Thrown in a Spirit of Design: Internationalisation Influencing the Business Model

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ABSTRACT

BACKGROUND. The relaxation of the global conditions, mainly but not reduced to the introduction of the Internet, and the demanding competitive pressures have triggered the expansionary phenomenon of startups that seek to compete internationally right after its birth. This urge for a mechanism to facilitate the internationalisation process, namely the business model. In this regard, there is a need to elaborate on the field of the business model in combination to the internationalization literature, which has tended to develop in isolation.

PURPOSE. The purpose of this master thesis is to expand the knowledge about the process of designing the business model of a new international venture and how the drivers of internationalisation affect this process.

METHODOLOGY. The research problem was identified by exploring two major streams of theory, the business model and the internationalisation, which were developed jointly in a visual representation. In the next step, from two Sweden-based international new ventures, named Againity AB and MIMSI Materials AB, empirical information was collected from diverse stakeholders. The technique was qualitative research method, which was scrutinized following a process model approach. Finally, a model proposition was constructed by analysing the realities of the practical and theoretical phenomenon to serve the purpose of enhancing knowledge.

RESULT. The BMD process is composed by three stages, namely initiating, generating and refining, of iterative and interdependent nature. Each driver of internationalization, when scrutinized using the empirical realities of the INVs, tends to have different influential roles at different stages of the business model. This is integrated into a conceptual model of the key internationalization drivers and BMD stages, which reflects the strategic fit from which new ventures benefit.

KEY WORDS. Business model (BM), business model design (BMD) process, internationalization, startups, international new ventures (INV).
The Convergence © Jackson Pollock; Fair Use as www.wikiart.org
Acknowledgements

Inspired from The convergence, 1952, Jackson Pollock.

*If a picture is worth a thousand words, what should be yours?*

... Thank you! ...

Along the way, visible in the painting, the dark side of black reveals that every single chapter has caused headache, endless work hours, confusion and disorientation has been part of the process as well. Therefore, we want to thank each other because we have been there to understand what the thesis needed and what we both, individually, needed.

On the other hand, it has been excited too because “the painting has a life of its own”, as Pollock once said and from this tangle positive emotions arouse. From our final and detailed touches to our own remarkable painting, we expect to amuse the future audience of this master thesis and we would like to thank the time devoted to reading it.

Indeed, we want to thank our thesis supervisor, Per Åman for his valuable insights, patience, and encouragement along the way. On top of that, the most sincere gratitude is to allow us to explore openly the chosen topic. The convergence resemblances to us this freedom and free of speech that we have always had.

We would like to give a big applause for all the people who not only invested their time in providing answers to two curious students but shared their knowledge and dreams with us. The palette of bright colours, shadows, lines and contours reflects the kindness and positivism that we received from the enthusiastic people who drive Againty AB, MIMSI Materials AB and LEAD business incubator.

Lastly, to all our lovely SMIOs, because this master thesis is the culmination of our intense discussions both in the classroom and in those long lively evenings. As Pollock reflects the mere act of painting, of the concept itself we shall see each other once again to being nothing but ourselves.

Words of dedication from the authors:

“To my love. I will be missing one of the most important events of your life, while defending this master thesis. Cheers for our bright never-ending future together! And, to my sister to whom no words, just paintings!” - Patricia Antolin Andérez.

“To the most beautiful soul I’ve ever known: my sister, who sacrificed her higher education abroad so that I could fulfill my dream. Also, to my wonderful parents who once said, “If for education, you are allowed to travel to the moon.” - Senjuti Das


Patricia Antolin Anderez and Senjuti Das.
# Table of Content

1. **INTRODUCTION**  
   1.1. Area of Interest  
   1.2. Empirical Arena  
   1.3. Purpose of the Study and Research Question  
   1.4. Outline of the Study  

2. **THEORETICAL FRAMEWORK**  
   2.1. The Business Model  
      2.1.1. Definition and Configurational Elements  
      2.1.2. Design Process as the Construction of the Business Model  
      2.1.3. The Stages of the Business Model Design Process  
   2.2. Internationalization  
      2.2.1. Definition and Characteristics  
      2.2.2. Internationalization Models for the INVs  
      2.2.3. The Drivers of Early Internationalization  
      2.2.4. Internationalization as a Strategy  
   2.3. Internationalization Drivers Configuring the Business Model Design Process

3. **METHODOLOGY**  
   3.1. Research Philosophy  
   3.2. Research Approach  
   3.3. Research Strategy  
      3.3.1. Method of Assessing Literature  
      3.3.2. Case Study  
   3.4. Research Design  
   3.5. Research Technique  
      3.5.1. Data Collection  
      3.5.2. Data Reduction and Analysis Methods  
   3.6. Research Ethics  
   3.7. Reliability and Validity

4. **EMPIRICAL RESEARCH**  
   4.1. **LEAD Business Incubator: Placing the INVs in Context**  
   4.2. **Case Study: Againity AB**  
      4.2.1. Company Background  
      4.2.2. The Initial Steps of Againity  
      4.2.3. Milestone: Stepping into Kenya  
      4.2.4. Prospective Future: The Scalability of the Business Model  
   4.3. **Case Study: MIMSI Materials AB**  
      4.3.1. Company Background  
      4.3.2. International from Inception: The Japanese Customer  
      4.3.3. Expanding the Landscape: Low-E Glass Application  
      4.3.4. Turning Point: Lithium-ion Battery Application  
      4.3.5. Prospective Future
5. ANALYSIS 61
5.1. The Business Model Design Process: Surpassing the Theory 61
5.2. The Influence of Entrepreneur-specific in the Business Model Design Process 70
5.3. The Influence of Network-specific in the Business Model Design Process 72
5.4. The Influence of Business-specific in the Business Model Design Process 75
5.5. The Influence of Market-specific in the Business Model Design Process 77
5.6. The Discussion of Analysis in a Nutshell 80

6. CONCLUSION 83
6.1. Delivering the Purpose 83
6.2. Highlighting the Contribution 84
6.3. Limitations and Future Study 84

7. APPENDIX 89
Appendix 1. Interview Questions Formulae 89
Appendix 2. Information of the respondents 94
Appendix 3. Definitions of BMD stages for categorization purposes 95
Appendix 4. Codification using NVivo™ 96

8. REFERENCE 97
List of Figures

Figure 1. Process of Designing the Business Model 20
Figure 2. A holistic view of the Theoretical Framework 33
Figure 3. Six Steps of Literature Review 37
Figure 4. Research Onion 44
Figure 5. The Business Model Design Process Encompassing the Configurational Elements 69
Figure 6. Internationalization Drivers Influencing the Business Model Design Process 82

List of Tables

Table 1. Elements of the Business Model 12
Table 2. Drivers of Early Internationalization 27
Table 3. Perception on Entrepreneur-specific 70
Table 4. Perception on Network-specific 73
Table 5. Perception on Business-specific 76
Table 6. Perception on Market-specific 78
Table 7. Business coach Interview Template 89
Table 8. Entrepreneur Interview Template 92
Table 9. Information of the respondents 94
Table 10. Definitions of BMD stages for categorization purposes 95
Table 11. Codifications using NVivo™ 96
1. INTRODUCTION

1.1. Area of Interest

There are some preconditions...

An early adoption of internationalisation is facilitated to a large extent by the relaxation in the global environment. Such facilitation is accelerated by the rise and role of information and communication technologies (Kobrin, 1991), reduction of transportation and communication costs (Holstein, 1992), availability of information and knowledge globally and the establishment of global markets and international value chains (Dunning, 2000). In other cases, the competitive landscape is merely of global nature in respect to international clients, suppliers, investors or workforce, among others. Prompted by these reasons, as a firm chooses to step inside global market, naturally that firm requires creating a new or adjusting an existing business model to visualise its strategy.

... that propel a phenomenon...

And, for an entrepreneurial venture, which is alternatively known as a startup at its first phase of operations, to go into an international market and be able to generate profit at an early stage is a major concern. However, the global economy is facing an expansionary phenomenon of the startups that almost from inception seek to exploit opportunities internationally. To accordance to the increasing number of the international new ventures (INVs), the study field, related to the international startups has been enriching this area of research over the last two decades (Christensen and Jacobsen, 1996).

...which requires a holistic mechanism!

Albeit, when internationalising early, it is not as simple as the pursuit of pure profit, it is a long term fit constituting an overall business development strategy (Accenture.com, 2016). Thus, an entrepreneur requires making a set of strategic decisions reflecting ‘how’ it may step up and intervene into a market beyond its home country. Considering the business model as the mirror reflection of a firm’s strategy (Osterwalder et al.,
2005), and internationalisation as the strategy in it, a startup may face the necessity to construct a business model that reflects its aim for internationalisation.

The business model is conceived as a simplified tool for managerial decision-making. A business model provides the managers with an integrative tool to reduce the level of complexity (Zott et al., 2011) into a set of stories understandable for the actors involved, which in turn, supports strategy implementation (Demil and Lecocq, 2010). The construct of the business model is identified for effective communication or common language among various stakeholders (Arend, 2013), improved decision-making due to the recognition of inconsistency in a set of decisions made and increased transparency (Osterwalder, 2004). It is particularly relevant to the turbulent business environment, in which the firms conduct operations today, where the product life cycle has been shortened, and the need for rapid adaptation to the market changes have been augmented. Therefore, the business model must be simple, measurable and operationally meaningful (Morris et al., 2005). It is often reflected in visualisation, which depicts the major components of the business and its interrelations (Chesbrough, 2010). The roles associated with business models are categorised in the literature as (1) explaining the business to stakeholders (2) providing managerial support to run the business and (3) complementing the strategic lines of business so as to develop a competitive advantage (Spieth et al., 2014).

*However, both research fields combined are touched upon superficially...*

The recipes of internationalisation strategy are translated into a firm-specific business model; little is known to date about how business models are shaped in regards to internationalisation. Onetti et al. (2010) introduced this concern into the discussion and proposed a complete definition of business model that included elements of time, space and network often associated with the internationalisation literature:

*“We define the business model as the way a company structures its own activities in determining the focus, locus and modus of its business”* (p.24).

Thus, locus emphasizes on the location of the business activities, modus identifies the firm’s boundary and the relation with external entities and focus stresses on the way the
capabilities are deployed (Onetti et al., 2010). We, therefore, argue for the integration of internationalisation factors into a strategic managerial approach as conceived to the business model.

We acknowledge that an INV requires an accurate and clear business model to commercialise its product or service as there are only a few papers, which have studied the design process of the business model. Realising the need for such study, Amit and Zott (2014) clearly state that the question of how to design a business model is not to be forgotten as it is a necessary task to undertake by the entrepreneurs. We argue that the process of designing the business model is a relevant subject based on the fact that the business model of the startups often suffers a rapid evolution (Doganova and Eyquem-Renault, 2009).

This issue is brought by Rask (2014) in his paper as pursuing the link between business model innovation and internationalisation strategies. Here, business model innovation is narrated as the ‘creation’ or ‘reinvention’ of the business. Thus, it may be applicable in the first attempt to establish a startup and formulate the first business model as the first implication of ‘creation’ notion. Here, business model innovation is understood as a mere adaptation of the business model to the new guidelines provided by internationalisation strategy in place. As of born global theories of international business, it is highlighted how INVs create its’ business model for the foreign market(s) right at its birth. Moreover, Rask’s (2014) definition of the business model is fundamentally built upon the staging process of Uppsala model as it is solely determined by the natural development path from domestic to international markets. It is noteworthy that Rask (2014) argues for the concept of international business models, which is not necessarily in line with this paper. This study does not argue for a distinction between domestic and international business model; rather it posits the importance of accounting for internationalisation as the startups increasingly conduct operations abroad.

Therefore, we argue that the topic presented is an incipient research stream with promising opportunities to uncover further. The knowledge gap makes it relevant for the researchers to shed light on the integration of two different research streams that have
been developed in a vacuum of international entrepreneurship and business model literature.

... and there is an exploratory space to begin with!

Several researchers have centred their attention on the question of what are the underlying factors that allow new ventures to pursue an international strategy at early stages of their development (Rialp et al., 2005). The identification of those factors results on a valuable checklist for entrepreneurs to guide their first business operations in a foreign market. However, it has been said little about how internationalisation drivers may be applied while materialising the business model design (BMD) process. Having said so, the research interest leads to the queries: What are those internationalisation drivers? And, what are the stages followed in the BMD process? These two questions draw further attention to ask: Is it possible for the drivers of internationalisation to influence the process of designing business model? If the answer is ‘yes’, how such influence may work for an INV?

1.2. Empirical Arena

The knowledge gap needs to be further investigated in the empirical context of the INVs. Therefore, the empirical foundation of this master’s thesis resides on the sample of two startups that have the ambition to intervene in international markets, being both Swedish-based. The characteristics of the industry, within which they operate, substantially differ from the vast majority of studies conducted on the firms internationalising early, that are often located around the IT industry. In this regard, the sample cases are composed of two business-to-business (B2B), niche-focused companies with a high intensive capital industry. Againty AB offers waste to heat energy solutions by using alternative renewable energy sources such as household’s garbage, sun or hydropower, among others. Furthermore, MIMSI Materials AB provides high-performance materials with diverse properties through its patented technology method. The technology has diverse applications, such as hard coating, sensors, energy storage materials, etc. Both companies belong to the major business incubator of Östergötland region, Sweden, and thus, they follow an acceleration program of three years for the fast development of the business. Againty AB has
recently completed the three years program whereas MIMSI Materials AB is found at an early stage of the development and it has currently covered half of the program.

1.3. Purpose of the Study and Research Question

Different firms may adopt a similar strategy and focus on similar target markets; then again, the outcome could be significantly different. Some studies conclude that internationalisation at an early stage can threaten the performance of a firm whereas other studies state that it enhances the capabilities of a firm and in turn, foster a greater performance (Knight and Liesch, 2016; Cerrato and Piva, 2015). For instance, the reduction of costs due to economies of scope and scale and synergies created through the shared facilities of R&D may have a positive reflection on the firm’s performance (Buckley and Casson, 1976). On the other hand, overload of internal processes of the firm, slack communication time and decision-making delay are some examples of outgrowth of the cost associated. One of the plausible explanations for different levels of performance is the application of various business models (Onetti et al., 2010). However, the question that may arise is, what type of business model enhances the international performance of the INVs? This fact points out the importance of acknowledging the design process of the business model to be able to foresee the likelihood of a firm’s preferred output and adapt accordingly.

In an effort to identify a conceptualised BMD process, Amit and Zott (2014) precede with five stages, i.e. observing, synthesizing, generating, refining and implementing. However, as of our understanding, this has only been one of the few attempts to identify the development stages of business model, and, therefore, we consider the study by Amit and Zott (2014) as a cornerstone to advance our knowledge.

Changes in a firm are not always shaped by deliberate management choices but influenced by the forces of the environment (Demil and Lecocq, 2010). A firm seeking to go international certainly encounters a different setting of context than with that of its home country, which ultimately may impact the business model. As stated by Ghemawat (2003), companies competing in global markets acknowledge the superiority of an adjusted business model geographically. Thus, the scholars that aim to study the causes of a higher performance internationally often investigate into the underlying
causes that facilitate the internationalization in the first place (Rialp et al., 2005). This situation calls for a need to take the elements of internationalisation into account in the process of developing a business model.

From an extensive literature review, the driving forces of internationalisation for the new ventures can be summarised into four specifics - (1) entrepreneur (2) network (3) market and (4) business. ‘Entrepreneur’ indicates global vision, commitment and prior international experience whereas ‘network’ refers to the connection at personal and professional level. On the other hand, ‘business’ triggers to the deployment of tangible resources (i.e. leading-edge technology products) and intangible capabilities (i.e. knowledge management) whereas ‘market’ suggests having niche customer focus and adaptability to changing circumstances (Rialp et al., 2005).

Therefore, the purpose of this master’s thesis is to expand the knowledge about the process of designing the business model of a new international venture and how the drivers of internationalisation affect this process. Consequently, we propose the following central research question to address the foundational concept of this master’s thesis:

*How does internationalisation drivers influence the business model design process of an international new venture?*

We expect that this research study would be in the interest of a diverse group of people, who are directly or indirectly related to startups in academic and non-academic fields. An elaborative comprehension raised by the study would enable the startup entrepreneurs, the managers and the consultants to enrich their current practice of the BMD process for the INVs.
## 1.4. Outline of the Study

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Description</th>
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<tbody>
<tr>
<td>Introduction</td>
<td>The first chapter guides the readers to grasp the area of interest of this master’s thesis. By presenting the problematized issue and its significance, empirical arena, and the purpose, this chapter outlines the paper terms of what, why and for whom.</td>
</tr>
<tr>
<td>Theoretical Framework</td>
<td>This chapter enables the readers to identify the works that have already been done in two research fields individually: internationalization, particularly for INV, and the BMD process. To be able to look at the combination between these two pillars, the chapter in the end presents a visual representation as a suggestion to convey the purpose of this study.</td>
</tr>
<tr>
<td>Methodology</td>
<td>This chapter outlines a detailed description of research philosophy, strategy, approach, design, and technique that helps the readers to comprehend the process of surveying the theories and the empirics. Subsequently, validity, reliability and ethical aspects of the study are discussed.</td>
</tr>
<tr>
<td>Empirics</td>
<td>This chapter portrays the empirical findings obtained through a set of primary data sources. At first, the discussion presents the role and strategic lines of LEAD business incubator that influence the sample cases through its applied method to develop a business model. Shortly after that, Againity AB and MIMSI Materials AB, as the sample cases are presented in a temporal line of occurrence of events.</td>
</tr>
<tr>
<td>Analysis</td>
<td>The analysis chapter examines the empirical findings through the theoretical framework presented. In this regard, the BMD process is synthesized in a stage model that serves as a foundation to elaborate on the influence of the key factors that propel early internationalization on startups. To sum up, the findings are conceptualized in a visual model that incorporates the suggested concept on the theoretical framework.</td>
</tr>
<tr>
<td>Conclusion</td>
<td>This final chapter summarizes the original contribution of this master’s thesis by delivering the purpose. Moreover, it outlines the theoretical and practical limitations as well as suggests avenues for future studies.</td>
</tr>
</tbody>
</table>
2. THEORETICAL FRAMEWORK

This chapter aims to explore different concepts and theories related to this study and thereby, lay the foundation for developing a frame of reference. It commences with examining the broad concept of the business model by disintegrating it into its elements and design process. The chapter continues discussing diverse theories of internationalisation that support the triggers of early internationalisation for the INVs. Thereby, the ideas are visualised, combining two major streams of the study, the BMD process and internationalisation, to be able to convey the purpose concerning the theoretical discussion.

2.1. The Business Model

2.1.1. Definition and Configurational Elements

The business model literature has raised significant attention from both the practitioners and the scholars (Schneider and Spieth, 2013). However, the research stream has not yet converged to a common conceptual definition (Osterwalder et al., 2005; Arend, 2013; Zott et al., 2011; Morris et al., 2005). Chesbrough and Rosenbloom (2002) define the business model as “The heuristic logic that connects technical potential with the realisation of economic value” (p.529). Similarly, the business model is conceived as a dynamic activity system (Afuah and Tucci, 2001; Zott and Amit, 2001), while it is stated as, "Business models describe, as a system, how the pieces of a business fit together" (Magretta, 2002, p.91).

