lacks a systematic understanding of the differences between firms from distinct home country environments (Roque et al., 2019). Therefore, this research, through the use of a multiple case study analysis, aims to make the comparison between firms from developed economies and emerging markets by comparing institutional differences in internationalization strategies of these firms. Second, while recent studies have identified the different internationalization strategies for developed economies and emerging market SMEs (Chen, 2006; Guar et al., 2019; Sethi & Judge, 2009), these studies were done separately: either solemnly focused on strategies from developed market strategies or focused on strategies from emerging markets. Hence, this research contributes to the body of knowledge on internationalization strategies by synthesizing the distinct strategies of developed and emerging market firms into a more holistic framework using the Knowledge-Based Model of Internationalization. Third, although researchers have been investigating international entrepreneurship for decades, knowledge of SME internationalization strategies is still very limited (Liñán et al., 2020). Therefore, the research contributes to the stream of literature on firm internationalization strategies by prioritizing SMEs (in the pharmaceutical industry) as the main unit of analysis.

Lastly, the remainder of this research is structured as follows. First, the next chapter discusses a careful examination of the literature on SME internationalization strategies and its ability to

overcome LOF and LOS. Then, the paper proceeds by highlighting the methodological design of this research by discussing themes such as, research strategy, case selection and research ethics. Third, the data sources are analysed and the findings are reported in chapter four. Lastly, the research is finalized by summarizing the main findings and providing a concise answer to the research question presented above. Additionally, the limitations of this research and the recommendations for future research are discussed.

## 2) Literature Review

### 2.1 Importance of SMEs and Institutional Context

The contribution of Small and Medium Enterprises (SMEs) in the development of world economy has been significant, both in terms of contribution to GDP and creation of employment opportunities (Tambunan, 2008). In particular, SMEs played a remarkable role in the development of several countries as they constitute a major part of the industrial activity both in developed or developing economies (Pandya, 2012). However, it is often argued that SMEs play a particularly important role in developing countries, due to the SMEs abilities to “potentially improve income distribution, employment creation, poverty reduction and export growth” (Pandya, 2012, p. 426). Therefore, SMEs are rightfully seen as “the backbone of every economy across the globe” (Eggers, 2020).

Nevertheless, though, the definition of what constitutes a SME is regarded as ambiguous as it differs from country to country (Ndiaye et al., 2018). To illustrate, Dong & Men’s report (2014) on SMEs in emerging markets, identifies SMEs as firms consisting of 10 to 100 employees, while the Inter-American Development Bank defines emerging market SMEs in terms of revenue streams (less than three million dollars) (Dong & Men, 2014; Pandya, 2012). In addition, In Europe, SMEs are defined as having manpower fewer than 250 employees and the United States defines SMEs as firms with less than 500 employees (El Kalak & Hudson, 2016). Therefore, within emerging and developed markets, the definition of SMEs remains rather ambiguous.

Nevertheless, even more important than correctly defining SMEs is examining its role in emerging and developed markets (Pandya, 2012). To elaborate, Ndiaye et al. (2018) note that SMEs are playing a “pivotal role in promoting grassroots economic growth and equitable sustainable development” (Ndiaye et al., 2018, p. 269). For example, as noted by Padya (2012) there is a robust, positive relationship between the relative size of the SME sector and economic growth (Padya, 2012).

Moreover, scholars of multinational enterprises also emphasize the importance of country-of-origin and therefore identify differences in emerging versus developed market environments (Rugman et al., 2011; Ciravegna et al., 2014). To elaborate, in emerging markets, organizational growth is often hampered by weak institutional environments (Ndiaye et al., 2018). Institutional theory suggests that these weak institutions present significant challenges in the internationalization process (Ciravegna et al., 2014). Therefore, as a result of these differences in institutional environments, emerging market SMEs increasingly make use of networks as a means to support its internationalization efforts and to

overcome resource constraints (Coviello, 2006; Ciravegna, 2011). Consequently, the main difference between SMEs in developed and emerging markets is the fact that the vast majority of emerging market SMEs operate on an informal basis (Pandya, 2012). Hence, emerging market SMEs may be more likely to rely on social and relational capital than firms based in developed economies (Khanna & Palepu, 2010).

Hence, institutions have a direct bearing on the strategic options available to SMEs (Dekel-Dachs et al., 2021). Even more so, the contemporary literature has signalled that institutions often fail to provide efficient solutions suited to internationalising SMEs (Schuck, 2014). Often in emerging markets, firms have to deal with institutional voids, which reflect institutional conditions characterized by an absence or underdevelopment of institutions that enable and support market activity (Doh et al., 2017). As a result, institutional voids lead to higher transaction costs when doing business (Khanna & Palepu, 2010). Nevertheless, though, institutional voids also present palpable opportunities for SMEs to fill these voids (Khanna & Palepu, 2010). However, for SMEs to navigate these institutional difficulties, it is imperative to create a fit between infrastructure and organizational processes (Kovid et al., 2021).

## **2.2 Liabilities of SMEs in the Internationalization Process**

Growth by international diversification is an important strategic option for both smaller and larger-size firms (Lu & Beamish, 2001). Recently, a significant development within the broad internationalization trend has been the increasingly active role played by SMEs in international markets (Oviatt & McDougall, 2005).

### **2.2.1 Liability of Foreignness**

When entering a foreign host country, firms experience a liability of foreignness (LOF) and may face difficulties in copying competing firms' organizational practices (Gorostidi-Martinez & Zhao, 2017). First defined by Hymer (1960; 1976), his work conceptualized LOF as "an additional cost that firms need to bear when dealing with international businesses abroad" (Hymer 1960; Hymer 1976). In other words, when internationalizing firms are faced with economic and social costs as a result of dealing with unfamiliar markets (Azman et al., 2020). As identified by Gorostidi-Martinez and Zhao



(2017), the sources of LOF are as follows: (1) cross-border resource transfer, (2) interaction with local government, (3) local discrimination (Gorostidi-Martinez & Zhao, 2017).

Additionally, SMEs face already tremendous barriers domestically, such as shortage of workforce, financial scarcity, lack of managerial capabilities, less of enforcement in high technology and high bureaucracy (Wan & Hoskisson, 2003). Subsequently, when internationalizing, SMEs are also subject to barriers related to the social costs associated with unfamiliarity with local business practices, weak relational capabilities, and discriminatory risks faced by foreign firms (Johanson & Vahlne, 2009), which makes internationalizing substantially more complex for SMEs than MNEs (Fornes & Cardoza, 2019). Furthermore, these barriers are closely related to the two types of LOF costs: (1) discriminatory costs (e.g., economic nationalism and prejudices, host government restrictions) and (2) incidental costs (e.g., lack of local information and relationships, cultural differences) (Sethi & Judge, 2009; Gorostidi-Martinez & Zhao, 2017).

Furthermore, scholars and practitioners usually fail to comprehend the cultural, normative, and regulatory institutions in a new hosting country's societal context. If institutional issues arise, internationalization becomes more complex, especially for SMEs (Gorostidi-Martinez & Zhao, 2017). However, following the research by Orr and Scott (2008), several stages have been identified to resolve unfamiliarity in foreign host country environment: (1) ignorance, (2) sense making, and (3) response (Orr and Scott, 2008). In addition, scholars have tried to synthesize ways to deal with LOF (Klossek et al., 2012; Daamen et al., 2007; Denk et al., 2012; Elango, 2009; Gorostidi-Martinez & Zhao, 2017). Generally, ways to mitigate the negative effects of LOF can be categorized as follows: (1) localization and (2) unfamiliarity reduction or acculturation (Daamen et al., 2007).

Besides, anecdotal evidence suggests that compared to SMEs in developed markets, emerging market SMEs face higher barriers in their international expansion (Fornes & Cardoza, 2019). Kazlauskaitė et al. (2015) posit that this difference is due to the emerging economies being burdened by a lack of international ties (Kazlauskaitė et al., (2015). Fornes and Cardoza (2019), however, suggest a reason more intrinsic to emerging markets: the inherent weakness in institutional settings (Fornes & Cardoza, 2019).

Lastly, previous research on the effect of LOF on SMEs has described LOF as an exogenous variable due to the host location's influence on the degree of LOF (Barnard, 2010; Gaur et al., 2011; Schmidt & Sofka, 2009). However, research by Azman et al. (2020) advocated for LOF to be regarded as an endogenous variable: "the LOF impact differs from one host location to another depending on the ability of the firm itself" (Azman et al., 2020, p. 42).

### **2.2.2 Liability of Smallness**

Firms continually attempt to achieve a sustainable competitive advantage (Albats et al., 2021). Superior resources, capabilities, market positions, and product and service innovations are among the common sources of competitive advantage for all firms (Hitt et al., 2001). However, SMEs typically have a smaller resource base and market knowledge (Eggers, 2020). The literature commonly refers to this phenomenon as the liability of smallness (LOS), which describe the fact that small firms have only a limited amount of resources and difficult access to new ones (Lefebvre, 2022).

To elaborate, previous studies have identified three specific LOS sources: (1) limited financial and personnel resources and the respective capabilities to employ these resources, (2) lacking foreign market knowledge as they are less internationally diversified and possess fewer international engagements and (3) sensitive to external challenges arising in the host country market (Nakos & Brouthers, 2002; Lu & Beamish, 2001; Brouthers & Nakos, 2004; Hollender et al., 2017). Hence, the limited resources and scope of SMEs result in a weakened ability to predict future events, which implies increased vulnerability to changes in market conditions or in the institutional and technological environment (Hollender et al., 2017).

As a result, SMEs are often more dependent on open innovations than larger, well-established firms (Spithoven et al., 2013). A SMEs emphasis on innovation is built on the firm's ability to match technical and market possibilities, which often leads to novelties or significant improvements to product groups (i.e., innovation) (Rodil et al., 2016). Consequently, SMEs tend to focus on incremental, rather than radical, changes in ways of doing things (Mansion & Bausch, 2020).

In turn, however, business model development processes in SMEs are less linear, but more agile (Chesbrough & Tucci, 2020) combined with a relatively more experimental character than larger firms (Berends et al., 2016). Notably, many SMEs use similar strategies to cope with LOS, such as finding a partner and strategic convergence (Albats et al., 2021). All in all, the most important aim of these strategies when internationalizing is to pursue their foreign market entry mode strategy with greater efficiency (Ainuddin et al., 2007) to minimize risk and transaction costs that are related to LOS (Mansion & Bausch, 2020).

Besides, most researchers posit that SMEs can mitigate the effects of LOS by taking full advantage of their, compared to larger firms, more flexible nature (Hollender et al., 2017). Interestingly, a smaller segment of the literature on LOS and SMEs focuses on this so-called 'asset of smallness' (Choi et al., 2022). In this perspective, it is argued that the smaller size of SMEs proposes

several advantages for the firm: the leaner, more cohesive and concentrated formal and informal organisational structures of SMEs facilitate more interaction between departments, increase synergies and promote speedy responses to environmental change (Katila & Shane, 2005; Son et al., 2019; Choi et al., 2022). Thus, as described by Choi et al. (2022), SMEs can compete effectively in small, niche markets in which their size justifies their investment in terms of products, customers and technology (Choi et al., 2022).

### **2.3 Knowledge-Based Model of Internationalization**

Small- and medium-sized enterprise internationalization has been studied from a variety of perspectives (Mejiri & Umemoto, 2010). However, previous research in this field is limited in its scope: many studies focus on some aspect of internationalization and while others neglect to consider other aspects (Ruzzier et al., 2006). In other research areas, integrative models adopted a knowledge perspective, which is based on the knowledge-based view of the firm (Kuivalainen et al., 2003).

