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**EFFECTUATION AND CAUSATION ARE DRIVERS TOWARD
INTERNATIONALIZATION SUCCESS OF SMEs**

Case: Cross-sector Finnish SMEs.

Master's thesis, November 2019

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ABSTRACT

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Entrepreneurial decision-making logics and internationalization success of firms have been relatively broadly studied as separate concepts. However, there is a gap in the literature in concerns with these concepts' interplay. Therefore, this thesis attempts to contribute to the research area, and offers insights into relationship between entrepreneurial decision-making logics and internationalization success of firms. In addition, the thesis increases understanding on the ways managers adapt their decision-making logics according to the decision context and the idiosyncratic nature of each foreign expansion. Moreover, this thesis is limited to study SMEs in the cross-sector, which again is lacking research until now.

The empirical part of the research is based on a quantitative research method. The data were collected via a structured online survey instrument from a cross-industrial sample of SMEs in Finland during 2014. The results of the thesis indicate that the entrepreneurial decision-making logics do not drive for internationalization success of SMEs. The findings were that causation positively but not-significantly predicts SMEs international performance in contrast to effectuation, which negatively but significantly predicts SMEs international performance. Overall, entrepreneurial decision-making logics do not seem to have a large positive role as influencers and predictors of SME internationalization process and internationalization outcomes, however, the positive effect could be moderated by some other mechanism, such as entrepreneur's global mindset, and managerial experience.

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Now, let's keep this going. Let's have fun, and research well, let's love more and laugh together.

Espoo, November 2019

Son Pham

LIST OF SYMBOLS AND ABBREVIATIONS

CR	Composite reliability
DC	Dynamic capabilities
DOI	Degree of internationalization
E&C	Effectuation and causation
FSTS	Foreign sales to total sales
IE	International Entrepreneurship
INVs	International new ventures
KBV	Knowledge based view
MNEs	Multinational enterprises
RBV	Resource based view
SME	Small Medium-sized Enterprises

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1 INTRODUCTION

Since Sarasvathy's (2001) seminal article, there are numerous scholars who have contributed to research on entrepreneurial decision-making logic's effects on firm performance. Although prior scholars (Futterer, 2018) have been examining causation and effectuation's effect on entrepreneurial performance, their impact on Small Medium-sized Enterprises (SMEs)'s internationalization process is still lacking. Therefore, this thesis investigates the effectiveness of causation and effectuation as primary entrepreneurial logics on the process of internationalization of the SMEs. The purpose of the thesis is to first, propose a scale suitable to the explication of the causal and effectual approaches construct relative to the process of internationalization of SMEs. Second, it proposes a scale for comparison different firm level theories of internationalization. Third, these scales are examined relative to SMEs' international performance.

1.1 Research Gap

Ever since Welch and Luostarinen (1988) have sought to define the concept of internationalization process as incremental involvement process in international operations. Some of the dispute revolves around the explication of the concept of internationalization, which researchers interpreting internationalization as a sequential process of international development (Johanson and Vahlne, 1977), or the process of adapting firm's operations consists of strategy, structure, resources, etc., to international environments (Calof and Beamish, 1995). As a result, internationalization's impact on SMEs' performance continues to remain ambiguous (Covin and Slevin, 1991; McDougall and Oviatt, 1996; Coviello and McAuley, 1999; Lu and Beamish, 2001). In a similar fashion, scholars have also sought to understand the concept of entrepreneurship (Shane and Venkataraman, 2000; Wiklund and Shepherd, 2005). However, the quest to link entrepreneurship theory to SMEs' internationalization has also remained elusive. Even though there have been numerous progresses in the past few decades, there is still plenty to be understood about entrepreneurship, internationalization and their relationship to SMEs' international performance.

As a result, there has been several new theoretical perspectives which have emerged to explain the actions and logic that underlie entrepreneurial behavior. These approaches of causation and effectuation (E&C) (Sarasvathy, 2001), which have been referred to as the

“emerging theoretical perspectives” (Eisenhardt, Kotha, Meyer, & Rajagopalan, 2018), is currently receiving upraised prominence as one of the most promising frameworks for entrepreneurship research (Perry, et al., 2012; Brettel et al., 2012; Read et al., 2009). By that means, effectuation approaches start from means to ends, basically taking the means at the starting point and then attempt to achieve different possible effects using the means they have at their immediate disposal (i.e., who they are, what they know, and who they know) (Sarasvathy, 2001). Meanwhile, causation approaches refer to a given effect that is then to be achieved by the right selection of means (Sarasvathy, 2001). Both theoretical perspectives have been used in order to understand effects of entrepreneurial behaviors not only in the start-up domain but also in adjacent contexts (Chandler et al., 2011; Sarasvathy, 2008; Svensrud and Åsvoll, 2012). While first exploratory studies have introduced E&C in the corporate venture creation setting (Evald and Senderovitz, 2013; Harms and Schiele, 2012; Mainela and Puhakka, 2009), effectiveness of entrepreneurial behaviors on the degree of SMEs’ internationalization and their performance remained widely unexplored.

Motivated by this research gap and utilizing Sarasvathy’s (2001) emerging theory in the domain of internationalization, this thesis intends to leverage causation’s and effectuation’s potential to understand the effectiveness of entrepreneurial behaviors on SMEs’ internationalization. Thus, this thesis attempts to contribute a perspective to academic researches on this topic by empirically examining effects of E&C on the degree of SMEs’ internationalization and its subsequent impact on SMEs’ international performance.

1.2 Research Questions

The aim of this study is to find out what entrepreneurial behavior(s) is (are) the driven(s) towards the internationalization success of SMEs. Moreover, this study is aimed to examine what is the effect of entrepreneurial logics on the degree of internationalization and on the successful internationalization performance of SMEs. Thus, the main research question, to answer to the research objectives, is built accordingly:

Which entrepreneurial behavior(s) is/are the driven(s) towards the internationalization success of SMEs?

As the main research question is broad and consists of different phenomena, supportive questions are created to provide a better comprehensive answer to the main research

question. All in all, two sub-questions are created. The first supportive question explains what effects the entrepreneurial decision-making logic impact on the degree of internationalization of SMEs. This question aims to find out the different influencing approaches of the entrepreneurial logic on the degree of internationalization of SMEs in general. In addition, it seeks to identify the different impacts of the entrepreneurial logics on the degree of different internationalization models of firms. Thus, the question is built as following:

What is the effect of entrepreneurial decision-making logic on different degree of internationalization of SMEs?

The second supportive questions focus on examining the influence of entrepreneurial logics for the success of achieving internationalization’s goals of SMEs. This question aims to explain the effects of entrepreneurial logics on both results of turnover and market share goals in internationalization of SMEs.

What is the effect of entrepreneurial decision-making logic on achieving the internationalization’s goals of SMEs?

The following figure A summarizes the research questions used in the study.

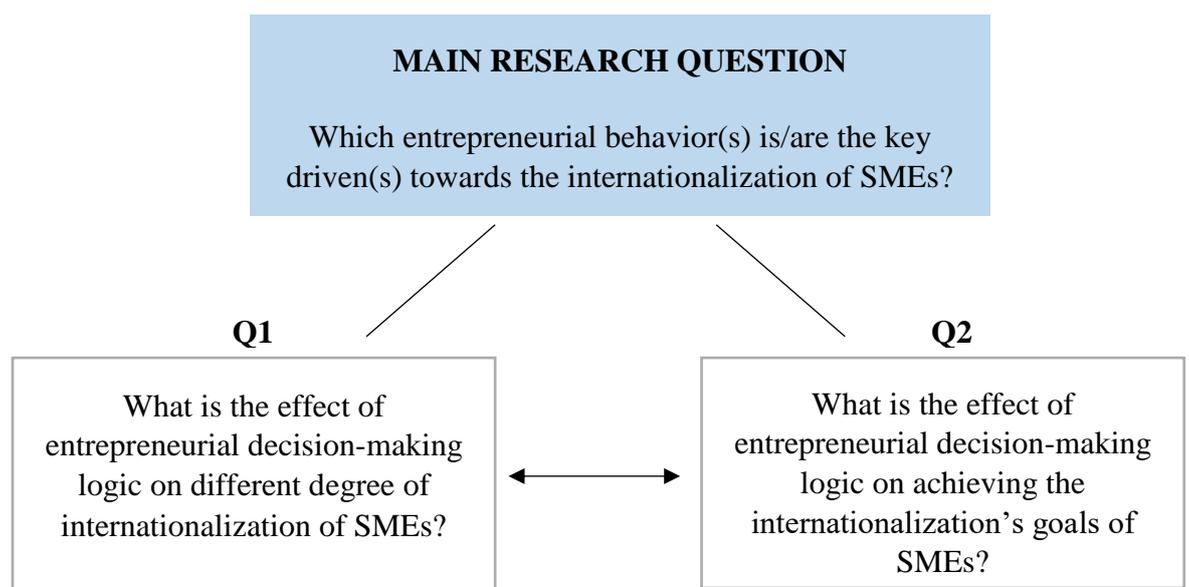


Figure 1: Research Questions

1.3 Definitions

The following chapter introduces the definitions of the most central concepts used in the thesis. Firstly, the chapter defines significant concepts which are critical to understand an entrepreneurial economy. In Sarasvathy's ground breaking research (2001, 2008), she has advanced our understanding of the entrepreneurial process by describing two distinct approaches to new venture creation including causation and effectuation. Consequently, these two approaches will be defined in this chapter. Following by definitions in the context of internationalization process, the main related concepts in this thesis are about international process, degree of internationalization, and international performance which are going to be explain.

1.3.1 Causation

Causation describes activities engaging economic thinking in which the entrepreneurs take an existing market opportunity and by resources, create a sustainable competitive advantage. It is consistent with planned strategy approaches (Ansoff, 1988; Brew and Hunt, 1999; Mintzberg, 1978) which is including activities as opportunity recognition and business plan development (Sarasvathy, 2008). The planning and analysis in causation approach assume conditions in which the distribution of outcomes in a group is predictable through calculation or statistical inference (Sarasvathy, 2001). In sum up, "causation processes take a particular effect as given and focus on selecting between means to create that effect" (Sarasvathy, 2001).

1.3.2 Effectuation

Regarding effectuation, Sarasvathy (2001) defined that "effectuation processes take a set of means as given and focus on selecting between possible effects that can be created with that set of means". In other words, it is an approach in which entrepreneurs concentrate more on the resources they already possess and disregard market needs in search of opportunities. This approach is considered meaningful in highly uncertain and dynamic markets where target customers cannot be predefined (Sarasvathy, 2001).

Effectuation processes are consistent with emergent (Mintzberg, 1978) or non-predictive strategies (Wiltbank et al., 2006) because it is impossible to draw statistical inferences from high uncertainty and unique circumstances. As an alternative of analyzing options and

selecting the one with the highest expected return, the entrepreneurs probable to work with the resources within their control, adjust as necessary and perceives options based on loss affordability (Dew et al., 2009). According to Sarasvathy (2001: 251), the behind logic of effectuation is that future do not needed to be predict because it can be controlled.

1.3.3 Internationalization process

Recent years have witnessed an exponential development in the academic literature surrounding the term “internationalization”. The term has various definitions in research contexts, but at its fundamental extent, it can be defined as a firm’s process of gradually intensify its foreign operations (Johanson & Vahlne, 1977), or as an outward incremental movement in international operation of a firm or a group of firms (Welch & Luostarinen, 1988). Predominantly, the term “internationalization” usually refers to either a process of increasing involvement in international operations (Welch & Luostarinen, 1988; Johanson & Vahlne, 1990; Welch & Luostarinen, 1993; Calof & Beamish, 1995; and Ahokangas, 1998), where the process moderately adapts firm’s operation to international environments, i.e. strategy, structure, resources (Johanson & Mattsson, 1993), or as developing networks of business relationships in foreign markets (Lehtinen & Penttinen, 1999; Ruigrok, 2000).

1.3.4 Degree of Internationalization

Degree of internationalization (DOI) is a concept to define how internationalized a given firm is. Generally, the term has been found that to cover the total construct of a degree of internationalization for a given firm, multi-item scaled measures more likely apply than single-item ones (Sullivan 1994).

According to the contribution study of Jantunen et al (2005), international performance is also a multidimensional construct that should measure through various indicators. These indicators review either the scale of international operations or successful performance. A scale of international operations of a firm commonly formulates by two objective indicators including international sales as a percentage of total sales, and the number of countries in which the company operates (Ibid.). Applying this line of thought, degree of internationalization is defined as the sum of foreign share of turnover three years after internationalization and amount of foreign countries entered.

1.3.5 Small and medium sized enterprises (SMEs)

Small and medium sized enterprises are a very heterogeneous group of businesses which are often classified by the number of employees and/or by the value of their assets. The size classification varies within regions and across countries relative to the size of the economy and its endowments. According to the European Commission, in 1996, they set out a definition of SMEs for all member countries. The definition of SMEs is again revised in 2003 after considering the economic changes. The revised definition stated that a firm that has less than 250 employees and 50 million Euros annual turnover belongs to this category of medium-sized enterprises. Meanwhile, a firm which has less than 50 employees and under 10 million Euros annual turnover falls into the category of small-size enterprises (European Commission 2003). This thesis limits the examination of SMEs to those defined by these criteria.

1.4 Literature Review

In this chapter, a review of theoretical literature will be shortly introduced to familiarize the reader and the researcher to the centric phenomena surrounding the research. Literature on effectuation, causation, international entrepreneurship, internationalization of SMEs, degree of SMEs' internationalization and SMEs' internationalization performance are presented.

1.4.1 Causation and Effectuation

Sarasvathy (2001) pointed out two distinct approaches in describing entrepreneurial process, namely, causation and effectuation. In the framework of causation and effectuation logics, there are two types of issues: causal issues are dealing with decision, whereas effectual issues are dealing with design (Sarasvathy, 2008). Sarasvathy (2008) indicates that causal logic helps entrepreneur to choose and effectual logic helps entrepreneur to construct. In other words, the causal entrepreneur starts with an effect which he/she wants to create and asks: "What should I do to achieve this particular effect?" (Sarasvathy, 2008: 73). For example: "What should I do to internationalize?" Thus, causal logic pursues the certain steps or procedure. This logic can be observed apparently through Kotler's (1991) suggestion for conducting the product/service to market. It involves (1) Analyze long-run opportunities in the market, (2) Research and select target markets, (3) Design marketing strategies, (4) Plan marketing programs, and (5) Organize, implement, and control marketing effort. In

opposition to the causator, the effectuator starts with his/her means and questions: “What can I do with these means?” and continue with “What else can I do with these means?” (Sarasvathy 2008: 73). Sarasvathy (2008: 73) reviews that effectuation does not start with a certain goal. Instead it starts with a given set of means and enable goals to emerge contingently over time from diverse imaginations and varied aspirations of the founders and the people with whom they interact.

Effectual logic concentrates on partnerships as contrary to causal competitive analysis. In the causal logic, the market is assumed to exist independent of the firm or entrepreneur. The goal of the entrepreneur is to seize as big a share of that market as possible (Sarasvathy, 2001). In contrast to effectual logic, the founder together with others creates the market by gathering together enough stakeholders who are committed to sustain the enterprise. According to Sarasvathy (2001: 252), effectuation highlights strategic alliances and pre-commitments from stakeholders that help to reduce and/or eliminate uncertainty and erect entry barriers.

Causation models concentrate on the logic of prediction, whereas effectuation stresses on the logic of control (Sarasvathy, 2001). In the effectuation logics, entrepreneurial opportunity discover process and uncertainty are situation dependent (Sarasvathy et al., 2003). When applying effectual logics, the entrepreneur disregards risk prediction and make decisions on the basis of loss absorption to control uncertainty. Effectual reasoning modifies uncertainties to opportunities as they avoid early commitment to any specific markets (Sarasvathy et al., 2003).

1.4.2 Internationalization SMEs

There are various approaches to internationalize which have been introduced during the past 40 years. Until the late 1980’s, the researches linked to SMEs internationalization are seen as relatively new in comparison with internationalization of multinational companies (Saarenketo 2002). Notably, many attempts were made in order to clearly define SME’s “internationalization” concept.