The comprehensive academic review paper by Zott et al. (2011) reveals that 44% of the 103 publications of their sample define the business model regarding the elements that contain. The specification of the elements enhances the ability to design, describe, analyse and strategically adapt the framework (Morris et al., 2005). Those studies present similar elements in diverse combinations, depending on the area of interest of the authors since the literature still lacks consensus (Morris et al., 2005). Osterwalder (2004) formed an in-depth analysis of the conceptualization and the formalisation of the business model elements as well as investigated the relation between those elements.
For the comprehension of this thesis paper, we first examine the business model framework presented by Osterwalder (2004), as summarised in the following table:

**Table. 1. Elements of the Business Model**

<table>
<thead>
<tr>
<th>First Order Category</th>
<th>Offering</th>
<th>Customer Interface</th>
<th>Infrastructure Management</th>
<th>Financial Aspects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Second Order Category</td>
<td>Value proposition</td>
<td>Customer target</td>
<td>Value configuration</td>
<td>Revenue model</td>
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<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Distribution channel</td>
<td>Capability</td>
<td>Cost structure</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Relationship</td>
<td>Partnership</td>
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</tbody>
</table>


There is no business without a defined value proposition (Morris et al., 2005) and so; an offering is pinpointed as the first pillar in the business model. Offering refers to the bundle of products and services of a firm in the form of its value proposition, i.e. the manner in which a firm delivers value to its customers and differentiates from its competitors. More specifically, the nature of an offering, the process of providing that offering and the role of the firm in serving its customers constitute the big picture of the value proposition (Morris et al., 2005). The firm may have different value propositions targeting different customer segments. For example, offerings can be done based on either low cost or differentiated products and services, reflecting directly the strategy pursued by that firm (Afuah and Tucci, 2001).

Customer interface addresses all the issues related to the customers while aiming to deliver the firm’s value proposition effectively (Hamel, 2002). It is composed of different customers as the firm targets to serve, the distribution channels to use and the links to utilise to build customer relation.

‘To whom’ firm targets to serve is influenced by the scope and the nature of the market, which is of utmost importance to the new ventures. Among those who fail to identify the proper target may suffer from struggles to success (Morris et al., 2005). On this
ground, the target customers are required to be segmented across a geographic area and customer typology: preferences, attitude, demography, income and so on. Depending on the types of customers, the firms are often classified into business-to-business (B2B) or business-to-customer (B2C). When B2B refers to the transaction taking place between the business and another business serving the final customers, B2C interacts with the high-end customers directly. This classification implies the differences in the disposition of a firm’s distribution channels, and it’s customer relations, which in turn impacts the value chain. Additionally, B2B often takes longer time than B2C to close an agreement since a higher number of stakeholders involved in the decision-making undertake a thoughtful manner to check the suitability of the offering.

Distribution channel describes the manner in which a firm reaches its customers, which may be online such as websites and offline such as direct sales agents. For the INVs, the distribution channel also refers to the mode of entry into a market. The distribution channel may contribute to the exchange of information between the firms and the customers. In this sense, it is a channel to communicate the benefits of the offering, which can be done even before the sale is made. In a case of B2B, the customer often commits a significant outlay of resources and thus, tend to make a purchase decision based on the expertise embedded into the supplier’s offerings.

Lastly, customer relationship describes how the firm interacts with its customer and builds the network. Using advanced information technology, such as, data mining or surfing, a huge pile of data is collected from the client’s purchase pattern. The offerings are then further adapted as per the preference of the target customers resulting in a more flexible value proposition. Usually, the acquisition cost of a customer is higher than the retention cost. And therefore, a past customer drives higher margin. For B2B customers, this is primordial, which is intensified when conducting business abroad.

Infrastructure management refers to the manner in which a firm organizes its operations to deliver the value proposition, which is predominantly determined by the firm’s capabilities, value configuration, and partnerships.

Value configuration is illustrated by Porter (2000) as the value chain theory, which describes every activity a firm performs to deliver the value proposition. However, in
the service and knowledge-based industry, many firms conduct business using different activities other than what is done in a general manufacturing setting. Therefore, Osterwalder (2004) mentions about value shop, such as the problem-solving activities delivered by a consultancy firm or value network, such as the mediating activities of intermediaries.

Capability alludes to competencies, assets and core resources that a firm uses to produce and deliver the offering to the customers. A firm may distinguish its core competence, which is a set of skills performed by that firm in comparative terms (Hamel, 2002), and use it to build its differentiated value proposition (Afuah and Tucci, 2001). Resources may be classified as tangible assets, such as buildings and equipment, and intangible assets, such as patents and trade secrets.

Partnership is defined as a voluntary cooperative agreement between the firm and one or more other independent companies to carry out specific projects or activities (Osterwalder, 2004). Doganova and Eyquem-Renault (2009) reinforce the element of the network in their study of the new ventures by arguing that a new firm is continuously circulating through collective action.

The final pillar, financial aspects of the firm, conveys all sources of revenues - the revenue model- and all costs that a firm incurs in delivering the value proposition to the customer- the cost structure. The revenue model conveys the value capture mechanisms of the firm whereas the cost structure is associated with the value creation part.

The cost structure is dependent on the economies of scope and scale, the distribution of fixed and variable cost, the capacity utilization, operation and transaction cost, among others. On the other hand, the revenue model is influenced by the competitive pressure in the market that can lower the margin if the offering is not differentiated or the price is not made flexible.

To sum up, four elements of the business model: (1) customer logic (2) core strategy (3) strategic resources and (4) network and their relationship each other are identified by Hamel (2002), which are represented in detail through the components described above. Foremost, the customer interface and the infrastructure management are codified as core
strategy by Osterwalder (2004), which are associated to the benefit(s) identification, that a firm may offer to its customers to address a particular need. An additional linkage is defined as company boundary, meaning that the firm may determine which activities are conducted by itself and which others are externalised to the network.

2.1.2. Design Process as the Construction of the Business Model

Only a few scholars in the business model literature have centred their effort in examining the process that a firm undertakes so to arrive at a workable business model (Amit and Zott, 2014). The discipline of design, in contrast, has a long tradition of analysing and structuring design as a process and therefore, it guides investigate the process of the business model development. Firstly, the notion of design along with its characteristics needs to be clarified. Secondly, the phases of the design process through a design methodology related to strategic management literature needs to be introduced too.

Veryzer (2005) defines design as a mean for satisfying customers to deliver profitability for a firm. In the professional design practice, designers establish boundaries so as to identify frames to address the situation. Those frames are a reflection of the compilation of first-hand experience of a situation and problem. The design process is human-centred in which observations are gathered from an outside-in perspective in the organisation as well as from an inside-out (Junginger, 2006). Design processes generate in-depth customer insights through design methods such as prototyping, scenarios, customers maps, buyer personas and so on (Dorst, 2011), which have been incorporated into the managerial business toolkits.

Furthermore, Stamm (2004, p.11) defines design as a process of ‘conscious decision-making’ to determine an outcome either tangible or intangible. The connotation of ‘conscious’ describes the reflective nature of the design work as it entails analysis and critique of its existence (Matteoni and Almeida, 2012). In capturing the phenomenon to be understood, designers enter a process of invention and discovery that aims to embody, shape and communicate ideas that are defined and redefined iteratively (Dorst, 2011). The design process is characterised as ‘reflection- in action’ (Schön, 1993 as cited in Gudiksen, 2012).
The design process follows three stages in a nonlinear manner: inspiration, ideation and implementation (Brown, 2009). The first phase of inspiration aims to create a framework for evaluating different opportunities based on the criteria of feasibility, viability and desirability. A designer will search for the balance of the three principles through first-hand observations of the situation and empathy to understand the customer's needs, emotions and their interactions with larger social groups. Observation requires complex task such as determining whom to observe, which methods to employ and when to start the next stage. Following to inspiration, the ideation stage refers to the analysis and synthesis of the information into ideas to create options for decision-making. During this stage, designers draw upon experimentation through prototyping mainly. The use of prototypes is not conceived as a final offering but rather a sketch that generates valuable feedback from different stakeholders in the market to further refine the offering. Finally, the implementation stage aims to communicate the idea clearly to the rest of the organisation. It is noteworthy to highlight that implementation in this context does not incur in the delivery of the offering to the market but the prior work to its launch (Brown, 2009).

2.1.3. The Stages of the Business Model Design Process

The preceding discussion sets the stage to realise the business model as a design process. BMD process can essentially be identified by the interrelation of two complementary dimensions; static and dynamic. The static dimension allows creating an understanding of the key elements that comprise a business model whereas the dynamic dimension refers to the evolution and adaptability of the firm over time. Even though static dimension has a normative significance complementing the dynamic character, both dimensions are in a constant interaction that creates disequilibrium in the business models (Demil and Lecocq, 2010). However, in contrast, Amit and Zott (2014) depart from this view in a stringent manner and consider the design of the business model as an activity, which enables the evolution needed to re-establish the balance between the firm’s business model and its environment over time.

The design process of the business model follows a typology of five phases to characterise the process of BMD: observing, synthesizing, generating, refining, and implementing as suggested by Amit and Zott (2014). These five stages help translate a firm’s strategy into a blueprint to function as the source of competitive alternatives.
The Observing Stage

To begin with, the design process examines how different stakeholders (e.g. end-users, suppliers, partners, and the firm itself) interact to fulfil customer needs. Amit and Zott (2014) argue that effective design needs to start by understanding the problem to be sorted out. By putting itself in the stakeholders’ shoes, a firm gets the scope to feel customer experience and accordingly senses unique opportunities. Analytical methods such as, assigning interdisciplinary teams, journey mapping and shadowing are some possible ways that can help detect new customer needs or new ways of delivering value (Amit and Zott, 2014). Observing the actors and their activities, coupled to exploring opportunities out of the business ecosystem may lead the entrepreneurs to have a wide-ranging and holistic understanding of the environmental context. Some basic queries are: what customers to serve, what their problems are, what the current gaps in solving those challenges and what roles of the related parties can be expected (Amit and Zott, 2014).

The Synthesizing Stage

This stage is about the realisation of learning, which took place during observing. Amit and Zott (2014) mention Beckman and Barry (2007) to refer this step as ‘building frameworks’ and also Brown (2009) to identify some methods of synthesizing; such as the ordering of data, searching for patterns and identification of recurring themes. Adopting these methods singly or jointly can help find out a meaningful pattern from the gathered data. Although there are methods, transforming data into useful information requires managerial skills added to organizational processes. Teece (2007) argues that managers are a key element to develop new ideas and insights where an organizational process may not be in place. At this stage, the questions in the observing stage are revisited to check the optimal feasibility of correct solutions.

The Generating Stage

During this intermediate stage, potential business model design solutions are created by modifying an existing business model or building a brand new one. Some practising idea generation techniques include both logical (i.e. morphological analysis) and
intuitive (i.e. brainstorming) and forms involve group or individual participation (Amit and Zott, 2014). For instance, a brainstorming exercise can be performed in a group following a set of rules where ‘defer judgment,’ ‘build on the ideas of others,’ ‘one conversation at a time,’ ‘stay focused on the topic,’ and ‘encourage wild ideas’ are examples of some of these rules practiced by IDEO’s design method (Brown, 2009). This stage revolves around three fundamental questions: (1) What are the activities required to fulfill these observed needs? (2) How could the necessary activities be linked to each other? (3) To whom the responsibility to perform each of the activities that are part of the business model lies on? (Amit and Zott, 2014). However, the structure of the domain of responsibilities may be considered ‘governance’. Whereas, the design of the business model includes three components: `content’, which is broadly depicted as the business model elements; `structure’ as per the interrelation of the content and finally ‘governance’ that is defined as the flows of information, resources that are controlled by relevant parties (Amit and Zott, 2001).

The Refining Stage

As the fourth stage, refining aims at narrowing down a large number of design possibilities to one or a few numbers. According to Amit and Zott (2014), this activity involves three iterative steps: (1) grouping various business models into alternatives; (2) evaluating these options as per relevant criteria, feasibility, validity and desirability from the customers' perspective (Brown, 2009) and (3) prototyping, which is seemed as critical to experiment without committing a vast amount of resources and modifying as per the feedback from the stakeholders, especially the customers. Although, there are multiple formal evaluation techniques, such as scorecards or multi-voting (Amit and Zott, 2014), in practice the refining of the business model takes place in a rather informal way including a few key persons of the focal firm as it requires intensive involvements. The entrepreneurs or managers seek to answer what revenue model fits with the company’s business model to offer the value the firm aims at (Amit and Zott, 2014). As a result of this stage, it does not necessarily provide a fully working business model, rather helps its strengths and weaknesses for an improved direction.
The Implementing Stage

The final step, implementing, accumulates all the elements as included in the business model to transform into a coherent model and also establishes the linkages among the elements clearly. However, Amit and Zott (2014) argue that although business model is implemented based on a particular design, organisational and strategic adaptations are carried out as unexpected situations may evolve. Amit and Zott (2014) mention Sirmon, Hitt, and Ireland (2007) to state that the firm’s existing resources and capabilities may have to be modified, abstracted, availed or reorganised to complement the new design. This stage embarks significantly on the loyalty and commitment based leadership qualities. The leaders have to communicate the message effectively for the realisation of the design and at the same time efficiently for the apprehension of the firm's values and culture.

Amit and Zott (2014) create ambiguity of what the implementation stage entails. Briefly, it involves the reinforcement of a particular desired business model to be communicated clearly. However, implementation also includes organisational adaptations in an attitude towards experimentation so as to test the assumption in the market, which makes it fuzzy with the boundary of the prior stage. In this vein, Brown (2009) highlights that design process is characterised by an open-ended process in which new discoveries require continuous adjustments. By contrast, Frankenberger et al. (2013) contemplate implementation as a separate phase of the design process in which the business model is realised on a full scale in the market. Moreover, the firms may prefer to involve in test-pilot or market test as a trial-error implementation strategy to fully integrate the business model. This concept goes in line with the argument by Amit and Zott (2014). Similarly, Osterwalder (2004) describes the business model design as the constitution of the right business logic that is aligned to the market whereas the business model is later implemented when the structure, processes and infrastructure are created.
Nevertheless, above-mentioned guiding framework of the stages of BMD process weaves its activities together into a system. To clarify the discussion, below a visualisation is represented in figure 1.

Figure 1. Process of Designing the Business Model

Amit and Zott (2014) portray the five stages presented in a linear sequence manner although they recognise that they may be linked interactively. The interrelation of the stages may, therefore, be investigated empirically. Based on the design literature, the nature of the BMD process may be dynamic and cyclical based on the iteration loops between products and markets. The business model is designed through trial and error and incurs some adaptations when pursuing the commercialization of the offerings (Chesbrough, 2010). This cyclical process is a continuous interaction between value creation components, including value proposition, market segmentation and revenue model as well as value capture components as per cost model and estimated resources or partnerships (Dmitriev et al., 2014). Henceforth, motivated by Teece (2010), it can be said that the ‘final business model’ almost never appears in the first try-out of an emerging business. Thus, it is a matter of relative perspective considering a firm’s positioning strategy for a given time to address a particular customer need. Matching to the dynamism of today’s market, a firm may keep on renewing its distinctiveness as competitors threaten and it masters the ability to change its business model (Linder and Cantrell, 2000).
As a consequence of the on-going dynamism and iterations that the business model suffers, the process of designing the business model is rather complicated to standardise (Dorst, 2011). The process involves a high degree of interaction between stakeholders, the external context as well as a core team in the firm for decision-making through a discovery approach to the development of ideas. In order to accommodate a balance between the necessity of standardisation in the design process and the dynamism required by the task, there is an urge to construct a general BMD process, whereby Amit and Zott (2014)’s framework is consistent.

2.2. Internationalization

2.2.1. Definition and Characteristics

International entrepreneurship refers to the firms that become global in a short span of time (Christensen, 2003; Young et al., 2003) in contrast to the traditional theories supporting the long evolutionary path of international development (Johanson and Vahlne, 1990). Thus, international startup theories, an emergent field associated with entrepreneurship, pose importance on the characteristics of the firms that globalise, i.e. new international ventures, alternative processes, various strategies and distinct drivers.

“An international new venture is a business organisation that, from inception, seeks to derive significant competitive advantage from the use of resources and the sale of outputs in multiple countries” (Oviatt and McDougall, 1994, p.49). A similar line of argument explains born globals as “Entrepreneurial start-ups that, from or near to their founding, seek to derive a substantial proportion of their revenue from the sale of products in international markets” (Knight and Cavusgil, 2004, p.124). Thus, the INVs refer to a broader term that includes startups, and other types of organisations such as spin-offs from established companies. In literature, various terms, such as ‘born global’, ‘global startup’, ‘international entrepreneurship’, ‘early, rapid or accelerated internationalisation’ are often associated with the research stream that explains the peculiarities of those firms only. For this master’s thesis, we continue using the term, INV, not to limit the scope of our study to any specific characteristics of those firms. However, the definition illustrated above might not be enough alone to clarify what the
INVs are. Therefore, some distinctive characteristics of the INVs are highlighted in the subsequent description.

The time span of an international startup, which starts its internationalisation process from the beginning, has a great debate. When Oviatt and McDougall (1994) consider the first six years of a firm as its startup phase, Zucchella (2005) shorten it further to three years, which seems to be the generally accepted idea (Madsen and Servais, 1997).

The INVs differing from the established firms often referred as small and medium enterprises (SMEs) or multinational enterprises (MNEs), which need to be scrutinised in order to explain the underlying logic on which this master’s thesis is based. SMEs differ from MNEs in terms of “ownership, resources, organisational structures and processes, as well as management systems” (Lu and Beamish, 2001, p.567). These differences can be extended to the INVs for example if it is assumed that the startup makes use of foreign networks or distribution channels, global talent with knowledge in different languages, policies and so on. Processes might be designed to cope mainly with information gathering and fast communication and decision-making processes.

A differential characteristic identifies the INVs, containing the percentage of the international sales and operations out of its total accounting figure. It is not contradictory that a startup may obtain substantial revenue from the domestic market, and even this can constitute the primary customer base. Consequently, in order to be considered as an INV, there are figure-based limitations; such as at least 25% of a firm’s total sales have to be derived from international market (McDougall, 1989) whereas 25% of its total production has to be destined for foreign market (Knight et al., 2004). However, Zahra and George (2002) criticise such arguments for the fact that internationalisation of neither purchasing inputs or production operations were included in the past research as its characteristics.

Another significant particular is the degree of flexibility required to adapt to the ongoing changes in the market, such as new technologies, regulations, and so on. A newly constituted startup is based on ill-defined processes, adaptive entrepreneurial mindset of the entrepreneur(s) and the management team etc. In achieving a viable business model, the theories of business life cycle similarly agree on the progressive and sequential
stages from its creation at an early stage to its development at established phases of growth and maturity (Robbins and Dodge, 1992). Without any aim to support or oppose the stage path of adaptation of a startup’s business model at this point, business life cycle or other theories point out towards the flexibility of the firms.

2.2.2. Internationalization Models for the INVs

Theories of internationalisation date back from 1960. Pioneering approaches are based on economic theories, such as the growth path of the firm (Penrose, 1959), the ownership of resources (Hymer, 1960) and the product life cycle (Vernon, 1966). These theories generally respond to why a firm may internationalise, and the answer to all of them lies commonly on the growth of the firm. Similarly, these theories argue that internationalisation may be driven from both external and internal forces, which support the argument of introducing the business model concept as a way of managing the firm from a holistic point of view. Therefore, we review the models, which have been established more recently, drawing the antecedents for studies on the drivers of internationalisation.