Emerging during the 1990s, the knowledge-based view of the firm posits that “knowledge constitutes the most critical resource for surviving and developing” (Mejiri & Umemoto, 2010, p. 161). In particular, this view is suitable when explaining SME internationalization. First, SMEs compared to big companies have relatively less resources (i.e., liability of smallness, see 2.2.2), which make knowledge very vital for their survival and growth. The lack of tangible resources has to be compensated by intangible resource, that is knowledge, or it will be difficult to compete (Mejiri & Umemoto, 2010). Second, it has been found in literature that knowledge is central for understanding SME internationalization (Ojala, 2009; Musteen et al., 2014; Stoian et al., 2018). Third, the recent developments in environment towards what is so-called ‘knowledge economy’, makes knowledge more valuable for being competitive, yet it has been valuable even before these developments (Mejiri & Umemoto, 2010).

Moreover, the most influential work in this field of research is the ‘Knowledge-Based Model of Internationalization’ by Mejiri and Umemoto (2010). This model describes a process theory on SME internationalization with each phase being based on certain level of experience: (1) : pre-internationalizing (i.e., no experience), (2) novice internationalizing (i.e., limited experience), and (3) experienced internationalizing (i.e., extensive experience) (Mejiri & Umemoto, 2010) (see APPENDIX 1). To clarify, Mejiri and Umemoto (2010) built a more comprehensive model to understand SME internationalization strategies by analyzing “knowledge factors” that describe the process of

acquisition and utilisation of different types of knowledge during the internationalization process of SMEs (Mejiri & Umemoto, 2010). Hence, the three phases are impacted by four kinds of knowledge: (1) market knowledge, (2) network knowledge, (3) cultural knowledge (as described by Hofstede and Hofstede, 2005) and (4) entrepreneurial knowledge (Mejiri & Umemoto, 2010).

## **2.4 SME Internationalization Strategies**

Several factors suggest that survival, rather than profitability, is an important question in SME Research (Mudambi & Zahra, 2007). Notably, the start-up stage is rife with uncertainty (Douglas & Shepherd, 2000). The stream of knowledge on SME internationalization strategies originally focused on international entrepreneurship, which was coined by Morrow (1988). However, the literature rather quickly evolved to broader categories, such as top management teams, corporate entrepreneurship and, eventually, SMEs (Lu & Beamish, 2001; Oviatt & McDougall, 2005).

The increasing popularity of studies on SMEs is also highlighted by their increasingly active role in international markets (Oviatt & McDougall, 2005). International expansion has become an increasingly important decision for small and medium-sized enterprises (SMEs) who traditionally have a small financial base, a domestic focus and a limited geographic scope (see 2.2.1 Liability of Smallness) (Lu & Beamish, 2001).

Internationalization is a multidimensional construct (Sullivan, 1994) and two of the most prominent avenues of internationalization are based on the following strategies: (1) exporting and (2) foreign direct investment (FDI) (Lu & Beamish, 2001). Traditionally, the focus was largely on SME export activities (Miesenbock, 1988). However, more recently, entrepreneurship researchers have extended their investigation beyond exporting to other modes of internationalization and, in particular, to FDI as the most meaningful internationalization strategy for SMEs (Lu & Beamish, 2006; Bose, 2016; Sui & Baum, 2014). Nevertheless, while most studies focus on either exporting or FDI as internationalization strategies, the influential framework of Lu and Beamish (2006) added another strategy: strategic partnerships (Lu & Beamish, 2006).

First, exporting has been extensively employed by firms as an internationalization strategy (Oviatt & McDougall, 2005; Lu & Beamish, 2006). Compared to FDI, exporting is a relatively easy and fast way to enter foreign markets because it involves comparatively low levels of commitment and risk, which is imperative for SMEs dealing with LOF and LOS (Lu & Beamish, 2001; Klossek et al., 2012). Importantly, exporting provides SMEs with rapid access to foreign markets, with little resources

required (Lu & Beamish, 2006). As a consequence, exporting gives internationalizing SMEs the opportunity to gain valuable international experience (Zahra et al., 1997). This type of organizational learning is generally seen as the first step in successfully internationalizing (Rujrok & Wagner, 2003).

Second, depending on environmental and firm-level characteristics, FDI may be better strategy for SMEs entering a foreign market, due to the disadvantages of exporting: (1) imperfections in trade regimes across host countries, (2) distributor opportunism and (3) high transportation costs (Lu & Beamish, 2001). Particularly, internalization theorists argue in favour of FDI as it enables firms to minimize transaction-related risks through internalizing markets (Hennart, 1988). In addition, FDI in diversified locations enables a SME to leverage various location-based advantages, such as access to critical resources and opportunities to develop new capabilities to enhance its international competitiveness (Kogut, 1985; Lu & Beamish, 2006). Lastly, most relevantly for SMEs, FDI has an the inherent potential to promote organizational learning in diverse international markets, which is key to overcome LOF and LOS (Zahra et al., 2000).

Third, while the potential benefits of international expansion may be appealing, SMEs simply may not have an adequate enough resource base to successfully undertake an exporting or FDI strategy (Lu & Beamish, 2006). By nature, SMEs face internal shortages of information, capital, management time and experience, while externally, SMEs face constraints arising from their vulnerability to environmental changes (Buckley, 1989). Consequently, such organizational deficiencies impose heavy constraints on the internationalization of SMEs, especially combined with the forces of LOF and LOS (Zacharakis, 1997). Hence, strategic partnerships have been suggested as one important means of overcoming resource and capability deficiencies and enhancing the likelihood of success for internationalizing firms (Jarillo, 1989). For this strategy, the main benefit lies in 'network resources', which are gained when access the resources of the partnering firm (Lu & Beamish, 2006). However, it has to be noted that partnerships are paired with substantial costs and potential risks when partnering with mismatching firms (Lu & Beamish, 2006).

## 3) Methodology

### 3.1 Research Design

This research was based upon the notion to research how SMEs adequately apply internationalization strategies to overcome the liability of foreignness and the liability of smallness. In addition, to contribute to the stream of knowledge on SME internationalization strategies, this research aimed to bridge the gap between distinct research silos focusing solemnly on either developed or emerging markets. Hence, this research aimed to find out how the internationalization strategies for SMEs differ in distinct institutional environments (e.g., developed and emerging markets).

Therefore, this research was inherently qualitative in nature as it aims to understand how certain SMEs adept to foreign market environments by using internationalization strategies. Hence, qualitative research fitted the scope of this research best as this methodological approach is meaningful to understand certain situations, settings and the complexities, which are rather intricate and detailed (Denzin et al., 2006).

Consequently, this research was thus inherently exploratory and interpretive in nature as it aimed to find differences in internationalization strategies when operating in different institutional environments (Nije & Asimiran, 2014). In other words, no theory was tested or validated, but, rather, the cases are used to find a deeper meaning into the relationship between institutional environment and internationalization strategies (Leedy & Ormrod, 2005). Nevertheless, though, the Knowledge-Based Model of Internationalization is used as a framework to analyze the findings. However, this theory is not tested or validated in any way; the model merely serves as a guiding framework to add more meaning to the analysis.

Therefore, this research was inductive in nature as it aimed to “use detailed readings of raw data to derive concepts, themes, or a model through interpretations made from the raw data by an evaluator or researcher” (Thomas, 2006, p. 238). Thus, for this research, a qualitative methodological approach was used to gain a better understanding of SME internationalization strategies.

Besides, this research aimed to provide a way to close the gap in the literature by combining knowledge on SME internationalization strategies in both emerging and developed markets into one framework. Hence, it is important for this framework to be able to present the differences between SME strategies in different institutional environments.

Particularly, in this qualitative research framework, a comparative case study approach was chosen. This methodology was adopted because it is the most adequate when a phenomenon is comprehensive and complex (Rainisto, 2003). A case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context (Yin, 2003). Hence, this research strategy stimulates “in depth description of a phenomenon, anchored on real live scenarios and uses multiple data collection methods” (Nije & Asimiran, 2014). Thus, the systematic comparison of different firms lends itself to formulate and assess, to some degree, generalizations that extend across multiple cases in order to give an answer to the research question (Eisenhardt, 1989). Additionally, a comparative case study has an explicit and structured focus on comparing practical cases that themselves are used to make conclusions about phenomena in an International Business environment (Hartley, 2004).

Furthermore, in order to provide a richer understanding of the cases, the research opted for a multiple case study analysis. In other words, multiple cases of SME internationalization strategies were analysed. As described by Eisenhardt (1989), the inclusion of multiple cases increased the robustness of the findings by replicating it across cases, also known as 'analytical generalization' (Eisenhardt, 1989). For the purpose of this research, fifteen cases in total were carefully selected: one case is examined in greater detail by adding findings from interviews to the analysis. Additionally, for both the developed and emerging market, seven illustrative cases were selected (see 3.2 Case Selection, APPENDIX 2 and APPENDIX 3) to be able to generate the most relevant information.

The cases were selected based on the theoretical sampling principle, which holds that the sampling process is controlled by the emerging theory (Glaser & Strauss, 2017). To clarify, this principle suggests the that case researcher should select additional cases according to whether similar (literal replication) or different (theoretical replication) results are predicted by the emerging theory (Piekkari et al., 2009).

Practically speaking, the case study entailed the analysis of internal and external documents related to the cases, such as annual reports, news reports, other archival records and, importantly, interviews conducted with relevant spokespersons from the cases (see APPENDIX 5). In essence, all documents that presented some knowledge on the internationalization strategy of the selected firm. Hence, the following steps, in line with the work by Eisenhardt (1989), were followed (Eisenhardt, 1989)

Therefore, due to the variation in data sources, this research aims to follow the principles of triangulation (e.g., Flick, 2018; Fielding, 2012), which makes it possible to provide generalizations to theory by comparing different data sources. Previous studies (Piekkari et al., 2009; Yin, 2003) share the

view that this is a major strength of multiple case studies due to the “ability to incorporate a variety of data collection procedures” (Creswell, 2009, p. 5). Hence, the usage of multiple data sources allowed the research to converge on a single explanation (Piekkari et al., 2009).

### 3.2 Case Selection

In order to assure the pertinence of and the relevance of the information derived from the data collection, the studies firms were chosen using the following selection criteria: (1) being an SME, (2) being from either a developed or emerging institutional environment, (3) operating in the pharmaceutical industry and (4) following the internationalization phases, as described by the Knowledge-Based Model of Internationalization (Mejiri & Umemoto, 2010).

First, as SMEs are defined and researched differently across the world, this research has chosen to pick SMEs that are present in the European Union. The reason being that it promotes more similarity between the cases, as the criteria (e.g., number of employees, annual turnover) are set in the same institutional context, and are thus similar. This, in turn, promotes a more adequate possibility to analyze the cases and increases validity of the results. In turn, the official definition of the European Commission is used: “employing less than 250 persons. They should also have an annual turnover of up to EUR 50 million, or a balance sheet total of no more than EUR 43 million” (European Commission, 2012).

Second, Sweden was picked to represent SMEs from an developed market and SMEs from the Czech Republic are chosen to represent the emerging market. Sweden is often described by its widespread knowledge and emphasis on innovation-related activities, which makes it a fruitful environment for SMEs in the pharmaceutical industry (Wikhamm et al., 2016). As a result, Sweden’s 4.8 billion dollar pharmaceutical market characterized by its openness and innovation-mindedness, makes it a “real titan of the life sciences” (Haynes, 2020; Martin et al., 2011). Nevertheless, firms within this industry have to go international to survive due to the fact that the Swedish market is too easily saturated (Malmström & Hed, 2010).