Some scholars, attempting to define internationalization, highlight process through which firms incrementally involved in international markets (Johanson & Vahlne, 1997; Welch & Luostarinen, 1998). For example, Welch and Luostarinen indicated that the

internationalization is a gradual and sequential process through which firms become increasingly committed to and involved in international markets. These kinds of incremental processes driving the internationalization of firm are known as stages models (Johanson & Wiedersheim-Paul 1975; Johanson & Vahlne 1977; Welch & Luostarinen 1988).

Meanwhile, during the 1980's, some have sought to define internationalization through networks approach. In particular, Johanson and Vahlne emphasized development of the networks of business relationships in other countries through extension, penetration and integration (Johanson & Vahlne, 1990). In other words, the network approach defines internationalization as establishing position in networks, and then leveraging these networks through a learning process to successfully enter new markets (Johanson & Vahlne, 1990). A network analysis is observed as an alternative point of view to firm's international activities (Johanson & Mattsson, 1993).

Another stream of scholars, striving to define internationalization, put emphasis on the adaptation of firm operations to international environments (Calof & Beamish, 1995). However, Ahokangas who inspired by resourced-based view argued that internationalization is "the process of mobilizing, accumulation, and developing resource stocks for international activities" (Ruzzier et al., 2006).

These previous theories were all challenged by the emergence of new rapidly internationalizing firms in the late 1980s ((Bell, 1995; Saarenketo, Kuivalainen & Puimalainen, 2001), because of lower trade barriers, increased global competition and rapid technological development (Coviello & Munro 1995; Coviello & Munro, 1997). Many SMEs start their international activities during the first year of their operation or at least very soon after their establishment, and a remarkable part of their total sales is from foreign markets. There are several terms which are used to describe these types of firms. For instance, they are named as early internationalizing firms, born global firms (McKinsey & Co 1993; Rennie 1993), or international new ventures.

Although there are various approaches to the definition of internationalization, in order to explain the phenomenon of SMEs internationalization, the thesis will apply the integration of several approaches. This thesis adopt the view that internationalization is the expansion of firm's operations to foreign markets and agree with the notion that internationalization

could result from punctual and independent actions. According to scholars, the integration of stage approach, network approach, foreign direct investment theory, and international entrepreneurship theory help us to better understand SMEs internationalization (Coviello & McAuley 1999; Coviello & Martin, 1999; Etemad & Wright, 1999; Ruzzier et al. 2006). Thus, an integrative approach is often observed as better explanation for the internationalization of SMEs.

1.4.3 Internationalization and Entrepreneurship

Many studies research on SMEs internationalization indicate an agreement that SME internationalization is an entrepreneurial activity (Knight, 2000; Lu & Beamish, 2001). In addition, scholars who consider internationalization of SMEs also highlight on significant of entrepreneurs, who are observed as the key variables in SMEs internationalization. According to McDougall & Oviatt, a growing number of scholarly investigations into entrepreneurial firms that compete outside national borders have enhanced and broadened both international business and entrepreneurship research (McDougall & Oviatt, 2000).

With the shift of interests toward international entrepreneurship, McDougall and Oviatt have proposed the most frequently used definition and explained international entrepreneurship. It is a combination of innovative, proactive and risk-seeking behavior that is intended to create value in organizations across national borders (McDougall & Oviatt, 2000). During 2005, they have continued proposing to define international entrepreneurship as the discovery, evaluation and exploitation of opportunities across national borders in order to create future goods and services (McDougall & Oviatt, 2005). Notably, there are two parts of entrepreneurship are determined: 1) opportunities and 2) individuals who strive to exploit these opportunities. Thus, individual and firm entrepreneurial behavior is observed as the basis of internationalization process.

1.5 Theoretical Framework

The theoretical framework of this thesis is defined by using different theories related to entrepreneurial logic approaches, internationalization, and international entrepreneurship. The base of the theoretical framework is that the entrepreneurial logic approaches are main drivers to implement strategy in practice. The internationalization part comes in when examining the difference of companies' internationalization process through the

international performance. The entrepreneurial logic approaches itself is divided to two distinct approaches; effectuation and causation approach according to research by Sarasvathy (2001). The dynamic aspect of the entrepreneurial logic approaches in the framework comes from the fact that there cannot be identified at this stage a straight forward step-by-step order on which approach should be applied from the beginning when evaluating the degree of internationalization and international performance of SMEs. The framework is portrayed in Figure 2.

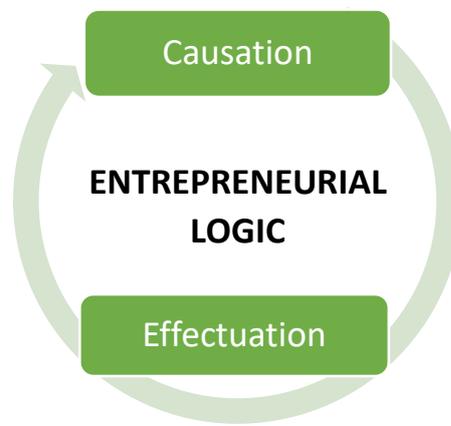


Figure 2: Theoretical framework of the conducted research

1.6 Delimitations

As the context of the research is relatively precisely limited, thus it creates delimitations. Firstly, the study focused on one specific country (Finland) and one specific group of company (SME); hence the results cannot be generalized outside the context.

1.7 Research Methodology

This thesis uses quantitative research method, with the aim to generate hypotheses that is to be tested later on for experimental approach.

The research context of this thesis is relevant to the entrepreneurial decision-making logic of internationalizing SMEs. In addition, the companies should have already international operations or plans to internationalize in the near future. Therefore, the thesis sought to study the phenomenon in a country where SMEs' companies prompt to pursue international path

because the domestic market is comparatively small. Finland is a relatively small, but an open economy in which SMEs play a crucial role. There is a growing number of SMEs which are internationally active in Finland. Owing to the fact that 99.7 percent of all the Finnish companies are small and medium-sized (Eurostat 2012); of which every fifth Finnish SME has had international operations, mainly through exports (Yrittäjät 2019). Moreover, the majority of all SMEs consider international expansion as their essential growth strategy (Kuismanen et al., 2017). All these facts indicate the importance of understanding the keys driven toward the internationalization process of Finnish SMEs.

The data of the thesis were collected from a cross-industrial sample of SMEs in Finland through a structured online survey instrument based on a 7-point Likert scale. A total of 82 internationalizing SMEs comprised the final sample used in the analysis.

1.8 Structure of the thesis

This thesis is broadly constructed into two main sections: theoretical and empirical part. In the first chapter, the reader are familiarized with the theme by introduction of the thesis's background, research gap and research questions. Furthermore, it introduces the theoretical frameworks used, along with definition of the main concepts, delimitation as well as briefly review the literature.

Chapter two shapes the theoretical part of the study by introducing all the relevant existing literature regarding the main concepts of the thesis. The first part of chapter two is concentrating on entrepreneurial logics, and its research field on causation and effectuation approaches. This section acts as a basis for the research and assists, together with the empirical part, to confirm or reject the hypotheses and answer the research questions created. The second theoretical part introduces the literature regarding the international entrepreneurs. Finally the third part of chapter two presents literature concerning internationalization of the firms, especially on SMEs.

Following by the empirical part of the thesis, they are presented in next chapters. Firstly, in chapter four, the research method used is describe and justified, consisting of the methodology, design, sample, data collection, analysis and the validity's assessment. Next, in chapter five, the results are introduced and further analysis. In the last chapter, the findings of the study are summarized as well as its theoretical and practical implications are going to

be discussed. Finally, chapter six provides some discussion and conclusions from those results.

2 THEORETICAL BACKGROUND

2.1 Entrepreneurial Logics

2.1.1 Effectuation and Causation perspective on Entrepreneurial logic

Traditionally, studies in the field of entrepreneurship have been conducted based on the neoclassical assumption. In neoclassical assumption, markets operate in a state of equilibrium and market's actors act rationally (Perry et al., 2012). According to this perspective, entrepreneurial opportunities are considered pre-existing phenomena that may be recognized by entrepreneurs because of deliberate search activities (Drucker, 1998). The competitive advantages which support the creation of startups and survival of emerging firms are considered contingent on the ability to identify and exploit opportunities and to access as well as control a unique set of resources (Chandler & Jansen, 1992; Cooper et al., 1994). Neoclassical assumptions on the nature of market economy have resulted in a common conceptualization of the entrepreneurial process as a rational, goal-driven decision-making process. In other words, it names as "causal" model. The causal perspective implies that an opportunity is an objective phenomenon. This phenomenon is recognized and evaluated by an entrepreneur and then proceeded to obtain the necessary resources to exploit it. (Sarasvathy, 2001)

Sarasvathy argues in her studies (2001) that the causal model fails to explain the entrepreneurial logic to its full extent especially in dynamic market environments such as markets in a state of disequilibrium. Dynamic environments are dominated by uncertainties. For example, one of uncertainties are lacking access to gather perfect information. As an alternative, she argues that entrepreneurs recognize opportunities from the resources which they have at hand, and the perception of what resources can be obtained. This alternative perspective makes each opportunity contextually unique and subjective in nature. In a study conducted on 27 entrepreneurs in the US with firm size ranging from \$200 million to \$6.5 billion, Sarasvathy (2001) managed to understand the reasoning and logic behind turning an idea into a successful firm. She introduced the term "effectuation" as a contrast approach to the traditional causal perspective. According to the effectuation logic, the entrepreneur's

initial resources are typically derived from a given set of means that usually consist of relatively unalterable characteristics. By acknowledge those means, Sarasvathy (2001) points out that the entrepreneur creates a thinking framework with a set of heuristics. They are easily achievable without planning, in comparison to causal reasoning. The given set of means consists who they are, what they know, and whom they know, but gradually will develop as the resources and the opportunities. These opportunities are adapted to each other as they are evolving together. The entrepreneur begins with a generalized aspiration without an overall objective which is clearly envisioned at the beginning. Following by the evolvement of remaining flexible, entrepreneur continually take advantage of environmental contingencies as they rise and learn as he or she proceed. (Sarasvathy, 2001)

The former causation is characterized by predetermined goal-setting, intentionally, planning and systematic information gathering (Fisher 2012; Chandler et al. 2011; Sarasvathy 2001). However, the latter effectuation is often connected with high uncertainty and means that decision-makers base their decisions on affordable loss, following feelings and intuition rather than rational calculation (Perry et al. 2012; Sarasvathy 2001). The two logics differ in terms of how decision-makers perceive the future: whether it is predictable or something than can be created. Decision-makers employing causation-based logic consider prediction of the future useful and base their decision accordingly, whereas effectuation-based logic considers prediction unnecessary as decision-makers are able to participate in shaping the future (Dew et al. 2009; Sarasvathy 2001). To sum up, based on the work by Sarasvathy (2001), Chandler et al. (2009) propose a framework contrasting characteristics of causation and effectuation in themes of goal definition, key decision parameters, dealing with uncertainty, and basis of exploitation (Table 1).

Table 1: Key characteristics of causation and effectuation (based on Chandler et al., 2011)

	Causation	Effectuation
Goals	Pre-defined	Emerging
Decision parameters include	Maximization of expected return	Affordable loss
Dealing with uncertain future through	Business planning and competitive analysis	Pre-commitment and alliances
Exploitation of	Capabilities and resources	Environmental contingencies

Overall, in the entrepreneurial logics, the causation-based logics seek to maximize potential returns from a decision by attempting to utilize optimal strategies. This logic emphasizes detailed competitive analysis which proceed from position strategies towards competitors. Additionally, this strategies highlight on exploiting pre-existing knowledge as a source of competitive advantages. Moreover, is also stated that in causation strategies, the logic is trying to forecast the future so that the effects of uncertainty may be controlled. Effectuation-based logics on the other hand predetermine the affordable amount of loss and experiment with multiple strategies which are limited by available resources. In effectuation strategies, generating more future options is much significant than maximizing short-term returns. This logic concentrates on forming alliances and relationships with potential partners and other stakeholders as well as searching for contingencies which can be exploited. In contrast to causation logic, effectuation logic conversely attempts to control the uncertain aspects of future so that it does not need to be predicted. (Sarasvathy, 2001)

According to Sarasvathy (2001, 2008), effectuation and causation are constantly balanced in entrepreneurial action, both logics can be employed by the same person basing on the uncertainty of the circumstances. In the same vein, previous studies (Fisher 2012; Perry et al. 2012) have indicated that causation and effectuation are not completely opposites or inversions of each other but can be balanced and co-exist simultaneously in entrepreneurial activities. However, the change from causation logic to effectuation, their contradictory interplay and dynamics over time have received limited attention within effectuation research (Read et al. 2016).

2.1.2 Effectuation versus Causation on SMEs Internationalization

Within the international business literature, SMEs internationalization process has been starting to include entrepreneurship as a key element in this process. Based on previous seminal model (Johanson and Vahlne, 1977), Johanson and Vahlne (2009) extend their model by explicitly including opportunity creation and recognition to accommodate the increasing acknowledgement of opportunities for international venturing. Jones and Coviello (2005) also recognized the significance of entrepreneurship in understanding internationalization processes by proposing that, internationalization is a “time-based process of entrepreneurial behavior” (p.284). Their model explicitly interprets that all the functions, activities, and actions associated with perceiving opportunities and creating

organizations in internationalization process are as a primarily entrepreneurial process (Bygrave 2004, p.2).

Effectuation theory is also particularly related as a building block for internationalization theory, because internationalization is formulated as a decision-making problem under uncertainty (Jones and Coviello, 2005; Schweizer et al., 2010). The relationship between internationalization and entrepreneurship is emphasized in the study of Jones and Coviello (2005). They conceptualized internationalization process as an “entrepreneurial process of behavior in time” (p.284) and shape Internationalization as a process under uncertainty.

Causation-based approaches on internationalization process were observed in a several studies. In 2001, Brewer found a linear “planned” approach in which countries are selected based on a rational assessment of market attractiveness and the firm’s potential competitive position. In the same line, Brouthers and Nakos (2005) found that firms, which using systematic international market selection, perform better than firms, which select their markets in an ad hoc way. Besides market selection, Lukas et al (2007) pointed out that formalized export planning is positively related to export performance.

In contrast to rational approaches on internationalization process, several researchers have highlighted the fact that decision makers are not fully rational in the internationalization process. They also involve with mental models (Maignan and Lukas, 1997) and cognitive maps (Andersen and Strandskov, 1997) which exert a large influence. Mental models are simplified representations of reality that support decision-makers to make sense of empirical reality. Maignan and Lukas (1977) reported that managers did not use a “comprehensive, deliberate analysis” to make market entry decisions but they prefer to use mental models about the origins of a firm’s competitive advantage for shaping the selection of entry modes.

Another stream of research highlights the emergent nature of internationalization process. Crick and Spence (2005) reported results from case studies in which entrepreneurs have mentioned that they have internationalized based on a chance encounter during their vacation, a class reunion, or based on hiring a manager that happened to have an international network. Moreover, entrepreneurs might not have the time to engage in careful information gathering and rational planning, particularly in dynamic markets in high-tech fields. By

reacting to opportunities, they effectively adopt emergent strategies (Crick and Spence 2005).

In Sarasvathy's published study of causation and effectuation (2001), Sarasvathy states that "effectuation process takes a set of means as given and focus on selecting between possible effects that can be created with that set of means". Meanwhile, causation processes "take a particular effect as given and focus on selecting between means to create that effect". In other words, in effectuation, goals emerge during the process, whereas in causation, goals are clearly defined in advance to decision-making. Harms and Schiele (2012) stated that in internationalization, emergent goals would endure flexibility with concerns to the strategic goals of an internationalization for a company. Meanwhile, companies depending on defined goals would develop a fixed plan regarding to the location of international market selection, the entering strategy such as entry mode selection, and strategic goals of what to achieve in the international market (Harms et al., 2012).

In affordable loss principle, Harms and Schiele (2012) stated that effectual logic based managers tend to make investment decisions incrementally and would not put the existence of the venture at stake. In converse, companies with causation-oriented logic would pursue to maximize expected returns and make a large up front sum of investment. Therein lies in internationalization, effectual-logic based company then would progress incrementally, whereas causal-logic based company would internationalize immediately (Harms et al., 2012).