The Behavioural Internationalization Process

The Uppsala internationalization process model, often referred as the Uppsala model (Johanson and Vahlne, 1977) represents the gradual stages model of internationalization. Internationalization in a firm occurs as a consequence of the accumulation of generic and market-specific knowledge about a foreign market. Generic knowledge refers to the necessary acknowledgement of how the firm conducts business internationally whereas market-specific knowledge includes information about institutions, key stakeholders, regulations and laws, which are specific to a particular market. Also, market-specific knowledge is experiential, which can be developed through the firm’s operations. It determines the firm’s entry mode to a market along with its pace of internationalisation process. The pace here is influenced by the differences in culture and languages, educational levels, business practices and industrial development, which inhibit the acquisition of knowledge needed to enter into a foreign market. When more market knowledge is assimilated, the level of psychic distance is reduced, which, in turn, creates a progressive internationalisation process.
Thus, Johanson and Vahlne (2003) state, “Since knowledge is developed gradually international expansion takes places incrementally” (p.89).

The role of knowledge, both general and market-specific, is a crucial resource, from which an INV can strengthen the level of commitment and thus, trigger the process of recognising the opportunities abroad, evaluating competitive forces in the market and likewise. The revisited version of the Uppsala model contains the core premise: the relevance of foreign market knowledge development, which is mainly experiential, but not longer through past foreign market operations (Johanson and Vahlne, 2009). Knowledge is, hence acquired through the development of a network of business relationships. Moreover, innovation-related internationalization model points out that due to size limitation and newness of the SMEs, the feasible mode of internationalization implies a gradual path by committing resources towards the foreign markets as more knowledge and information are gathered (Bilkey, 1978; Cavusgil, 1980).

Nevertheless, one of the limitations of the Uppsala model is that it does not consider the size of the firm. Alternatively, the innovation-related innovation model is based on SMEs, which is in line with the type of firm considered for our study. In addition to this, it incorporates the timing of initiating foreign operations (Andersen, 1993) since the Uppsala model takes the timing aspect for granted and does not include the initial conditions needed for a firm to internationalise. Also, its deterministic character embarks on the entry mode and the geographic markets through a chain of events only. Thus, merely following these patterns, restrains the strategic decision-making of the entrepreneurs or the management team (Andersson and Wictor, 2003). However, literature on early-internationalised firms proves that the entrepreneurs are crucial to influencing the speed of entering into a market abroad (Knight and Cavusgil, 1996; Madsen and Servais, 1997).

Overall, the Uppsala model, which proposes the gradual stages, does not seem to find a suitable explanation for the global firms or the INVs with rapid internationalisation process. The prevailing view is that the relatively small size and newness of a startup are assumed to be the limitations inhibiting the firm to internationalise (Coviello and McAuley, 1999). In the opposite paradigm of incremental and gradual operations of the
startups in the foreign markets, how can the Uppsala model apply to explain the drivers of internationalisation on new ventures? Does the only plausible explanation come from the knowledge acquired and market commitment? Does the revisited version, including the network theory, realise the role of the internationalisation drivers for the INVs?

**Internationalization Process of the Born Globals**

In the early 1990s, the field of international business converged into a new paradigm called born global, which gave rise to the behavioural internationalisation theories. A study, based on different empirical evidence, by Madsen and Servais (1997), shows that with the changing pattern of international ventures, the Uppsala model fails to provide with a successful explanation. It is noteworthy that the global mindset of the entrepreneurs or the core management team positively influences the pace of business conducted abroad (Oviatt and McDougall, 1994; Madsen and Servais, 1997; Knight and Liesch, 2016). Even though business networks have importance for accessing resources in the foreign markets (Madsen and Servais, 1997), studies have recognised the role of the personal or private network of the entrepreneurs. The INVs benefit from the entrepreneurs who possess a well-established network of international contacts, even before tracking the global initiation of the firm (McDougall et al., 1994). It also impacts the resources allocation in the international markets, particularly across marketing and distribution costs, and thus can alleviate limitation through joint ventures, partnership and as such.

Other enablers associated to born global theories come from cutting-edge technological innovation or knowledge-based products, in the form of intellectual property registration and patents. There is a correlation between the innovative products and the interest on the greater number of international markets served (McNaughton, 2003). Besides, other factors, such as the size of the domestic market and the degree of internationalisation across the industry in terms of global sourcing or distribution channels, etc. are equally important (McNaughton, 2003; Madsen and Servais, 1997).

However, the Uppsala model, particularly the revisited network version, can still present a coherent theory to explain the fast-paced internationalisation of born
globals (Rialp et al. 2005; Autio et al., 2000; Madsen and Servais, 1997; Oviatt and McDougall, 1994; McNaughton, 2003). Foreign market knowledge positively influences the commitment towards internationalisation by reducing the risk and enhancing the opportunity recognition, though it does not necessarily influence the offering, the entry mode and the geographical markets (Madsen and Servais, 1997). So, how can they jointly propel the internationalisation of a new startup?

2.2.3. The Drivers of Early Internationalization

The major theories of internationalization models as narrated in the preceding section helps summarize a non-exhaustive list of internationalization drivers. These drivers are interconnected, meaning that, action(s) taken by one-driver influences the role of other drivers independently or jointly. Rialp et al. (2005) argue, “As most of the current empirical research seems to be highly context-specific, almost every author in this field has aimed at elaborating his/her own list of such key success factors” (p.160). Having said so, Rialp et al. (2005) present a compilation of thirty-eight studies that investigate over a decade on the driving forces for the small firms to internationalize.

The findings reveal a list of ten enablers of early internationalization, which constitute the first and the second order categories in the table 2 below. It is in our interest to create a comprehensive, holistic, although non-exhaustive, list of drivers that may have a significant influence over the process of designing the business model of the INVs. Therefore, before deepening into the research topic, each of the drivers is narrated separately where their interrelation has implicit evidence.
<table>
<thead>
<tr>
<th>First Order Category</th>
<th>Second Order Category</th>
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<tbody>
<tr>
<td>Entrepreneur-specific</td>
<td>A managerial global vision from inception</td>
</tr>
<tr>
<td></td>
<td>High degree of previous international experience on behalf of managers</td>
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<tr>
<td></td>
<td>Management commitment</td>
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<tr>
<td>Network-specific</td>
<td>Strong use of personal and business networks</td>
</tr>
<tr>
<td>Business-specific</td>
<td>Market knowledge and market commitment</td>
</tr>
<tr>
<td></td>
<td>Unique intangible assets based on knowledge management</td>
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<td></td>
<td>High value creation through product differentiation, leading-edge technology products, technological innovativeness</td>
</tr>
<tr>
<td>Market-specific</td>
<td>A niche-focused, proactive international strategy in geographically spread lead markets around the world from the very beginning</td>
</tr>
<tr>
<td></td>
<td>Narrowly defined customer groups with strong customer orientation and close customer relationships</td>
</tr>
<tr>
<td></td>
<td>Flexibility to adapt to rapidly changing external conditions and circumstances</td>
</tr>
</tbody>
</table>

Source: Based on Rialp et al. (2005)

**Entrepreneur-specific**

“An entrepreneur is an individual who exploits market opportunity through technical and/or organisational innovation” (Schumpeter, 1965). The traits that an entrepreneur beholds, along with their personal network and prior knowledge (Andersson and Wictor, 2003; Sharma and Blomstermo, 2003) highly impact a firm’s initial internationalisation process. Thus, the INVs are nurtured by the role and the ambition of their founders, who are more concerned with the possibilities of combining resources from beyond the national market (McDougall et al., 1994). The competences that the international entrepreneurs develop from their prior activities, enable them to avoid the domestic path dependence when establishing their ventures. From the very beginning, they adopt the culture to manage a multicultural workforce, as well as coordinate resources and target customers in several geographic locations simultaneously.
An important characteristic that distinguishes the entrepreneurs of the INVs is the common perception of the world as the marketplace with a vast array of opportunities. With a global vision from inception, the founders do not veil their growth desire inside the national border only. They commit a high level of motivation and ambition to exploit the opportunities abroad (Oviatt and McDougall, 1994; Andersson and Wictor, 2003; Zuchella et al., 2007).

Besides, global orientation of the founders plays an important role to trigger early internationalisation of the startups. Prior international exposures, as in study abroad, job mobility or personal contacts, portray a major role in internationalisation since the founders are most likely to combine their experience with several practices (Bloodgood et al., 1996; Andersson and Wictor, 2003). Overall, this fact strongly supports the basic premise of the Uppsala model concerning the learning process of the firm, when internationalising.

**Network-specific**

Followed by a relational process, a network is the set of connections that a firm is embedded in when it is tied to the inter-organisational strategy in particular (Onetti et al., 2010). The network is characterised by interdependence and reciprocity of the relationships within an ‘operating environment’ (Achrol and Kotler, 1999). Networks provide with new knowledge on how to conceive opportunities and conduct operations in foreign markets by accumulating both general market knowledge and market-specific knowledge, as suggested by the revisited version of the Uppsala model (Johanson and Vahlne, 2009). And so, an internationalised firm benefits from transforming necessary information creating adequate knowledge.

The relations which are considered to foster an early internationalisation process can be derived from either the business networks, such as suppliers or distributors’ relationships, or the pre-established social networks of the stakeholders (Johanson and Vahlne, 1990; Zahra and George, 2002). The social networks often rely on moral obligations and reciprocal trust. If the personal connections of the management team of an INV can be nurtured, it can lead to identifying the partners for the sale or even the operation abroad (Lindqvist, 1991). Added to this, high export behaviour of a new
venture is often associated with social and business networks, which is often argued to be a precocity on entering new foreign markets (Zuchella et al., 2007). By contrast, the business networks are nurtured through the firm's operations. If a firm appreciates its association with other enterprises, involved in similar international networks, the connection may benefit the firm indirectly as well, if not directly (Sharma and Johanson, 1987).

Nonetheless, networks as an alternative to the ownership of the resources, offer a platform for capital, distribution channels and contacts for further expansion, among others (Knight and Liesch, 2016). Moreover, the INVs may use its’ network to secure the access to unique resources or the sale of its products or services (Achrol and Kotler, 1999).

Network theories in the field of international business mainly constitute the study of international networks (Rialp et al., 2005). Although local networks are largely overseen, they are highly relevant too (Zuchella et al., 2007). A study of on international SMEs by Chetty and Campbell-Hunt (2003) reveals that an initial connection with different stakeholders, such as customers, suppliers, competitors, distributors, public institutions and competitors in the domestic market can facilitate the access to identify potential international partners that later on can be used to acquire market knowledge, resources and establish global sales points. A reverse view expresses that the presence of the networks to ignite rapid internationalisation of the firms is not as vital as it has been anticipated (Rasmussen et al., 2001), albeit, for the INVs, the association to local clusters is beneficial to some extent (Zuchella et al., 2007).

**Business-specific**

In order to compete successfully over time, a firm needs to identify the core competences and those provide access to a variety of different markets (Prahalad and Hamel, 1990, p.83). Thus, the development of critical resources for the sustainable growth in any market is crucial where the fundamental assets and competences of the firm are resolved amid the foundation stage (Moen and Servais, 2002). The Uppsala model defines it as market commitment, which is composed of the availability and the size of resources that a firm commit to engage go international. Market commitment
narrates that the more specialised the resources are to an individual foreign market, or in sum to some international markets, the greater is the engagement of that firm to conduct activities abroad (Johanson and Vahlne, 1977).

Among resources, exclusive knowledge is a core for the INVs, and the firms may need to retain this surplus of knowledge for an extended period (Oviatt and McDougall, 1994). Although there are varied kinds of it, knowledge as an intangible asset is critical as it allows the INVs to not only begin in foreign markets but also continue further on (Sharma and Blomstermo, 2003). Among different classifications, the realisation of knowledge is referred as tacit and explicit (Nonaka, 1991). Tacit knowledge is context dependent and experiential that the individual acquires through the activities performed. Alternatively, when knowledge obtained by the individuals is restored in a firm's procedures, processes and routines, is called explicit knowledge (Levitt and March, 1988).

Early internationalisation of the new ventures is associated with technological resources as well. Technological capabilities allow transmitting the knowledge quickly, enabling flexibility to a better resource allocation in the foreign markets. Additionally, resources may also be used for developing new propositions, improving communication channel and information storage while leveraging up productivity (Oviatt and McDougall, 1994). Differentiated from its’ competitors’ offerings, knowledge-intensive new ventures often develop unique products, or even, endorse radical innovation. Thus, value-added technologies and cutting-edge offerings, competing on quality and product design in a non-existent market yet, can positively foster the internationalisation process (Rennie, 1993; Bloodgood et al., 1996).

**Market-specific**

Recognizing niche opportunities for a narrowed down customer target, stimulates the INVs to intervene in the foreign market (Rialp et al., 2005). Understanding the customer with a strong focus on their need and relationship management with them must be embedded in the strategic level of the firm’s, when running business in the global market (Torres-Ortega et al., 2015). A study on technology-based INVs by Jolly et al. (1992) conclude that rapid internationalization requires homogenous customer groups
and standardisation of the offering. As the INVs suffer from limited resources and a lack of volume in operations they may need to reduce the adaptation to small adjustments. However, international strategy as adopted by a new firm at an early stage affects its global market orientation across following factors such as international proactiveness, international customer orientation, international responsiveness and international marketing capabilities (Moen and Servais, 2002).

Market commitment leads the INVs to deploy its core resources beyond the home country’s border while keeping its’ focus on a particular group of people abroad. The firm's global orientation, which is emergent from the entrepreneur's vision (Johanson and Vahlne, 1990), thus needs to serve the purpose of dealing with specific kinds of customer needs. Added to this, proactiveness as an entrepreneurial driven approach motivates to discover new business opportunity way before it is confronted by the customers. From the same standpoints, when the potential customer groups are clustered in a narrow range, it facilitates the firm to place those specific customer needs as the central of its attention. This condition results in strong personalised relation and thus broadens the scope of continuous customer connection. Strong customer orientation naturally allows the firms to adapt to the differences to meet the local demands, even within the scope of its’ standardised products. Such flexibility of the firms, with global orientation from the inception, is required during not only the initial stages but also the last stage, which is the commercialization of the offering(s). Regardless, the difference of B2B customer and B2C customer, at this level, flexibility is the key ingredient if the firms aim at running a business at multiple different foreign locations.

2.2.4. Internationalization as a Strategy

The strategy of internationalisation is now implemented by a greater array of business types, regardless the traditional scope of MNEs with enormous resources or the smaller companies forced by low demand market (Knight and Liesch, 2016). Internationalisation is considered as a major strategic decision, concerning both external environment and internal factors of a firm. These twofold activities, with different but complementary focus, are classified as ‘external fit’ and ‘internal fit’. When these fits are aligned together, it is called ‘strategic fit’ (Venkatraman, 1989).
Regarding internationalisation drivers, the external fit may be characterised by the market and the network specifics. Thus, the apprehension of the customers’ needs and the adaptability towards their demands are the primary aspects to address. In addition to this, a firm not only interacts with the customer but also with competitors, suppliers, and venture capitalists, among other stakeholders. Therefore, the inclusion of the network-specific factors is subject to enhance the scope of the external fit.

By contrast, business-specific and entrepreneur-specific drivers may shape the internal fit, which is identified to bring an internal coherence among a firm's elements (Siggelkow, 2002). Thus, knowledge-based assets such as market knowledge; market commitment or intangible assets may establish internal business coherence. Knowledge from both inner and outer sources enables the alignment with the organisation under the changing circumstances that result in greater performance (Siggelkow, 2002). Furthermore, the role of the entrepreneur is to design the internal configuration of the firm’s resources and capabilities in response to the external forces.

2.3. Internationalization Drivers Configuring the Business Model Design Process

The concept of the business model may not be addressed in a vacuum as a firm rather operates under specific legal frameworks, competitive landscape, customer base or technological advancements (Osterwalder, 2004). When operating in an international environment, this becomes more visible to the new ventures. The interaction of business model with the product-market strategy has effects on the firm’s performance (Zott and Amit, 2008). This indicates a firm to achieve an external fit, given the environmental conditions that it may face. On the other hand, Nenonen and Storbacka (2010) propose that the adequacy of a business model is based on the internal configurationally fit of the business model elements.

Additionally, a central characteristic of the business model is that it allows for a holistic view of the business by combining factors located inside and outside the firm (Teece, 2010; Zott et al., 2011). At this point, it is noteworthy that the business model works as a tool by supporting the communication and negotiation among a firm’s activities (Nenonen and Storbacka, 2010), which are guided by the particular strategies
undertaken by that firm. As far as internationalization strategy is concerned, it needs to be reflected in the business model, which portrays the firm’s ambition, building on an integrative perspective targeted as the strategic fit.

Additionally, international strategy guides the business model in terms of managerial choices for positioning the firm in the global market (Zott and Amit, 2008). Thus, it can be argued that the configuration of the business model of a firm is affected by not only the environment where it persists but also the decisions on how to utilise different elements of the strategic fit in that environment.

**Visual Representation**

To sum-up, we present the following figure to help the readers to visualize the purpose of this study. Figure 2 shows five stages of constructing the business model, which are repeated after the implementing stage for a given period of time. Here, four internationalization drivers are connected to the design process, as argued to be the strategic stand by an INV. These four drivers are again linked to each other with four arrows that reflect their interdependence on each other on the way to achieve the strategy as a whole. It is noteworthy to state that strategic fit comes into the discussion only as a holistic direction of internationalization drivers when outlining the business model. Therefore, figure 2 does not demonstrate the inclusion of strategic fit it is not the purpose of the study in itself.

*Figure 2. A holistic view of the Theoretical Framework*

Source: Based on Amit and Zott (2014) and Rialp et al. (2005)
3. METHODOLOGY

This chapter outlines how the research has been conducted in order to address the purpose of this master’s thesis. This study conducts exploratory research with the inclusion of multiple participants. The research strategy has a resemblance to an inductive approach as per the conceptual model presented in the analysis, although it is based on a detailed review of the literature, and, therefore, the research approach is further discussed subsequently. The analysis method used is of qualitative nature through the collection of interviews; online publications and presentations that were needed to support the research design. Furthermore, ethical considerations and reliability and validity of this study are stated in the last parts of this chapter.

3.1. Research Philosophy

The purpose of this study is to understand whether it is possible to determine how internationalisation influences on the BMD process in light of current relevant theories and the empirical ground. As the foundation of this study, i.e. the business model literature dates back from 1960 with limited results until 1990 when it caught the attention of the scholars due to the flourishing of the Internet (Osterwalder, 2004). Still there is a lack of theoretical foundation as just to mention the inconsistency of definitions that provides a nuance of an exploratory field. By considering our research question, this is emphasised because the linkage with the internationalisation theory is underexplored (Onetti et al., 2010). Thus, the purpose of the study articulated the nature of the paper as exploratory. An exploratory study looks for ‘what is happening’ in order to seek new insights, ask questions and assess phenomena in a new light (Robson, 2002, p.59, as cited in Saunders et al., 2015).