Regarding the emerging market firms, relatively recently recognized as an emerging country, the Czech Republic is becoming an increasingly attractive industry in Eastern Europe due to flexible business regulations and almost informal manner of doing business (Makhija, 2004; Hájek & Horvath, 2016; MSCI, 2023). In particular, the Czech firms heavily emphasize on R&D activities to compete with Western counterparts (Lengyel & Cadil, 2009), which makes it an excellent environment for



pharmaceutical firms. As a result, the Czech pharmaceutical industry ranks among branches with the highest deficit in foreign trade in Eastern Europe (PP Agency, 2007) and is thus provides ample opportunities for small firms to, relatively quickly, expand abroad (PP Agency, 2009).

Third, regarding the industry, SMEs in the pharmaceutical industry are a relevant unit of analysis for the scope of this research as this industry is a breeding ground for innovative, rapidly internationalizing firms that need to adopt agile strategies to cope with the fast-changing nature of the industry (Wickhamm et al., 2016; Huang et al., 2015).

Fourth, the Knowledge-Based Model of Internationalization by Mejiri and Umemoto (2010) describes the SME internationalization process along the following phases: (1) pre-internationalizing, (2) novice internationalizing and (3) experienced internationalizing (Mejiri & Umemoto, 2010). This study describes indicators (i.e., acquisition and utilisation of the types of knowledge) to specify in which internationalization phase each case is situated. Hence, the cases were selected to be indicative of each phase of the internationalization process. Therefore, the case selection for this criterion is based on a combination of theoretical considerations (as outlined by Mejiri & Umemoto, 2010) and the judgement of the case researcher.

### **3.3 Data Sources and Analysis**

For the data collection multiple sources were used. First, secondary data (website of the firm, annual reports, company documents, news articles, magazine articles) were collected in order to collect a sufficient amount of data on the cases, thus allowing a triangulation with the totality of the information obtained in this research (see APPENDIX 3 and APPENDIX 5). The data sources were collected on the basis that it provides some information on the internationalization process and strategies of the selected firm. Consequently, each cases was analyzed using between 4 and 9 individual data sources.

However, for a deeper understanding of the internationalization strategies of SMEs, a semi-structured interview was used (for Case #1, see APPENDIX 8). The interview was structured semi-formally: an interview script was created with open questions but new pertinent questions appeared throughout the conversation (see APPENDIX 4). The interview was conducted in an online environment.

The data analysis was made in two stages, following the analysis procedure as described by Eisenhardt (1989): first, each case was analyzed separately using an open coding procedure that allowed for a 'constant comparative method' of analysis (Glaser, 2016), second, a comparison was made between the cases (see Chapter 4, APPENDIX 6 and APPENDIX 7).

### **3.4 Research Ethics**

This research is built to comply with the research ethics principles of the corresponding university, as well as other academic principles. Hence, the research will be conducted in an ethical way that serves its purpose of adding knowledge to the stream of literature on SME internationalization strategies. In particular, this research complies with the APA Ethics Code as defined by Smith (2003) and the 'Netherlands Code of Conduct of Research Integrity', developed by Algra et al. (2018).

## 4) Findings

### 4.1 Developed Market Strategies

For starters, looking at APPENDIX 6, it is interesting to note that all cases across all three phases in the developed market employed the strategic partnership method as an internationalization strategy (see APPENDIX 6). However, looking at the data, the forms of strategic partnerships widely differs across the cases. To illustrate, case #1 explicitly mentions the usage of strategic partnerships with firms all over the world to mitigate the effects of limited resources and expertise in the foreign market environment (see APPENDIX 6; Case #1). Other cases, however, have a different reasoning behind their strategic partnerships: “create a creative hotbed for identifying new development platforms in the same area, and with its drug development expertise, the (partner’s) team brings valuable insights and expertise to projects” (Abliva, 2022; Abliva, 2023) (see APPENDIX 6; Case #5). Interestingly, other forms of strategic partnerships were used by cases #3 and #5: namely, the use of some sort of “Hybrid Sales Model” ((Acarix, 2023; IPO Hub, 2022; Biovica, 2023; Biovica, 2021), which promotes the use of foreign subsidiary (i.e. acquisition strategy) in combination with local expertise through strategic partnerships (see APPENDIX 6; Cases #1 and #5).

Second, only half of the developed market cases (four out of eight) used the internationalization strategies based on acquisition (see APPENDIX 6; Cases #2, #3, #5 and #7). To elaborate, no firms that were in the first phase of the internationalization process, i.e., Pre-Internationalizing, employed this strategy. Acquisitions were solemnly used for firms in the Novice Internationalizing and Experienced Internationalizing phases. Nevertheless, though, the acquisitions patterns of the cases show similar rationales: opening factories in Asia (in Malaysia for case #2, Hong Kong for case #5 and China for case #7) and acquiring subsidiaries in the United States (for instance, case #5 opened its overseas headquarters in Boston (Abliva, 2023; Abliva, n.d.; Moran, 2022)).

Third, despite all cases agreeing on some form of strategic partnership, only one case, number 7, used exporting as an internationalization strategy (see APPENDIX 6; Case #7). This firm is in the Experienced Internationalizing phase of its internationalization phase, which may suggest that only relatively more established firms are able to establish exporting contracts in international markets. However, the data shows that other cases in this phase of the internationalization process do not possess any sort of exporting strategies when it comes to internationalization (see APPENDIX 6; Cases #1 and #3). Consequently, case #7 is the only firm in this dataset that employs the exporting strategy, it is also the only firm that utilizes all three types, as described by the literature, of internationalization

strategies. To elaborate on this case, the firm is indeed creative in its internationalization strategies: exporting agreements in Colombia (Double Bond Pharmaceutical, n.d.-b), strategic partnerships all over the European Union (Double Bond Pharmaceutical, n.d.-b) and acquiring subsidiaries in Sweden (through a reverse acquisition) and China (Double Bond Pharmaceutical, n.d.-b; Finwire, 2023).

Fourth, when examining the data from the perspective of the internationalization phases as described by the internationalization process of Mejiri and Umemoto (2010), it is found that the cases in the Pre-Internationalizing phase (i.e., cases #4 and #8) only use the strategic partnership strategy for internationalization (see APPENDIX 6; Cases #4 and #8). As the strategy of partnerships is employed across all cases in the dataset, one may be able to conclude that the closing of strategic partnerships is one of the first strategies employed by SMEs when internationalizing (thus, being in the Pre-Internationalizing phase). This notion is supported by the data from the interview from case #1: “when starting, try to get the best people doing the things, try to find the best collaboration partners, try to find the most optimal way of collaborating, and make sure you have the expertise or at least access to ‘expertise consultants’” (see APPENDIX 8).

Besides, the firms in the Experienced Internationalizing phase point towards distinct strategies as case #1 solemnly engages in partnerships, while case #3 uses partnerships and acquisitions as internationalization strategies (see APPENDIX 6; Case #1 and #3). Additionally, as discussed in the point above, case #7 employs all three types of internationalization strategies.

Fifth, examining the types of knowledge as described by the Knowledge-Based Model. The data shows that firms in the Pre-Internationalizing phase (i.e., case #4 and #8) only use the market and network knowledge (see APPENDIX 6; Cases #4 and #8). This is in line with notion that in the early phases of the internationalization process, SMEs should acquire fundamental knowledge to compete in a foreign environment, which is often manifested in market and network knowledge. The Knowledge-Based Model supports this fact as the model describes the acquisition of market, network and entrepreneurial knowledge in the Pre-Internationalizing phase (Mejiri & Umemoto, 2010; See APPENDIX 1).

In addition, the Knowledge-Based Model also posits that in the Novice Internationalization phase, market knowledge is classified as ‘high-intensity utilization’ (Mejiri & Umemoto, 2010; APPENDIX 1). Nevertheless, though, the dataset does not entirely support this point; from the three cases in the Novice Internationalizing phase (i.e., cases #2, #5 and #6), the data shows that only case #2 uses market knowledge in its internationalization process (see APPENDIX 6; Cases #2, #5 and #6). Yet, though, the data on cases in the Novice Internationalizing phase is in accordance with the Knowledge-

Based Model on the fact that SMEs in this phase use all four types of knowledge (see APPENDIX 1 and APPENDIX 7)

Lastly, the Knowledge-Based Model argues that in the Experienced Internationalizing phase, network, cultural and entrepreneurial knowledge is highly intensively utilized, while market knowledge is classified as 'low-intensity utilization' (Mejiri & Umemoto, 2010; APPENDIX 1). The usage of cultural knowledge is highlighted: "of course you have to have an understanding of the other people and specifically if you are operating in different cultures" (see APPENDIX 8). This is somewhat in agreement with what the dataset shows for cases #1, #3 and #7 (see APPENDIX 6; Cases #1, #3 and #7). While across three cases, all four types of knowledge is utilized, only one of the three cases actually mentioned all four types of knowledge: case #3 is limited to market and cultural knowledge, while case #7 only uses network knowledge (see APPENDIX 6; Cases #1, #3 and #7).

## 4.2 Emerging Market Strategies

First, when looking at the data on the emerging market firms, one trend is relatively consistent across all firms: most cases have more intensive modes of entry (e.g., partnerships and acquisitions) in their own region (i.e., Central and Eastern Europe (CEE)), while having exporting agreements in other parts of the world (see APPENDIX 2). To illustrate this fact, case #10 illustrates that it sees its own region as its main "strategic playground" and thus has subsidiaries in nine countries in the CEE region (WALMARK, 2020; PP Agency, 2010). On the other hand, the firm has "exporting contracts in over forty markets globally ranging from the Middle East to the CIS countries" (Banila, 2019; PP Agency, 2008). Additionally, case #11 supports this notion: the firm has partnerships in Europe (Erba Lachema, n.d.; Erba Lachame, 2009), but is sought partnerships with Croatian and American partners to "benefit from the numerous opportunities and advantages that stem from being part of a leading global generics companies" (PP Agency, 2007).

Second, the dataset shows that the internationalization strategy of partnerships is embraced by five out of the seven emerging market firms (see APPENDIX 6; Cases #9, #10, #11, #14, #15). However, intriguingly, the strategic partnership strategy is used across cases from all three internationalization phases (see APPENDIX 7). Though, it should be noted that the nature of these partnerships varies greatly across the cases. For instance, case #9 has a long-standing partnership agreement with an American firm based on the following principle: "to elevate the sustainable usage of products" (PP Agency, 2008; MEGA a.s., 2022). In contrast, case #11 has built a partnership with European and

American firms based on the effective usage of distribution channels. As a result, this firm has managed to launch several products in international markets through direct sales via the partnership agreements (PP Agency, 2007; Silarova, 2007). Additionally, case #14 is the only case in this dataset that employs partnerships as its sole internationalization strategy (see APPENDIX 6; Case #14).

Third, regarding the internationalization strategy of doing acquisitions, only two out of seven cases in the dataset utilize this strategy (see APPENDIX 6; Cases #11 and #12). As suggested by the sales model of case #11, this firm acquired subsidiaries abroad to enhance and broaden its distribution channels (Chem Europe, n.d.; Erba Lachema, 2009). These acquisitions were, however, mainly situated outside of its own CEE region. On the other hand, however, case #12 shows a different pattern when it comes to acquisitions: “(the) growth strategy has been to make acquisitions to supplement organic expansion” (PP Agency, 2008). To clarify, the firm extended its operations to Poland, Russia, the Ukraine, Hungary, Bulgaria, and the Baltic countries and as a result it is now “one of the largest pharmaceutical companies in Central and East Europe” (PP Agency, 2007; Gallen & Wallace, 2023). Hence, in contrast to case #11, case #12 has a more local focus when it comes to acquisitions as its internationalization strategy. In addition, case #12 is the only case in this dataset that employs partnerships as its sole internationalization strategy (see APPENDIX 6; Case #12).