Addressing to uncertainty, according to Sarasvathy (2001), managers with effectual logic will try to "control an unpredictable future" by negotiating pre-commitments from stakeholders, such as contracts guaranteeing stable future sales levels. On the other side, managers with causal-logic address to uncertainty by attempting to plan in advance with business planning and competitive analysis. In internationalization, companies with effectual logic approach would for example present a "follow-the-customer" behavior (Eriksson et al., 2000; Erramilli and Rao, 1993), whereas companies with causal logic approach would rely on their own market analyses.

Sarasvathy (2001) experimented in "Curry in a Hurry" observation that emergent goals are flexibly exploited by effectual-oriented managers as a reaction to environmental

contingencies. Causal-oriented managers, on the other sides, tend to exploit current capabilities and resources, reminiscent of the “administrative” behavior in Entrepreneurial Management of Stevenson’s conceptualization (Stevenson and Jarillo, 1990). Overall, when internationalizing, companies with effectual logic would adopt opportunities that emerged subsequently, whereas companies with causal logic would engage in international activities which harmonize their current capabilities.

2.2 International entrepreneurship

International entrepreneurship (IE) was first introduced in the works of Morrow (1988). Morrow proposed that the establishment of new firms are associated with technological advancements, better cultural awareness and adaptation (Zahra & George, 2002). In IE literature, there are several integrated theories extending from resources based view, knowledge based view, dynamic capabilities, value creation and market theory.

In contrast of the stage theory of internationalization (Peiris et al., 2012), resource based view (RBV) proposed that unique tangible and intangible resources of a firm are crucial for superior performance (Barney, 1991). Nevertheless, if a firm would like to capture competitive advantages from these resources, they must be valuable, rare, costly to imitate and organized (Barney, 1991). Therefore, in IE literature point of view, RBV advance approach to tacit knowledge, opportunity recognition (Alvarez & Busenitz, 2001) and the capability to capitalize on knowledge to exploit sustainable competitive advantage (Peng, 2001). Meanwhile, knowledge based view (KBV) in IE literature is closely attributed to the level of dependence on existing knowledge of the company (Peiris et al., 2012). However, many scholars pointed out that the process of knowledge acquisition and generation, and the relationship between knowledge capabilities and internationalization have not been fully researched (Autio et al., 2000; Weerawardena et al., 2007; Freeman et al. 2010; Kuivalainen et al., 2010).

In terms of essential constructs of IE, dynamic capabilities (DC) explicate on how firm level activities can be applied to manage environmental change in turbulent competitive environment (Zucchella & Scabini, 2007). DC are referred in some studies as a construct of company’s existing resources, knowledge acquisition from markets, internally concentrated learning and network capabilities (Schweizer et al., 2010; Weerawardena et al., 2007). There

are several attributions which are evaluated as significant firm level DC. For instance, studies proposed attributions including network relationships, entrepreneurial orientation, marketing orientation, research and development, product diversification, customer orientation and access to resources such as knowledge and learning (Peiris et al., 2012; Kuivalainen et al., 2010). Meantime, market theory and value creation have not obtained much IE research consciousness. Nevertheless, the attention of IE literature has been on value maximization business model and value creation (Peiris et al., 2012; Sainio et al., 2011). Value creation is attributed to innovation at product and process level predominantly in the perspective of internationalization process (Crick, 2009; Weerawardena et al., 2007; Gassmann & Keupp, 2007).

In the field of SMEs internationalization, the traditional incremental internationalization theories seem to get challenge in term of describing increasingly newly faster SMEs internationalization due to their inherent constraints in firm and market properties. According to Saarenketo and Sundqvist (2002), there is a lack of harmony defining and operationalizing the phenomenon of rapid internationalization of SMEs. IE research is described as an emergence which responds to newly internationalization firms. Those firms are those whose internationalization patterns are inconsistent with traditional patterns of internationalization (Peiris et al., 2012). Comprehensive studies on IE that set the premise for more research in the field was implemented by McDougall (1989). The crucial of integrating entrepreneurship and international business (illustrated in Figure 3) is to comprehend the motives for SME entrepreneurial internationalization activities (Ibrahim, 2004). Therefore, it is important to take into attention the entrepreneur's background and characteristics. Peiris et al. (2012) proposed that involving other IE concepts such as opportunity identification, value exchange, learning, creativity, and innovation may stimulate the comprehending of firm internationalization process. Although IE has derived plenty awareness in international business research (Zahra et al., 2005; Oviatt & McDougall, 1994; Antončić & Hisrich, 2000; Kuivalainen et al., 2012; Baum et al., 2015), notable scholars argue that IE literature is still lacking of an integrative theory.

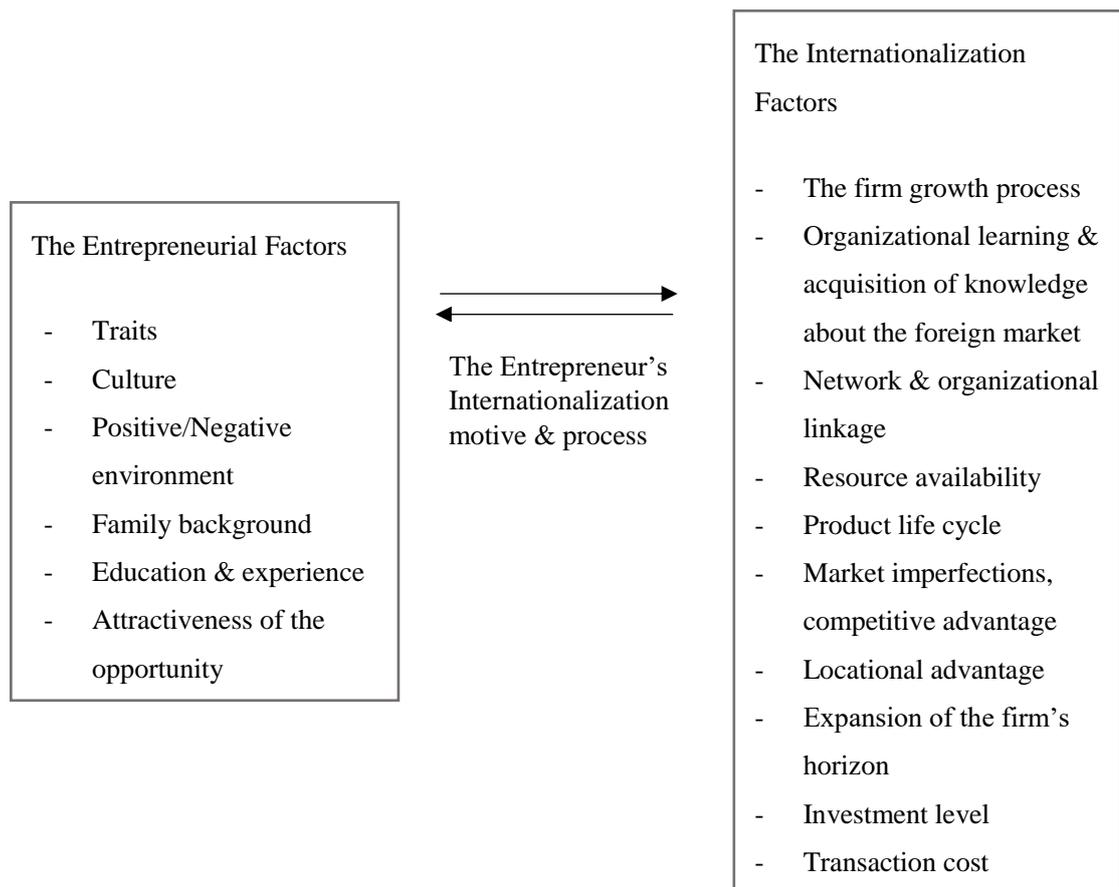


Figure 3: Entrepreneurial motive and process framework (Ibrahim, 2004)

Wach and Wehrmann (2014) contributed to IE literature by adapting an extended Zucchella and Scabini's (2007) model of IE (demonstrated in Figure 4). As illustrating in Figure 4, the model is a combination of several fields namely: international business, entrepreneurship and strategic management. This combining model has received considerably acknowledge from several researchers for enriching theoretical insights and knowledge to the IE field (Zahra & George, 2002; Keupp & Gassmann, 2009; Peiris et al., 2012). However, some researchers still observed that IE theory is shattering and lacking a unifying theoretical direction (Zahra & George, 2002; Peiris et al., 2012).

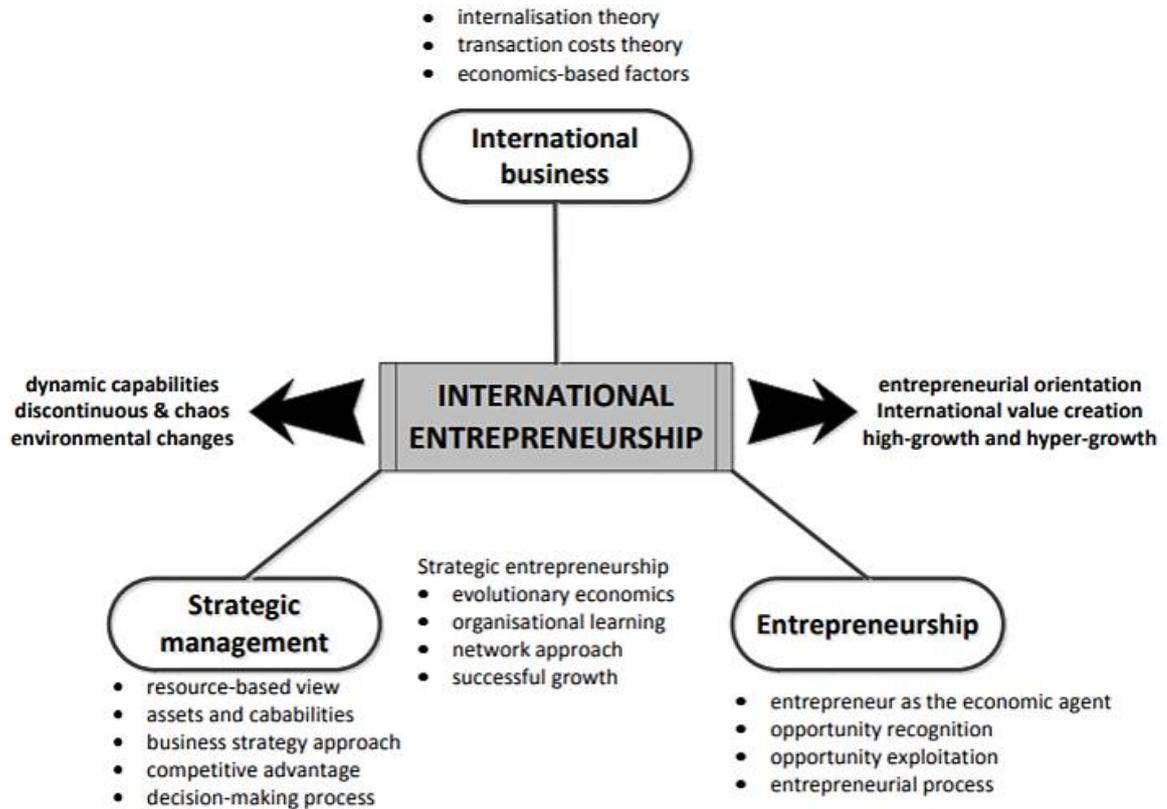


Figure 4: International entrepreneurship as the amalgamation of three fields, adapted and extended from Zucchella & Scabini (2007, p.22) (Wach & Wehrmann, 2014)

IE was redefined after the study of Mtigwe (2006). He proposed a cognitive approach that examines the motivations for internationalization and provides an integrative theoretical perspective. Thus, IE was redefined as “the cognitive and behavioral process associated with the creation and exchange of value through the identification and exploitation of opportunities across national borders” (Peiris et al., 2012, p.296). The introduction of the cognitive perspective in the definition contribute an additional integrative approach to include diverse firms of various sizes in their various stages of internationalization. Nevertheless, the underlying aspect of the definition is constructed from the premise that IE concentrates seeking competitive advantage across national borders with a proactive strategy (Peiris et al., 2012). Oviatt and McDougall (1994) defined IE as a combination of proactive, risk seeking and innovative behavior across national borders. The target of IE was to generate value in organizations. The focal point of the definition is on the company rather than the individual entrepreneurial characteristics and intentions. However, essential dimensions of entrepreneurship such as proactivity, risk taking and innovativeness can be

developed further at organizational level (Hisrich, 2009). There are several uncontrollable factors that may affect international entrepreneur's decision making process (Hisrich, 2009). For instance, the uncontrollable factors can be economics, culture, technology, local competition, political and legal environment or factors relating to balance of trade or payments.

During internationalization process, an entrepreneur or an entrepreneurial team take massive risks to pursue international opportunities in new markets (Zahra, 2005). The process of IE is operated and constructed by an individual(s) who engages in discovery and exploitation of opportunities discovered by them (Oviatt & McDougall, 2005). Therefore, the role of the entrepreneur is to combine resources and capabilities, knowledge and learning to identify opportunities along with reconfigure the firm's unique assets. Nonetheless, the emergence of the characteristics of the entrepreneur in IE research attributed to difficulty in establishing the formula elements which have the most impact on entrepreneurial capacities and resources (Peiris et al., 2012). Generally, IE literature illustrates entrepreneurs as opportunity driven and they take internationalization as a key element in their business and operational decision (Ibrahim, 2004).

Entrepreneur along with the external business environment and entrepreneurial process were highlighted as focal areas in IE phenomenon (Jones & Coviello, 2004). In SME internationalization, the character of the entrepreneur is acknowledged as in a crucial variable (Miesenbock, 1988) because of the entrepreneur's ability. Entrepreneur needs to harmonize a firm's organizational strengths with offset threats and capitalize on opportunities for SMEs internationalization. Thus, internationalization is evaluated as a learning process which integrates recognizing, seeking and taking opportunities (Zucchella & Scabini, 2007; Wach & Wehrmann, 2014). Zucchella and Scabini (2007) suggested an interpretative model for IE (presented in Figure 5) which starts with international opportunity and concludes with cooperate performance. However, a successful international entrepreneurial process is strengthen by access to (international) resources and (dynamic) capabilities. Accordingly, international resources and dynamic capabilities assist the entrepreneur to achieve desired outcome.

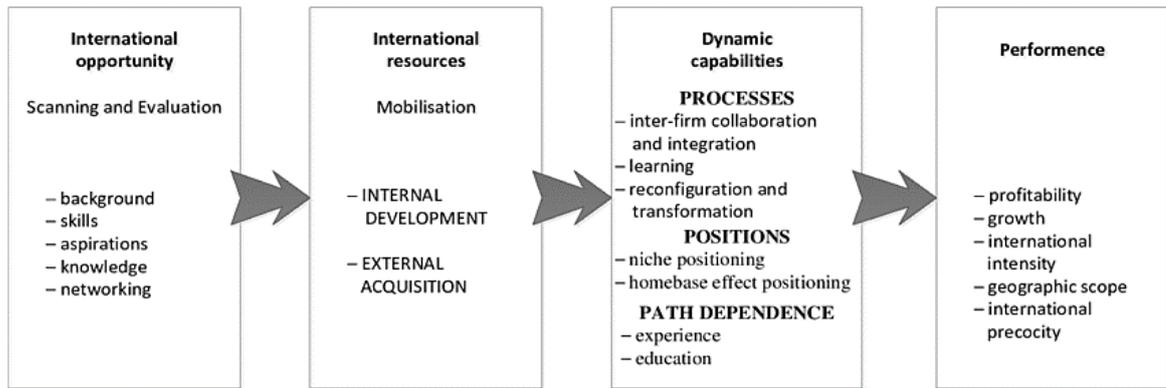


Figure 5: An interpretative model for international entrepreneurship (Zucchella & Scabini, 2007)

Opportunity identification is essential in IE which is referred as an international process and a crucial predictor of planned behavior (Krueger et al., 2000). In the study in 2012, Peiris and his researchers found a correlation in entrepreneurial intention (vision) with firm's internationalization (Peiris et al., 2012). Besides, firm resources stimulate opportunity discovery and utilization of opportunities internationally (Osei-Bonsu, 2016). Utilization of opportunities empower the entrepreneur to recognize the resources of the firm, distinguish resources controlled by others, point out ways to use those resources for value creation and to generate market demand. Meanwhile, opportunity discovery is the capacity of the firm to focus beyond domestic market success and strive new foreign market opportunities (Osei-Bonsu, 2016).