To tackle the exploratory nature, it was required to have a concise initiative to have an integrative explanation of the two domains of our study. Consequently, both the business model and the internationalization literature have been analysed by various researchers from varied perspectives. Henceforth, to be able to look at things from our precise angle, the perspective of Engaged scholarship was adopted since its participative nature in research allows obtaining information from multiple stakeholders, for instance, researchers, users, clients, sponsors, and practitioners. The Engaged
scholarship consists of diversified knowledge from scholars and other stakeholders, making it more astute than any of these parties’ solo knowledge (Van de Van, 2007).

3.2. Research Approach

This study relies on the exploration of theories as well as the analysis of empirics. “When deductive approach tests the validity of theories or hypotheses in hand, inductive approach contributes to the emergence of new theories and generalizations” (Gabriel, 2013). Therefore, its approach can be regarded as twofold: deductive and inductive since it can be disguised as neither purely deductive nor purely inductive. On one hand, the literature is reviewed to identify existing theories to build a conceptual framework, which is consistent with the deductive approach. On the other hand, the observations are related to the theory after it is revealed using collected data, which is defined as an inductive approach.

More specifically, in the beginning of the study, we decided on the topic of interest, as such the business model. Afterwards, we narrowed down the diverse streams of the business model theories to the specific topic of the business model design process in regard to the internationalization drivers. Initially, deriving from the theoretical analysis, we provided with a visual presentation (see figure 2) to simply convey the purpose of the research work. It is noteworthy that from the theoretical discussion only, no conceptual model was developed, and therefore, this study departs from a purely deductive approach. As we proceeded to collect data, we detected particular patterns, and through the theory and empirics combined, we developed a conceptual model (see figure 6). Lastly, we revisited the theories to fulfil the intention of enhancing the knowledge of this study discipline. In conclusion, not to mark it as an abductive, it was rather a complementary combination of both approaches because some parts of the paper followed deductive pattern whereas some others adopted inductive pattern.
3.3. Research Strategy

3.3.1. Method of Assessing Literature

The idea of looking into the literature critically leads to gain in-depth background knowledge and mark the problem. By summarizing prior work and spotting future research need, these key features provide with a subjective narrative overview (Weed, 2005), which is tied to our research philosophy. The literature review is assessed critically following six sequential and iterative steps (Machi and McEvoy, 2012). Although iterative, the single sequence of the steps in association of this study, are outlined in the chart below:

*Figure 3: Six Steps of Literature Review*

Source: Machi and McEvoy (2012)

To begin with, the selection of topic involved refining personal interest to research interest, identifying the preliminary research topic and converting that topic into a statement. At this stage, our interest revolved around the broad idea of the business model. In the next step, we decided on the search strategy in terms of keywords, databases and search engines, setting criteria to refine the topic further (Saunders et. al, 2015). The topic was narrowed down to the business model design process and the internationalisation, which helped us to revisit the research approach.

To turn the research idea into a research project, we built an initial argument as the conceptual foundation for the survey of the literature. During the fourth step, extensive reading leads to the assembling of the collected studies through the categorization of the elements within the clusters of meaning units; BMD process and internationalisation.
We followed three checklists for effective reading: (1) Previewing (2) Annotating (3) Summarising (Harvard College Library, 2006 as cited in Saunders et. al, 2015). Thus, firstly we categorized relevant papers based on the title, keywords and abstract. When accurate, a paper was noted down in the database created for this purpose and proceed with reading. Finally, summaries were created to compile all relevant information to contain in the final writing.

The checklists activated ‘intensive thinking’ in the fifth step, which resulted in reviewing the literature critically rather than summarising the previous publications (Saunders et. al, 2015). The term ‘critical review’ refers to the judgment of the researchers about the positive and negative aspects of the literature related to the research project. It can be seen for instance in the inclusion of the Uppsala model into the theoretical framework. Although the Born Global theory perfectly refers to the INVs if compared to the Uppsala model, we questioned if some lessons could be drawn to extend our understanding of the internationalisation drivers. This step was particularly important as it helped abstract the main findings. Finally, to produce writing in the final step we underwent reviewing notes, making multiple drafts and conducting a continuous evaluation.

3.3.2. Case Study

The base of research strategy depends on research objective, available knowledge along with convenient time and resources. In the manner alike, an empirical environment holds various information and events, which need to undergo a detailed analysis for clear understanding. A careful consideration of the practical context is a crucial factor, which is advanced by the case study analysis. A case study encompasses an investigation of a real-life phenomenon. It is designed to assess a theory and evaluate a research problem for the reason that a theory needs to be translated into an operational research model (Van de Van, 2007).

For the study, two dimensions were selected, multiple cases and holistic case (Yin, 2003 as cited in Saunders et al., 2015). Unlike a single case, including more than one case allowed overcoming the limitation of the uniqueness of a particular case analysis. For this study, the cases were Againity AB and MIMSI Materials AB. And, holistic case
indicated to the unit of study where the organisation as a whole was considered, not its single subunits. To support this ambition, the entrepreneurs and the owners of Againity AB and MIMSI Materials AB as well as their third party business consultants at LEAD and LiU Innovation were reached. Additionally, we looked into the educational and professional background of these key persons, which allowed presenting the respondents’ perception of the theoretical concepts from the practitioners’ points of view.

3.4. Research Design

Considering the question under investigation, the theory of Engaged scholarship can be directed towards various research designs, which ensures efficient scrutiny of the research question. Hence, the research design was built upon process model, which sought to identify how things developed and changed over time (Van de Van, 2007).

In this case, the process model guided the research question to identify how the business model would develop if a startup chose to intervene abroad at its early stage. The theoretical analysis, on the basis of Amit and Zott (2014)’s study, helped understand the temporal progressions in the development of the business model when targeting the foreign market setting. However, in order to identify ‘how’ the process emerged or dismissed, it was equally important to trace the elements. In the question to ‘what’, the variance model decomposed the event and traced individual elements. Although opposite in nature, the variance model and the process model possess a complementary relation (Van de Van, 2007). Therefore, to begin with, identifying the building blocks of both domains led to recount the sequence of events as complementary to the process model. In this regard, four specifics of internationalization and nine configurational elements of the business model were first examined to help analyse the design mechanism of the business model as followed by the process model.

3.5. Research Technique

The research technique of this study was aligned to the chosen research design as well as motivated by research philosophy. Taking multiple case studies into consideration, we focused on the techniques of collecting, reducing and analysing data.
3.5.1. Data Collection

In order to gather empirical evidence in relation to the research question, we conducted qualitative research. A qualitative research focuses on process studies in an attempt to understand ‘what’ and ‘how’ things are developed (Saunders et. al, 2015). This mode of research helped gain knowledge of underlying reasons and opinions of the practitioners. We collected first-hand data from the primary sources. As individual cases were difficult to identify due to the lack of public information available, we selected snowball sampling (Van de Van, 2007). Following this, the participants referred us to others who had accomplished the requirements of this study for evaluation.

Consequently, we accumulated data from eight participants via semi-structured in-depth interviews. Four participants were the owners and the entrepreneurs from INVs, such as MIMSI Materials AB and Againty AB and the rest of the respondents were from LEAD business incubator and LiU innovation (see table 7 in appendix 7.1). Semi-structured interviews enabled us to highlight during the discussions different factors of our interest, as respondents remarked events or ideas freely (Bryman and Bell, 2007). Following this particular characteristic, we outlined the questions to be addressed, which were to somewhat ‘non-standardized’. The questions varied mainly because of the participants’ role and the organizational context.

Moreover, we prepared a set of ten questions in the form of the Likert scale. Using this ‘choice scale’, we enabled the respondents to judge the topic objectively as well (Cooper, 1976). The aim to use the Likert scale was not to direct the interview towards the topic, internationalization, separately, rather gain an overall impression. We assessed the respondents’ perspective about the importance of the internationalization drivers for the INVs, which we later explored in connection to the BMD process in the analysis part. Thus, the Likert scale was used for its confirmatory nature to complement the open-ended questions of this exploratory study.

3.5.2. Data Reduction and Analysis Methods

Identifying the contexts and the conditions under which the practicalities of the empirical world remains true is crucial (Weick, 1992 as cited in Van de Van, 2007). Thus, empirical data needed to be analysed in the way that revealed the complexity and
nature of the cases studied. To begin with, all eight interviews were audio-recorded during the data collection phase and later were transcribed using oTranscribe™ software. When transcribing, we followed naturalism and included as much detail as possible (e.g. overlapping talk and pauses) to grasp the utmost essence of the conversations (Davidson, 2009).

After that, the transcriptions and notes were compiled in eight separate data files and run through the qualitative data analysis software NVivo™. Before using this computer program, both of us explored the tutorial available online. We browsed through the website to learn how to use the software and also took part in five hours in long video training in YouTube (i.e. subscribed by Library La Trobe University and NCADE The Chicago School of Professional Psychology). We carefully observed how data could be coded using nodes and also analytical tables could be created in NVivo™ 11 version. We individually did a trial run of two transcripts and crosschecked the codes. To clarify, we captured the meaning of the BMD stages in table 8 and of internationalization drivers in table 2. Though the outcomes were mostly similar, in the case of doubts, we exposed our own justifications to each other to finally reach an agreement. In the final run, we applied open codes to each transcript using the CAQDAS package. Unlike manual analysis, NVivo™ helped improves the reliability of result as the created nodes are assigned with analytical numbers.

Additionally, using the Likert scale the respondents were asked to rank-order the importance of the object questioned. The Likert items had symmetry with equal weight of positive positions from one to five. We calculated the mean score of the questions to identify the central tendency of the respondents’ perception. The tendency or the level of agreement/disagreement with the statement helped understand the interviewee’s perception in an objective manner. Thus, the quantitative calculation was complementary to the main subjective dimension of the study. It is noteworthy that as a supportive analytical tool of the main qualitative research, we used the Likert scale to better understand the findings only.
3.6. Research Ethics

As the study involved multiple stakeholders of varied background with different levels of understanding of matters, the ethical aspects of the research were taken into consideration. As of general principles of ethics, all the participants were well communicated about the purpose and the process of our study. We were careful in seeking for permission for sensitive information to avoid conflict of interest. As some of the participants worked closely with LiU, and others were familiar with the master’s thesis requirements, it was particularly of help in assuring our awareness of the values of all stakeholders (Van De Van, 2007). Also, before the final compilation, we shared the relevant parts of the paper (i.e. empirical chapter and analysis chapter) with the company participants and amended information according to their advice, albeit adjusting it to not damage in any manner the major findings of this master’s thesis. The amendments did not cause any disagreements.

3.7. Reliability and Validity

In general terms, in qualitative research reliability refers to ‘stability’ whereas validity indicates ‘trustworthiness’. Reliability is understood as: “The extent to which your data collection techniques or analysis procedures will yield consistent findings” (Easterby-Smith et al., 2008, p.109 as cited in Saunders et al., 2015, p.156). To ensure an overall credential of this paper, we followed for generally accepted criterions of reliability: (1) Credibility (2) Transferability (3) Dependability and (4) Confirmability, as proposed by Lincoln and Guba (1985).

The ability and effort of the researchers are the indicators of credibility, which ensures ‘internal validity’ of the study. Thus, we adopted the strategy of triangulation, which let us gather information from four independent sources (Againity AB, MIMSI Materials AB, LEAD and LiU Innovation) and also, prolonged contact with the sample cases over the period of the master’s thesis. We also focused on data saturation and reflexivity by querying the respondents over and again until the concept of a particular matter was clear. Added to this, transferability means the extent to which a concept generated in one context holds true in another context, which indicates ‘external validity’. We ensured transferability by presenting thick descriptions of the evidence in empirics and
analysis chapters, and also, maintaining variation in respondent selection, where the entrepreneurs, the managers, the owners and the external consultants took part in the interview.

On the other hand, dependability, which considers the dynamic features of a context within which the research is conducted. In this paper, an in-depth description of the research design followed by its realization process for data collection and analysis was introduced. This helped to have a credible outcome, which could be repeatable for a relevant future study. It is noteworthy that there is close link between credibility and dependability, because in practice, a demonstration of the former goes some distance in ensuring the latter (Lincoln and Guba, 1985). Moreover, confirmability refers to neutrality, which seeks for the degree to which the interpretation by multiple parties of the study can overcome the biases and thus, confirmed by others. We placed special attention to the possible interpretation of the interviewee’s when placing the queries to them and afterwards, when codifying their responses during the analysis. We took the role of devil’s advocate and checked our self-interpretation with each other, which substantially helped us to reduce data distortion.

Moreover, “Validity is rather a contingent construct, inescapably grounded in the processes and intentions of particular research methodologies and projects” (Winter, 2000, p.1 as cited in Golafshani, 2003, p. 602). Following the criterion of reliability enhanced the credibility of the study in terms of internal and external validity checkpoints. To have the utmost validity concerning the theoretical ground, we assessed plenty of theoretical materials so as to remove the risk of minimal validity on our findings or to be precise, the conceptual model proposition. Also, to have broader viewpoints on the paper, we kept in regular contact with our peer study groups, whom we met every other week and followed their valuable and relevant suggestions. Close to the end of the study, we sought for advice from a senior SMIO student, currently a Ph.D. student, to review and give feedback on the paper. Thus, by not only considering the interviewee’s subtle, but also looking for the judgment of external personnel we facilitated our study to include relevant multiple perspectives and thus, get enriched.
Visual Representation

In order to recapitulate the thick description of the methodological process of the paper, visualization, called research onion, is presented below.

*Figure 4: Research Onion*

The research onion, at a glance, shows how we chosen the methodology at varied phases, created a distinct conversion between design and tactics, which are highlighted with different colours. The former reflects the overall plan for the research whereas the latter, being the centre of the research onion, entails the finer detail of data collection and analysis.

Source: Based on Saunders et al. (2015)
4. EMPIRICAL RESEARCH

This chapter is the reconstruction of various facts attributed to the two startups in their attempt to internationalise over their short lifetime. Therefore, we present two case studies that illustrate the initial operations as the determinants for how to intervene in the foreign market. Moreover, the setting provided by the business incubator in which both the INVs are located is also examined. It is acknowledged that the distinct role of the incubator as a provider of guidance in business-related decisions. However, in our particular case, the business incubator has also played a relevant role in the global orientation for the startups and, therefore, needs to be contemplated in this chapter.

4.1. LEAD Business Incubator: Placing the INVs in Context

LEAD business incubator was established in 2002 as a result of a merge between two business incubators located in Linköping and Norrköping. LEAD (LiU Entrepreneurship And Development), is owned by Linköping University (LiU) and situated at Mjärdevi in the vicinity of the university. LEAD guides the startups from their early stage of existence to thirty-six months through an acceleration programme, offering facilities such as seminars, office resources, and knowledge in a vast array of diverse areas.

One of the fundamental offerings by LEAD is the business coaching from the experienced professionals. The business coaches often have prior managerial positions in large companies and board member responsibilities in varieties of organizations, in addition to founding or joining different startup teams themselves. All these allow the coaches to gain relevant market knowledge and up-to-date skills. The consultants help the entrepreneurs with a high standard competence development at the same time of delivering support schemes to develop a business model to attain the growth phase quickly. Most of the firms incubated at LEAD possess the nature of technological innovation, for which the firm's entrepreneurial expertise might be rather limited. Therefore, the business guidance provided by the coaches is of great value for the effectual functionality of the firms over time.
LEAD fosters networking activities too. They belong to different formal networks in Sweden such as Mjärdevi Science Park, LiU Holding AB, NuLink, ALMI, Vinnova, Swedish Incubators and Science Parks (SISP), LiU, Linköping Council and as such. LEAD has valuable partners in the international sphere, providing visibility to the incubator. The more successful cases are nurtured in the incubator, the more opportunities for foreign market expansion, information and contacts are attained. Networking activities may include conferences, meetings, breakfast/lunch, after work events, seminars and so on. Despite this, there is an internal culture of sharing experiences among different startups in the current incubator as well as LEAD Alumnus via tight contacts. It is illustrative that ‘fika gathering’ takes place once a week in the common facilities where the managers at LEAD promote and exchange ideas on diverse initiatives.

The role of the network is of strategic nature fundamentally, for the development of not only competencies but also financial support through the connection to venture capital sources, both nationally and internationally. This is worth mentioning that LEAD does not provide with any investment fund. In order for LEAD to be able to attract the investors for the firms incubated, they apply strict admission criteria, which are in line with how Blank (2010) defines a startup, “An organization formed for a repeatable and scalable business model”. Any startup to be accepted at LEAD must have the potential to reach 100M-sek profit annually, fulfilling this growth goal without a specific timeline fixed. This criterion leads the firms to escalate operations into the international markets. As a result, the firm's business model followed by the organizational structure, process and resource designed to undertake the scalability, are influenced by the growth objective desired by LEAD.

LEAD follows a process methodology, which is NABC (Need, Approach, Benefits and Competitors) in designing the business models. NABC is developed by Stanford Research institute (Wilmot and Carlson, 2006) that is operationalized by the entrepreneurs under the supervision of LEAD coaches. Initially, keeping the clients into the centre of attention, the business idea requires being transformed into value proposition through immediate and simultaneous assessment of NABC approach. The idea must fulfil a particular need for the customer and thus, create value with a vision to build a sustainable business over time. The approach refers to the solution presented by
the entrepreneurs to address the need identified. Benefits are crucial factors that
determine the selling points of the idea and it should be measurable in an effort to sales. Finally, it is relevant to conduct a market analysis on the competitor's offerings, industry structure and to sum up, a firm approximation to the market. According to the business coaches, this phase could be concluded in a short period of three months approximately, although it may take longer for the entrepreneurs.

In addition to this, NABC is complemented by the visual tool of the business model canvas, which provides an overview of the fundamentals required to build a business and it contains the business model elements described in the theoretical framework chapter. Later, the process focuses on the attainment of customer agreements, the settlement of the demonstrator or prototype to ensure greater validity of the offering, the business activities including the raise of capital for the new venture. Overall, this constitutes the initial phase named ‘verification phase’. At the completion of this phase, the entrepreneurs have completed the design of a scalable business model, which is powered to the ‘growth phase’. As one of the coaches stated, “The business model is never completely developed and it should be reviewed frequently.” However, at this stage, companies place their focus on conducting their operations and expanding the business.

4.2. Case Study: Aginity AB

Aginity AB is included into the list of Sweden's most thirty-three innovative young companies, which evaluates international ventures with a maximum of seven years since their foundation. Definitely, Aginity constitute a successful case of internationalization at an early stage of their existence. The startup, founded by an experienced entrepreneur, has established operations in a county in Kenya and arranged mechanisms to continue its expansion in diverse locations around the world. We shall proceed to review how the business has developed over its four years from birth.

4.2.1. Company Background

Electric costs constitute a large amount of the total bill of the industrial sector worldwide. The fossil fuels along with other sources of energy produce losses of energy
accountable for estimation between 20% up to 50% of the total electric inputs used (Anon, 2008). The energy lost forms waste heat derived from hot gases, boiling water deposits or hot equipment surfaces. In this paradigm, the inefficiency of energy in addition to the huge costs attributed to electric consumption presents an interesting avenue for less costly and low emission solutions of energy in the future (Anon, 2008). Waste heat recovery technologies may, therefore, constitute an excellent proposition to address this problem with significant environmental consequences. Againity AB started their journey in the late quarter of 2012 with a clear vision to address this issue. The central idea revolves around a patented solution to generate electric power from the recovery of excess heat.