Besides, interesting to note is the fact that the acquisition strategy is only once paired with partnerships across the seven emerging market cases (see APPENDIX 6; Case #11). As suggested above, the internationalization strategy by case #11 is characterized by a dual model of both sales through subsidiaries in foreign countries and indirect trade to customers through strategic partnerships with international partners (PP Agency, 2008; PP Agency, 2007).

Third, the data shows that four out of the seven emerging market cases have some sort of exporting strategy in place as a part of its internationalization process (see APPENDIX 6; Cases #9, #10, #13 and #14). The data shows even an extreme case when it comes to the reliance on exporting as an internationalization strategy: exporting accounts for more than 90% of the company turnover of case #15 (PP Agency, 2007). This firm has over 35 trade contracts all across the globe (Mullin, 2020). Interestingly, case #13 follows a different theme when it comes to its exporting strategies. This firm has negotiated exporting deals in which it produces pharmaceutical products for large retail groups across Eastern Europe and is aimed at a “flexible adaptation to the international market demand” (Chemotex, n.d.; Chemotex Kosmetika, n.d.). Similarly, case #9 also has a number of exporting deals, but this strategy is also limited to its own local region of the CEE (PP Agency, 2008; MEGA a.s., 2022).

Additionally, another point that stands out when looking at the exporting type of internationalization strategies, is the fact that case #13 only uses exporting as part of its internationalization strategies (see APPENDIX 6; Case #13). Therefore, as a consequence, this is the only case among the emerging market cases in which the data only mentions one internationalization strategy. On the other hand, similarly, it can be noted that no firm utilizes all three types of internationalization strategies. Hence, six out of seven mention two types of internationalization, while case #13 is the only firm that uses only one strategy (i.e., exporting) (see APPENDIX 7).

Besides, 75% of the exporting firms (i.e., cases #9, #10 and #14) in this dataset also utilize strategic partnerships as an internationalization strategy (see APPENDIX 6; Cases #9, #10 and #14). Hence, for some reason this combination of strategies is popular among firms in the Novice Internationalizing and Experienced Internationalizing firms. When examining case #14, the rationale behind the combination becomes clearer: “(case #14) does not operate own manufacturing facilities. All products are either licensed and procured from manufacturers, in many cases based on long term partnerships (...) we are constantly looking for new partners globally, with the aim to build partnerships with exclusive distribution partners” (Heaton, n.d.-b; Heaton, n.d.-c). Similar, case #10 argues that the combination exporting and strategic partnerships is “essential for sustainable growth of the company in the global economy” (PP Agency, 2010). Hence, both firms explain the utilization of the combined strategy of exporting and partnerships on the basis of growth in (new) international markets.

Fourth, when examining the data from the perspective of the internationalization phases as described by the internationalization process of Mejiri and Umemoto (2010), the data shows that for the three phases, all three types of internationalization strategies are used by the firms (see APPENDIX 7). Of interest is, however, the fact that the cases in the Novice Internationalizing phase (i.e., cases #9, #13 and #14) only utilize the partnerships and exporting strategies as a part of its internationalization processes (see APPENDIX 6; Cases #9, #13 and #14). Also, across the three cases in the Experienced Internationalizing phase, two cases (cases #10 and #15) follow a similar pattern: partnerships and exporting, while case #12 utilizes acquisitions as its main internationalization strategy (see APPENDIX 6; Cases #10, #12 and #15). When analyzing case #12, the firm argues that it uses acquisitions to “to deal with the problems associated with being small in nature and resources” (Lemoui, 2020; PP Agency, 2007). The other cases in the Experienced Internationalizing phase do not describe such problems (i.e., LOF and LOS, see 2.2) as being determinants of its internationalization strategies.

Fifth, analyzing the types of knowledge as described in the Knowledge-Based Model of Internationalization by Mejiri and Umemoto (2010), network knowledge stands out as it used in the

majority of the cases (four out of seven) (see APPENDIX 6; Cases #9, #10, #13 and #15). Contrastingly, cultural knowledge is utilized in only one case (i.e., case #15) (see APPENDIX 6; Case #15). This firm describes its difficulty to enter the Chinese market as this institutional environment poses challenges to newcomers: “we are looking for a reliable partner to help with intellectual property issues and the registration process for marketing our products” (Mullin, 2020). Consequently, this type of knowledge is paired with strategic partnership as internationalization strategy (see APPENDIX 6; Case #15).

Furthermore, the data shows that the lone case in the Pre-Internationalizing phase (i.e., case #11), utilizes both market and entrepreneurial knowledge (see APPENDIX 6; Case #11). The model by Mejiri and Umemoto (2010), shows a similar theme: the authors describe that the Pre-Internationalizing phase is characterized by acquisition of market, network and entrepreneurial types of knowledge (Mejiri & Umemoto, 2010; APPENDIX 1).

The data on the Novice Internationalizing phase, however, shows a different theme than described in the Knowledge-Based Model of Internationalization. This model describes that, in the Novice Internationalizing phase, all four types of knowledge are acquired, with market knowledge classified as ‘high-intensity utilization’. Also, the model posits a ‘low-intensity utilization’ of network, cultural and entrepreneurial knowledge. In the dataset, however, only one (i.e., case #14) the three cases in this internationalization phase (i.e., cases #9, #13 and #14) utilizes market knowledge (see APPENDIX 6; Cases #9, #13 and #14). To elaborate, case #14 describes market knowledge, but is clearly more reliant on network knowledge: “(case #14) aims to effectively manage the company’s suppliers and partners through a mechanism called ‘Quality Management System’” (Heaton, n.d.-c).

Nevertheless, though, the data on the cases in the Experienced Internationalizing phase corresponds with the Knowledge-Based Model of Internationalization. The model posits that in the final phase of the internationalization process, all four types of knowledges are being utilized by SMEs (Mejiri & Umemoto, 2010). The data suggests some the same. Across the three cases in the Experienced Internationalizing phase (i.e., cases #10, #12 and #15), the market, network and cultural knowledge types are utilized by the firms (see APPENDIX 6; cases #10, #12 and #15). Entrepreneurial knowledge is not mentioned in the data on the cases, though. Additionally, in this phase, there is no firm that utilizes all types of knowledge at the same time, as the model describes. In fact, two of the three cases utilizes only one type of knowledge: case #10 uses network knowledge and case #12 only market knowledge (see APPENDIX 6; Cases #10 and #12).



### 4.3 Cross-Market Analysis

For starters, when comparing the data from the developed market and emerging market strategies, a few themes stand out. First, APPENDIX 6 shows that all developed market firms utilized some kind of partnership as part of their internationalization strategies (see APPENDIX 6). On the other hand, however, the emerging market cases mentioned a variety of different strategies. Though, it should be mentioned that the partnership strategies is also popularly utilized among emerging market cases (five out of seven, see APPENDIX 6). Hence, across the dataset, for both developed and emerging market strategies, strategic partnerships were utilized independent of internationalization phase by the firms described in the cases.

Besides, in the emerging market cases, the strategic partnerships were often (four out of eight) combined with some sort of internationalization strategy based on acquisitions (see APPENDIX 6; Cases #2, #3, #5 and #7). Yet, data on the developed market strategies show that partnerships were generally paired with some sort of exporting deal (see APPENDIX 6; Cases #9, #10 and #15).

Second, the dataset in APPENDIX 6 shows that developed market firms using the acquisition strategy, combine acquisitions with strategic partnerships (see APPENDIX 6; Cases #2, #3, #5 and #7). The data on the emerging market cases describe a somewhat different pattern: of the cases (i.e., cases #11 and #12) mentioning acquisitions as internationalization strategies, only case #11 combines this strategy with partnerships as an internationalization strategy (see APPENDIX 6; Cases #11 and #12).

Third, looking at the data from the developed market strategies, the table shows that only one developed market cases used some sort of exporting type of internationalization strategy (see APPENDIX 6). In contrast, in the emerging market cases, the majority of the firms mentioned some kind of exporting strategy as part of its internationalization process (see APPENDIX 7).

Fourth, in the entire dataset, only one case uses all three types of internationalization strategy: case #7 (see APPENDIX 6; Case #7). Contrarily, in the developed market, cases that only utilize one type of internationalization strategy (i.e., cases #1, #6 and #8), utilized the partnerships as principal internationalization strategy (see APPENDIX 6; Cases #1, #6 and #8). The emerging market cases show a different view. Particularly, two cases (i.e., cases #12 and #13) report using only one type of internationalization strategy. However, their strategies differs from the developed market cases: case #12 uses exporting and case #13 uses acquisitions (see APPENDIX 6; Cases #12 and #13).

Fifth, regarding the Internationalization Phases as described in the internationalization process by Mejriri and Umemoto (2010), the cases in the Pre-Internationalizing phase in the developed market

(i.e., cases #4 and #8) solemnly mention the use of partnerships as internationalization strategies (see APPENDIX 6; Cases #4 and #8). In contrast, the emerging market environment data describes one case (i.e., #11) in the Pre-Internationalizing phase. This case, though, also mentions the use of partnerships, but adds acquisitions to the internationalization process of that firm (APPENDIX 6; Case #11). To elaborate, the developed market cases describe a different rationale for engaging in partnerships than the emerging market case: case #4 and #8 describe the use of a domestic partner (Abera Bio, n.d.-a; Abera Bioscience, 2023; HAMLET, 2022), while case #11 emphasizes a partnership with an American firm (Erba-Lachema, 2009).

Additionally, the cases in the Novice Internationalizing phase in the developed and emerging market describe similar strategies, to a degree. The cases (i.e., cases #2, #5 and #6) in the developed market use strategic partnerships and acquisitions as internationalization strategies, while the cases (i.e., cases #9, #13 and #14) describe all three types of internationalization strategies, with acquisitions mentioned only once (see APPENDIX 6; Cases #2, #5, #6, #9, #13 and #14). Importantly, though, the developed market cases in the Novice Internationalizing phase do not utilize the exporting strategy, while two out of the three emerging market cases in this phase mention exporting as an internationalization strategy.

Moreover, the data on the internationalization strategies in the Experienced Internationalizing phase does reflect the same trends between the developed and emerging market cases: the cases in both market environments mention all three types of internationalization strategies being used in their respective internationalization processes (see APPENDIX 6; Cases #1, #3, #7, #10, #12 and #15).

Sixth, regarding the types of knowledge acquired and utilized in the internationalization process according to the Knowledge-Based Model of Internationalization (Mejiri & Umemoto, 2010), the dataset only shows one case that utilizes all four types of knowledge: case #1 (see APPENDIX 6; Case #1).

In addition, the data shows that, within the developed market cases, network knowledge is utilized the most by the cases (six out of eight) (see APPENDIX 7). The cases from the emerging market describe similar a trend: five out of the seven cases mention the utilization of network knowledge in their internationalization processes.

Besides, the dataset shows that cultural knowledge is utilized relatively more in a developed market context than in an emerging market environment: in the developed market, cases #1, #2, #3 and #6 mention cultural knowledge, while, in the emerging market, only case #15 utilizes cultural

knowledge (see APPENDIX 6; Cases #1, #2, #3, #6 and #15). This notion is also supported by the Knowledge-Based Model of Internationalization, which posits that cultural knowledge starts being utilized from the Novice Internationalizing phase onwards (Mejiri & Umemoto, 2010). The data corresponds with the authors' argument as all five cases in the dataset mentioning cultural knowledge are in at least the Novice Internationalizing phase (two being in the Novice Internationalizing phase, i.e., cases #2 and #6 and three being in the Experienced Internationalizing phase, i.e., case #1, #3 and #15).