There are several factors which impact opportunity recognition such as prior knowledge, networks ties and firm resources. Prior knowledge is knowledge which can be obtained from objective and experiential internationalization process (Zucchella & Scanini, 2007). These knowledge assists to speed up international market entry in SMEs (Oviatt & McDougall, 1997). Objective knowledge can be obtained via standardized methods of transferring information through market research for instance. In contrast, experiential knowledge is not simply transferable between firms and is country specific. International experience and orientation were discussed as a form of implicit experiential knowledge (Penrose, 1959). Osei-Bonsu (2016) describes sources of experiential knowledge which can be gained from clients, markets or even competitors. Meanwhile, prior knowledge could also be obtained

from past living, working experiences and even international orientation including language proficiency, education abroad, or employment.

In IE literature, network ties are another key aspects in which entrepreneurs obtain access to resources and information to develop and exploit opportunities. They entitle the entrepreneur in managing risks of entering new markets (Osei-Bonsu, 2016). These networks can exist on either business or social level which can be either strong or weak (Granovetter, 1973). Nevertheless, the strength of a company's network ties is sustained by the extent of relationship between individuals in the network (Granovetter, 1973). As a consequence, the international entrepreneur's network is typically evaluated as a significant firm resource (Johanson & Mattson, 1988) in opportunity identification because it contributes as a discovery process rather than a process which is mainly constructed from strategic decision, rationalization or systematic gathering of information (Osei-Bonsu, 2016).

Another IE literature's subjects related to SME internationalization are international orientation and international mindset. Internationalization of SME has been influenced by international orientation and even further recently by global orientation. Global orientation is the capacity to modify to different cultures and environments while preserving a positive attitude towards internationalization (Nummela et al., 2004). Some researchers have been introduced international orientation as the motivation towards foreign or foreign market involvement (Dichtl et al., 1984; Nummela et al., 2004). They mentioned international entrepreneurial orientation (IEO) as a managerial characteristic and antecedent of internationalization. IEO contains several entrepreneurial dimensions (risk taking, proactiveness and innovation) and behavioral elements of global orientation. In internationalization context, entrepreneurial orientation refers as a substantial characteristic of managers in rapidly internationalizing firms. In detail, the entrepreneurs' characteristics with international orientation include: (1) low perception of psychic distance from foreign market, (2) highly educated and culturally diverse such as language skill and foreign experience, (3) versatile and risk averse, owning a positive attitude toward foreign market entry, for instance export (Nummela et al., 2004; Dichtl et al., 1984).

2.3 Internationalization of SMEs

2.3.1 Traditional internationalization's theories and internationalization process

The traditional frameworks that explain firm's internationalization were developed two or three decades ago. Prior to 1980, with substantial barriers for entering foreign markets, the concept of internationalization was a luxury of the largest and strongest firms. Therefore, most of the early international literature was focused primarily on multinational firms or with large manufacturing firms. Studies which related to the internationalization of SMEs were lacking, even though it was acknowledged early on that (Johanson & Wiedersheim-Paul, 1975; Coviello and McAuley, 1999). Recently, between the 1980s and the 2000s, because deregulation and liberalization of markets have been expanded to smaller firms and service firms, it has been noticed that in many cases existing internationalization theories in fact are not appropriate enough to explain or predict the development. Hence, reformulation and extension of internationalization theories are needed in order to explain the accelerated internationalization of smaller knowledge-based firms.

The principal traditional theories are usually divided into behavioral theories, i.e. stages theory (Johanson & Wiedersheim-Paul, 1975; Johanson & Vahlne, 1977; 2003; 2009), network approach (Johanson & Mattsson, 1988; Johanson and Vahlne, 1990; Alajoutsijärvi et al., 2000); and theories related to main concepts from the field of economics, i.e. monopolistic advantage theory (Hymer, 1976), foreign direct investment (FDI) theories and internalization or transaction cost theory (Buckley and Casson, 1976). Even though, there have been several studies which strives to synthesize the internationalization literature (e.g. Andersen, 1993), an individually and generally accepted interpretation of "internationalization" is yet to be identified, because the internationalization patterns of individual firms appear to be usually unique and situation specific (Reid, 1983).

The process of internationalization has been described as an incremental development of distinct stages (Melin 1992). Two major schools of thought on the process can be identified: (1) the models initially developed by Johanson and Wiedersheim-Paul (1975) and Johanson and Vahlne (1977), referred to as the Uppsala models (U-models); and (2) the innovation-related export models (I-Models) conceptualized by Cavusgil (1980).

Vernon was among the first business historians to identify internationalization of firms developing as stages, although the composition of those stages was limited in his model to product development. His work was carried on by the innovation-related export models, or the “I-models” (Bilkey & Tesar, 1977; Cavusgil, 1980; Reid, 1981; Czinkota, 1982). They developed the I-models found on the idea that, as firms started exporting, they would follow a predictable pattern of gradually intensifying levels of exports. In Cavusgil’s I-model, export involvement is operationalized by the export/sales ratio, thought to reflect the extent of a firm’s dependence on foreign markets (Cavusgil, 1980).

Meanwhile, the first models directly related to internationalization in the SME context were developed by Nordic researchers during late 1970s, and is well known as the “Uppsala” model or the “U-model” (Johanson & Wiedersheim-Paul, 1975; Johanson & Vahlne, 1977; 1990). The U-model describes the process as an incremental acquisition, integration and use of knowledge about foreign markets and operations in order to successfully increasing commitment to foreign markets (Johanson & Vahlne, 1977, p.36). The model depicts the process as one of organizational learning and concentrates on experience (Nordstrom 1991). Johanson & Vahlne (1977) disputed that the internationalization process is affected by limited knowledge about the international market (that is, uncertainty), eventually addressed by conducting operations abroad. In a recent extension of their 1977 model, the authors highlight the concept of “opportunity” as a subset of knowledge that drives the internationalization process (Johanson & Vahlne, 1977, p.1424). Drawing on opportunity theory, the authors recognize that opportunities can be discovered as well as created by the entrepreneur.

The stages theories propose that the international involvement gradually intensifies in stages because of incremental learning process. The most prominent formulation of stages approach is the “Uppsala-model” or the “U-model” (Johanson & Wiedersheim-Paul, 1975; Johanson & Vahlne, 1977; 1990). The empirical context for the U-model was based on a set of small Swedish manufacturing firms. The U-model was developed roughly basing on a basis of the behavioral theory of the firm (Cyert and March, 1963; Aharoni, 1966; Carlson, 1966), the theory of growth of the firm (Penrose, 1959), and the incremental decision-making process (Carlson, 1966). Consequently, the model focuses on international process from two dimensions. First dimension is the entry of firms in an individual foreign market – how firms

learn, and second is the successive operations of the firm in a new country or market – how their learning affects their behavior (Johanson & Vahlne, 1977; 1990). In stages theories, internationalization is being observed as a step-wise process which evolves from first entirely domestic operations via exports, and foreign direct investments into full-fledged multinational business. Several studies have explored the model empirically during last couple of decades (Björkman and Forsgren, 2000)

2.3.2 Internationalization models

2.3.2.1 Uppsala internationalization model:

The first models directly related to internationalization in the SME context were developed during late 1970s by Nordic researchers and became known as Uppsala internationalization model, or the “U-model” (Johanson & Wiedersheim-Paul, 1975; Johanson & Vahlne, 1977; 1990). The empirical context for the U-model was based on a set of small Swedish manufacturing firms. The U-model is based on the assumptions that lack of knowledge of SMEs about the foreign market and failure of firms to make commitment are the main obstacles for the SMEs to start their internationalization process. The model illustrates the internationalization process from two dimensions. First dimension is the entry of firms in individual foreign market, and second is the successive operations of the firm in the new country or market (Johanson & Vahlne, 1977).

The main structure of the U-model is illustrated in the bellow figure X. The structure distinguishes between two main factors “state” and “change” aspects of internationalization variables. In the state aspect of the model, it considers the current knowledge of the firm about the foreign market as “market knowledge” and the resource commitment to foreign market as market commitment. On the other aspect, the change aspect considers the decisions to commitment resources as “commitment decisions” and performance of current business activity as “current activity” (Johanson & Vahlne, 1977).

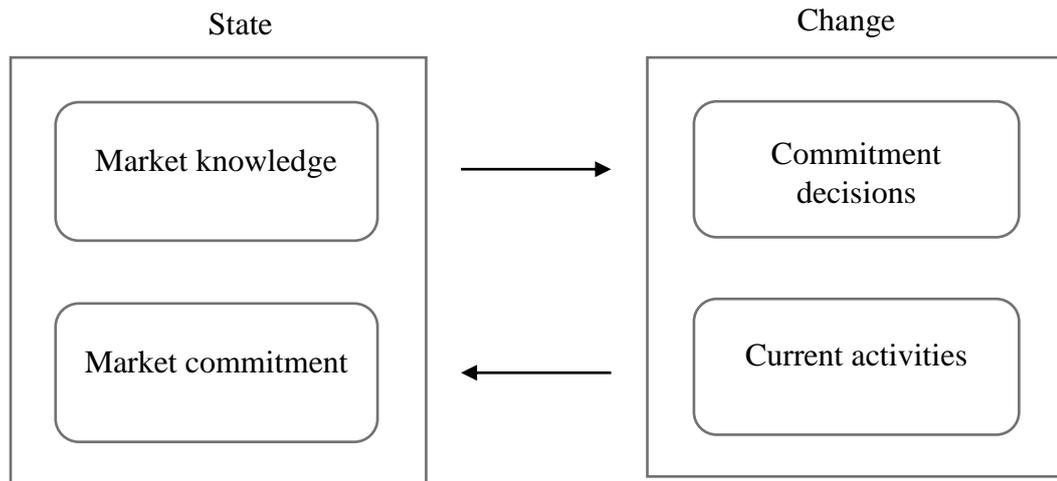


Figure 6: Main structure of Uppsala internationalization model (Johanson & Vahlne, 1990, in Johanson and Associates, 1994, p. 84)

In the state aspect, the market knowledge is considered as the most important factor because the knowledge of the firm regarding the market opportunities, and problems are helpful for the firm in decision-making process. Moreover, the firm also can evaluate the alternative based on the market knowledge. In the other hand, the market commitment factor is composed of two elements including “the amount of resources committed” and “degree of commitment”. The amount of resource commitment is defined as the amount of investment in particular market. Meanwhile, the degree of commitment is described as the difficulty of finding other alternative for firm’s resources and mobility of resources. Johanson & Vahlne (1977) pointed out that firms can use the current activities to gain experience. In addition, the other alternative method for the firms to gain experience is by hiring the experienced employees. Commitment decision of the firm depends on decision alternatives that are raised and how the firms can select these alternatives. Firms can make decisions in response to market opportunities or problems that depends on experience of the firms (Johanson & Vahlne, 1977).

The core assumption of the U-model is that the market knowledge of the firm in the international market will lead to market commitments or resource commitments. U-model are similarly conceptualizing the internationalization process as a series of gradually intensifying foreign commitment decisions (stages). These stages were conceptualized and illustrated in figure Y (Johanson & Wiedersheim-Paul, 1975). Central in the U-model was the concept of “psychic distance”, which determines that the internationalizing firms tend to

select those foreign markets that they have the most market and cultural knowledge of. In practice, this would imply to make firms enter to geographically closest market first, followed by gradual expansion to geographically, culturally and economically distant ones while incremental intensifying their operation modes in the foreign markets already entered.

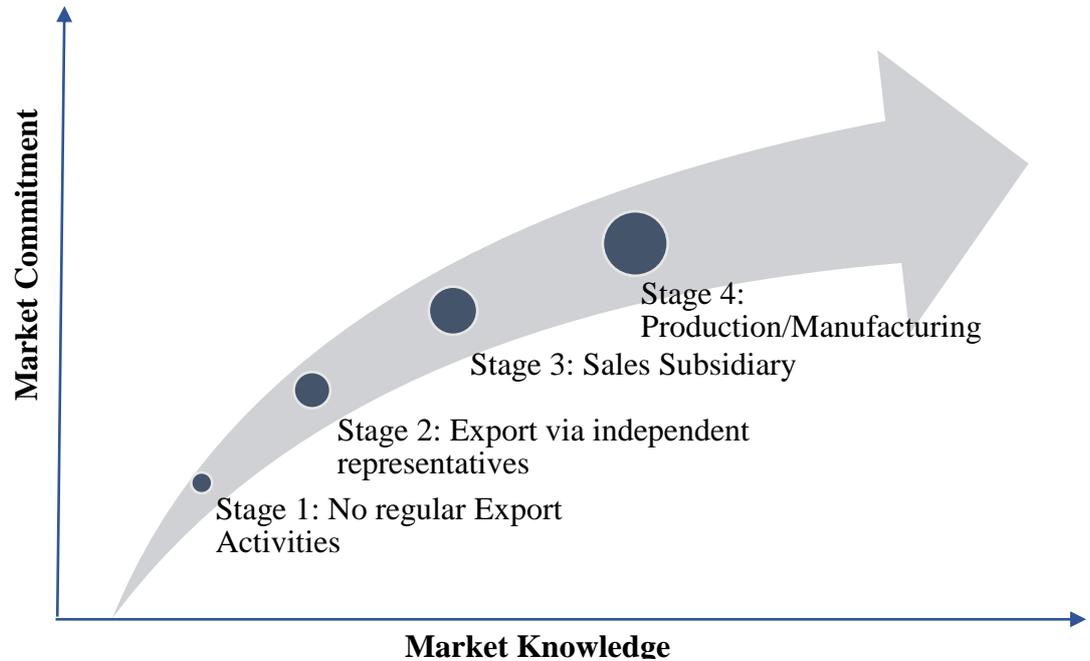


Figure 7: Four stages in the U-model (Johanson & Wiedersheim-Paul, 1975, in Johanson & Associates, 1994) (Edited by Author)

The Uppsala internationalization model proposed that firm involves incrementally in four stages in the international market. At the first stage, there is no regular export activities. In this stage, the firm mainly collects knowledge regarding targeted foreign market. After gathering sufficient general knowledge about the foreign market, the firm start to develop its export activities through independent representative. Within this beginning stage of the firm’s operation at foreign market, firm starts to perceive the market knowledge through its market experiences. Besides, Jan Johanson and Jan Erik Vahlne stated that firm also collect the knowledge from other sources like experiences from other firms, by either getting the information from other firms, or/and by hiring the experienced employees. When abundant market knowledge and resources are observed fully, the firm continue moving to establish a sales subsidiary. Likewise, after observing more market knowledge and resources

commitment, the firm enters to the last stage which establish its own production in the host country. (Johanson & Vahlne, 1977)

In general, the Uppsala model is basically a model of recognition and exploitation of opportunities associated with foreign risk. Foreign risk is firm's uncertainties associated with operating in foreign markets and of commitments made in these markets (Johanson & Vahlne, 1977, 2009; Figueriade-Lemos, Johanson & Vahlne, 2011). By gradually observing market knowledge and through experiences, the firm incrementally exploits the opportunities from the foreign market and enhance its operation with different stages in the target foreign market. This model is one of the great contributions for the researchers in the internationalization process of the SMEs. However, the model also receives several criticisms in various ways. O'Grady and Lane (1996) provided some criticism of the psychic distance concept. They found that close markets may contain more difficult to internationalize to because of existing prejudices and false confidence on the level of knowledge that a firm may possess on those market. Another critique with the original U-model is that, the model fails to describe the vehicle of the knowledge accumulation which is overcome through gradual learning of a given foreign market, even the model is moderated by psychic distance towards a specific foreign market (Andersen, 1993). Osarenkhoe (2009) further provided examples of SMEs forgoing some of the stages, and using non-sequential internationalization strategy instead. Finally, a yet another critique about the model is concerning market potential and competitive conditions. These factors belong to external environment of the firm, which is completely ignored in the model. In addition, the Uppsala internationalization model does not take the economic determinants such as market size, and the market potential into consideration. (Pedersen, 2000).