Againity offers a technological innovation of waste heat, which is based on the thermodynamics laws. The innovation is called the Organic Rankine Cycle (ORC) system, to be specific. The principle of ORC system is the difference in temperature that produces electricity in kilowatt (kW), ranging as low as 20 kW to maximum 1500 kW. The difference in temperature is channelled through a turbine and a generator, which constitute an integral part of the offering of Againity. However, the technical solution includes a broader package that serves the implementation of the solution into the client' specific manufacturing facilities.

Againity currently has eight different machines to fulfil the necessities of the diverse customer groups, which ranges from 380 voltage (V) up to 6000V. The startup has investigated different sources of energy that may be used by ORC system, helping to depart from the industrial waste heat of glass manufacturers, cement, chemicals and so on. A different customer segment is composed of the power plants that can increase the efficiency ratio and reduce the consumption of diesel significantly. In addition to this, waste-burning plants, using the industrial and/or household garbage provides another example of the usage of Againity’ system.

Againity AB was founded by two entrepreneurs, having different but complementary profiles: David Frykerås has a long professional experience in the same field of business. He worked for five years in diverse refinement plants as well as gas turbines around the world that forced him to have a nomad life of travelling around 250 days a year. Later on, he established his own company, Ageratec, which was founded in 1988
and sold to Alfa Laval in 2010. At the time of acquisition, orders accounted for more than seventy biodiesel processor plants over twenty-three countries all over the world, including the countries such as Rwanda, Zambia or Mozambique. By contrast, Joakim Wren, an Associate Professor in thermodynamics at LiU with a long career in industrial research. Therefore, naturally David Frykerås has been taking care of the business side while Joakim has been optimising the technology system.

Againity’s solution provides greater benefits in those locations where the fuel and electricity prices are high. Those conditions are not applicable in Sweden hitherto, giving a greater potential to escalate the business internationally. For instance, the Eastern African countries have been experiencing rising levels of industrial activity and urbanisation that demand high levels of electricity. The Governments and the industries have been coping with a greater demand and supply offer of electricity, which often implies energy shortages and elevated prices. These factors, along with lower labour costs and less regulated energy industry make the African market potentially attractive. Under this circumstance, Againity determined to conduct operations in foreign markets from inception, and they have clearly revived their goal to attain more than 90% of revenues from international sales by 2018.

4.2.2. The Initial Steps of Againity

Soon after its foundation, Againity joined LEAD business incubator. Following NABC approach, different potential industrial segments could be attracted by Againity’s solution. Initially, Againity spotted the difficulties that mobile phone operators in the Eastern Africa had in their intense use of electricity. At that very point, the coaches advised strongly to gather relevant information from potential customers:

“...We typically tell entrepreneurs that you can forget about development for a while, you can forget about building a business plan for a while because first of all ... You have to be sure that you have identified a customer segment and that you do understand the problem that you are going to work with.” - A business coach.

David Frykerås has always had strong links with LiU, starting from Agaretec where several students conducted their thesis in the company. Therefore, Elin Ledskog was
welcomed into the team in 2013, which conducted her bachelor thesis in collaboration with the startup. Initially, Elin Ledskog carried out a market analysis by exploring different customer segments for Againty. Thanks to the support and guidance of an acquaintance of David Frykerås who facilitated the company's contacts, during Ms. Ledskog’s six weeks field trip to Rwanda, she interviewed around twenty companies in diverse industries such as beverages, cement, mobile industry and the so. In the preparation phase, the team found out that the mobile operator stations were not feasible for Againty’s technology since each station was too small. This was firmly confirmed during the interviews in Rwanda. In the last week, David Frykerås joined Elin Ledskog in Africa and he interviewed eleven of those companies. Discarding the mobile stations very soon, David Frykerås found the landfills in Kenya as well as the gas turbines application that broadened the scope.

From his prior experience, David Frykerås ensured that ORC system would require a short payback period of up to three years time if to attract customers. Therefore, the cost structure and revenue model were limited and adapted to meet this criterion. Againty’s solution was amended to meet this fundamental benefit for the customer whereas enabling other advantages, such as rapid shipping, on-site installation to the clients directly, high reliability by composing two moving shafts only and simplicity by lowering the maintenance requirements. All these offers were made at relatively low purchase cost as compared to the market price. Despite this, competitors were also outlined at the beginning and classified into the different local markets where Againty was interested in entering.

Similar to Ageratec, the idea was to introduce a network of sales agents as per distribution channels from the beginning. However, Mr. Frykerås carried out the sales, learning from the first-hand experience instead. The market knowledge that he gained from direct sales was required as stated by the business coach:

“He thought that I’m going to use the same company, same people, again but now for Againty. And that may make perfect sense going forward but in the very first phase, you get to ... learn more about your customers... We don’t have enough knowledge to get into that at this stage. Therefore, direct sales and nothing else at this point of time”.
As time passed by, some struggles started to appear. The technology based on 10kW was expensive, so the product line of Aganity was elevated to 20kW as the smallest scale the company begun to offer. In this sense, Againty did not further explore this small-scale advanced technology, albeit Againty did not face high competition in that segment.

In November 2015, Againty made their first sale in the small town of Karlstad, Sweden. This sale redefined the financial structure of the business model. Initially, David Frykerås proposed Againty’s ORC system to be incorporated into the investment budget of the client. However, this did not suit the customer, but they agreed on the lease of the solution instead by adding a financial player into the commercial agreement.

4.2.3. Milestone: Stepping into Kenya

The first quarter of 2016 brought exciting news to Againty: the first international agreement was signed in Kenya with the municipality, Eldoret. Intense negotiations that started more than one year ago finally concluded successfully. Conversations started when Againty was introduced to the Kenyan delegation by the city of Norrköping. It is worth mentioning that David Frykerås was known to some representatives in Norrköping due to his former company. When the Kenyan officials showed interest for diverse waste heat solutions for the garbage in their county, Againty was placed on the agenda. Therefore, this customer segment was further explored, and the relations were kept warm.

Over these years, David Frykerås’s prior lessons about how to secure a customer were not of great use in Kenya. The Kenyan delegation required more than simple answers to the location of the business, the identification of the raw material or the finances of the customer. There was almost no knowledge of this technology in the region and therefore, although the customer was open to pioneering the market, there has been a great educational labour to reach the market. Againty planned for an eighty days training service in collaboration with LiU to complement this deficit.
Working with the government of the municipality, which is another customer segment, has redefined the revenue model. It implied working with other credit operators. They also required building relation with different suppliers as well as distributors, which are not existent in the African market due to the newness of the solution presented by Againity.

By now, everything has been settling down. The plant will be able to produce 600kW of electricity from which 200kW will be used to power the plant's machinery. The rest will be supplied to the Kenyan Electricity Generating Company. The ORC system compensates the installation cost in a record time with the sale of the extra electricity produced, creating a positive societal mark.

4.2.4. Prospective Future: The Scalability of the Business Model

Againity has overcome the verification phase at LEAD and now on their way to building the business towards a growth-oriented vision. After the major deal with the Kenyan delegation, the team will be shortly expanded so as to meet the customer needs and continue broadening their scope. In the current team, Elin Ledskog is in charge of developing and attracting new customers for small district heating plants. The waste heat in the landfills is also a focus for Againity too. This growth will be complemented by sales agents, of prior contacts from Ageratec, in locations such as central Africa or Chile, among others.

4.3. Case Study: MIMSI Materials AB

MIMSI materials AB was established in late 2013, and the founder was recently recognized awarded in the top ten list of most innovative entrepreneurs by the ÅForska Foundation and Swedish Incubators and Science Parks (SISP). Interestingly, the potentiality to secure an international customer gave birth to MIMSI and hence it can undoubtedly be characterized as a new international venture.

4.3.1. Company Background

MIMSI Materials AB, subsequently to be referred as MIMSI in this study, has a patent-pending technology based on Physical Vapour Deposition (PVD). This cutting-edge method enables the fabrication of thin films and coatings with different arrangements of
atoms at different length scales that confer novel material properties. Those properties are fundamental for attaining high-performance materials, which are technologically superior to competitive offerings currently available in the global market. Although still an incipient technology grounded in the laboratory, the company has developed different material patents, especially in the area of hard coatings. Hard coatings are the first application for MIMSI to explore in collaboration with a world-renowned Japanese manufacturer. Apart hard coatings, there are many other applications that may benefit from this innovation, for instance, Li-ion batteries, heterogeneous catalysis and solid-state cooling for electronic devices.

The initial idea was conceived within the boundaries of a research group including Sankara Pillay and Kostas Sarakinos, which eventually became the founding members of MIMSI. With a bachelor degree in Mechanical Engineering and Economics, Sankara Pillay worked as an engineer at General Motors and as a financial derivatives market maker in a German firm, in the sector of electronic exchanges where he later on founded his own company in Ireland. He joined LiU as a Masters candidate of Material Physics and participated in different research groups where he met Kostas Sarakinos. D. Sarakinos has a career path linked to academia. He completed his degree in Greece in Mechanical Engineering and his Masters with a major in Physics and Material Science. Then, he moved to Aachen in Germany to complete his doctoral studies in Physics. In 2010, he moved to LiU as a postdoctoral researcher and later was appointed as Head of the Nanoscale Engineering Division, where he continues to date.

As the research conducted was shaping into a business idea, both founders had different motivations to start MIMSI. Thus, Kostas Sarakinos observes the relevance of MIMSI through the lens of a committed researcher. The success of MIMSI is perceived as a verification of his research, allowing him to go beyond the boundaries of the scientific community and to impact directly upon the advancement of society. He is captivated by the idea of developing a proven technology. Therefore, he was appointed as Chief Technology Officer (CTO) at MIMSI. He is responsible for adapting the technology to different customer specifications or different technological applications. He works closely with Mr. Pillay to identify how the technology should be adapted to suit the customer requirements. By contrast, Sankara Pillay is driven by the commercial prospects. He defines ‘entrepreneur’ as a person, who with a risk-taking attitude is willing to make sacrifices and suffer opportunity costs. He has a clear purpose to
achieve the vision established by the founding team, and exponential growth of MIMSI is on his agenda, linked to international markets. He was appointed as Chief Executive Officer (CEO).

Additionally, the founding team is composed of four other members, who are part of the research team at LiU. Having the right team in place did not solely motivate the foundation of MIMSI. A major factor that fostered the opportunity was the close relation with the large Japanese conglomerate, which came to the research group at LiU in 2011. The Japanese customer initiated a new strategy in their international operations, where they actively searched for new ideas at universities across the U.S. and Europe, primarily. In that year, the research group initiated a study of the yet-to-be-patented MIMSI approach around one of the premier business lines of the Japanese customer, i.e., hard coatings. Therefore, the Japanese customer started investing in the research activities, initially with small amounts and short project deliveries. The first project consisted of a set of pre-studies during six months that entailed 375 000 sek per project. As the research group was completing the milestones, the Japanese customer increasingly supported their operations. The relation with the Japanese customer helped the team to realise that the hard coating business line has a relatively large market.

4.3.2. International from Inception: The Japanese Customer

MIMSI was finally established at the end of 2013 in the Swedish registration office (Bolagsverket). After the first assignments with the Japanese customer, the firm increased the investments in MIMSI and established a new deadline by March 2014. In February 2014, MIMSI registered the patent for their core technology. The establishment of the startup and the filing of the patent resulted in a contract of much larger scale, i.e., 10 000 000 SEK with a duration of two years. However, there was a quite intense communication and a long procedure to achieve it. Discussions over email and phone, several meetings in both Japan and Linköping and even pilot tests in the laboratory highlights a high exposure to the client's need and adaptability to their requirements. The contract signed involves a three-party relationship that proceeded as follows. Firstly, an agreement was reached with regard to the technology development between the research group and the Japanese customer. Secondly, MIMSI regulated the Intellectual Property Rights (IPR) of the technology with Japanese customer via an IPR agreement. Hereof, as the IPR belongs to the researchers instead of the University,
according to Swedish law), the participating members of the research group own MIMSI. Therefore, all IPR was transferred to MIMSI, which manages the IPR and filing patents.

During the stage to escalate the relationship with the Japanese customer, MIMSI received support from LiU Holding in the branch of innovation. MIMSI was contacted by Gio Fornell, an old acquaintance from past research projects and innovation advisor at LiU Innovation. Mr. Fornell provided the initial support to the under developed business idea of MIMSI. In this early stage, the founders along with LiU Innovation obtained two grants from Vinnova totalling 275 000 SEK to conduct studies to analyse the market potential of the technology. Thus, the team visited different customers and also compiled information and prepared documentation for the patent.

At the end of 2014, MIMSI was accepted to LEAD business incubator. Mr. Pillay started weekly business coaching sessions with Tomas Larson. However, all other team members, including Dr. Sarakinos, do not take part in those sessions, limiting their interaction to the monthly meeting of the board of directors or casual encounters at the office. At LEAD, Sankara Pillay was able to investigate further upon the market potential, team formation, scope of investment funds and thus, an overall crafting of the future of MIMSI.

The technological path with the Japanese customer forces the research team to work with hard coatings for cutting and forming tools. The tool technology currently available to the industry cannot meet the demands of the customers (ranging from automotive to aerospace), who require ultra hard/ultra durable coatings to machine exotic alloys. The production of this highly specific coating with greater hardness will save the Japanese customer’s cost and time, and more importantly, help them capture more market share and profit. The Japanese customer already has his own approach for how to fabricate a hard coating, which is the industry standard. So, it is to be said that there are other suppliers/competitors, dealing with existing coating technology for the application of cutting tools, although the competitors are not numerous and not at global scale. Additionally, the MIMSI team conducted preliminary research on the competitor landscape at an early stage, which highlighted Swedish competitor Sandvik, Israeli firm Iscar, and American firm Kennametal. However, there was no interaction between them.
In short, MIMSI has been shaped by the close relationship with the Japanese customer. They currently control the intellectual property on the core technology and future products to be developed by the firm. The configuration of the business model was developed following the Japanese customer’s preferences that required the hard coating to fulfil the requirements for their cutting and forming tools, aligned to their production lines. It was also determined by this specification the high barrier that exists to achieve a superior hard material, indicating the high level of expertise required to produce this coating by MIMSI.

The prospect for high profit for MIMSI via hard coatings is limited because the Japanese customer has exclusivity in the field-of-use of cutting and forming tools for a certain period of time. Even so, MIMSI can use the technology for other applications outside the field-of-use, e.g., turbine and compressor blades of gas turbines and diesel injector parts. Other applications may help provide business stability for MIMSI to diversify the risk of relying on a single customer. Both the founders and the team members of MIMSI have started conversations long ago with former collaborators and acquaintances to generate ideas. By conducting market research in other potential technology themes, the team was eager to explore the prospect of low-emissivity (Low-E) glass applications.

4.3.3. Expanding the Landscape: Low-E Glass Application

Shortly after joining LEAD, Sankara Pillay and the team initiated communication with prospective customers with an intent to ascertain whether there could be a potential market Low-E glass/glazing application. Through their network, MIMSI entered dialogue with two companies located in France (Saint-Gobain), Belgium (AGC) and Germany (Interpane who is now owned by AGC). Using the MIMSI technology, the team experimented to deposit a new type of Low-E film upon glass, which blocks heat from the outside while permitting visible light to pass through to the inside. A positive side effect of this material is the better environmental effects from lower energy usage by office and residential buildings. The initial consideration in terms of the financial aspects was setting a premium price for the high quality materials, targeting the glass manufacturers, i.e., selecting industrials customer while also considering a strategy to pass the high cost to the end users. Another consideration was within a future political
sphere, with new rules coming in, that the governments in different countries could force the market to use this eco-friendly material and become a standard in the industry.

The first configuration that could lead to a business model was seriously considered with this technology application. However, MIMSI shortly encountered technology barriers that inhibited the fulfilment of the verification phase in LEAD. The verification phase, as considered crucial by LEAD, has gradually increased the minimum requirements. The purpose of working in the verification phase is to fully understand the problem of the customers as well as the benefits that the startup may bring. As one of the business coaches stated, “It is really easy for the company to highlight the benefits and the market to get initially interested in it but then when they (the startups) develop the product, the customers do not make the sale because at that time they were not really committed so it was not crucial for them delivering all specifications.” Then, he discusses how this phase should be to reach the market, “It is much better if you go with the product and they give you some feedback so you can make a prototype with the adjustments and try to get the contract considering all aspects. For once it is developed they will buy it? Almost everyone says ‘no’! And then they come up with other specifications until they are completely satisfied ... they (the startup’s customers) need to put it into their NABC themselves... to discover the potential customer business model”.

As a problematic issue, first and foremost, it implied a high cost associated to the research of the technology in which MIMSI was in no position to provide the resources required. The complex technological development in respect to basic research in the laboratory did not facilitate a short introduction into the market.

4.3.4. Turning Point: Lithium-ion Battery Application

Lithium-ion (Li-ion) batteries are used in consumer electronic devices, vehicles, airplanes, among other applications. Although these are exploited in diverse markets, Li-ion batteries do not support extreme temperatures. These are subject to explosions if, e.g., the temperature is superior to 60 °C. In 2015, global market sales exceeded 30 billion USD whereas the sales forecast for 2020 is expected to reach 100 billion USD, mainly motivated by the rising importance of hybrid and plug-in electric vehicle markets. To take advantage of this substantial market opportunity, MIMSI has begun investigating where their specialised coating could be exploited. To further explore this
technological theme, MIMSI recently obtained a grant for 500 000 SEK from Swedish innovation agency Vinnova. The proposition made was to improve the safety of Li-ion batteries for various applications. As one of the entrepreneurs said,

“Our unique value proposition is to develop a high-performance MIMSI-based Nano composite coating that can be used to protect the passive components of conventional Li-ion batteries from electrochemical corrosion, enabling the use of non-flammable/no explosive electrolytes.”

For the development of this application, the first steps were to interview the potential customers to understand how business is conducted for that segment, i.e., investigate the customer's business model and requirements. Later on, a comprehension of the whole value chain may identify other potential customers that were not initially considered. Thus, Sankara Pillay interviewed some American companies. Since the manufacturers of the batteries obtain numerous components from different suppliers, it is normally a complex process to determine in which part of the battery there is an opportunity. However, an acquaintance of Sankara Pillay with ample experience in the field (with whom Mr. Pillay was sharing the company idea informally), highlighted a particular component of the battery that serves as a constraint for manufacturers to develop safer, higher performance batteries. The hypothesis is that a special coating that can only be fabricated using MIMSI can meet the requirements for this problem. Thus, this apparent opportunity requires a reassessment of MIMSI’s current human, technological, operational and other relevant resources, which is at the current stage in which MIMSI is involved. Mr. Pillay commented about the relevance of networks:

“In the field, people know people. For instance, I know a guy in the glass [business] that is going to put me in contact with Li-ion battery people. From my work at GM, since GM works with so many different suppliers ... I have a connection with ...”.

In parallel to the scanning of the market, the first considerations of the business model starts to be consolidated. Mr. Pillay mentioned that in terms of intellectual property, as in the case with hard coatings, there would be less of a possibility to license IPR since the manufacturers of Li-ion batteries have a value chain based on buying the components and have no direct competency or tools to integrate the MIMSI technology. Therefore, a key activity for MIMSI might be the production of the coatings for the
batteries, comprising software and hardware in a complete package solution. In order for this application to be scalable, it might require different infrastructure which is beyond the scope of MIMSI for the time being. Consequently, there are alternative ways to introduce MIMSI to the market. And, as Gio Fornell (the first coach for MIMSI) highlighted, an understanding of the market will tell a firm which alternative to choose.