Lastly, the data on the emerging market cases suggests that entrepreneurial knowledge is utilized in the Pre-Internationalizing phase (i.e., case #11). The developed market cases differ on this fact: only cases in the Novice Internationalizing or Experienced Internationalizing phases report entrepreneurial knowledge being used in the internationalization process (see APPENDIX 6; Cases #1, #2, #5, #11 and #14). Nonetheless, the Knowledge-Based Model of Internationalization does, however, suggest that entrepreneurial knowledge can be acquired in the Pre-Internationalizing phase, despite what the findings of the developed market strategies suggest.

## 5) Discussion

The objective of this study was to approach the internationalization process of SMEs. Specifically, the research aimed to evaluate whether the internationalization strategies of SMEs were different depending on the institutional environment of the firm. Therefore, this study adopted a comparative multiple case study design to analyze cases from both developed and emerging markets in order to find differences in internationalization strategies. Besides, the Knowledge-Based Model of Internationalization, which describes the internationalization process of SMEs along three different phases through the acquisition and utilization of four types of knowledge, was used as a framework to examine the cases in greater detail.

The literature review and the case study of Swedish and Czech pharmaceutical SMEs have shown some common features of the internationalization strategies of SMEs in developed and emerging market environments. First, the literature suggests the following internationalization strategies: (1) partnerships, (2) exporting or (3) acquisitions (Lu & Beamish, 2001; Miesenbock, 1988; Bose, 2016; Lu & Beamish, 2006; Oviatt & McDougall, 2005). The findings show that SMEs from a developed market environment prefer using strategic partnerships as an internationalization strategy, while SMEs from the emerging market use all three types of strategies individually or in combination.

However, when looking at combinations in internationalization strategies, the developed market firms almost exclusively pair partnerships with acquisitions, while the emerging market cases combine partnerships and exporting as internationalization strategy. This finding is somewhat supported by previous studies on the institutional challenges of emerging markets: the studies by Doh et al. (2017) and Khanna and Palepu (2010) suggest that emerging market SMEs experience underdevelopment of institutions which makes acquisitions more challenging than less resource-intensive modes of entry, such as exporting (Doh et al., 2017; Khanna & Palepu, 2010). Though, in a similar way, strategic partnerships would also be more challenging for emerging market firms (Doh et al., 2017). Yet, the findings show that the emerging market cases regularly engage in partnership agreements as internationalization strategy. This notion, however, may be explained by the work of Ciravegna et al. (2011), which explain the importance of engaging in a network to mitigate the effects of institutional voids (Ciravegna et al., 2011).

Second, traditionally, the focus in SME internationalization studies was almost exclusively focused on exporting strategies (Miesenbock, 1988). Though, more recently, entrepreneurship research have extended the scope of these studies to include and be more conditioned towards more

intensive modes of entry, such as acquisitions and strategic partnerships (Lu & Beamish, 2006; Bose, 2016; Sui & Baum, 2014). This shift in paradigm is also illustrated in the findings of this research. Namely, across the fifteen cases, only five cases mention the usage of exporting in its internationalization process. Interestingly, though, developed market SMEs only reported the use of exporting once, while the majority of emerging market cases still uses exporting in their internationalization processes. Hence, the findings suggest that this shift in paradigm may be exclusive for developed market SMEs.

Third, previous studies have suggested that, as the internationalization of a firm progresses, SMEs will employ a larger, diverse portfolio of internationalization strategies (Lu & Beamish, 2001; Klossek et al., 2012; Rujrok & Wagner, 2003). Nevertheless, the findings show that six of the fifteen cases employ only one strategy. Curiously, in the emerging market environment, the cases only using one strategy were in the Novice Internationalizing and Experienced Internationalizing phases of the internationalization process. This is in disagreement with the literature and in particular the Knowledge-Based Model: these studies suggest that a more diverse portfolio of internationalization strategies when SMEs become more experienced in the internationalization process (Lu & Beamish, 2001; Mejiri & Umemoto, 2010).

Fourth, analyzing the internationalization process through the lens of the Knowledge-Based Model, the findings suggest that the developed market SMEs in the Pre-Internationalizing phase mostly engage in local partnerships, i.e., Swedish firms targeting Swedish partners. On the other hand, however, the emerging market cases in the Pre-Internationalizing phase primarily seek overseas partnerships partners. Lu and Beamish (2006) posit that the 'network resources' are mainly advantageous to SME (Lu & Beamish, 2006). The difference in scope for local or overseas partnerships can be explained by literature: some studies, a minority in the SME literature, though, suggest that SMEs operating in emerging markets may develop an advantage as a result of having to navigate through institutional voids, which makes the firms more agile, and, therefore more adequately able to find complex overseas strategic partnerships (Kovid et al., 2021; Fornes & Cardoza, 2019).

Besides, the findings show a discrepancy between developed and emerging market SMEs in the Novice Internationalizing phase. To elaborate, the developed market cases in this phase do not engage in exporting strategies, while the majority (two out of three) of the emerging market SMEs in this phase do utilize some sort of exporting strategy. In addition, the findings, in line with the Knowledge-Based Model, suggest that firms in the Experienced Internationalizing phase engage in all types of internationalization strategies. Oviatt and McDougall (2005) support this fact as their work highlights

an increasingly active and diverse role in the international market environment further on in a SME's internationalization process (Oviatt & McDougall, 2005).

Fifth, relating the types of knowledge of the internationalization process, as identified by Mejiri and Umemoto (2010), to the literature on LOF and LOS, the findings show that network knowledge is utilized by almost all cases in the dataset. This is in accordance with studies suggesting that it is imperative for SMEs to seek for ways to deal with social costs, unfamiliarity with local business practices, weak relational capabilities, and discriminatory risks faced by foreign firms (Azman et al., 2020; Johanson & Vahlne, 2009; Hollender et al., 2017).

Additionally, scholars have pointed towards the importance of understanding the cultural context of the host country (Gorostidi-Martinez & Zhao, 2017; Sethi & Judge, 2009). Nevertheless, as posited by Klossek et al. (2012), SMEs often fail to exhibit some degree of cultural knowledge (Klossek et al., 2012). The findings support this: only five out of fifteen cases mention cultural knowledge in their respective internationalization processes. In particular, among emerging market SMEs, only one case utilizes cultural knowledge. Kazlauskaitė et al. (2015) posit that this difference is due to the emerging economies being burdened by a lack of international ties (Kazlauskaitė et al., 2015), which is in stark contrast to the scholars positing the "asset of smallness" (Choi et al., 2022; Son et al., 2019).

Thus, based on these findings, the following research question can be answered: 'how do the internationalization strategies differ between developed and emerging SMEs in the pharmaceutical industry to overcome LOF and LOS?'. The answer to this question is threefold. First, the internationalization strategies between developed and emerging market SMEs are similar in the sense that these firms prefer strategic partnerships in the internationalization process. However, the internationalization strategies differ when it comes to the other types of strategies: developed market SMEs are more likely to employ internationalization strategies based on acquisitions (individually, or in combination with partnerships), while emerging market SMEs show a preference to exporting.

Second, the internationalization strategies for developed and emerging market SMEs vary when looking at the phases in the internationalization process. Namely, the Pre-Internationalizing phase for the developed market SMEs is mainly determined by seeking local, domestic partnerships, while emerging market firms seek overseas partnerships. Nonetheless, firms from both market environments are reliant on partnerships in this phase. Additionally, for the Novice Internationalizing phase, the emerging market SMEs primarily seek exporting strategies, while developed market cases employ other internationalization strategies. Though, Experienced Internationalizing cases in both developed and emerging markets utilized all types of internationalization strategies.

Third, when looking at the types of knowledge employed by developed and emerging market firms, no substantial differences can be found. In fact, in both market environments, SMEs specifically used the network knowledge to overcome difficulties when internationalizing. Though, developed market SMEs utilized relatively more cultural knowledge than emerging market firms, despite emerging market SMEs needing it more as a result of institutional challenges.

Therefore, to conclude, the research argues that the internationalization strategies of developed and emerging market SMEs differ to some degree. Both agree on the usage of partnerships, but developed market SMEs prefer to combine this strategy with acquisitions, while emerging market utilized exporting relatively more. Additionally, the Pre-Internationalizing and Novice Internationalizing phases also showed varying internationalization strategies between developed and emerging market firms. Lastly, to overcome, LOF and LOS, both types of SMEs utilize network knowledge. However, the developed market SMEs are more reliant on cultural knowledge.

Furthermore, this research contributes to the stream of knowledge on SME internationalization strategies and the International Business literature in general in three ways. First, current studies (Roque et al., 2019; Gaur et al., 2019; Lui & Vrontis, 2017) lacks a systematic understanding of the differences between firms from distinct home country environments. Hence, the differences between developed and emerging markets in the internationalization processes of SMEs remains an underdeveloped research field. Therefore, this research, through the use of a multiple case study analysis, made the comparison between firms from developed economies and emerging markets by comparing institutional differences in internationalization strategies of these firms.

Second, while recent studies have identified different internationalization strategies for developed economies and emerging market SMEs (Chen, 2006; Guar et al., 2019; Sethi & Judge, 2009), these studies were done separately: either solemnly focused on strategies from developed market strategies or focused on strategies from emerging markets. Consequently, studies on SME internationalization remain attached to loose theoretical silos. Hence, this research contributes to the body of knowledge on internationalization strategies by synthesizing the distinct strategies of developed and emerging market firms into a more holistic framework using the Knowledge-Based Model of Internationalization. As a result, this research also showed the ability to combine, as an instrument of analysis, emergent theories in the literature with a rather concrete framework, which adds rigour and validity to the current streams of knowledge on SME internationalization strategies.

Third, although researchers have been investigating international entrepreneurship for decades, knowledge of SME internationalization strategies is still very limited (Liñán et al., 2020). To

clarify, most studies are persistent in researching SMEs from a western perspective (Gaur et al., 2019; Chen, 2006; Sethi & Judge, 2009). While, prior research on emerging market SMEs is growing exponentially (Genc et al., 2019; Deng & Zhang, 2018; Zhu et al., 2020), these studies often emphasize widely researched regions, such as China, Brazil and Russia (Latukha et al., 2011). As a result, the scope of the previous studies on SME internationalization strategies is still rather restricted. Therefore, the research contributes to the stream of literature on firm internationalization strategies by prioritizing SMEs (in the pharmaceutical industry) as the main unit of analysis. In particular, this study is unique in its scope: the research put an emphasis on the differences in internationalization strategies in the European context by incorporating Swedish (i.e., developed market) and Czech (i.e., emerging market) cases in its methodological design.

This topic deserves extensive attention, as the international survival of SMEs is significantly affected by an increased knowledge on how to manage and learn from international environments (Elango, 2008). Additionally, it is often thought that firms from emerging markets are disadvantaged compared to firms from developed economies: the average asset base of firms from the developing world is about 15% of their counterparts from the developed world (World Investment Report, 2008). Therefore, this research on the differences between the internationalization strategies of developed and emerging market SMEs, provides a meaningful framework for SMEs from both types of market environments to use when internationalizing (Barnard, 2010).

Besides, as the current global market environment is constantly changing (Chen, 2006), it is imperative for managers of firms, and in particular SMEs, to recognize the challenges and complexities that emerge when operating in international business environments (Gorostidi-Martinez & Zhao, 2017; Wan & Hoskisson, 2003; Fornes & Cardoza, 2019). Hence, this research adopted and expanded the Knowledge-Based Model of Internationalization to exemplify how this framework can be used to recognize and adopt internationalization strategies. In addition, the Knowledge-Based Model of Internationalization has been used by this research to analyze the internationalization process of SMEs, which helps practitioners, particularly management teams of SMEs, to perform better in a challenging market environment.