2.3.2.2 Innovation Related Model:

Based on the Vernon's work (1966) of product (life) cycle model, the innovation-related model (I-model) of internationalization suggested that each subsequent stage in the internationalization process is considered as an innovation for the firm. Bilkey and Tesar (1977), Cavusgil (1980), Reid (1981) and Czinkota (1982) carried on Vernon's work and considered the internationalization of a firm to be a process analogous to the stages of product adaptation (Rogers, 1962). The various stages of the I-models are commonly measured via the ratio of export sales to total sales. This ratio represents the extent to which

a firm involves in the international activities (Snuif & R, 2000). Bilkey and Tesar (1977), Reid (1981), and Czinkota (1982) restricted their models to managing export activities, whereas Cavusgil's model includes other entry modes as well.

While similarly conceptualizing the internationalization process as a series of gradually intensifying foreign commitment decisions (stages), it differs from the U-model in that it narrowed the view from other modes of foreign operation to different levels of export activities. Figure Z illustrates each of the stages of the internationalization process as proposed by Cavusgil (1980).

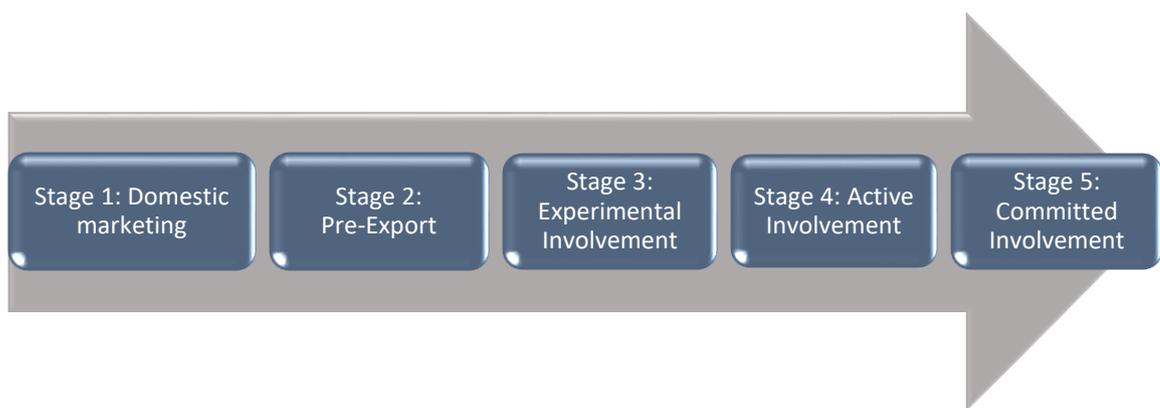


Figure 8: Stages of I-model (Otto Andersen, 1992, page 213) (Edited by Author)

According to Cavusgil (1980), firms in the initial stages of internationalization process are not interested in exporting activities with the export/sales ratio at 0 percent. During domestic marketing stage, the firm is only interested in the domestic market or not willing to experiment with exporting, and does not conduct any export activities at all. The firm starts to search for information about the foreign market and evaluates the feasibility of exporting activities during the second stage. Cavusgil (1980) suggested that the exporting activities of the firms start from third stage on a small basis which has the export/sales ratio from 0-9 percent. A systematic effort is applied to increase sales through export to multiple countries during stage fourth which has the export/sales ratio various from 10 to 39 percent. When firm depends heavily on foreign markets, and managers are continuously faced with choices for allocation of limited resources; firm is continuously reaching to the fifth stage with committed involvement. Many firms are engaged in licensing arrangements or direct investments. The export/sales ratio in fifth stage is 40 percent or more. (Andersen, 1992)

Overall, I-model is mainly based on the export development process of firms. Andersson (2000) further suggested that the model considers the learning process and managers as significant factors for the internationalization process of firms. Clercq, Sapienza and Crins (2005) studied in these factors and concluded that learning efforts and entrepreneurial orientation have positive impact on the internationalization process (Petrovski & Shi, 2009). Likewise U-model, I-model also has been criticized. Opponents of the model like Reuber and Fischer (1997) stated that sometimes firms skip the first two stages because of international experienced management and reduction of communication, and transportation cost in globalization niche (Snuif & R, 2000).

2.3.2.3 Network approach to internationalization

An internationalization within a process of a firm can be analyzed by another method which is a network approach. The network approach was developed based on the concepts of the IMP group (Håkansson, 1982; Håkansson & Snehota, 1995), where industrial markets are conceptualized as networks of business relationships between interconnected firms (Ford & Håkansson, 2006; Torkkeli, 2013). In the model of Johanson and Mattson (1988), the prominence of the model is on gradual learning and the development of market knowledge through interaction within networks. Networks are crucial sources of market information and knowledge because they are bridging mechanisms that promote internationalization of a firm (Johanson & Mattson, 1988). A proper evaluation of the environmental conditions and relationships in the context of the firm's internationalization operations are proposed by Madsen and Servais (1997). In the network approach, internationalization of firms originates in the development and establishment of a position within the business networks (Torkkeli, 2013). The position can either be a micro position or macro position. A micro position refers to the given firm in the network, whereas a macro position is related to a result of relationship of the firm to the entire network (Ruzzier et al., 2006). Networks are described as "interlinked relationships both at organizational and individual level" (Solberg & Durrieu, 2006). There are different actors which comprise networks. They vary from the immediate partners to the final consumers (Solberg & Durrieu, 2006). This description is harmonious with Andersons et al.'s (1994) perspective of networks as sets of connected relationship which consist of firms, partners, and other members of network. Therefore, the relationships in a business network could be linked directly or indirectly with other business relationships or firms that are members of a wider network (Andersons et al., 1994).

The network approach provides an analysis of internationalization of a firm within a process approach (Ruzzier et al., 2006) by reflecting firms as embedded actors in business networks (Johanson and Mattsson, 1987; 1988; 1993; McAuley, 1999). The network approach has been integrated to the revised U-model (Johanson & Vahlne, 2003; 2009) (presented in Figure 9) as the missing instrument of knowledge accumulation from foreign markets (Andersen, 1993; Torkkeli, 2013). The revisited U-model emphasizes the significance of capitalizing on opportunities and investing in new networks, along with increasing resource commitments to intensify existing positions and international positions of the firm (Johanson & Vahlne, 2003; 2009). In detail, the “state” variables in the original U-model were updated from the “recognition of opportunities” to the “knowledge” concept, together with “network position” substituted for the “market commitment”. Furthermore, the “change” variables were adjusted as well to explicate the effect of current activities that the original labelling of “current activities” modified to “learning, creating, and trust-building”, together with relationships were added to the “commitment decisions” variable.

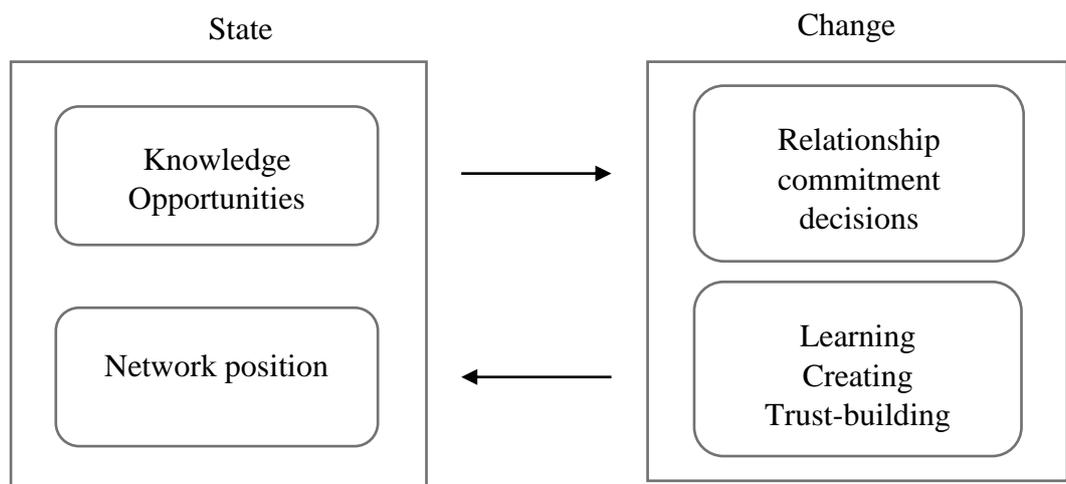


Figure 9: Business network internationalization process model (Johanson & Vahlne, 2009)

The business network process model in internationalization of Johanson and Vahlne (2003) harmonize with the business network view of Håkansson and Snehota (1995). Håkansson and Snehota suggested that learning and commitments are connected with recognition (exploitation and identification) of opportunities. The network position is recently revised according to the assumption that a firm’s internationalization process is pursued within a network. Basically, firm needs to enhance its relationships which are constructed from

commitment, knowledge, and trust in order to gain better opportunities and reinforce its position (Johanson & Vahlne, 2009).

Following the network model of internationalization of Johanson and Mattsson (1988), a firm can have relationships with various actors such as suppliers, competitors, customers, distributors, governments, non-profit organizations, etc. There can be several type of structural connection between actors including financial, social, communicative or strategic connection. Many researchers suggested that the relationships between actors in network can be formal, informal (Birley, 1985; Coviello & Munro, 1995; Dubini & Aldrich, 1991; Coviello & Martin, 1999; Harris & Wheeler, 2005; Rialp & Knight, 2005) and intermediary (Ojala, 2009; Chetty & Blankenburg Holm, 2000; Ellis & Pecotich, 2001; Oviatt & McDougall, 2005). In detail, Birley (1985) proposed that formal relationships are associated with financial sources, whereas informal relationships are related to other business actors, friends and family members. In comparison with Dubini and Aldrich (1991), they suggested that formal networks consist relationships between all the staff, whose role is boundary-spanning; while informal relationships related to all persons that an entrepreneur can meet directly. Although there are several ways of defining terms, generally formal relationships are defined as connections associated with business activities between actors in the network while the informal relationships related to personal relationships between friend and family members (Sharma & Johanson, 1987; Coviello & Munro, 1995; Coviello & Martin, 1999; Coviello, 2006; Ojala, 2009). Besides, intermediary relationships refer to third parties who enable the relationships between the seller and the buyer (Ojala, 2009). An example of intermediary relationship is a relationship between broker with buyer and seller.

The theory of networks highlight actors' relationships which are dependent on each other (Håkansson and Johanson, 1992). Networks are identified by close collaboration and sharing information between actors consisting of customers, suppliers, distributors, and market's actors in a way that obtaining mutual benefits (Chetty & Holm, 2000). The essential elements in a business network as well as the basis in which internationalization progresses are a firm's position, actors, and lasting relationships (Chetty & Holm, 2000). Actors exists independently and are interconnected via relationships. They are usually connected by technical, social, cognitive, administrative, legal, economic or personal ties (Hammarkvist, Håkansson & Mattsson, 1982). Consequently, mutual trust and knowledge are crucial for

the growth of business in a network together with the network’s cohesiveness (Hammarkvist et al., 1982). In the same line of thought, Hollensen (2007) determined that a business network develops in a fields where there are mutual benefits, environmental changes, and coordination between certain actors. Therefore, networks emerge as a consequence of exchange between firms or group of of firms rather than a particular firm.

Social exchange theory is used to propose a dynamic view on the organizational formation of network relationships of internationalizing firms (Johanson & Mattsson, 1988). Johanson and Mattsson (1988) utilized the approach of internationalization to extrapolate the internationalization of a firm through business network and the market’s environmental conditions. Johanson and Mattsson (1988, p. 212) have developed a model (illustrated in Figure 10) which is based on the premise that the firm’s internationalization process is embedded and impacted by their networks. The scholars emphasized that business networks are interactions between actors in business. Therefore, with regards to Uppsala model, Johanson and Vahlne (1990) investigated the internationalization process in the network perspective. They highlighted internationalization as an evolutionary process including three phases namely: expansion, penetration and integration (Johanson & Mattsson, 1993). Within this framework, when firm internationalizes, it enhances the volume and strength of its relationships and networks. These relationships and networks can take place via formation of relationships with new counterparts in different countries (international extension). In addition, as the firm internationalize, it can develop commitment in already existing or established networks (penetration) or through connecting firm locating with networks in other countries (international integration). Generally, the internationalization motives of firms are triggered because of the activities of other firms within the domestic or international network (Johanson & Mattsson, 1988).

		Degree of Internationalization of the Market	
		Low	High
Degree of Internationalization of the firm	Low	The early starter	The late starter
	High	Lonely international	International among others

Figure 10: The network approach to internationalization (Johanson & Mattsson, 1988)

A firm's position is influenced by two components. They are the degree of internationalization of the firm (high or low) and the degree of internationalization of the market or the production of network (Hollensen, 2007; Hosseini & Dadfar, 2012). Johanson and Mattsson (1988) classified the market position of the firm according to these two components namely: the early starter, the lonely international, the late starter and the international among others.

The "early starter" usually has small networks in the foreign country, little foreign market-specific knowledge and limited opportunity to gain knowledge from ties within the domestic market (Chetty & Holm, 2000; Hollensen, 2007). Therefore, these firms limit easy of entry into global markets (Johanson & Mattsson, 1988). In correspondent to Uppsala model, the early starter usually internationalizes to the customers directly, or gradually use agents, sales distributors or even manufacturing subsidiary in the foreign market in order to enter to the foreign market. The early starter have low degree in internationalization and product nets in order to save costs or obtain market knowledge for enhanced commitments (Chetty & Holm, 2000; Hollensen, 2007).

In contrast, the lonely international is a firm that highly internationalized but in a market environment with a domestic focus (Johanson & Mattsson, 1988). The lonely international has acquired prior knowledge and experience in a foreign market which do not come from its network position. This type of company is independently capable of increasing its internationalization, due to accumulation of knowledge of foreign markets and environments (Chetty & Holm, 2000). In comparison with suppliers, customers and competitors, the lonely international owns more knowledge in setting up the firm in new nets (Hollensen, 2007). As a result, the lonely international is likely to obtain competitive advantages over domestic players due to the accumulation knowledge, international experience and established position in the foreign business network (Johanson & Mattsson, 1988).

The "late starter" firms are in a market that is already internationalized. These firms have the drawback over their competitors who posse better knowledge and substantial networks (Chetty & Holm, 2000; Hollensen, 2007). These firms in this category tend to have indirect relationship with the foreign business network by which the firms are able to internationalize if they make use of those relationships (Johanson & Mattsson, 1988; 1993). However, it is difficult to get a position in existing network for these type of firms (Johanson & Mattsson,

1988). Therefore, in opposition to Uppsala model where firms have favors to internationalize in markets with relative low psychic distance, the late starters are likely to take off internationalization in more distant markets (Johanson & Mattsson, 1988).

Lastly, international among others is focused on highly internationalized firm, where both market and the firm are highly internationalized. They have acquired lots of international experience and knowledge, thus they are fast at establishing sales subsidiaries (Johanson & Mattsson, 1988). These type of firms have various international networks that assist them for gaining new opportunities.

Both the network approach and the revised U-model have been received recently critiques (Torkkeli, 2013) concerning ignorance the importance of decision-maker and firm characteristics in the internationalization of SMEs (Chetty & Blankenburg-Holm, 2000). Chetty and Blankenburg-Holm (2000) examined the internationalization of SMEs in New Zealand and found out that both the network approach and revised U-model do not address how the relationships in the network supports SMEs to succeed in dealing with challenges in their internationalization process.