This new technology application will be developed by the research team at LiU who will be employed by MIMSI directly. However, this technological application surpasses the knowledge and competency, which is currently available directly within the research team. The founder’s extensive network in academia and the business world is of great help to validate the technology.

4.3.5. Prospective Future

Sankara Pillay will continue working closely with his customers as he recognizes it as a core resource for the survival of MIMSI. He calls it ‘customer traction’ which is a core metric for the company at this stage of internationalization:

“[Customer] Traction tells you many things: How close you are to the customer. Have you something to sell already? Or what proof do you have that the customers want your products? For MIMSI, dealing with a very large Japanese customer and delivering means that they are proving to customers, increasing the value of the company. And then it comes how to make the batteries even better, the technology and then ...The whole package”.

The technology is developed at a fundamental level within the research group, but it is noteworthy that the matter of upscaling the technology constitutes a challenge for MIMSI. Resources in terms of limited access to facilities in the University and funding need to be developed to transform the science into a product. Consequently, a major task for MIMSI and the team is to assist this transition. This can be done in different ways, e.g., working in the facilities of the customer or building MIMSI’s own facility and then producing for the customers. Nevertheless, the emphasis by D. Sarakinos was placed both in the market and the technology:

“For the long-term survival it is imperative for the customer to deliver solutions. We need to assist the transition from a know-how company into a product company.”
In Summary

All things considered, the empirical cases containing international startups, Againity and MIMSI, and the business incubators, mainly LEAD, are presented comprehensively. Under the illustrious guidance of LEAD, the firms, in general term, are at the similar stage of early internationalization. This situation creates the vertical scope of understandability for the researchers to create a sound basis for analysis. Thus, setting out fine description of different events and initiatives of the entities would enable the readers to make legitimate connection when going through the analysis and its outcomes in the subsequent chapter.
5. ANALYSIS

In this chapter, we proceed to categorize the empirical observation, in respect to the stages of the BMD process, as described by Amit and Zott (2014). Being supported by the empirical cases, we construct an alternative model (see section 5.1.), which summarizes the first finding. This conceptual model then serves as a foundation to investigate how it is impacted by internationalization drivers. Finally, the resulting conceptual model is the proposition that attempts to formalize the purpose of this master’s thesis.

5.1. The Business Model Design Process: Surpassing the Theory

The first enquiry sheds light on the BMD as a process, having five different stages (Amit and Zott, 2014). Each of these stages is analysed through the empirical realities in order to be able to establish a foundational base for addressing the ultimate research question of this master’s thesis.

The Observing Stage

Contextualization of a business idea in order to make a successful business model in the end begins via observation. The method used at this stage at LEAD is the NABC approach. Followed by this approach, Againty initially ascertained the mobile operators as the customer segment to address. Elin Ledskog and David Frykerås, during their field trip to Rwanda, gained firsthand experience related to customer segment. This illustrates the comprehension of the ‘need’ by interacting with the customer (Amit and Zott, 2014), which Aginity explored via in-depth interviews, observations, informal conversations and other information sources, such as publications, samples, and so on. Similarly, for the Lithium batteries, MIMSI started interviewing the potential customers as well as other actors in the sector, such as the collaborators and the industry experts.

Observation enables the entrepreneurs to gain information about the desire of the customer segment(s), to which an offering is yet-to-be weighted toward the customer utility and the business viability as to be integrated into a sustainable business model (Brown, 2009). Following the same example, Againty set their ‘approach’ to be
negative towards the mobile phone operators. As because, when trying to identify the ‘benefit’, it was noticed the mindset of the prospective customers was centered into a long-term solution as stated by Mr. Frykerås: “... The thing is that for them, they always though that they were going to connect to the main grid, in their mindset it was only to connect the next year…”

However, at observing stage, both MIMSI and Againty show a fundamental difference in terms of setting a relation with the target customer. For MIMSI, it was mainly the continual relation with the Japanese customer that made them recognize the potential of the technology and prompted the firm’s establishment. Whereas, in the case of Againty, the founders proactive effort led to customer orientation and ended up building strong relations with them.

Observation implies ‘from whom’ to collect information (Brown, 2009), stressing on the requirement for ‘competitor’ analysis. Looking through the eyes of existing or future rivals can improve the credential to accept or refute the initial business thoughts. It can help understand the industry structure too. For Againty, at the very beginning the biggest supplier of ORC system in India, along with other large players in Sweden, were identified. Such identification helped realise the alignment of Againty’s offering compared to that of the competitors, which helped outline its value proposition in the end. Also, MIMSI researched on a couple of competitors, which provided with great information on the niche-focused market for their hard-coating product line.

The Synthesizing Stage

All the facts collected during the prior stage is processed in the synthesizing stage. Although this phase termed as the realisation of learning (Amit and Zott, 2014), it is difficult to draw the boundaries between these two stages as it is can be seen as an integrative part of the observing stage itself. The frequency of events between these two stages takes place at short intervals in an iterative way. As more data is collected, it is quickly transformed into information. Assumptions are formed and the knowledge acquired shapes and modifies the direction of the observations needed, broadening the scope or narrowing it down to more accurate and precise direction in terms of the generation of the business model.
Simultaneously, with initial observation, a firm starts to check and balance the possible options. Since there are diverse manners to deliver a solution, interaction with the stakeholders, especially the customers segment, is crucial to decide on the ‘approach’. In the beginning, Againity was prepared to offer machines ranging from 5kW to 20kW to address the mobile industry in Africa. From the pre-study of the field trip, it was noticeable that the amount of energy used by each mobile operator station was too small to offer a cost-efficient solution in the long run. Synthesizing this piece of information, the team started looking out for other possible customer segments. However, they still interviewed some mobile operators to be certain of their decision for not continuing with this particular segment. Clearly, the interlinked actions at observing stage and synthesizing stage took place repeatedly and sometimes concurrently, which persuaded Againity to adjust rapidly the customer segment in line with their offered benefit. According to Brown (2009), the design process requires of a harmonious balance between desirability, viability and feasibility, which are addressed jointly in the observing and synthesizing stages respectively.

The cases studied additionally showed that the value proposition of the startup is directly shaped at this stage. For instance, David Frykerås traced the tone of dissatisfaction among the customers against those already existing firms. Followed by the presence of an uncomfortable and unprofessional customer-supplier relation, Mr. Frykerås put customer service as the cornerstone for Againity’s offering. Moreover, David Frykerås observed that not only a small movable part in the heat to waste plant accumulated huge installation cost, but also it could cause brittle fracture of the turbine. As a result, he centred the changes in the plants around advancements in the turbine. Thus, the blend of observing stage and synthesizing stage led towards the next stage.

The Generating Stage

At this middle stage, a firm explores the questions in terms of the set activities to perform, the coherence among them and the stakeholders that might be involved (Amit and Zott, 2014), which are consistent with what were found in the empirics chapter. Once the customer focus is determined, this stage deals with constructing the internal mechanism such as, value chain activities, partnership and capabilities.
For Aginity, a key resource in association with its value proposition (Afuah and Tucci, 2001), is the gas turbines or engines of the waste to heat plants. The offering lies in the simplicity and reliability of the product components, which are required to be reflected in the value configuration process in the first hand. In order to ensure simplicity of the service and increase reliability of the product, the manufacture of the offering was complemented with professional service. Aginity collaborated with the suppliers of waste boiler suppliers to deliver a complete package in the incineration plant in Kenya. It also counted on different suppliers for other components of the plants, which made the assembly as the main manufacturing activity of Aginity.

When largely counting on external entities for inbound logistics, Aginity designed its outbound logistics and distribution channels relying on the distributors and the agents to get the finished product to the customer. Mr. Frykerås explained the reason as: “... We gain the know-how of the right people, the culture I can only be a Swedish person that I cannot understand how Kenya works and from their side, if in this case, this person knows the context in Kenya... and have the connections that they will build the know-how to gain the first line of support”. However, partial sales and marketing tasks are complemented by Ms. Ledskog through contacting the distributors around the globe and presenting Aginity’s offerings to them.

At the moment, MIMSI’s capabilities are based on a method patent and a material patent, which are specialized know-how of hard-coating application. MIMSI’s major activities constitute of administrative and legal back office in association with LiU. Thus, MIMSI’s value chain activities have been driven by how the university as the major network partner. However MIMSI is exploring further possibilities in other applications to transform the know-how capabilities into technological capabilities. MIMSI is passing through the very initial stage of observation. There are symptoms of an early generating stage too. In this regard, MIMSI plans to configure the supply and the distribution activities, as it would be needed to build and maintain a close relationship with different customers. Among different alternatives, MIMSI has considered to integrate within the R&D facilities of the client, produce the components and then proceed in a commercial relation through selling the outputs.
The Refining Stage

Building upon the prior stage, an assessment is made on the basis of internal capabilities and external possibilities that the startup has carefully considered for the alternative business model proposals. This phase relies upon market feasibility testing, which looks into three major issues; market, organisational/technical and financial (Uwcc.wisc.edu, 2016). When testing the feasibility, a method to proceed is to build different prototypes (Amit and Zott, 2014), where an in-depth assessment of the business model alternatives are based on the criteria of desirability, viability and feasibility (Brown, 2009).

This evaluation centers the focus on checking the feasibility of the proposed configuration of the business model elements that again pose a question regarding the viability of the value proposition. The process of market verification that LEAD incubator follows highlights the deficiencies that the ventures may have incurred in the prior stages. And, if required, LEAD makes the startups overturn and conduct similar activities, as were done in the past three phases.

The empirical analysis confirmed that in Againity a product prototype was developed even before formulating a business model. Mr. Frykerås, putting himself in the customer’s shoes, kept on monitoring it closely. The product prototype was used as a tool to incorporate accurate data and build a more credible offer for the future customers. Thus, the corrective actions taken at this phase allowed Mr. Frykerås to set up a different business model than the previous one. As the creation of the prototype is to be completed in a state of sketching for feedback (Brown, 2009), the market as the external factor directs the organisational/technical issues to be solved internally.

Additionally, the idea of capital and revenue, which was rather superficial in the prior stages, comes into action in an in-depth manner at this stage. The new ventures within B2B industry may face high cost over an extended period, being unable to obtain the compensating revenue as planned. The lack of funding is, therefore, a plausible explanation of greater importance given to customers in the observing phase. As stated by one of the entrepreneurs, “The purpose was to meet different companies and ask them a bunch of questions to find out if they would be interested in this technology and how much they would earn if they make an investment.” This idea is emphasised by
LEAD consultants that to set up tight links with potential customers from the very beginning, so as to assure financial viability of the intended offering.

The financial matters are critical for the understanding of the successful penetration in the market. Along with the source of investment, the consideration of revenue generated by multiple alternatives are crucial to deciding which customer offer can bring the highest yield compared to the risk, opportunity cost and other factors. Thus, Againty redefined its revenue structure to fit the expectations of varied customers. The leasing solution in Kenya complemented the value proposition of Againty as the initial allocation in the customer's investment budget was not greatly perceived. Furthermore, the decision to grow the machinery from a range of 5kW to 100 kW until 1500 kW was also motivated with the feasibility of the cost structure, which was too expensive to develop.

The refining stage seems to be complemented when an ultimate version of the business model is selected, which happens after the validation of the financial matters by the target customer. However, it is indeed an ongoing process, as adjustments need to be made for sustainability of the business. The business model suffers adjustments when pursuing the commercialization of the offering(s), derived from the interaction with the environment (Linder and Cantrell, 2000). In this regard, David Frykerås pointed out that the whole team is involved in the interaction with the customer, and they redefine the value proposition individually by tailoring the revenue model with minor adjustments.

**The Implementing Stage**

Implementing, as the final stage is committed to strengthening the internal coherence of the business model through the employability of the resources and the assessment of the business model as per the startup' strategy, values and culture. However, the implementing stage, as narrated in the empirics’ chapter, goes in line with Frankenberger et al. (2013)’s interpretation. Implementation refers to the commercialization of the startup's offering, which means the effective realization of the business model.
As the empirics indicate, this stage is characterised by the adaptation of the business model as an on-going process and enhancement of the customer relations. Thus, the activities at this stage take place due to the experimentation to further adjustments (Osterwalder, 2005; Frankenberger et al., 2013). In this regard, a business coach highlighted:

“Once you are out there, you start to sell... then it still makes perfect sense to me to have an ear to the ground so that you can do something differently to be more efficient”

Moreover, the implementation phase is built around what was called by one of the entrepreneurs: ‘the customer traction’. During this stage, the customer relation needs to be strengthened as has been nurtured over time. To differentiate the customer's role at this stage, it can be argued that at the observing and the synthesizing stages, the customer relation, as an element of the business model, plays the role of information provider about the market possibility and the need fulfilment. Subsequently, in the last phase, it’s role changes and contributes to obtaining customer references, firstly to attract new customers, suppliers or other stakeholders. For instance, the sale in Karlstad was a milestone for Againity to prove the reliability and get a reference for upcoming sales in Sweden. Secondly, the sales incurred during first phases help expand business later, in terms of human resources and investments. For example, MIMSI’s long lasting relation with the Japanese customer helped them capture the customer’s fund and conduct R&D activities.

To sum up, design is the creation of a frame to evaluate a particular problem or situation (Veryzer, 2005). Given that, the implementing stage in the empirics is based on the realisation of the business model into the market, which we argue not to integrate into the design process of the business model itself. Also, analysing how the elements of the business model are activated at this stage, only a subtle line of difference is found in respect to the refining stage. The points of difference lie on communication and leadership qualities that can be merged to the activities at the previous stage and consider the implementing activities as the next level, separated from the BMD.
A Structured View on the Business Model Design Process

Respective to the empirical realities, the comprehensive analysis of each phase of the business model and its elements has brought two major differences in its design process, as perceived by Amit and Zott (2014). On one hand, the observing stage is potentiated from the synthesis stage to guide the information collection and evaluation efforts. This implies for the startups to enter into a cycle of ‘observing - synthesizing - observing’, by diluting the boundary between both stages. Followed by the frequent recurrence of the events and their need to be considered along the same vein enable us to merge both stages into a single phase and denominate it as ‘initiating’; term as supported in the study by Frankenberger et al. (2013) too.

On the other hand, the implementing stage escalates the considerations of the refining stage by adding only a few more complementary activities, which are again difficult to separate from its former stage. The term, ‘implementing’ refers to the execution of the business model in the market, i.e. commercialization of the offerings. This expression confuses the concept presented by Amit and Zott (2014) and also the design concept referred to this master’s thesis. Nevertheless, the activities described during the implementation stage (Frankenberger et al., 2013; Amit and Zott, 2014) are observed in our empirical cases to be performed in the refining stage. So, we assert ‘the implementing stage’ as described by Amit and Zott (2014) to be unified with the acts of ‘refining’ and thus, separated from the BMD process to which realization of business refers.
In order to show how elements of the business model are activated in its design process, the stages are presented as conceived from the empirics in Figure 5:

Figure 5. The Business Model Design Process Encompassing the Configurational Elements

Figure 5 shows that during the initiating phase, the focus is placed on the customer interface except for the distribution channel that, as part of value chain activities, is relegated to the generating stage. During this second stage of generation, the process shifts towards the establishment of the infrastructure components. Finally, the coherence of the business model is proved in the refining stage through the reinforcement of the customer and the consideration of the financial aspects. And, across all the phases the business model is weighted against the value proposition. There is a sequential logic albeit it allows to revisit any of the previous stages showing the interdependence among the phases. Also, the top arrow indicates the possibility of iteration of the entire design process after the completion of the design process in a given time.

... A few words before proceeding!

The subsequent four sections entail how four drivers of internationalization strategy impact the business model in its design process. In each section, the discussion first critically assesses the perception of the interviewees at the disintegrated level of the business model elements. And, next to this, it scrutinizes the impact of internationalisation drivers on the relevant stages the BMD process, as supported by the practical evidence.
5.2. The Influence of Entrepreneur-specific in the Business Model Design Process

The mindset and attitude of the entrepreneurs, as they play a role to posit a new venture abroad at an early stage, are necessary, as supported by the behavioural theories of internationalisation (see section 2.2.3.). The analysis of these behavioural components, regarding prior international experience, global mindset and market commitment, represents the perception of the participants in the study, as it is outlined in table 3 below:

Table 3. Perception on Entrepreneur-specific

<table>
<thead>
<tr>
<th>Questions/Participants</th>
<th>A managerial global vision from inception</th>
<th>High degree of previous international experience</th>
<th>Management commitment</th>
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<td>Entrepreneur 1</td>
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<td>Business coach 3</td>
<td>3</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Total sum</td>
<td><strong>29</strong></td>
<td><strong>30</strong></td>
<td><strong>32</strong></td>
</tr>
<tr>
<td>Mean</td>
<td><strong>4.1</strong></td>
<td><strong>4.3</strong></td>
<td><strong>4.6</strong></td>
</tr>
</tbody>
</table>

The entrepreneurs must possess a high level of motivation to pursue international business (Oviatt and McDougall, 1994; Andersson and Wictor, 2003; Zuchella et al., 2007). The same is echoed by the entrepreneur of Againity, “99% of the population is not Swedish people... you are excluding a big market if you decide just to focus on Sweden”. However, in two cases, the **global vision** is rated the lowest, while still relevant. The participants conceive it as an ability that can be built by interacting with the market and therefore, it is not a precondition to possess, before or at the venture’s birth. In contrast, the rest of others argue that without a proper mindset, a startup may remain focused on the domestic business.

Additionally, the global vision persuades the creation of the business model for growth purpose, which may be derived from an international sale. The entrepreneur’s ambitions have to be included in the considerations to create a business model as they can seek
growth, speculation, subsistence or income and this impacts differently in the business logic created consequently (Morris et al., 2005).

“The only companies that are interested in going abroad are the ones that want to build a big company” - An entrepreneur, Againity.

An entrepreneur’s global mindset can be developed through his/her prior experience, either academic or professional, in foreign countries (Bloodgood et al., 1996). Before setting up Againity, Mr. Frykerås used to work in the refinements plants for five years. There he had to travel two-third of a year, which he continued later. He continued the notion with the establishment of Ageratec, a company that conducted operations in twenty-three different countries. Also, the international experience of MIMSI’s founders does not lie far behind. Sankara Pillay, a U.S. citizen, lived in six different countries at the various stages of his life and set up his previous company in Ireland.

About the commitment of the management towards internationalisation, all respondents declare its cruciality whereas one of the business coaches highlights “I have been in so many companies where we have this typical entrepreneur, who has total focus on the result. They are very driven and have a lot of engagement and courage. If you have that one person, you are all set”. This idea is seconded by another participant, “Finding the champion who is really prepared to work with”. For Sankara Pillay, an entrepreneur is somebody who is willing to take the risk and commit sacrifice and therefore to have full concentration on MIMSI, he has decided to close down his connection with the academic world.