More specifically, SMEs are often limited in experience in the international business environment (Klossek et al., 2012; Lu & Beamish, 2001). Hence, this research provides a framework that is helpful to explain the internationalization process to SMEs, especially those that are in the Pre-Internationalization phase of the internationalization process and are, thus, commencing their



internationalization strategies. Those types of SMEs, in particular, can benefit from the findings of this research.

The research, however, has some limitations, which open up several avenues for further investigations. First, as this study used a multiple case study design, it made sure to add more validity to the current stream of knowledge on internationalization strategies by including fifteen individual cases. However, the analysis of these cases is somewhat limited in richness as only one interview was conducted. Therefore, this research lacks direct interaction with the case companies as the data is limited to the secondary sources. Hence, while the relatively number of cases (compared to similar studies) may increase the possibility to do some generalizations to theory, the empirical procedure of this study lacks some detailed, first-order knowledge on the cases.

Second, this research identified, as discussed by prominent works in the field of International Business, three main types of internationalization strategies: (1) partnerships, (2) acquisitions and (3) exporting. However, studies describing SME internationalization strategies posit several other types of internationalization strategies: mergers, reverse acquisitions, licensing agreements (Amal & Frilho, 2010; Schweizer, 2012; Masum & Fernandez, 2008). Consequently, this research is theoretically limited in a way that it excludes other, possibly, relevant types of SME internationalization strategies. Hence, while the study aimed to only examine the most relevant ones, it would be worth to expand the framework of SME internationalization strategies by including these, among other, strategies as well.

Third, the research objective was to analyze SME internationalization strategies using the Knowledge-Based Model of Internationalization as a guiding framework in the internationalization process of SMEs. However, this model is limited in the tacitness of the internationalization phases and types of knowledge. To elaborate, the study by Mejiri and Umemoto (2010) does not describe any indicators to test whether a case is indeed situated in a particular phase of the internationalization phase. Similarly, the framework lacks indicators or signals to explicitly identify each type of knowledge. The model does, however, describe the degree of acquisition and utilization of each type of knowledge. For the purpose of this research, though, the types of knowledge lacked concreteness to adequately assign and identify the types of knowledge to each case.

As a result, addressing the limitations of this research may provide ample opportunities for future research avenues. First, the Knowledge-Based Model of Internationalization could be expanded to include indicators for each theme (e.g., internationalization phases, types of knowledge). Hence, this would greatly increase the tacitness of this model and therefore the applicability to practical cases in research environments.

Second, it is relevant and meaningful for the field of knowledge on SME internationalization strategies to experiment and assess different empirical procedures. For instance, some studies have already done similar works as this research, only with more interviews. To actually contribute to future avenues in the field of International Business, scholars could expand these studies to include gradually more interviews and data sources. Besides, it may be relevant to experiment with other methodological approaches: one could see the benefits of combining surveys with interview data.

Lastly, while this research focused on the European pharmaceutical industry, it can prove to be useful to construct the same research in a new context, geographical location or industry. As a consequence, this would result in richer and more widely applicable findings that will further the stream of knowledge on SME internationalization strategies and the field of International Business in general.

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# Appendices

## APPENDIX 1

### Knowledge-Based Model of Internationalization

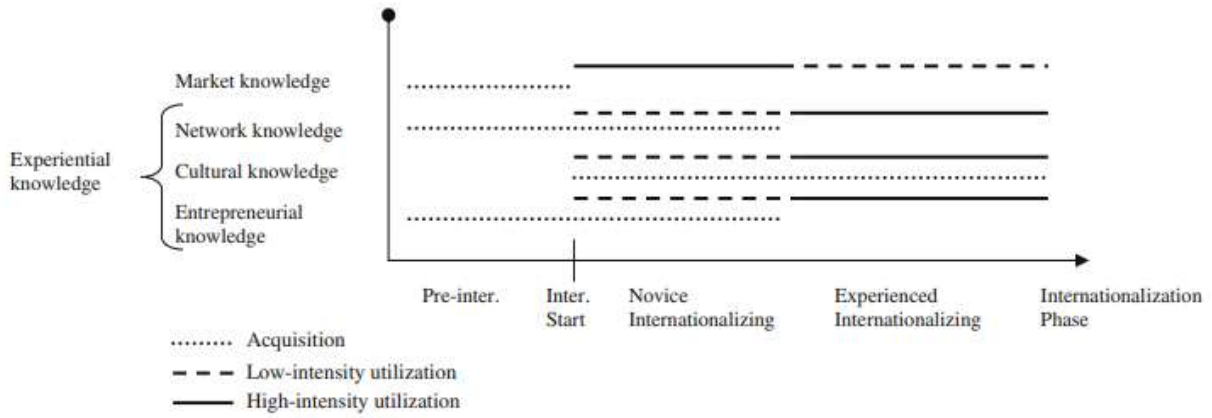


Figure 1 The knowledge-based model of internationalization as described by Mejiri & Umemoto (2010)

## APPENDIX 2

### Company Information

#### 1. 2A Pharma (Sweden, developed market)

*Founding Year:* 2005

*Headquarters:* Malmö



*Description:* 2A Pharma is a clinical stage Swedish/Danish biopharmaceuticals company focused on discovering, developing and commercialising novel, cost effective prophylactic and therapeutic vaccines based on our patented vaccine platform.

Our lead vaccine candidate, 2AP01, is a HPV (human papillomavirus) vaccine formulated without adjuvant. We believe 2AP01 will offer significant advantages over existing vaccines including broader protection against more HPV types and lower production cost.

Our vaccine technology is based on adeno-associated virus-like particles (AAVLPs), that assemble viral capsids without containing viral genomes; hence they are replicative-defective and non-pathogenic. The viral capsid has repetitive immunogenic sites that can be modified to encompass antigenic epitopes for a protein of interest, generating an immune response where both the innate and the adaptive immune system are activated. In other words, 2A Pharma exploit the efficacy of the individuals' own immune system to generate AAVLP-based vaccines that, without the addition of adjuvants, are able to develop highly effective antibodies with selected specificities and functions. The technology enables the production of highly efficient vaccines with significant competitive advantages.

*Link to website:* <https://2apharma.com/>

*Contactperson/interviewee:* John Dirk Vestergaard, COO

#### 2. Redsense Medical AB (Sweden, developed market)

*Founding Year:* 2000

*Headquarters:* Halmstad



*Description:* To improve patient safety, Redsense Medical has developed a monitoring system that can detect the very first sign of a blood leak using patented fiber optic technology. An alarm is triggered when the sensor comes into contact with blood so one can address the issue immediately and stop the blood flow.

Redsense also follows IEC Public Available Standard (PAS) 63023; if the dialysis machine does as well, these devices can connect and communicate and the blood flow will be stopped automatically when blood is detected.

Redsense is easy to use and offers both a venous fistula and central catheter solution. The system is CE marked and FDA cleared for sales in the USA, and available for all dialysis providers.

Redsense Medical is a corporate group with operations in Europe and the United States. Redsense solves one of the most serious remaining safety problems within hemodialysis – to quickly detect venous needle dislodgement and catheter leakage. The system consists of a patented fiber optic

sensor, designed for either venous needle or central venous catheter, which is connected to an alarm unit. From the very start, the development of the company's technology has been based on the demands and safety requirements of healthcare providers in the dialysis sector.

*Link to website:* <http://www.redsensemedical.com>

### **3. Acarix (Sweden, developed market)**

*Founding Year:* 2009

*Headquarters:* Malmö



*Description:* Acarix is a Swedish medical device company that innovates solutions for rapid AI-based Coronary Artery Disease (CAD) rule-out. The CE-mark approved and FDA De Novo cleared Acarix CADScor®System is for patients experiencing chest pain with suspected CAD and is designed to help reduce millions of unnecessary, invasive, costly diagnostic procedures. CADScor®System calculates a patient-specific CAD-score non-invasively in less than 10 minutes with 96% confidence. Acarix is listed on the Nasdaq First North Premier Growth Market (ticker: ACARIX).

*Link to website:* <https://www.acarix.com/>

### **4. Abera Bioscience AB (Sweden, developed market)**

*Founding Year:* 2012

*Headquarters:* Stockholm



*Description:* Abera Bioscience AB is a Swedish biotech company headquartered in Stockholm. We are dedicated to develop novel vaccines and vaccine development technologies to improve health worldwide. The Company's unique expertise in Biochemistry and Molecular Microbiology is based on many years of research and has generated a patented platform technology for the development of novel vaccines.

Abera brings Outer Membrane Vesicle (OMV) technology to the next level by decorating their surface with a palette of antigens at a high density. To this end, Abera has adapted a natural system for bacterial protein secretion into the most efficient and versatile system for surface display of antigens known today.

Abera's platforms allows the development of efficient multivalent, multi-stage vaccines for oral and nasal administration. It also enables faster and more cost-effective production. Abera's OMV-based vaccines can be manufactured within 14-30 days.

*Link to website:* <https://aberabio.com/>



## 5. Abliva AB (Sweden, developed market)



*Founding Year:* 2000

*Headquarters:* Lund

*Description:* Abliva discovers and develops medicines for the treatment of mitochondrial diseases. These rare and often very severe diseases occur when the cell's energy provider, the mitochondria, do not function properly. The company has prioritized two projects. KL1333, a powerful regulator of the essential co-enzymes NAD<sup>+</sup> and NADH, is in clinical trials. NV354, an energy replacement therapy, has completed preclinical development. Abliva, based in Lund, Sweden, is listed on Nasdaq Stockholm, Sweden (ticker: ABLI)

*Link to website:* <http://www.abliva.com/>

## 6. Biovica International AB (Sweden, developed market)



*Founding Year:* 2009

*Headquarters:* Uppsala

*Description:* Biovica develops and commercializes blood-based biomarker assays that improve monitoring of modern cancer therapies and predict patient outcome. The company's DiviTum™ assay, a test for accurately measuring cell proliferation, has successfully demonstrated its capabilities to early evaluate therapy effectiveness in several clinical trials. Biovica aims to make best-possible-treatment from day one a reality.

Biovica collaborates with world-leading cancer institutes as well as pharmaceutical companies launching next-generation therapies. The company is ISO 13485 certified for Quality Management Systems. DiviTum™ is CE-labeled and MPA-registered.

*Link to website:* <http://www.biovica.com/>

## 7. Double Bond Pharmaceutical (Sweden, developed market)



*Founding Year:* 2014

*Headquarters:* Uppsala

*Description:* Double Bond Pharmaceutical is a fast growing pharmaceutical company that develops and commercializes innovative first-in-class approaches for treatment of cancers, infections, autoimmune diseases and other life-threatening disorders.

The main aim of the company is to provide patients and the market with more efficient and safe products especially in areas where these needs are unmet.

The human population is growing and also the life-span is increasing. Many children born today can be expected to live until they are about 100 years old. By these reasons it can be expected that the need for efficient therapies for treatment of different diseases will steadily increase.

Thus, the aim of the company is to design better medicinal products for patients suffering from diseases such as cancer, inflammation, asthma or diabetes since the primary end-point is the well-being of the patient. Everything counts if it improves the health condition and quality of life for patients afflicted with life-threatening diseases and no medicine or treatment can be viewed as “luxury”. A major problem is that many of the current therapies are not optimal for the patient, implying that the therapy in itself, besides curing the patient, might also cause great suffering in the form of side-effects. Subsequently, we understand that for finding a successful therapy, many ideas about the drug development process which emerged over the past decades have to be reconsidered.

In our strategy to develop superior medicines, we are combining already known efficient approaches with our innovative first-in-class technologies to provide new therapeutic possibilities for treatment of life-threatening diseases. Consequently, we challenge old concepts and evaluate our new ideas in order to prove that the patients will benefit from our invented therapies.