2.3.3 International new venture theory

Research on traditional internationalization models has challenged by the rapidly and intensely internationalizing small firms which internationalize across culturally and geographically distant markets as well as adjacent ones (Torkkeli, 2013). The emergence of firms that start internationalization from the foundation of the firms (Kuivalainen, Saarenketo & Puumalainen, 2012) has critiqued the traditional incremental stages model (Johanson & Vahlne, 1977) and other models of international entry of SMEs available at the time. These type of firms first introduced as “international new ventures” (INVs) with a definition as “a business organization that, from inception, seeks to derive significant competitive advantages from the use of resources and the sale of outputs in multiple countries” (Oviatt & McDougall, 1994, p.49). Some of the terminology used to characterize rapidly internationalizing firms has been referred interchangeably, but no agreement exists on the criteria used to classify them (Jolly et al., 1992; McDougall et al., 1994; Oviatt & McDougall, 1994, 2005; Knight & Cavusgil, 1996, 2004, 2005; Svensson, 2006; Crick, 2009; Bell et al., 2011). These include terms such as the “born globals” (BGs) (Rennie, 1993;

Madsen & Servais, 1997), “early and late internationals” (Aspelund & Moen, 2005), “global start-ups” (Oviatt & McDougall, 1994), “micromultinationals” (Dimitratos et al., 2003), and “international entrepreneurs” (Jones & Coviello, 2006). Crick (2009) noticed differences between rapidly internationalizing firms but with limited market coverage (i.e. INVs), similarly to those that had greater market coverage (namely BGs). In spite of different typologies, most debates exist with reference to whether firms are internationally or at least regionally concentrated from the start-up phase; on the other hand, globally focused or more gradually global in their focus (Moen & Servais, 2002; Rialp et al., 2005; Lopez et al., 2009; Kuivalainen et al., 2012). Therefore, rapidly internationalizing SMEs firms studied in IE that consider internationalizing from foundation are referred to here as both INVs and BGs.

INVs internationalization primarily concentrated on small and young firms, their internationalization from inception and the role of the entrepreneurs to that effect. However, some scholars have found that there are long established firms who embrace rapid and intense internationalization after a long domestic market focus, namely “born-again globals” (see Bell et al., 2001 and 2003) or “gradual globals” (Moen & Servais, 2002). Oviatt and McDougall (1994) proposed a typology of rapidly internationalizing firms based on a 2 by 2 matrix with few or many value chain activities coordinated on one axis and few or many countries involved on the other axis (illustrate in Figure 11). Beginning with the “New International Market Makers”, the similar attribute is that these firms have few value chain activities coordinated across countries, whereas the difference is that the “Export/Import Start-up” serves only few countries in comparison with the “Multinational Trader” who serves many countries. In opposition, the other firms in the typology would commonly have more activities coordinated across countries. However, “Geographically Focused Star-up” would serve only few countries, while the “Global Star-up” would serve several countries. Global startups are observed similar to “true BGs” due to high foreign sales to total sales (FSTS) ratio and large geographical presence (Kuivalainen et al., 2012a).

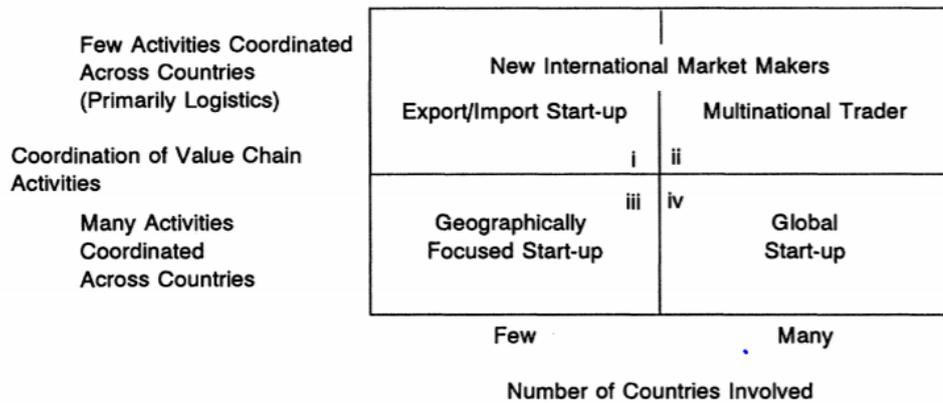


Figure 11: Types of international new ventures (Oviatt & McDougall, 1994)

The emergence of BGs led new interests in the intersection of internationalization studies and IE research (Kuivalainen et al., 2012; Zahra & George, 2002). The result of INVs or BG was perceived to be often personalized on the individual entrepreneur and entrepreneur’s ability to employ the business and social relationships. Thus, it has brought an entrepreneurial aspect to the emergence research of SMEs internationalization. Oviatt and McDougall (2005) considered the theory of INVs as the theory of IE in which is defined as “the discovery, enactment, evaluation, and exploitation of opportunities – across national borders – to create future goods and services” (p.540). Similarly to Ellis (2011), the theory of INVs is observed as the “identification and exploitation of opportunities for international exchange” (p.99). Notably, both INVs and IE concepts are devoid of unifying definitions (Zahra & George, 2002; Zucchella & Scabini, 2007; Peiris et al., 2012).

Many studies have observed that rapid internationalizing firms possess specific characteristics, especially, according to McDougall et al. (1994), a management team developed “unusual constellation of competencies” from previous experience and alerted to opportunities across national boundaries and combining resources from different national markets. Oviatt and McDougall (1994) in agreement with Kirzner (1973) suggested that an entrepreneur’s ability to spot, recognize and exploit opportunities in the external environment is a significant source for competitive advantage of firms. However, these competencies from previous experience of management teams do not need to acquire knowledge in the same approach as those internationalizing via an incremental path because a similar lever of experiential learning is not required (Crick, 2014). Instead, the essence in these competencies is from entrepreneurial orientation which strengthens strategy development (Knight, 2000) and can employ competencies within the firm.

Nonetheless, a numerous of factors have been observed to impact the internationalization strategies of these rapid internationalizing firms. It has been stated that a “holistic” approach is more suitable to apply in explaining these types of firms’ behavior because a single theory cannot explain them enough by itself (Crick and Jones, 2000; Bell at al., 2001, 2003, 2004). For instance, influences on firms’ internationalization strategies have proposed to be evaluated from a dynamic capabilities perspective (Weerawardena et al., 2007), coordinating internal strengths against the challenges of external opportunities with barriers. This is particularly essential in the context of the industrial sector where firms’ competition may be influenced by networks, resources and contingent on environmental issues (Crick and Spence, 2005; 2006).

Different from other theories of internationalization, theories on INVs and BGs include network approach in boosting internationalization and reimbursement for limited resources. For instance, a BG may execute marketing or sales operation via particular activities with partners or agents abroad that one may complement their own competences (Hollensen, 2007). Therefore, BGs’ internationalization process substantially contrasts to the incremental process model. Unlike the incremental internationalization process model (stages model) where the organizational pathway or choice of internationalization relies on incremental market involvement from adjacent psychically to more distant markets, INVs or BGs firms depend on partnerships and cooperation to promote growth and internationalization (Oviatt & McDougall, 1994). Despite the differences between models of internationalization, there is a common attribute which is the essential for knowledge and learning in the internationalization process regardless of the pathways of internationalization. Prior knowledge is crucial to the current knowledge and development of the firm (Oviatt & McDougall, 1994). In context of rapid technology change, BG firms can obtain competitive advantage by exploiting prior knowledge to gain or lock in new customers (Freeman et al., 2006; Bell et al., 2003). Even though an INV may not held all the skills required for internationalization, they leverage existing knowledge and complement competences through rapid market entry and collaboration.

BG firms pay no attention to the dominant impact of psychic distance as a market selection basis, alternatively, they evaluate the similar nature of the market or product requirements. The frangibility of BG firms toward a niche market (for a single product or service) drive

them to strategically concentrate to lead markets regardless of their geographical location (Oviatt & McDougall, 1994; Zahra & George, 2002; Zahra et al., 2005). These strategic decisions focusing on lead market allow better opportunities for express market access. For instance, heavy investments on R&D or acquired debts before any sales tend to be obtained by an INV. Firms tend to follow BG path in favor of speedily grow and reduce costs (Hollensen, 2007). However, the competitive aspect of BG firms is extremely intense, that is to say products may be outdated fairly rapidly due to continuous innovation which occur in the industry. Therefore, typical BG firms seek to capitalize on the “global window” of advantage and seize major markets simultaneously (Äijö et al., 2005).

2.3.4 Degree of Internationalization of a firm and firm performance

Back to Vernon (1971) work, many studies have followed to generally hypothesize that internationalization, which has positive impacts on firms, leads to better performance for several reasons (Contractor, Kundu & Hsu, 2003; Dunning, 1981). Firstly, scholars addressed that with internationalization, firms can spread fixed costs (e.g. operating overhead, and R&D expenditures) through the greater scale and scope (Korbrin, 1991). Secondly, internationalization supports firms to improve their domestic performance by learning from their international markets experiences (Kobrin, 1991). Thirdly, operating in foreign territories provides firms to access factors at a lower cost (Porter, 1980). Fourthly, firms can cross-subsidize their domestic operation while enter to internationalization. This supports firms with greater opportunities for price discrimination, tax, and price arbitrage.

Despite many advantages being associated with degree of internationalization toward firm’s performance, firms may acquire a phenomenon named as the liability of foreignness while operating in foreign markets. The liability of foreignness can be interpreted as “the inherent disadvantage foreign firms experience in host countries because of their non-native status” (Peng, 2005). These liabilities originate from formal and informal institution in different countries such as regulatory, language, and cultural differences. In fact, customers may discriminate against foreign firms (Hejazi, 2010). However, although there are liabilities with being foreign, multinationals have broadened into foreign markets to a great degree especially in large part regional (Rugman, 2005; Collinson & Rugman, 2008; Rugman & Verbeke, 2004).

Even though theory implies a positive relationship, the empirical evidence on the effects of DOI on firms' performance is mixed. Sullivan (1994) listed 17 studies that test the relationship between DOI and financial performance. According to Sullivan's list (1994) – Table 2, six of studies find a positive relationship, six of which find indeterminate (no relationship) and five of them are negative. This reflects the consensus in the literature that the empirical results are highly dependent on the sample, on the measures of DOI, and on the measures of performance used.

Table 2: Summary of Empirical Studies of the Relationship between Financial Performance and Degree of Internationalization

Study	Sample	Measure of DOI	Measure of Performance	Empirical result
Vernon (1971)	The Fortune 500 in 1964	FSTS	ROS	Positive
Horst (1973)	1191 United States Industrial firms	FSTS	Net profits	Indeterminate
Hughes Logue & Sweeny (1975)	46 U.S MNCs 50 U.S non-MNCs	FSTS	Beta; Risk-adjusted returns	Indeterminate
Siddharthan & Lall (1982)	The 500 and 100 largest U.S and non U.S MNCs respectively, in 1972	FSTS	Firm growth	Negative
Kumar (1984)	672 British firms, 1972-1976	FSTS	ROS, ROA	Negative
Buckley, Dunning & Pearce (1977)	The 636 and 866 largest MNCs of the world, respectively, for 1972 and 1977	FSTS	ROA	Indeterminate
Dunning (1985)	188 large British MNCs, 1979	FSTS	ROS	Positive
Yoshihara (1985)	The largest 118 Japanese firms	FSTS	ROE	Indeterminate
Rugman, Lecraw & Booth (1985)	The 50, 50, 20, 10, and 24 respectively largest U.S, EU, JP, CAN, and Third World MNCs	FSTS	ROE	Indeterminate

Table 3: Summary of Empirical Studies of the Relationship between Financial Performance and Degree of Internationalization (continue)

Study	Sample	Measure of DOI	Measure of Performance	Empirical result
Michel & Shaked (1986)	58 U.S MNCs, 43 non-US MNCs for 1973-1982	FSTS	Risk-adjusted returns	Negative
Grant (1987)	304 British firms for 1968 - 1984	FSTS	Sales growth; ROS, ROA, ROE	Positive
Buhner (1987)	40 West German firms	FSTS	Risk-adjusted returns, ROE, ROA	Indeterminate
Grant, Jammine & Thomas (1988)	304 British firms for 1972-1984	FSTS	ROA	Positive
Daniels & Bracker (1989)	116 U.S MNCs	FSTS; FATA	ROS, ROA	Positive
Geringer, Beamish & daCosta (1989)	The largest 100 U.S and 100 EU MNCs of 1981	FSTS	ROS, ROA	Positive
Collins (1990)	150 firms of the Fortune 500	FSTS	Total risk, Leverage, Beta	Negative

It can be observed that much of the existing literature on the DOI and firms' performance relationship concentrates on large multinational enterprises (MNEs) and the empirical evidence is inconclusive (e.g., Berry & Kaul 2016; Capar & Kotabe 2003; Contractor et al. 2003; Gomes & Ramaswamy 1999; Hitt et al. 1997; Lu and Beamish 2004; Marano et al. 2016; Ruigrok et al. 2007; Sullivan 1994). However, the DOI and firms' performance link is also complex and less conclusive in the SME context (Lu & Beamish 2001; Pangarkar 2008).

According to Cho and Lee (2018)'s studies on a panel dataset of internationalizing manufacturing Korean SMEs which were listed on the Korean stock exchange during 2003 – 2013; SMEs are likely to decrease in performance outcomes if they focus too little or too much on international expansion. Therefore, the SMEs may gain benefits from international

expansion at more moderate degrees. In addition, SMEs may have better performance when increasing the DOI with differentiation strategy (Cho & Lee, 2018).

SMEs are more likely to have lower performance consequences during the initial international expansion due to lacking of legitimacy and internally inefficient in relative to larger and more established enterprises (Sui & Baum 2014; Zhou et al. 2007). Firms must compete with indigenous enterprises possessing experience, knowledge of regional markets or with larger and more established MNEs that have scale and other benefits (Lee et al. 2012). Moreover, international expansion adds the complexity of the corporate external and internal processes because of the newness in foreign markets (Lee et al. 2012; Rhee 2008). The increasing resources such as logistics, labor, or information processing may hurt SME performance potential (Schwens et al. 2017). In addition, SMEs may expose to several risks by making an effort to internationalization even though they are highly unfamiliar with diverse foreign markets and make greater effort to achieve competitive advantages in culturally unrelated environments (Lu & Beamish, 2001; Majocchi & Zucchella 2003). Therefore, SMEs might have poor performance consequences during the initial stage of internationalization because the costs for expansion effort tend to exceed the benefits owing to the liabilities of newness and smallness.

The continuously increasing DOI may enable SMEs to achieve economic benefits in several ways including (1) acquiring and developing novel and useful knowledge, which lead to improve capabilities and profits (Lu & Beamish 2001); (2) seeking to leverage SMEs competitive advantages by proactively seizing global opportunities (McDougall & Oviatt 1996); (3) gaining economies of scale from expanded production and sales volume through revenue growth and geographic market expansion (Schwens et al. 2017); (4) improving market power via multiple foreign markets (Pangarkar 2008). As a consequence, the advantages of increasing the DOI are more likely to outweigh the costs and gradually the performance in the mid-internationalization stage may increase.

Nevertheless, as the DOI increase further, it may cause other negative factors toward SMEs. The DOIs are too high may increase coordination and governance costs related to managing internationalization operations, increasing management's information processing needs, and challenge the allocation of management resources which could cause certain huge challenges for SMEs' managers (Gomes & Ramaswamy 1999; Marano et al. 2016; Tallman & Li 1996).

Moreover, it has been argued that rising cultural or psychic distance between international locations and the corporate home country negatively affects cross-border administration costs (Marano et al. 2016). Therefore, a significant increase in the DOI may bring about crucial managerial constraints that represent additional costs regarding to high demands for communication, coordination and control (Almodóvar & Rugman 2014). Likewise, SMEs are more likely to obtain poor performance outcomes in excessive international expansion because the incremental costs and the complexity of over-expanded internationalization may go beyond the incremental benefits.

3 SYNTHESIS AND PROPOSITIONS

There are not many prior studies which have examined the relationship between both manager's decision-making logics and their companies' international performance. However, the existing research on effectual decision-making logic, SME internationalization and entrepreneurial decision making that have been discussed above provides the study with insights, based on which the study can draw propositions. The proposed relationships between the key variables are illustrated in Figure 12.