In Relation to the Business Model Design Process

The initiating stage may obtain significant benefit from the direct involvement of the entrepreneur by helping build an in-depth understanding of the market. For MIMSI, Sankara Pillay and Kostas Sarakinos had attended multiple trips to Japan, laboratory works, meeting and phone calls. Whereas, David Frykerås flew to Rwanda and later to Eldoret county in Kenya to understand how the business process can function better. Vice versa, both MIMSI and Aginity hosted the Japanese and the Kenyan delegation consecutively in Sweden. Thus, the entrepreneurs maintained a continuous
communication with the customers at different stages of business and became able to gather and process valuable information.

The prior business experience of Againity’s founder in the area of gas turbines shaped different alternatives for the business during the generating stage. To describe, Againity’s business model is structured to offer a ready-to-make installation on the customer's site and also a shorter payback period for the customers since long-term investment inhibits the firms to accept the offering. Such features result in lower risks for Againity to carry out in the next stage. At MIMSI, the founders’ managerial commitment can be seen by the allocation of resources into the method-patent in the hard-coating business line and the preparations for creating manufacturing facilities in the second business line to exploit.

The refining stage implies the evaluation of the business model constantly by introducing the lessons learned from negative reactions of non-customers too, and the entrepreneur's role is clearly pointed out by one of the entrepreneurs:

“... You spend a lot of time with the other 90% [of potential customers] and I said, yes of course. But anytime somebody says, no, I learn from that and put that back. So in 10 years, we will probably have 20% or 50% [of sales conversion rate], but because people say, no, it is not finished. It is just another opportunity to learn”.

5.3. The Influence of Network-specific in the Business Model Design Process

Network indicates to the relational process of the business model in which a startup is embedded. In contrast to the revisited Uppsala model (Johanson and Vahlne, 2009), which identifies network as a valuable factor for startups, Rasmussen et al. (2001) and Zuchella et al. (2007) do not find enough support to defend its contribution. Looking through the eyes of the practitioners may contribute to understand these multiple perspectives as shown in the following table:
Table 4. Perception on Network-specific

<table>
<thead>
<tr>
<th>Questions/Participants</th>
<th>Strong use of personal and business networks (networking)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrepreneur 1</td>
<td>3</td>
</tr>
<tr>
<td>Entrepreneur 2</td>
<td>4</td>
</tr>
<tr>
<td>Entrepreneur 3</td>
<td>5</td>
</tr>
<tr>
<td>Entrepreneur 4</td>
<td>4</td>
</tr>
<tr>
<td>Business coach 1</td>
<td>4</td>
</tr>
<tr>
<td>Business coach 2</td>
<td>5</td>
</tr>
<tr>
<td>Business coach 3</td>
<td>2</td>
</tr>
<tr>
<td>Total sum</td>
<td>27</td>
</tr>
<tr>
<td>Mean</td>
<td>3.9</td>
</tr>
</tbody>
</table>

From the rating number of the individuals about the importance of network, it becomes understandable that there is a contradiction among the respondent's perception too. However, the explanations point out a clear direction. The individuals, who rate the importance of the network for the INVs, relatively low state that it is not relevant to have the network already from the inception. Although, these responses have a connotation, specific to their industry categories. A niche or fairly specialised B2B industry, like the empirical samples of this study, possesses a lower number of relevant actors and consequently, it speeds up the establishment of the network. However, there is unanimous agreement on the necessity of building the network from early stages of the foundation of the startup. Nonetheless, the gathered information does not reveal any prime difference on the effectiveness of capturing the benefits of the network from either personal or professional sources.

**Touching on the Business Model Design Process**

During the **initiating stage**, the network plays three different roles primarily, which is argued deriving from the empirical observations. The roles are spotting opportunities or different customer segments, gaining international market knowledge and lastly, getting access to the key stakeholders.

The discovery of different customer segments is not made by the founding team solely. Instead, varied stakeholders within a particular network can generate alternative directions for the entrepreneurs to explore more. The opportunity of the waste to heat energy plants in the landfills in Kenya was presented by the municipality of
Norrköping, with whom David Frykerås maintains a personal relation due to his prior collaboration with his first company, Ageratec. Similarly, the Lithium-ion application was highlighted by a friend of Sankara Pillay when having an informal chat around a coffee table.

The acquisition of foreign market knowledge through the network is a major benefit to overcome the psychic distance (Sharma and Blomstermo, 2003). In this premise, Aginity in Kenya cooperated with a local distributor, known through the personal network of Mr. Frykerås. This local distributor has been operating within other renewable energy lines. This situation generates the right type of know-how and related local contacts to conduct operations for Aginity. In this regard, market knowledge might be ensured through the interrelation with the network element:

“If you don’t have it [market knowledge] yourself, get out in your network. Try to get the network to understand … trying to get somebody who has done this before because you need to understand how everybody thinks about the strategy, how they are working with strategies, business models, profits, price models etc. That helps you extremely.” - A business coach.

The networks can also support the accessibility to important stakeholders at this stage. Mr. Frykerås connection with the government authorities in Rwanda was helpful for Ms. Leksdog to conduct over twenty interviews with the companies in different industries. Similarly, a contact from the Low-E glass application was the responsible to put Sankara Pillay into contact with a potential partner for the batteries application. However, the usage of the network for this purpose is subject to high level of trust, timing and relevance, as noted by one business coach.

At the generating stage, ‘governance’ of the structures (Amit and Zott, 2001) is designed, in which there is a duality to assign all the responsibilities internally or to allocate activities to the network partners. For instance, in the generating phase of MIMSI, there are different options on how to conduct the business for the business lines of hard coating and batteries. Regardless to the firm’s established as a manufacturing company or a research laboratory, they need to adjust the network to support the infrastructure required.
Another matter is that along with the entrepreneur's network, an INV can be nurtured by other stakeholders' network too. For example, the investors, the suppliers, the business coaches and so forth. For the sample cases, LEAD incubator itself and its collaborative approaches among the enlisted firms work as a strong network to reach out the contacts in multiple industries.

For the refining stage, according to McDougall et al. (1994), new ventures tend to create a network structure as an alternative for ownership of resources, which may be limited at this stage. Among the possible sources of revenue, starting from personal circles of family and friends up to venture capital or funding seeds. In the case of MIMSI, the great demand of funding needed for the near future has placed the focus of Sankara Pillay in different investment firms that might be triggered from a network perspective. However, we did not found grounded empirical support to shed light in this regard to arriving at sound conclusions.

5.4. The Influence of Business-specific in the Business Model Design Process

The next driver, business, is investigated under three different rubrics that propel early internationalization in a firm: market knowledge and market commitment, valuable intangible assets (i.e. intellectual property rights or trade secrets, distinctive procedures or capabilities, and so on) and finally value creation activities (i.e. high technology offerings for differentiation or economies of scale for cost advantage). All these elements are positively related to internationalisation (Bloodgood et al., 1996), which can be further illustrated through the empirical clues as it is shown in Table 5 below:
Table 5. Perception on Business-specific

<table>
<thead>
<tr>
<th>Questions/Participants</th>
<th>Market knowledge and market commitment (in terms of resources allocated)</th>
<th>Unique intangible assets based on knowledge management</th>
<th>High value creation via product differentiation or technological innovation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrepreneur 1</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Entrepreneur 2</td>
<td>3</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Entrepreneur 3</td>
<td>3</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Entrepreneur 4</td>
<td>4</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Business coach 1</td>
<td>4</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Business coach 2</td>
<td>5</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Business coach 3</td>
<td>4</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Total sum</td>
<td>25</td>
<td>22</td>
<td>25</td>
</tr>
<tr>
<td>Mean</td>
<td>3.6</td>
<td>3.1</td>
<td>3.6</td>
</tr>
</tbody>
</table>

Table 5 points out that a lower relative importance is devoted to **unique intangible assets**. Aginity’s offering is based on precise thermodynamic investigations whereas MIMSI introduces a promising material method, different from the industry standard. However, the possession of specialised know-how does not necessarily place sole attention towards technological differentiation. According to the participants, the uniqueness for **value creation** may not be embedded on a technological breakthrough, but rather influenced in how it is communicated to the market. As in the case of Aginity, the solution is an integration of different factors at a low but justifiable price that the particular markets missed out. In contradiction to this, one of the business coaches, when narrowing down to B2B and high capital intensive sector argues for technological uniqueness to capture a high market share in a niche market and prevent the copyright, and so does one entrepreneur. As of **market knowledge and commitment**, it is worth mentioning about the comments on the acquisition of market knowledge, although downplaying it through relatively easy access to attain it.

**In Connection with the Business Model Design Process**

The case examples argue to incorporate the driver, business, in **the generating stage** and **the refining stage** too. In the former phase, MIMSI acknowledged its core resources to be the research team and the patented technology. Concurrently, it configured different plausible business models, reflecting the maximum outputs committed by those resources, such as either manufacturing chain or R&D laboratory.
Moreover, knowledge management was optimized in Aginity’s offering to Kenya, including an educational training to launch the waste-to-heat plant.

In the latter phase, MIMSI accounts for limited liquidity and investment fund to fully scale its business. In order to overcome this situation, MIMSI consumes the vast majority of its resources and capabilities in satisfying its single customer, which provides with a significant portion of the financial requirements. Along with this, the Japanese customer via a non-disclosure agreement prohibits MIMSI to grow itself and commit to other customers in the same market. For now, MIMSI’s business model is built around the necessity of the customer, which allows the new venture not to have different business alternatives. This affects the refining stage in which the financial aspects of the business model are investigated. Referred to this, the revisited Uppsala model (Johanson and Vahlne, 2009) describes the market commitment as a function of the availability and size of the resources to internationalise a firm.

It is noteworthy that the lack of business-specific factor may prevent a firm to design an ultimate business model with the potential of scalability and profitability in the international market. However, an evaluation of the informants perception reveals that having superior business-specifics at the inception of a startup is not the most important requirement. For the reason that, possessing a minimal, yet adequate amount of resource is enough to start the business, which can be complemented by the exploitation of three other drivers of internationalization. Thus, it rationalizes our logic for excluding it in the initiating stage.

5.5. The Influence of Market-specific in the Business Model Design Process

The market, as a customer-centric logic holds a particular attention to the ventures, particularly when it is new in a global location. Among the rest of stakeholders or competitive forces, the importance of the customer is highlighted regarding proactive niche-focused strategy, strong customer orientation and adaptability, which are demonstrated from the practitioners’ points of view in the table below:
Table 6. Perception on Market-specific

<table>
<thead>
<tr>
<th>Questions/Participants</th>
<th>A niche-focused, proactive international strategy abroad from the very beginning</th>
<th>Narrowly defined customer groups with strong customer orientation and close customer relationships</th>
<th>Flexibility to adapt to rapidly changing external conditions and circumstances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrepreneur 1</td>
<td>2</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Entrepreneur 2</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Entrepreneur 3</td>
<td>2</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Entrepreneur 4</td>
<td>4</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Business coach 1</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Business coach 2</td>
<td>3</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Business coach 3</td>
<td>5</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Total sum</td>
<td>26</td>
<td>32</td>
<td>35</td>
</tr>
<tr>
<td>Mean</td>
<td>3.7</td>
<td>4.6</td>
<td>5.0</td>
</tr>
</tbody>
</table>

The first column in Table 6 highlights how the startups dedicate a considerable time to reach out the **particular customer group** they have decided to focus. However, one of the entrepreneurs mentions that if not a proactive on-field effort is required for a new venture to reach the customers, it has to make itself accessible to the potential customers by various means, such as publications, brochures, third party expert networks and so on. This approach of reaching the customer is yet applicable for the concentrated industries with a small number of specialised players only. Secondly, creating and pertaining stable **customer orientation and relation** subsequently enable a startup to build a steady market base that can influence the confidence of different stakeholders for growth attainment. Finally, **flexibility** is a ‘business mantra’, as discerned by all the interviewees unanimously. It is expressed as solution-orientation towards different customer segments. Noteworthy, having excessive flexibility can turn into a constraint because it can hamper agreement on initial requirements and may even lock-in any particular infrastructure. An entrepreneur from MIMSI states:

“Everything can change that, unless the contract allows for broad amendments. Most of the times you get into something that it is quite fixed. Perhaps some small changes, but not big because otherwise, you create too much uncertainty. For every broad amendment in a contract, both parties need to agree.”
Pertaining to the Business Model Design Process

In the BMD process, both the first and the last stages proceed with an emphasis on the acquisition of steady customer relations, along with other activities as elaborated above. During the initiating stage, Aginity’s high level of proactivity in seeking prospective customers signifies the need for customer attainment. Ms. Ledskog has attended about 100 interview phone calls to potential clients, till date. Regarding this, Mr. Frykerås mentions,

“...because we are experts as now ... Of course, if she [Ms. Leksdog] calls 101. She knows all the questions and all the answers that they are going to ask. Because, she has already figured them out. And, it also means that we are building trust and we are able to do this”.

By contrast, as MIMSI is still at an early stage of the upscale of its core technology, the major focus for the research group to reveal a proof of concepts in the laboratory first. Mr. Pillay is the only person to be upfront in market. This situation creates slowness and hampers the proactiveness towards the market, as MIMSI’s business advisors pointed out repeatedly. However, the entrepreneurs and the founders acknowledge its importance to potentiate valuable customer relations and open a novel line of the customers.

The relationship with the Japanese customer has been established over time through numerous incremental steps taken by both parties. From the initial projects of two months to the major research projects of two years, a long process of observation has included many trips to Japan, detailed and thoughtful conversations, patent searches, project presentations and so forth. This proximity of the relation is built on proof of result, improving the level of mutual trust and reinforcing the customer relation element of MIMSI’s business model. Overall, the commonality between the firms studied lies on the linkages created to the market and in-depth connection with the customers.

Market-specifics during the refining stage indicate to a constant dialogue to spot the different amendments need to be performed to satisfy the customers fully over time. As per Againity, this flexibility is embedded in the value proposition since it provides with
an undifferentiated system to capture heat, which is customised by size, and input sources. Projects might differ based on different customer segments and their necessities.

Furthermore, when placing the focus only on three major business lines, Aginity groups alternative business models based on different customer segments. Thus, delimiting the scope of the startups is addressed by Mr. Frykerås:

“... You can always get a lot of influences from the outside but now this is my focus, and Elin is the same with the small districts in Sweden. Of course people came to us and we supply them but actively only with those segments and I think it is better...”

However, the current practices of the INVs reveal that market-specific has a distinctive focus on the external factors of a firm’s environment. Thus, the activities of this driver are not rigorously evident in the generating stage. Having said so, this stage has a great deal of importance because it creates and maintains the platform following the pattern of externalisation - internationalisation - externalisation.

5.6. The Discussion of Analysis in a Nutshell

The strategy of the INVs establishes the platform for how it intends to perform activities following its international characteristics. For this, the startup must actively seek to align its international strategy with the competitive landscape of the markets and the internal capabilities; that is termed as strategic fit combinedly (Venkatraman, 1989). On the other hand, a business model is an abstract representation of firm, which naturally considers the external fit and the internal fits, alternatively the strategic fit, with regard to its strategic standpoint (Teece, 2010; Zott, et al., 2011), that for this study is internationalization.

Each driver of internationalization, when scrutinized using the empirical realities of the INVs, tends to have different influential roles at different stages of the business model. At the initiating phase, market-specific driver focuses on the market segments and decides on the target market with a flexible approach. Here, network-specific driver, helps collect as much accurate information as possible on varied issues (i.e. competitor,
distributor and so forth) from relevant sources within the network. The activities performed at the beginning of constructing the business model indicate a greater tendency to have external orientation. The observation of the study is further supported by the argument, “The process of achieving fit begins, conceptually at least, by aligning the company to its market place” (Miles and Snow, 1994, p.12)

Moving to the next stage, business-specific driver and again network-specific driver affect the generation of the business model. By internalizing necessary phenomenon captured during the initiating phase, business-specific driver concentrates on utilizing market knowledge with strong commitment towards it. Particularly in case of the INVs, effective management of intangible assets and deployment of internal capabilities are crucial to decide on how to create and sustain value as may be spotted during the previous stage. Additionally, network-specific driver seems to complement or strengthen internal resources by maintaining close connection with the network created during or even prior to the initial stage. Therefore, at this stage, the activities undertaken are referred to be internal fit, which ensures an internal coherence among a firm's elements (Siggelkow, 2002).

The final stage, which is refining, shows a dual impact of the business-specific driver and market-specific driver. Although, it is argued that the interaction of the firm with the multiple actors (networks) is seen as reciprocal and in constant evolution (Ferreira et al., 2013), the empirical practices demonstrate that this phase of designing the business model emphasizes on accommodating or adapting to the external situation through exploiting its internal capabilities.

Last but not the least, along all stages, issues such as, what the best option for sustainable profitability can, where the startup wants to stand, how it would like to diversify the firm, what type of technology challenges may arise and likewise were addressed by entrepreneurs. Therefore, we argue of its impact in each stage of the BMD process. It means that by internalising the external elements at the same time of externalising the internal strengths/weaknesses, entrepreneur-specific activities strives to avail a balance of different fits for its internationalisation strategy.
The analysis chapter is built upon how the topic of the study is perceived in theory as well as how it is practised in reality. Thus, to understand a complex set of the interrelation of two major domains of theory, the BMD process and internationalisation, we construct a conceptual model. The model proposition includes the stages of the BMD process as newly outlined on the drivers of internationalisation, where strategic fit helps clarify the complex set of their interrelations.

*Figure 6: Internationalization Drivers Influencing the Business Model Design Process*

In figure 6, the three stages of the BMD process are placed at three corners of the triangle, which are again connected to each other with arrow signs to show their iteration and interrelation. When both network-specific and market-specific touch upon the initiating stage, the former shows greater influence on the generating stages, and the latter shows the same at the refining stage. Alternatively, business-specific pictures influence on the generating stage and the refining stage too. Finally, entrepreneur-specific has an impact on the all three stages, as shown by the inner triangle. The dotted circle, touching upon all the drivers and the stages show the extent of influence concerning external and internal fit, which reinforces the viability of combining these two major streams of theories and business practices so as to achieve strategic fit.
6. CONCLUSION

On a final note, we retrieve the research question assigning an overall meaning to this master’s thesis. We recapitulate briefly the main conclusions from the analysis chapter, summarise the contributions of this study and outline the limitations and future research avenues.

6.1. Delivering the Purpose

Initially, we stated our ambition to investigate in which manner the key factors of early internationalisation influences the overall formation process of the business model, taking the INVs in the setting of our empirical ground.

For a broad discussion of the research question, aiming to allow the readers to grasp two individual prime domains (i.e the internationalisation drivers and the BMD process) of this study, the discussion of strategic fit helps communicate the complex set of interconnections distinctly. The paper ultimately reveals the outcome of the study, leading to the construction of a conceptual model, enabling to revisit the purpose of the study.

Our proposed model suggests that internationalisation drivers do not weigh equally in each of the phases of the process. The findings indicate that the drivers contribute to the balance between the external environment and the internal business logic of the firms. In a consistent manner, from the second level of the analysis, in which the elements of the business model were incorporated, it extracts a shift from the customer interface and the offering, passing through the infrastructure dimension to the financial aspects, whereas the phases of the design are progressing. Thus, it not only helps to contextualize the environment, but also to build a strong business structure that is embedded and permanently adapted to the environment. This appoints for the dynamic consideration of strategic fit (Venkatraman, 1989), which is illustrated through this process study. In addition to this, strategic fit can be defined as the appropriateness of a firm's strategy to the external and internal factors (Zacaj et al., 2000), which has traditionally been understood as having desirable performance implications (Miles and Snow, 1994). Therefore, our model proposition may help to predict and assess a positive indicator of a new venture’s international performance.
6.2. Highlighting the Contribution

To wrap up, the contribution of this master’s thesis to the business model literature field is realised firstly by building on and extending the initial propositions to combine internationalisation theory with business model research. It provides with a comprehensive understanding of the impact of the key drivers for internationalisation structured along the three phases of the BMD process. Secondly, the study presents a conceptual model for designing the business model for the new ventures, aiming to internationalise at an early stage.