*Link to website:* <http://doublebp.com/>

## **8. HAMLET Pharma (Sweden, developed market)**



*Founding Year:* 2015

*Headquarters:* Lund

*Description:* HAMLET Pharma AB is a pharmaceutical company with strong links to research, working with natural and biological substances.

The discovery of HAMLET defines a new class of cancer drugs with broad effects against cancers of different origin and a high degree of selectivity.

HAMLET is a tumoricidal protein-lipid complex, formed by two GRAS (generally regarded as safe) molecules present in human milk. The novel therapeutic entity HAMLET is formed when the human milk protein alpha-lactalbumin undergoes a conformational change and binds to oleic acid.

Advanced technologies allow us to see molecules, measure them from every angle, and understand their deepest secrets. Using such techniques, we were able to identify the structure of HAMLET and especially the domains that are responsible for the killing effect. This is how we identified the Alpha1 peptide, which forms a lipid complex and kills tumor cells. This smaller part of the HAMLET molecule can be produced synthetically, and used as a drug candidate.

Development focuses on drugs, which will be used primarily for the treatment and prevention of cancer. HAMLET kills tumor cells, and has proven safe in proof-of-concept studies in animal models. HAMLET has shown a therapeutic effect on skin papillomas in a placebo-controlled clinical trial and injection of HAMLET into the bladders of patients with bladder cancer has caused the shedding of dead cancer cells.

Phase I/II clinical trials in human patients with bladder cancer are currently underway.

*Link to website:* <http://hamletpharma.com/>

## 9. MEGA a.s. (Czech Republic, emerging market)

*Founding Year:* 1976

*Headquarters:* Prague



*Description:* MEGA researches and manufactures first-class technology and provides complex services in the the field of water treatment, material surface finishing and ecology. Together we are a group of technological companies with worldwide reach and more than 30 years of experience.

Whether you're in Power & Energy, Food, Pharma, Chemical or an Automotive subcontractor, we can make your business more effective and environmentally friendly.

*Link to website:* <https://www.mega.cz/>

## 10. WALMARK a.s. (Czech Republic, emerging market)

*Founding Year:* 1990

*Headquarters:* Prague



*Description:* Walmark will be the fastest growing CEE Consumer Healthcare company providing Consumers with the best healthcare choices delivered through culture of innovation & empowerment.

As the leading producer of food supplements we are aware of the responsibility we have towards the region we operate in. We have been actively promoting healthy lifestyles not only with the help of our products but also by providing other prerequisites of a good-quality and active life in all its phases.

We promote and we will continue to promote publicly beneficial projects with the aim to support general well-being in society. We support hundreds of organizations and their projects which all have the same two characteristics - they help the people in need and they are self-sustainable in a long-run.

*Link to website:* <https://www.walmarkgroup.stada/en>

## 11. PLIVA-Lachema a.s. (Czech Republic, emerging market)

*Founding Year:* 1951

*Headquarters:* Prague



*Description:* PLIVA-Lachema is a company with 50 years tradition in division of development, manufacture and sale of products for urine analysis, clinical chemistry and bacterial identification. Our mission is to provide high quality and easy accessible products for reliable, quick and comfort analysis enable right diagnosing and shorten the time of patient treatment. Thanks to combination of our own development as well as co-operative development with partners from east and west Europe, we are able to offer wide spectrum of progressive products focused on high reliable analysis together with easy and friendly using.

*Link to website:* <https://www.erbalachema.com/en/>

## 12. Zentiva a.s. (Czech Republic, emerging market)

*Founding Year:* 1488

*Headquarters:* Prague



*Description:* Zentiva is a producer of high-quality affordable medicines serving patients in Europe and beyond. With a dedicated team of more than 4,800 people and a network of production sites - including flagship sites in Prague, Bucharest, and Ankleshwar - Zentiva strives to be the champion of branded and generic medicines in Europe to better support people's daily healthcare needs.

At Zentiva it is our aspiration that healthcare should be a right and not a privilege. More than ever, people need better access to high-quality affordable medicines and healthcare. We work in partnership with physicians, pharmacists, wholesalers, regulators, and governments to provide the everyday solutions that we all depend on.

*Link to website:* <https://www.zentiva.com/>

## 13. CHEMOTEX Děčín a.s. (Czech Republic, emerging market)

*Founding Year:* 1993

*Headquarters:* Prague



*Description:* Chemotex Děčín a.s. is a producer of special chemicals for various industries. Our chemicals division supplies customers from: textile, automotive, engineering, transportation or building sectors. We also produce surfactants for different purposes and household chemicals + personal cosmetics under our brands or private labels.

*Link to website:* <https://www.chemotex.cz>

## 14. Heaton k.s. (Czech Republic, emerging market)

*Founding Year:* 2002

*Headquarters:* Prague



*Description:* We are a privately-owned international pharmaceutical company based in Prague, Czech Republic. Our fields of business are gynecology, urology, nephrology, diabetology, oncology and substitution treatment.

HEATON started to be active in pharmaceutical industry in 2002 and soon became a successful local pharmaceutical company. Gradually HEATON developed into an international company with business nowadays several countries of CEE, Western Europe as well as in Middle East and Asia.

HEATON is holder of over 30 registrations of prescription drugs as well as a manufacturer of medical devices and cosmetics. HEATON covers various therapeutic areas (gynecology, urology, nephrology, diabetology, oncology, substitution treatment and specialized hospital treatment).

HEATON operates with own business and marketing representations in Czech Republic, Slovakia, Germany and Romania, where it promotes its products through a skilled team of medical representatives.

*Link to website:* <https://www.heaton.cz>

### **15. Farmak a.s. (Czech Republic, emerging market)**

*Founding Year:* 1996

*Headquarters:* Olomouc

*Description:* "The Essential is Inside"



FARMAK, a. s. is a significant European pharmaceutical and chemical company focused on development, manufacture and marketing of following fields:

- active pharmaceutical ingredients
- chemical intermediates and specialites
- custom synthesis and contract manufacturing

From a long-term point of view, the key role for the company performance is manufacture and sales of APIs. The company is a significant exporter: the share of exports in takings is almost 90 %. Products of FARMAK, a. s. are exported to more than 40 countries of the whole world. USA, EU countries, Japan and Switzerland belong to the most important export territories.

FARMAK, a. s. has at disposal production facilities with reactor capacity of about 100 m<sup>3</sup>. Multipurpose facilities are continually upgraded and they enable flexibility in custom manufacturings from kilogram to ton volumes of products.

A part of the company strategy is integrated policy of quality and environment. The system of quality assurance complies with current requirements of cGMP. Production facilities are regularly inspected by The State Institute for Drug Control, by the American Food and Drug Administration (FDA) and by customer audits.

FARMAK, a.s. has an introduced and certified integrated system of the quality control and environmental protection as per ISO 9001 and 14001 standards.

FARMAK, a. s. pays full attention to environmental and safety problems and keeps the Responsible Care program in chemistry.

*Link to website:* <http://www.farmak.cz>

## APPENDIX 3

### Company Overview

Case	Founding Year	Headquarters	Internationalization Phase	Data Sources
Case #1: <b>2A Pharma</b>	2005	Malmö	Experienced Internationalizing	Website: 'About us', Website: 'Home', Website: 'Investors', LinkedIn Page, News Article, Press Release, Interview <b>(8)</b>
Case #2: <b>Redsense Medical AB</b>	2000	Halmstad	Novice Internationalizing	Website: 'About us', LinkedIn Page, News Article, Annual Report 2021, Annual Report 2022, Academic Article <b>(7)</b>
Case #3: <b>Acarix</b>	2009	Malmö	Experienced Internationalizing	Website: 'About us', LinkedIn Page, News Article, Annual Report 2021, Annual Report 2022 <b>(6)</b>
Case #4: <b>Abera Bioscience AB</b>	2012	Stockholm	Pre-Internationalizing	Website: 'About us', Website: 'Projects', LinkedIn Page, News Article, Annual Report 2022 <b>(7)</b>
Case #5: <b>Abliva AB</b>	2000	Lund	Novice Internationalizing	Website: 'About us', LinkedIn Page, News Article, Annual Report 2020, Annual Report 2021, Annual Report 2022, Company Presentation <b>(7)</b>
Case #6: <b>Biovica International AB</b>	2009	Uppsala	Novice Internationalizing	Website: 'About us', LinkedIn Page, News Article, Annual Report 2020, Annual Report 2021 <b>(7)</b>
Case #7: <b>Double Bond Pharmaceutical</b>	2014	Uppsala	Experienced Internationalizing	Website: 'About us', LinkedIn Page, News Article, Annual Report 2022, Company Report <b>(7)</b>

Case #8: <b>HAMLET Pharma</b>	2015	Lund	Pre-Internationalizing	Website: 'About us', LinkedIn Page, Annual Report 2021, Interim Report Q1 2022, Interim Report Q4 2022, Press Release <b>(6)</b>
Case #9: <b>MEGA a.s.</b>	1976	Prague	Novice Internationalizing	Website: 'About us', LinkedIn Page, Annual Report 2021, Annual Report 2022, Magazine Article <b>(4)</b>
Case #10: <b>WALMARK a.s.</b>	1990	Prague	Experienced Internationalizing	Website: 'About us', LinkedIn Page, News Article, Annual Report 2022, Magazine Article, Press Release <b>(6)</b>
Case #11: <b>PLIVA-Lachema a.s.</b>	1951	Prague	Pre-Internationalizing	Website: 'About us', Website: News Article, LinkedIn Page, News Article, Magazine Article <b>(6)</b>
Case #12: <b>Zentiva a.s.</b>	1488	Prague	Experienced Internationalizing	Website: 'About us', Website: 'Our history', Website: 'We develop', LinkedIn Page, News Article, Magazine Article <b>(9)</b>
Case #13: <b>CHEMOTEX Děčín a.s.</b>	1993	Prague	Novice Internationalizing	Website: 'About us', LinkedIn Page, Magazine Article <b>(5)</b>
Case #14: <b>Heaton k.s.</b>	2002	Prague	Novice Internationalizing	Website: 'About us', LinkedIn Page <b>(4)</b>
Case #15: <b>Farmak a.s.</b>	1996	Olomouc	Experienced Internationalizing	Website: 'About us', LinkedIn Page, News Article, Magazine Article <b>(6)</b>

## **APPENDIX 4**

### **Interview Guide**

#### ***Preparation***

- Assurance of a comfortable situation for interviewer and participant (see: 3.5 Research Ethics).
- Thank interviewee for participation
- Asking if anything further is needed (i.e., explanation on the interview process)
- Indication that asking questions is allowed and welcomed at any time
- Start of interview and activating of recording device

#### ***Introduction***

- Introduce topic and main purpose of the research
- Elaborate on the interview process
- Ask personal questions (e.g., what function in company?; how long active in that function?; previous experience in the pharmaceutical industry?).
- Ask general information on the company (e.g., foundation; mission; main activities; internationalization history).

#### **Part 1: SMEs and the institutional context**

- How does the firm, as a SME, effectively operate in challenging business environments?
- How does the firm operate generally in the European pharmaceutical industry?
- How would you describe the firm's institutional context?

#### **Part 2: Liability of foreignness**

- Ask if the interviewee is familiar with the concept
- Ask what the interviewee imagines when thinking about this concept
- Explain the concept of LOF
- Does the firm experience difficulties when operating in foreign business environments?
- Does the firm experience unfamiliarities when operating in foreign business environments?
- How does the firm aim to mitigate these difficulties?
- When the firm entered a foreign market for the first time, what was the experience?