To begin with, the study assumes that managers employ causal decision-making logics are capable to deal with the complexity of foreign business environments and can forecast uncertainties in the future. Therefore, the study expect that companies apply causal decision-making logic have positive impact on international performance (H1). Furthermore, some studies (e.g., Fisher 2012; Perry et al. 2012) have shown that causation and effectuation are not exclusive opposites or inversions of each other but can be balanced and co-exist simultaneously in entrepreneurial activities. Thus, the study expect that companies apply effectual decision-making logic also have positive impact on international performance (H2).

In addition, prior studies have suggested that the positive performance implications of planning approaches such as causation are greater in stable environments whereas trial-and-error approaches such as effectuation provide better results if uncertainty is high (Gruber, 2007; Sommer et al., 2009). Thus, with respect to the degree of internationalization (DOI) of SMEs, the study expects that:

- Hypothesis 3: The positive relationship between causation and SMEs' internationalization performance is weaker for higher levels of DOI than for lower levels of DOI
- Hypothesis 4: The positive relationship between effectuation and SMEs' internationalization performance is stronger for higher levels of DOI than for lower levels of DOI

Next, the study will describe the research design of the empirical study and the data used to test the framework presented in Figure 12.

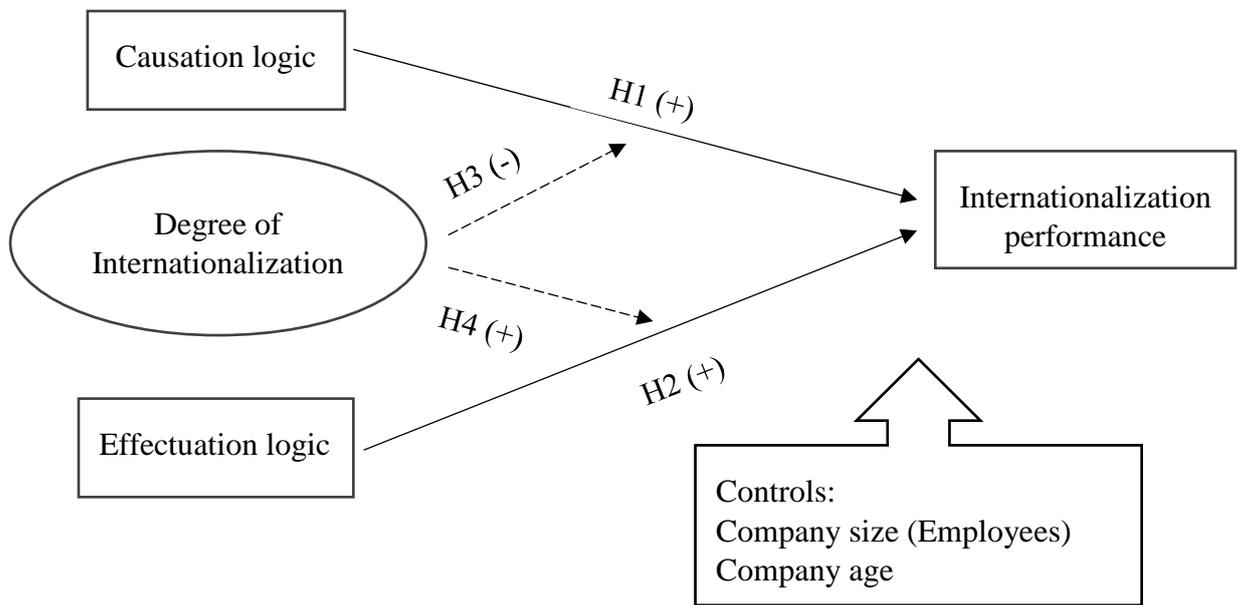


Figure 12: The framework of the thesis

Thesis statement:

Hypothesis 1: Companies apply causal decision-making logic have positive impact on international performance

Hypothesis 2: Companies apply effectual decision-making logic have positive impact on international performance

Hypothesis 3: The positive relationship between causation and SMEs' internationalization performance is weaker for higher levels of DOI than for lower levels of DOI

Hypothesis 4: The positive relationship between effectuation and SMEs' internationalization performance is stronger for higher levels of DOI than for lower levels of DOI

4 RESEARCH METHODOLOGY

This thesis applies deductive reasoning method. As a result, hypotheses were obtained according to scientific articles which have been published in several international journals. Following by the introduction of data, it is the result of these tested hypotheses.

4.1 Sampling and data collection

In order to test the hypotheses, the thesis used a cross-sectional sample of Finnish SMEs. The data was collected from the initial cross-sectional sample of firms from the Amadeus online database, following the SME definition of the Organization for Economic Cooperation and Development (OECD), that is, firms employ from 10 to 250 employees.

The empirical data were collected via a structured online survey instrument from a cross-industrial sample of SMEs in Finland within 06 months. In detail, data were collected during May-September 2014 visa a cross-sectional web-based survey instrument using Qualtrics online software. The initial list of firms was composed from the Amadeus online database. The company's list was chosen to ensure that the sample includes a large variety of industry sectors as well as from both manufacturing- and service-oriented industries. The industry sectors consisted in the initial draw were metal industry, mining and quarrying, forest industry, chemical industry, water supply, waste management energy supply, construction industry and other manufacturing activities. The resulting list had a total of 1130 firms, which were contacted via phone to obtain their participation in the survey. A total of 78 invalid firms (e.g. subsidiaries and non-independent SME entities) were eliminated from the final data collection. Ultimately, there were 311 firms which declined to participate because of time limitation. Furthermore, there were 306 of the most relevant decision-makers in the contacted SMEs (most often the CEO) which could not be reached throughout the data collection process, thus they were excluded from the data collection process.

The survey scale items were developed and adapted from literature by a group of IE and entrepreneurship researchers who translated the scale items from the Finnish to English. A

professional English language editor service conducted back translation to ensure the accuracy of the translated items. The resulting survey were subsequently pre-tested with two SME managers from different fields to make certain its legibility to the target respondents. During the data collection process, the responses daily were tracked and two rounds of reminder emails were sent to those who had not responded within 2 weeks of the initial contact. With the collection process concluded, the survey received a total of 148 responses at the disposal, for a 14% response rate (141/1052). Since such a response rate is acceptable in terms of rigor in entrepreneurship research (see Rutherford et al. 2017), the sample was deemed to be adequate for analysis. In the final respondents, 59% (82) had international operations; hence, they constituted the final sample. The SMEs had, 58 employees on average, and an average of 35 years, which had been operating internationally for an average of 20 years.

4.2 Descriptive

The survey received 141 responses. Among 141 firms, there were more international (82) than domestic (58). However, as figure 13 illustrates, the data sufficiently presented both types of SMEs because the disparity between international and domestic firms was close to approximately 50-50 split.

RATIO BETWEEN INTERNATIONAL AND DOMESTIC RESPONDENTS

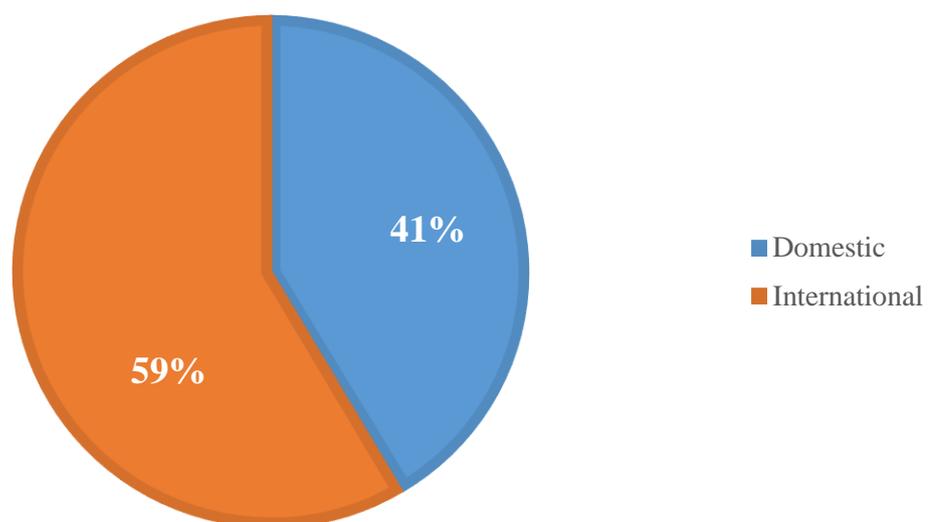


Figure 13: The percentages of international and domestic respondents

In term of industry, the majority of respondents is from construction (19.29%), following by metal (15%), other machinery and equipment industry (10.71%). In opposition, mining was the smallest industry (0.71%) attending in the survey, being next to textile, and electric equipment industry with the same percentage at 1.43% (Figure 14). In general, the respondents in the survey are diverse from several industries even though the industry-specific percentages differ comparatively.

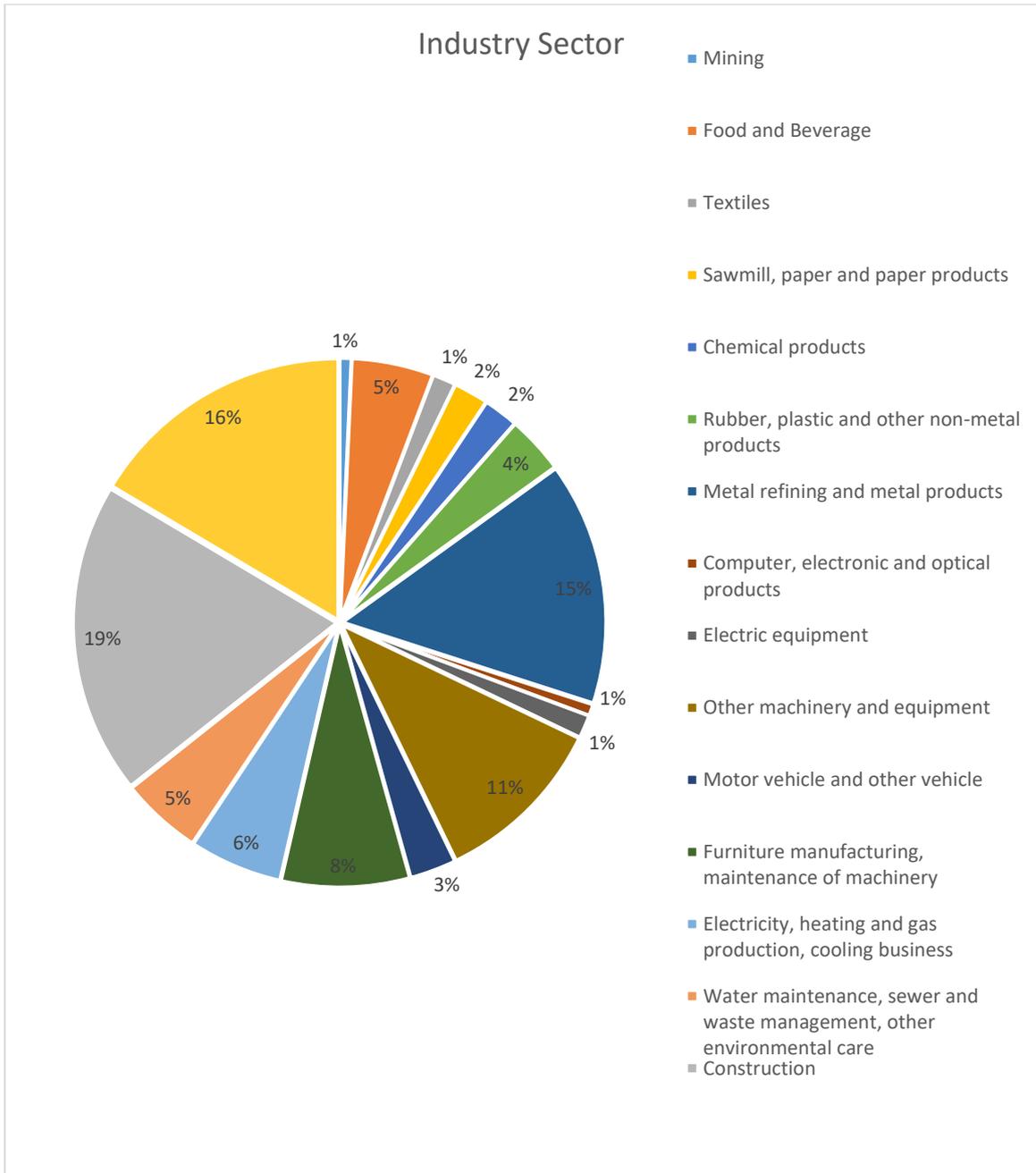


Figure 14: Industry-specific of survey respondents

Breaking down the ratio of domestic and international respondents by industry, there were some noticeable figures (figure 15). Although construction industry has the largest number of respondents in the survey, the majority of them were operating mainly in domestic market. Meanwhile, the respondents in metal, machinery and equipment industry were outstanding with the amount of international firms. However, most notably that there are many industries were solely operated in international markets such as mining, textiles, chemical products, computer, electronic and optical products, electric equipment and motor vehicle and other vehicle.

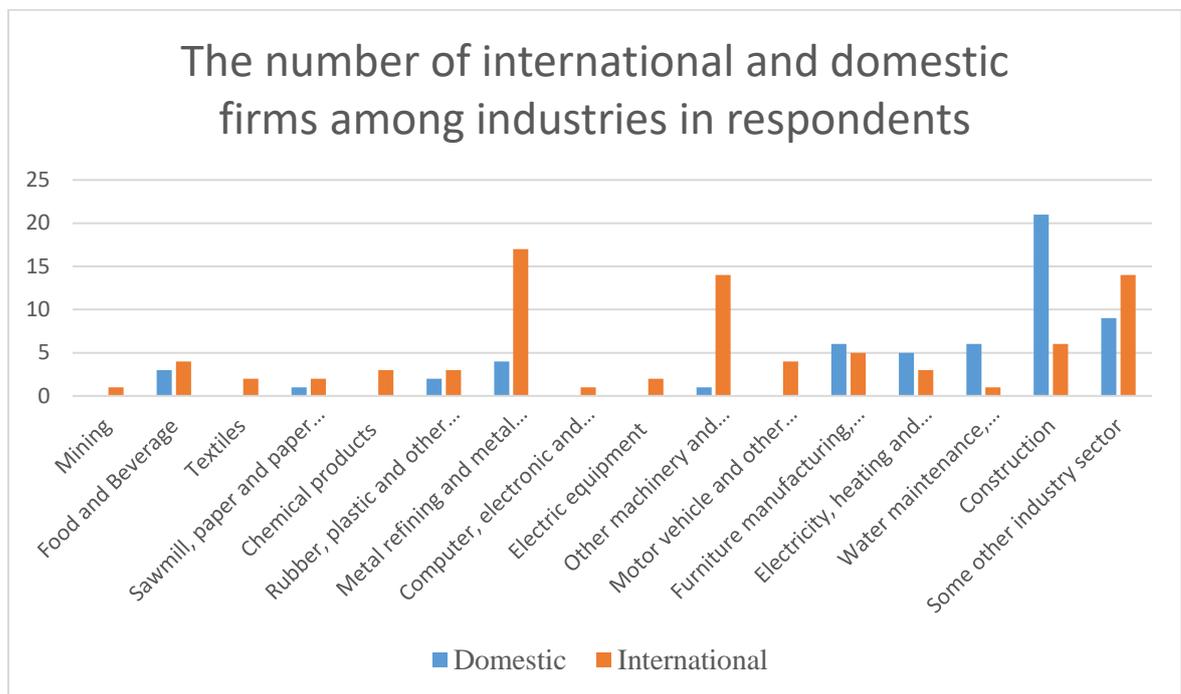


Figure 15: The number of international and domestic firms among industries in respondents

The firms from industries which solely operate internationally are among the oldest, and above the average age of respondent firms in the survey (35 years old), excepting on the computer, electronic and optical products firms (18 years old). In detail, the average age of firms in mining industry were 57 years old, following by the electric equipment industry at 51.5 years, textile industry at 50 years, chemical products industry at 38.7 years and motor vehicle and other vehicle industry at 38.5 years. According to findings stated earlier where high-technology industries were indicated as more rapidly internationalizing than others, these figures show harmoniously with the earlier findings. In fact, the average age of the

computer, electronic and optical products is less than three times comparing to the average age of oldest industries which solely operate in international markets. At the average age of 18 years old, the firms in computer, electronic and optical products industry which have already started internationalization process, are the youngest firms among the respondents.