Finally, to the practitioners, including the entrepreneurs, the managers, the consultants and so on, we provide with a useful model proposition to structure their BMD process and better identify which factors are of interest in each of its phases. Through this conceptual model, the practitioners may obtain relevant guidance to translate the international strategy, which is reflected through the key drivers, into a roadmap. Overall, this study reinforces the idea of the business model as a managerial tool of great value.

6.3. Limitations and Future Study

Theoretical Limitation

A rather controversial issue that has not been agreed upon in the literature is the influence of the industry's characteristics, political conditions and cultural differences (Zuchella, 2001). Consequently, the issue is not incorporated in the internationalisation drivers. We acknowledge that it may be a constraint to this master’s thesis as long as drawing a general conclusion is concerned. Therefore, we argue that this study remains true as per B2B industry with high-technological offerings, being neither the industry nor the political environment addressed. We maintain the cultural differences constant in our research design by including Sweden based international startups only.

The mere definition of the INVs places its attention to the sale of outputs in multiple countries, that is detrimental to the establishment of an international supply chain. The INV is defined in this master’s thesis in regard to the sale of outputs, affecting the manner of presenting the cases in the empirical chapter. The cases are outlined
following the temporal development of the business model over the time. However, both definitions are complementary as being included in the theories of internationalization drivers. Therefore, considering the alternative definition of the INVs other than how it is addressed in our study can be counted as a weakness of this paper.

**Methodological Limitation**

For using NVivo™ software for this qualitative research, one of the shortcomings has been its nature, which is particularly not intuitive. Thus, it relies on the researcher's perspective. However, the extent of bias has been reduced by adopting the means as mentioned in methodology chapter (see section 3.8.)

Also, although simple in nature, the responses gathered via the Likert scale may face some distortions. Such as, people's answers may be influenced by prior questions. Besides, the interviewees may want to avoid the label of being ‘extremist’ and not select an ‘extreme’ option even though they want. In terms of data analysis, the mean calculation is sensitive to extreme values, when the sample size is small. Thus, it may not be the perfect measure of central tendency. However, as the objective of using a Likert scale was to check the consistency of the responses regarded to the figures, the ratings by the respondents were well explained. Thus, we tried to improve information accuracy as much as possible.

The short period of time impacts the scope of the study. The cases are subject to a retrospective construction of events over time. Due to the relatively short lifetime of the cases studied, the ultimate performance of the resulting business model could not provide a hint of its success. In our empirical cases, the INVs have achieved limited sales in the foreign markets in approximately one - three years after the foundation. Therefore, this study may gain from a longitudinal research, broadening the scope of data collection from the inception to the established stage of the INVs.

**Empirical Limitation**

A qualitative study with limited empirical support implies certain restraints. For this study, the evidence relies on two Swedish startups. Albeit, not pursuing a comparative
analysis, on one hand, the pair enables us to isolate the unique cases and not to be identified as the case study of ‘odd man out’. On the other hand, it restricts us from arriving at generalization in any manner.

Sweden only accounts for the 1.9% of the European population, which demands reliability in export trade for fostering its economic growth (Europa.eu, 2016). Consequently, the empirical findings may differ in terms of acting as the catalyst of the international strategy, not only in the interviewee’s perception, but also by the effective utilization of the drivers. In this regard, we argue for a beneficial bias that may represent the best practices as the phenomenon of the INVs is evident in the Nordic countries.

Furthermore, both the sample startups have been participating in a formalized coaching program, facilitated by LEAD, which ultimately affects the BMD process presented in here. However, we argue that the work methodology at LEAD is consistent with our theoretical point of departure, as conceived by Amit and Zott (2014). This is particularly relevant due to the exploratory nature of our theoretical foundation of the BMD process. As one of the coaches highlighted, LEAD’s work methodology is the result of years of experimentation with diverse procedures.

**Future Study**

This master’s thesis proposes a conceptual model to expand the knowledge about the BMD process of the international startups, which requires future studies to have greater validity. We hope this study has shed some light into this fruitful research arena and motivated other researchers to further explore this interesting topic. We shall provide some avenues for future research to which our conceptual framework may provide guidance next.

The underlying rationale to understand how a business model is created and developed over time is that it supports the development of a novel and successful business model and sets the mindset for revolution (Hamel, 2002). Our proposed framework is conceived from the standpoints of dynamism, instead of an one-shot event. Considering that, we set up an initial path to look for different types of business models, it may be
further investigated for the firms aiming to innovate its’ business model through the interplay between internationalization and innovation.

A successful manager needs to focus on three sequential activity levels of the business model, such as (1) design (2) implementation and (3) management (Amit and Zott, 2014). The design know-how of the business model is addressed in this paper for the INVs. However, the rest of activities, i.e. implementation into the market and it’s sustainable management are two potential streams to explore further.
7. APPENDIX

Appendix 1. Interview Questions Formulae

Table 7. Business coach Interview Template

<table>
<thead>
<tr>
<th>Interview Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>We will proceed to record the interview for later analysis of the information collected</td>
</tr>
</tbody>
</table>

**Q1. Background**

- What is the background of the interviewee and the company (s)he is working with?
- How familiar are you either coaching startups doing business abroad or possessing international professional experience?
- What is his/her role and responsibilities within the studied case?
- When was the first contact made with the studied case?
- What is the firm’s progress [in a scale of 1 - 5 (initial idea - BM fully workable)], in terms of designing BM, from when you first started working with the company?

**Q2. Business Model (Variance and process questions)**

- How would you describe the value proposed by the company?
- Though it is fairly a new company, has this value proposition changed over time? If yes, in which sense?
- As you have mentioned about value proposition, we are wondering if the core, actual and augmented values have been identified separately?
- If Yes, whether there is geography based alteration?
- Who are the stakeholders/ key partners of [firm’s name] and what are their roles? In terms of contributions, responsibilities, contracts, etc.
- Considering the fact that, the list has increased when internationalizing, has the pattern of stakeholders/ key partners changed?
- What are the core resources of the company?
- Have the core resources changed over time and geographic expansion? If yes, in which sense?
- Other than the current practice, if there is any alternative source of resource accumulation (e.g collaboration with suppliers or on spot production plan for reducing production cost)?
- How did it come to the structure of the costs and revenues to look like today’s?
- Have this revenue- cost structure changed over time? If yes, in which sense?
- Is it going for aggressive profit making strategy since the beginning of its international business? Or, there is still room to scale up the profit after ensuring grip over the market?
- Who composes the customer segments of interest for [firm’s name]? 
- Have customer targets differ over time and geography? If yes, why?
• How does [firm’s name] reach its customers? What are the distribution/sales channels?
• Assuming that, it is significantly different from the ones in Sweden, in what ways [firm’s name] is coping up with the change?
• Is there any strategy to overcome the challenges, which might arise in future from the change in target customers knowledge and attitude?

Q3. The process of designing the business model

In general terms:

• When designing the business model, is there any element among the mentioned above that is determined first? If yes, which one(s)? Why does it/ do they have a major weight (logic behind)?
• How does the process of designing the business model follow?
  o Is there any standardized recipe that you may use to coach different startups?

Firm-specific:

• How would you describe the particular process of designing the business model of the studied case? Has it been any anomaly in comparison to standard procedures or other cases?
• In configuring the final offering in the business model, what has been the most critical or problematic issue and how (1) have you and/or (2) has the company been dealing with it?

We are facing the last parts of this interview, which has an emphasis on the internationalization process that [firm’s name] has pursued.

Q4. Identification of internationalization drivers

• In general, how do internationalization and BM intersect or interact with each other in your opinion?

• Market:
  o How does MIMSI comes to the conclusion that they need to explore international markets?
    ▪ How receptive was the team to conduct operations in international markets?
• Network:
  o Does Aginity belong to any particular network of foreign suppliers, customers, investors, etc?
• Resources:
  o What internal factors/competencies of the studied case help to that market selection, e.g. market specific knowledge, prior personal experience internationally, education, network, unlimited resources, etc?
  o Did the studied case have to overcome any limitation of resources of any type? If so, how did the studied case surpass it?
• In light of your prior experience, what would you highlight as crucial for a startup to go
international at an early stage in its development? The list below:

Triggers of early internationalization. Classification per importance [1- Not important at all, 2- Weakly important, 3- Ok important, 4- Quite important, 5- Crucially important]

1. a managerial global vision from inception
2. high degree of previous international experience on behalf of managers
3. management commitment
4. strong use of personal and business networks (networking)
5. market knowledge and market commitment (in terms of resources allocated)
6. unique intangible assets based on knowledge management
7. high value creation through product differentiation, leading-edge technology products, technological innovativeness (usually associated with a greater use of IT), and quality leadership
8. a niche-focused, proactive international strategy in geographically spread lead markets around the world from the very beginning
9. narrowly defined customer groups with strong customer orientation and close customer relationships; and finally
10. flexibility to adapt to rapidly changing external conditions and circumstances

** Dig deeper in the ones ranked to 4 or 5.

- What would you suggest as the major challenges for an international new venture to conduct sales abroad in comparison with domestic startups?

**Q.5. Final Considerations**

- How far [in a scale of 1- an initial idea only to 5- BM fully workable], in relation to the design of its business model, did the company go at this point in time?
- Do you possess any written documentation where the different working business models have been reflected over time, i.e. business plans, feedback reports, presentations, etc.?
- Are you or have you participated in the process of designing the business model on another company with similar characteristics as [firm’s name]?
  - If yes, could you provide us the contacts so as to enrich the empirics of this thesis?
  - If not, do you know any of your colleagues who have coached a similar company and could you put in touch with that person?
- Finally, would it be possible to conduct another short interview with you in case we will need further information?
**Table 8. Entrepreneur Interview Template**

<table>
<thead>
<tr>
<th>Interview Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brief explanation of our master thesis topic &amp; requirements to collaborate (publication regulations, etc). We will proceed to record the interview for later analysis of the information collected.</td>
</tr>
</tbody>
</table>

---

**Q1. Personal Background**

- What is your academic background?
- What is your professional background?
- Do you have prior international experience, either work, academic or both?

**Q2. Company Background**

- Could you give us an overview of the company profile?
- In the webpage, there are diverse applications mentioned. What is the offering that the firm does to customers?
- How does the company works with customers, i.e. a project-based organization?
- What is the number of sales that the firm has done internationally so far and which is the customer profile?
- What are the core resources of the firm?
- How do you dream about the firm? Where would you like to see the firm in the future? (>global orientation of the founder???)

---

**Q3. The establishment of the firm**

- What motivated you to establish [firm’s name]?
- Did you have all the required competences to found [firm’s name] right at birth?
  - Which ones would be those?
  - Which ones, in your opinion were lacking and what actions did you take to acquire them?
- How did you come to join the business incubator and what motivated that decision?
  - Which criteria did [firm’s name] need to meet in order to be accepted in LEAD?
- What was the role of the co-founder in the first steps of [firm’s name] and nowadays?
- In a chronological order, could you tell us how [firm’s name] has developed from its early inception until now?
- Which would be a remarkable achievement of [firm’s name] and why? (Any others?)

---

Now we will proceed to ask questions to identify the elements of the business model and their variation over time. We encourage if you could think of different situations over time in which those elements were modified, and tell some examples, if possible.

---

**Q4. The design process of the business model**

- What was your very first initial business idea for [firm’s name]?
  - Breaking down the question above:
    - What problem did you wanted to solve?
    - How did you plan to sell in the market and to which customers?
• There are a number of customer segments the firm is investigating at the moment:
  o Has it been any other customer segment explored? If yes, which one and why was not relevant?
  o How did you plan to satisfy all customer segments?
• Have you seen yourself in the situation of having different alternative paths to choose in relation to different business models?
  o If yes,
    ▪ Could you tell us a particular situation?
    ▪ What was relevant in this particular situation to make a decision?
• What can you tell us about the technological prototype in terms of its importance for [firm’s name]? (More simple, which function does the prototype perform in [firm’s name]?)
  o When was it built?
• In your opinion, which have been the factors that have helped the most to sell the first unit in Sweden? And internationally?
• In which consists the sale in [International location]?
  o Did it implied to modify the business model of [firm’s name]? If yes, how?

We are facing the last parts of this interview, which has an emphasis on the internationalization process that [firm’s name] has pursued.

Q5. Internationalization

• Which actions have you undertaken in order to explore the international markets?
• Did you need to overcome any type of barriers to conduct operations abroad? If so, could you provide us some examples?
• How would you describe the role of networks in regards to [firm’s name]?
  o Does [firm’s name] belong to any particular network of foreign suppliers, customers, investors, etc.?
• What internal factors/ competencies of [firm’s name] support its internationalization, e.g. market specific knowledge, prior personal experience internationally, education, network, unlimited resources, etc.?
• In light of your prior experience, what would you highlight as crucial for a startup to go international at an early stage in its development? The list below:
  Triggers of early internationalization. Classification per importance [1- Not important at all, 2- Weakly important, 3- Ok important, 4- Quite important, 5- Crucially important]
  (1) a managerial global vision from inception
  (2) high degree of previous international experience on behalf of managers
  (3) management commitment
  (4) strong use of personal and business networks (networking)
  (5) market knowledge and market commitment (in terms of resources allocated)
  (6) unique intangible assets based on knowledge management
  (7) high value creation through product differentiation, leading-edge technology products, technological innovativeness (usually associated with a greater use of IT), and quality leadership
  (8) a niche-focused, proactive international strategy in geographically spread lead markets around the world from the very beginning
narrowly defined customer groups with strong customer orientation and close customer relationships; and finally
(10) flexibility to adapt to rapidly changing external conditions and circumstances.

*Dig deeper in the ones ranked to 4 or 5.*

**Q.6. Final consideration**

- **What would you advice to a person who would like to startup a firm- anything that you can call your success ingredient that in your experience proved to be right in several occasions?**
- **Do you possess any written documentation where the different working business models have been reflected over time, i.e. business plans, feedback reports, presentations, etc?**
- **Finally, would it be possible to conduct another short interview with you in case we will need further information?**

---

### Appendix 2. Information of the respondents

#### Table 9. Information of the respondents

<table>
<thead>
<tr>
<th>Organization</th>
<th>Responsibility</th>
<th>Name</th>
<th>Date</th>
<th>Start Time</th>
<th>End Time</th>
<th>Duration</th>
<th>Medium</th>
</tr>
</thead>
<tbody>
<tr>
<td>Againity AB</td>
<td>CEO</td>
<td>David Frykerås</td>
<td>27-Apr-16</td>
<td>9:15</td>
<td>10:41</td>
<td>1h 26min</td>
<td>In person</td>
</tr>
<tr>
<td>Againity AB</td>
<td>Head of Market &amp; Sales</td>
<td>Elin Ledskog</td>
<td>12-Apr-16</td>
<td>14:00</td>
<td>14:46</td>
<td>46 min</td>
<td>Over phone</td>
</tr>
<tr>
<td>LEAD</td>
<td>Business Coach (Againity)</td>
<td>Lars Bengtsson</td>
<td>30-Mar-16</td>
<td>13:00</td>
<td>13:36</td>
<td>1h 36min</td>
<td>In person</td>
</tr>
<tr>
<td>MIMSI Materials AB</td>
<td>CEO</td>
<td>Sankara Pillay</td>
<td>14-Apr-16</td>
<td>10:00</td>
<td>11:53</td>
<td>1h 53min</td>
<td>In person</td>
</tr>
<tr>
<td>MIMSI Materials AB</td>
<td>CTO</td>
<td>Kostas Sarakinos</td>
<td>26-Apr-16</td>
<td>15:15</td>
<td>16:19</td>
<td>1h 04min</td>
<td>In person</td>
</tr>
<tr>
<td>LEAD</td>
<td>Business Coach (MIMSI)</td>
<td>Tomas Larson</td>
<td>14-Apr-16</td>
<td>13:15</td>
<td>14:32</td>
<td>1h 17min</td>
<td>In person</td>
</tr>
<tr>
<td>LiU Innovation</td>
<td>Innovation Advisor</td>
<td>Gio Fornell</td>
<td>27-Apr-16</td>
<td>13:15</td>
<td>14:22</td>
<td>1h 07min</td>
<td>In person</td>
</tr>
<tr>
<td>LiU Innovation</td>
<td>Innovation Advisor</td>
<td>Oscar Jönsson</td>
<td>16-Mar-16</td>
<td>18:00</td>
<td>18:48</td>
<td>48 min</td>
<td>In person</td>
</tr>
</tbody>
</table>
Appendix 3. Definitions of BMD stages for categorization purposes

Table 10. Definitions of BMD stages for categorization purposes

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observing stage</td>
<td>Amit and Zott (2014) quote Boland and Collopy (2004) to state, “effective design begins with a clear understanding of the problem to be solved.” By putting itself in the stakeholders’ shoes, a firm gets the scope to feel customer experience and accordingly senses unique opportunities. Some basic queries: what customers to serve, what their problems are, what the current gaps in solving those problems and what roles of the related parties can be expected (Amit and Zott, 2014).</td>
</tr>
<tr>
<td>Synthesizing stage</td>
<td>This stage is about the realization of learning, which took place during observing. Teece (2007) contemplate this stage as “...sourcing knowledge inside and outside the organization, developing new ideas and insights”.</td>
</tr>
<tr>
<td>Generating stage</td>
<td>During this intermediate stage, potential business model design solutions are created by modifying an existing business model or building a brand new one. It reveals around three basic questions, as marked by Morris et al. (2005) and elaborated by Amit and Zott (2014), “(a) what are the novel activities required to satisfy these perceived needs? (b) how could the required activities be linked to each other in novel ways? (c) who should perform each of the activities that are part of the business model?”.</td>
</tr>
<tr>
<td>Refining stage</td>
<td>Refining aims at narrowing down large number of design possibilities to one or a few numbers. According to Amit and Zott (2014), this activity involves three iterative steps – (a) clustering various BMD into alternatives; (b) evaluating these alternatives as per relevant criteria (e.g. feasibility testing); (c) prototyping (e.g. experimenting on a small scale and modifying as per the feedback from stakeholders, especially customers).</td>
</tr>
<tr>
<td>Implementing stage</td>
<td>Implementing accumulates all the elements of new design to transform into a coherent model. It also entails the effective communication to the organization, based on the leadership qualities such as commitment to the business logic presented.</td>
</tr>
</tbody>
</table>
### Appendix 4. Codification using NVivo™

#### Table 11. Codifications using NVivo™

<table>
<thead>
<tr>
<th>BMD + Internationalization drivers</th>
<th>A: Generating stage</th>
<th>B: Implementation stage</th>
<th>C: Observing stage</th>
<th>D: Refining stage</th>
<th>E: Synthesizing stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: Entrepreneur-specific</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>2: Market-specific</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>3: Network-specific</td>
<td>5</td>
<td>1</td>
<td>7</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>4: Resource-specific</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>
8. REFERENCE