### **Part 3: Liability of smallness**

- Ask if the interviewee is familiar with the concept
- Ask what the interviewee imagines when thinking about this concept
- Explain the concept of LOS
- Does the firm experience difficulties when competing against larger firms?
- Does the firm feel that it has sufficient resources to effectively compete in the pharmaceutical industry?
- To what degree does the interviewee feel that the firm is limited in its abilities as a result of its smallness?
- How does the firm aim to mitigate these effects of LOS?

### **Part 4: Internationalization strategies**

- Present some common internationalization strategies presented in the literature
- How would the interviewee describe their firm's internationalization strategies?
- Do the firm's internationalization strategies differ between different markets (i.e., foreign markets)?
- What is the main motivation behind the firm's internationalization strategies?
- To what degree do the firm's internationalization strategies mitigate the difficulties expressed above?
- How could the internationalization strategies of the firm be improved to be more competitive?

### ***End***

- Indicate end of the interview
- Is there anything you would like to add? Maybe something I have not asked? Something you would like to contribute?
- Indication that I will send, if agreed on, the transcripts for a member check.
- Offering to send conclusion of findings if participant is interested in such.
- Thank interviewee for participation
- Ending of interview, deactivating of recording device.

## APPENDIX 5

### List of Data Sources

#### Developed Market Strategies

##### 1. 2A Pharma

2A Pharma (n.d.). *Home* [LinkedIn page]. LinkedIn. Retrieved June 19, 2023, from <https://www.linkedin.com/company/2a-pharma-ab/>. **(LinkedIn Page)**

*2A Pharma celebrates its 5th anniversary*. 2apharma.com. (2021, December 12). <https://2apharma.com/2a-pharma-celebrates-its-5th-anniversary>. **(News Article)**

*About*. 2apharma.com. (n.d.). <https://2apharma.com/about>. **(Website: 'About us')**

*Home*. 2apharma.com. (n.d.). <https://2apharma.com/>. **(Website: 'Home')**

*Investors*. 2apharma.com. (n.d.). <https://2apharma.com/investors> **(Website: 'Investors')**

Medigene AB. (2016, December 20). *Medigene 2A Pharma Press Release 2016-12-20*. <https://ml.globenewswire.com/Resource/Download/22bd7312-a9f8-4071-804d-af84b1c6db33>. **(Press Release)**

*Medigene announces outlicensing of AAVLP technology*. GlobeNewswire. (2016, December 20). <https://www.globenewswire.com/en/news-release/2016/12/20/898999/0/en/Medigene-announces-outlicensing-of-AAVLP-technology.html>. **(News Article)**

Semi-structured interview with COO, John Dirk Vestergaard, see APPENDIX 8 **(Interview)**

##### 2. Redsense Medical AB

*About us*. redsensemedical.com. (n.d.). <https://redsensemedical.com/company/about-us/>. **(Website: 'About us')**

*History*. redsensemedical.com. (n.d.). <https://redsensemedical.com/company/history/>. **(Website: 'About us')**

Malmström, D., & Hed, C. (2010). The Internationalization of SMEs within the medical technology industry.: -How to make it in the global world. **(Academic Article)**

Redsense Medical (n.d.). *Home* [LinkedIn page]. LinkedIn. Retrieved June 3, 2023, from <https://www.linkedin.com/company/redsense-medical/?originalSubdomain=nl>. **(LinkedIn Page)**

*Redsense signs new distributor agreement for Canada and Bermuda with CardioMed Supplies Inc.* news.cision.com. (2021, August 16). <https://news.cision.com/redsense/r/redsense-signs-new-distributor-agreement-for-canada-and-bermuda-with-cardiomed-supplies-inc-,c3396682>. **(News Article)**

Year-end Report 2021. (2022). Annual Report 2021. Redsense Medical AB. <https://mb.cision.com/Main/12367/3515549/1541865.pdf>. **(Annual Report 2021)**

Year-end Report 2022. (2023). Annual Report 2022. Redsense Medical AB. <https://mb.cision.com/Main/12367/3723829/1877362.pdf>. **(Annual Report 2022)**

### 3. Acarix

*About Acarix.* Acarix. (n.d.). <https://www.acarix.com/company/about-acarix>. **(Website: 'About us')**

Acarix (n.d.). *Home* [LinkedIn page]. LinkedIn. Retrieved June 3, 2023, from <https://www.linkedin.com/company/acarix/about/>. **(LinkedIn Page)**

*Acarix receives double-digit SEK million investment from Chinese strategic investor Puhua Jingxin to accelerate market introduction.* Nordic9.com. (2016, November 7). <https://nordic9.com/news/acarix-receives-double-digit-sek-million-investment-from-chinese-strategic-investor-puhua-jingxin-to-news7578831959/>. **(News Article)**

Annual Report 2022. (2023). Annual Report 2022. Acarix. <https://storage.mfn.se/66792bee-3faf-4a1e-aedd-4c53c8308cfe/acarix-annual-report-2022-eng.pdf>. **(Annual Report 2022)**

Annual Report 21. (2022). Annual Report 2021. Acarix. <https://cdn.sanity.io/files/gihlyoao/production/b924979db6d64517e2aeaf84d38bb64ebc2e4a2b.pdf>. **(Annual Report 2021)**

*Correction of press release: Acarix AB (publ) publishes Year-End Report 2021.* IPO Hub. (2022, February 17). <https://www.ipohub.io/companies/acarix-ab/news/correction-of-press-release-acarix-ab-publ-publishes-year-end-report-2021-170220220854>. **(News Article)**

#### 4. Abera Bioscience AB

Abera Bioscience AB (n.d.). *Home* [LinkedIn page]. LinkedIn. Retrieved June 4, 2023, from <https://www.linkedin.com/company/abera-bioscience-ab/?originalSubdomain=se>. **(LinkedIn Page)**

*ABERA BIOSCIENCE AND MYNEO SIGN STRATEGIC PARTNERSHIP AGREEMENT WITHIN PERSONALIZED CANCER VACCINES*. Abera Bio. (2022, April 28). <https://aberabio.com/myneo-strategic-partnership-cancer-vaccines/>. **(News Article)**

*ABERA BIOSCIENCE SIGNS AGREEMENT WITH NORTHX BIOLOGICS FOR GMP MANUFACTURING*. Abera Bio. (2022, March 29). <https://aberabio.com/signs-agreement-for-gmp-manufacturing/>. **(News Article)**

*About Abera*. Abera Bio. (n.d.-a). <https://aberabio.com/about-abera/>. **(Website: 'About us')**

ÅRSREDOVISNING ABERA BIOSCIENCE AB. (2023). Annual Report 2022. Abera Bioscience. <https://aberabio.com/wp-content/uploads/2023/05/Abera-Bioscience-Annual-Report-2022.pdf>. **(Annual Report 2022)**

*NorthX Biologics Signs Collaboration Agreement with Abera*. Contract Pharma. (2022, April 26). [https://www.contractpharma.com/contents/view\\_breaking-news/2022-04-26/northx-biologics-signs-collaboration-agreement-with-abera/](https://www.contractpharma.com/contents/view_breaking-news/2022-04-26/northx-biologics-signs-collaboration-agreement-with-abera/). **(News Article)**

*Projects*. Abera Bio. (n.d.-b). <https://aberabio.com/projects/>. **(Website: 'Projects')**

#### 5. Abliva AB

Abliva AB (n.d.). *Home* [LinkedIn page]. LinkedIn. Retrieved June 4, 2023, from <https://www.linkedin.com/company/abliva/about/>. **(LinkedIn Page)**

Abliva. (n.d.). <https://abliva.com/company/>. **(Website: 'About us')**

*ANNUAL REPORT 2020*. (2021). Annual Report 2020. Abliva AB. <https://storage.mfn.se/8bf7c213-3ac1-4d83-9ca9-8aaf4424241c/abliva-ar-2020-en-final.pdf>. **(Annual Report 2020)**

*ANNUAL REPORT 2021: Delivering Mitochondrial Health*. (2022). Annual Report 2021. Abliva AB. <https://storage.mfn.se/29b307e7-d61c-4fe1-b353-573c7423b7cf/abliva-annual-report-2021.pdf>. **(Annual Report 2021)**

ANNUAL REPORT 2022: Delivering Mitochondrial Health. (2023). Annual Report 2022. Abliva AB.  
<https://storage.mfn.se/efeef365-01e1-427f-838b-8e22226b488a/abliva-annual-report-2022.pdf>.

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## APPENDIX 6

### Summary of Findings

Case	Phase (based on Knowledge-Based Model)	Internationalization Strategy			Type of Knowledge			
		<i>Partnerships</i>	<i>Acquisition</i>	<i>Exporting</i>	<i>Market</i>	<i>Network</i>	<i>Cultural</i>	<i>Entrepreneurial</i>
Case #1: <b>2A Pharma</b>	Experienced Internationalizing	x			x	x	x	x
Case #2: <b>Redsense Medical AB</b>	Novice Internationalizing	x	x		x		x	x
Case #3: <b>Acarix</b>	Experienced Internationalizing	x	x		x		x	
Case #4: <b>Abera Bioscience AB</b>	Pre-Internationalizing	x				x		
Case #5: <b>Abliva AB</b>	Novice Internationalizing	x	x			x		x
Case #6: <b>Biovica International AB</b>	Novice Internationalizing	x				x	x	
Case #7: <b>Double Bond Pharmaceutical</b>	Experienced Internationalizing	x	x	x		x		
Case #8: <b>HAMLET Pharma</b>	Pre-Internationalizing	x			x	x		
Case #9: <b>MEGA a.s.</b>	Novice Internationalizing	x		x		x		
Case #10: <b>WALMARK a.s.</b>	Experienced Internationalizing	x		x		x		
Case #11: <b>PLIVA-Lachema a.s.</b>	Pre-Internationalizing	x	x		x			x
Case #12: <b>Zentiva a.s.</b>	Experienced Internationalizing		x		x			
Case #13: <b>CHEMOTEX Děčín a.s.</b>	Novice Internationalizing			x		x		
Case #14: <b>Heaton k.s.</b>	Novice Internationalizing	x			x	x		x
Case #15: <b>Farmak a.s.</b>	Experienced Internationalizing	x		x		x	x	

**APPENDIX 7**

**Analysis of Findings**

		Internationalization Strategy			Type of Knowledge			
Internationalization Phase		<i>Partnerships</i>	<i>Acquisitions</i>	<i>Exporting</i>	<i>Market</i>	<i>Network</i>	<i>Cultural</i>	<i>Entrepreneurial</i>
<i>Developed Market</i>	1. Pre-Internationalizing	Case#4, Case#8	-	-	Case #8	Case#4, Case#8	-	-
	2. Novice Internationalizing	Case #2, Case #5, Case #6	Case #2, Case #5	-	Case #2	Case #2, Case #5, Case #6	Case #6	Case #2, Case #5
	3. Experienced Internationalizing	Case #1, Case #3, Case #7	Case #3, Case #7	Case #7	Case #1, Case #3	Case #1, Case #7	Case #1, Case #3	Case #1
<i>Emerging Market</i>	1. Pre-Internationalizing	Case #11	Case #11	-	Case #11	-	-	Case #11
	2. Novice Internationalizing	Case #9, Case #14	Case #14	Case #9, Case #13	Case #14	Case #9, Case #13, Case #14	-	Case #14
	3. Experienced Internationalizing	Case #10, Case #15	Case #12	Case #10, Case #15	Case #12	Case #10, Case #15	Case #15	-

**APPENDIX 8**

**Transcript Interview with Coding (2A Pharma – John Dirk Vestergaard)**

*Removed for the purpose of the Radboud Thesis Repository*