Regarding the differences at the average age of respondent firms at the time of internationalization, it is not adequate to draw any conclusion about the source that give rise to the internationalization of respondent firms. It is not explicit that whether the differences in average age over industries are from the nature of high-technology markets, or the young age of the industry in general, or from both basis. In general, the average age of respondent firms which internationalized are quite young at 14 years old. The average age differs between various industries. The range is from 0 to 54 years old for respondent firms to firstly operate the internationalization process since their founding year (figure 16).

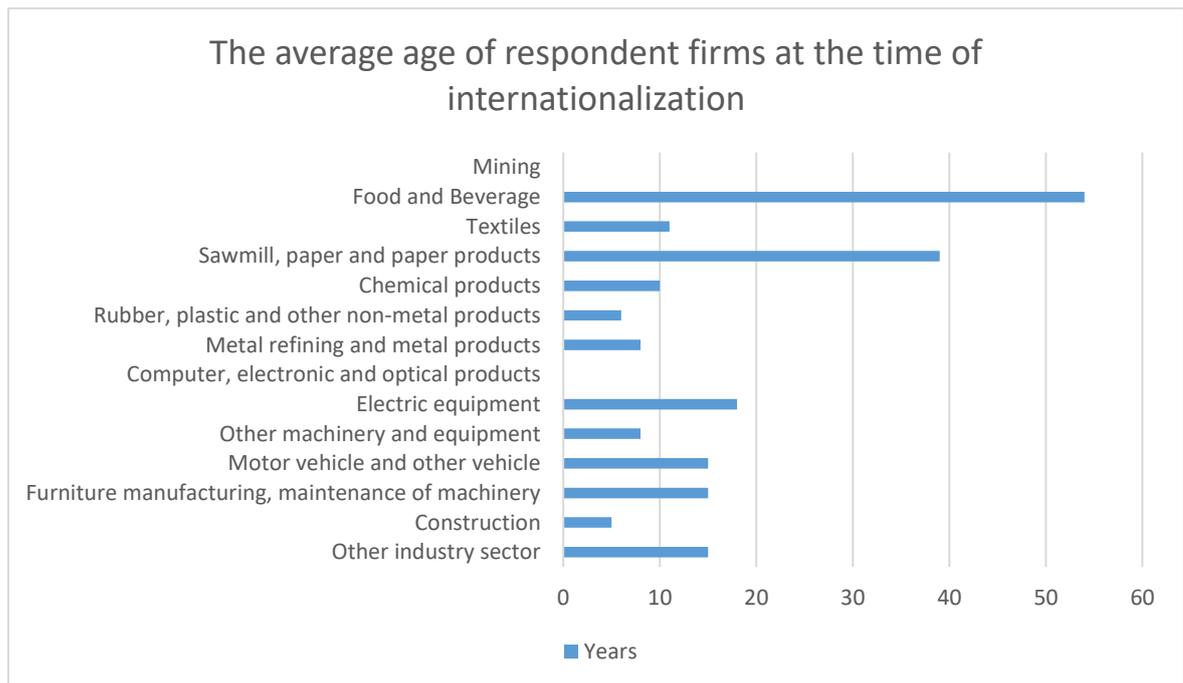


Figure 16: The average age of respondent firms at the time of internationalization

The survey also inquires the information concerning the first entering country where the internationalized respondent firms have had international activity in. Surprisingly, besides the geographically closest countries including Sweden (27), Russia (15), Estonia (8), there were 24 different countries named in 82 responses. Many countries are not

geographically close to Finland such as Japan, USA, Canada, and Saudi Arabia. Therefore, it seems like that Finnish SMEs are not constrained to the closest geographically markets while deciding on the first strategically target for foreign entry.

On the other perspective, among 141 respondents, most of them were positioned as either owners (44), founder (17), CEO (118), or other (12). Many of respondents have kept all the positions (12) or being both owner and CEO (20), or being owner and founder (3) at the same time. Inferring from figure 17, the majority of responses are from management-level personnel (CEO - 62%), thus the accuracy of answers toward a questionnaire focusing on firm-specific strategic issues can be expected to be reliable and precise.

Survey respondents by position

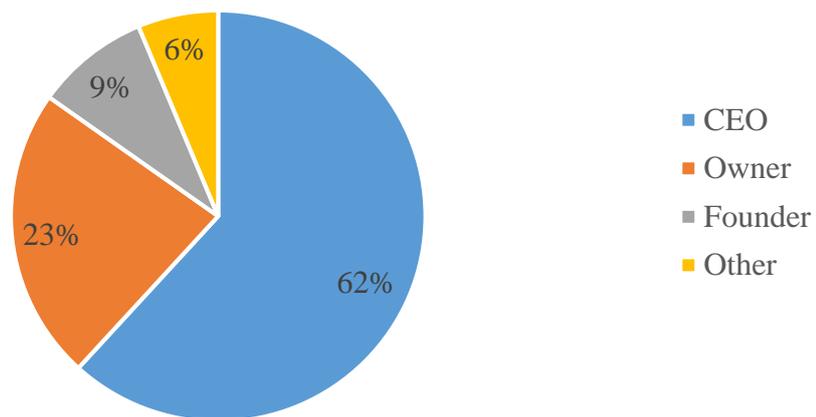


Figure 17: Survey respondents by position

4.3 Measures

4.3.1 Effectuation and Causation

Effectuation and causation were measured by adapting the measure developed by Chandler et al. (2011) by dividing the original scale into items describing causation and effectuation, harmoniously with suggestions of Perry et al. (2012). The specific items assessed through a 7-point Likert scale. The result is combined into a single factor solution using principal component analysis through the varimax rotation method. The overall average causation of firms value was 4.89 (standard deviation 0.99), while the overall average effectuation of

firms value was 4.44 (standard deviation 0.80). Differences in the average value of subjective internationalization performance across industries are illustrated in figure 18.

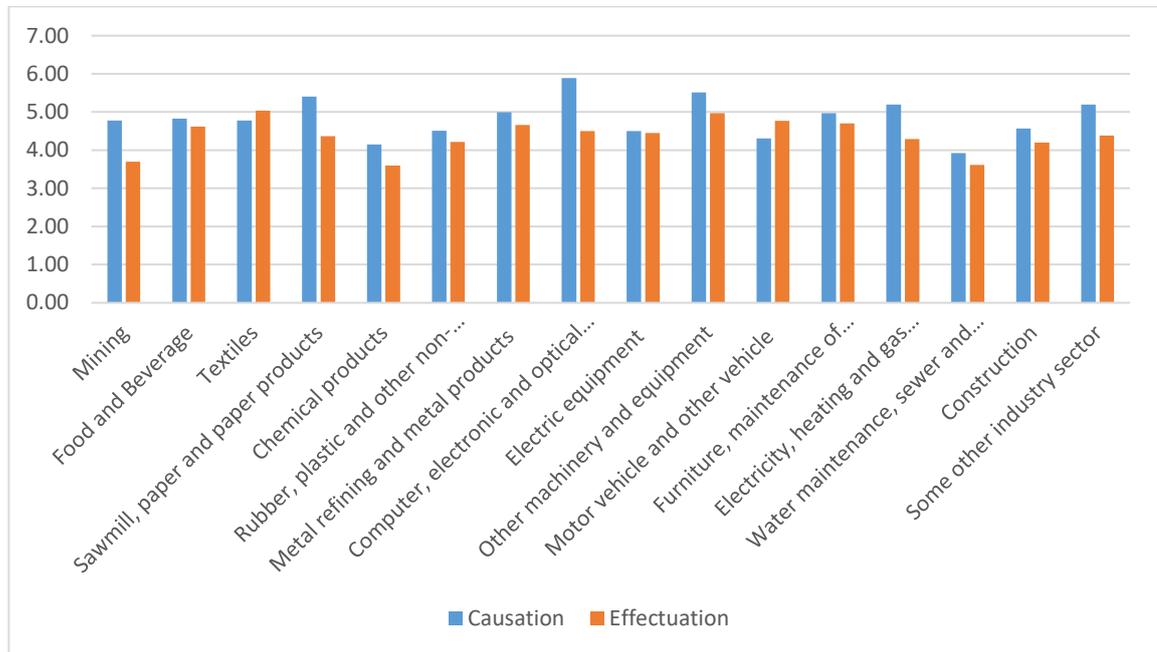


Figure 18: The average of causation and effectuation in the survey data, by industry

However, to further analyze these results, the specific items were combined into a single factor solution using principal component analysis through the varimax rotation method. Factor analysis is one of the most useful techniques in statistical analyses. Similar to cluster analysis, factor analysis involves grouping similar variables into dimensions. The main goal of this method is to reduce many number of variables into a fewer number of variables. This method seems to be used to simplify complicated data without losing too much information (Gorsuch, R. L., 1983) that is very suitable for the thesis because of a large number of relatively related variables.

The one factor solution's result of causation and effectuation respectively captured 62.9% and 60.1% of total variance (Kaiser-Meyer-Olkin test value (KMO) = 0.88 and 0.70, Barlett's test for both approaches $p < 0.01$). Cronbach's alpha for causation and effectuation resulting measure were 0.87 and 0.71 orderly which indicating a sufficiently reliable scale (Table 3).

Table 4: The Factor Structures of Causation and Effectuation Variables

Measure	Total Variance Captured (%)	KMO	Bartlett's Test of Sphericity	Communalities	Factor Loadings	Cronbach's Alpha	Item Included
Causation	62.9	0.88	$p < 0.01$	0.49 – 0.68	0.829-0.833	0.87	<ul style="list-style-type: none"> • We analyzed long run opportunities and selected what we thought would provide the best returns • We developed a strategy to best take advantage of resources and capabilities
Effectuation	60.1	0.70	$p < 0.01$	0.63 – 0.81	0.65 – 0.70	0.71	<ul style="list-style-type: none"> • We experimented with different products and/or business models • The product/service that we now provide is substantially different than we first imagined • We tried a number of different approaches until we found a business model that worked

In addition, as the effectual decision making logic tends to be emphasized in uncertain environments (Sarasvathy, 2001, 2009), the thesis observed that greater resources of longer company history and larger organization's size may contribute to decreases in environmental uncertainty. Therefore, company age (in years) and size (number of employees) will be taken into account as control variables for testing models.

4.3.2 Internationalization Performance

Overall performance and international performance which were obtained by a one-factor solution were evaluated through both subjective and objective indicators. In detail, the measure for total performance were calculated from the companies' responses with the questions inquiring the companies assess the performance of their firms across four areas including growth of turnover, market share, overall profitability and customer profitability. The one-factor solution captured 66.5 % of the total variance (Kaiser-Meyer-Olkin test value (KMO) = 0.71, Bartlett's test $p < 0.01$) with communalities between 0.58 and 0.73, and with factor loading between 0.76 and 0.85. Cronbach's alpha for the resulting measure was 0.83, again indicating a sufficiently reliable scale.

In concerns of statements observing on internationalization, general questions such as the age, scope, and scale of the internationalization process were introduced. Thus, the study can calculate the measures of degree of internationalization (DOI) and continuing growth of internationalization by inferring from these responses. The performance of internationalization was measured by defining the level of degree of internationalization of SME. In line with Sullivan (1994), the measurement of degree of internationalization is made by evaluating scale and scope aspects which consist of the foreign share of turn over three years after internationalization and the total current number of foreign countries. These two variables were standardized and calculated to sum up a scale for degree of internationalization (DOI).

On average, the turnover from foreign markets of firms account for 54% of their total turnover (in 2013) after three years of internationalization. Firms have operated in 23 countries (with standard deviation 21.1). In specific, there were 44 respondents who had answered in both questions, thus it is possible to execute their degree of internationalization.

Standardized DOI values ranged from -1.21 to 3.99, with overall standard deviation at 1.3 (figure 19).

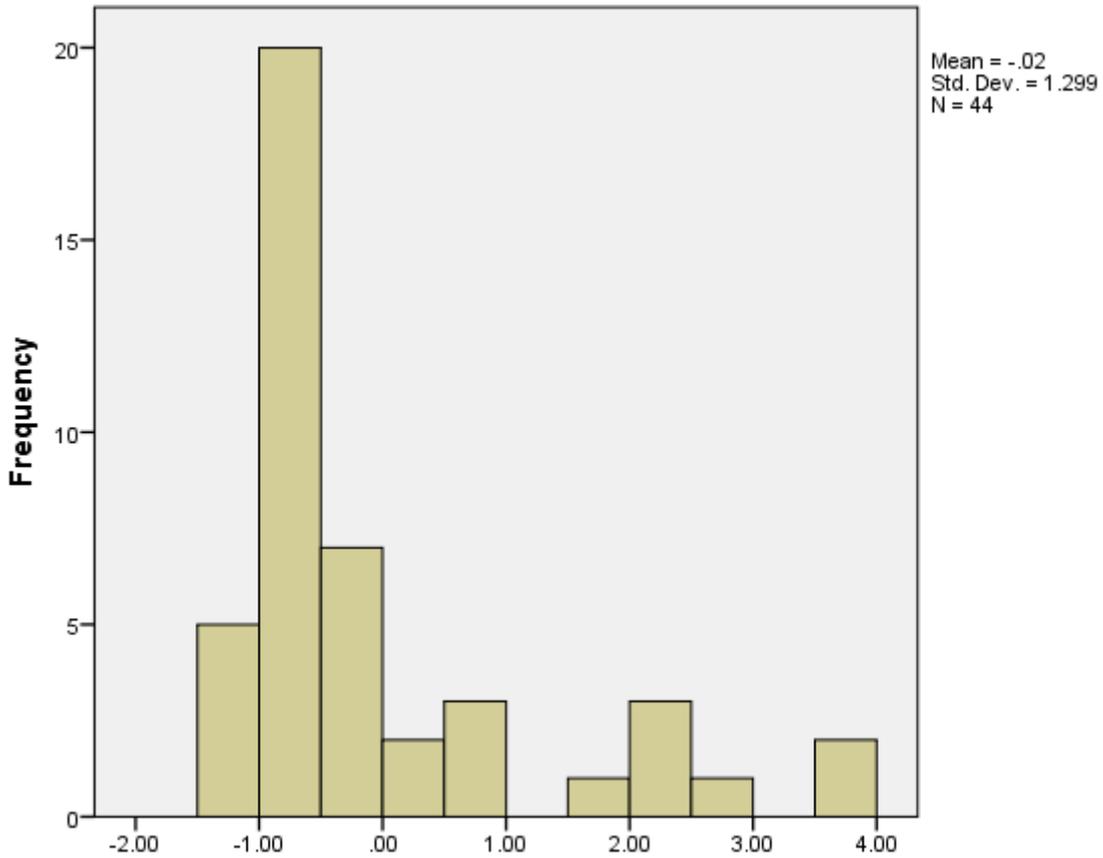


Figure 19: Frequencies of DOI values among respondents

While examining the average DOI by industry, there are some notable figures. Among industries (figure 20), food and beverage industry has the highest average level of DOI (1.89), followed by electric equipment industry (1.64), and chemical products industry (1.39). Expectedly, metal refining and metal products manufacturing industry has the largest number of international firms among respondents (figure 15), and surprisingly, the turnover performance of metal refining and metal products SMEs in the first critical three years after starting internationalization were also among the greatest in comparison to others. However, their average DOIs (0.09) are just over the average compared to other industries. These figures indicate that although many metal refining and metal products firms surveyed have

been longer time in international markets than firms in other industries, but their internationalization also have been operated incrementally, over a long period of time.

Meanwhile, as seen earlier (figure 16), food and beverage and electric equipment industry are the top two figure in the average age of respondent firms at the time of internationalization. The high average level of DOI of food and beverage, and electric equipment industry compared to other industries result from the fact that food and beverage as well as electric equipment firms surveyed had been shorter time in international market than firms in other industries, but had internationalized very rapidly, over a short period of time.

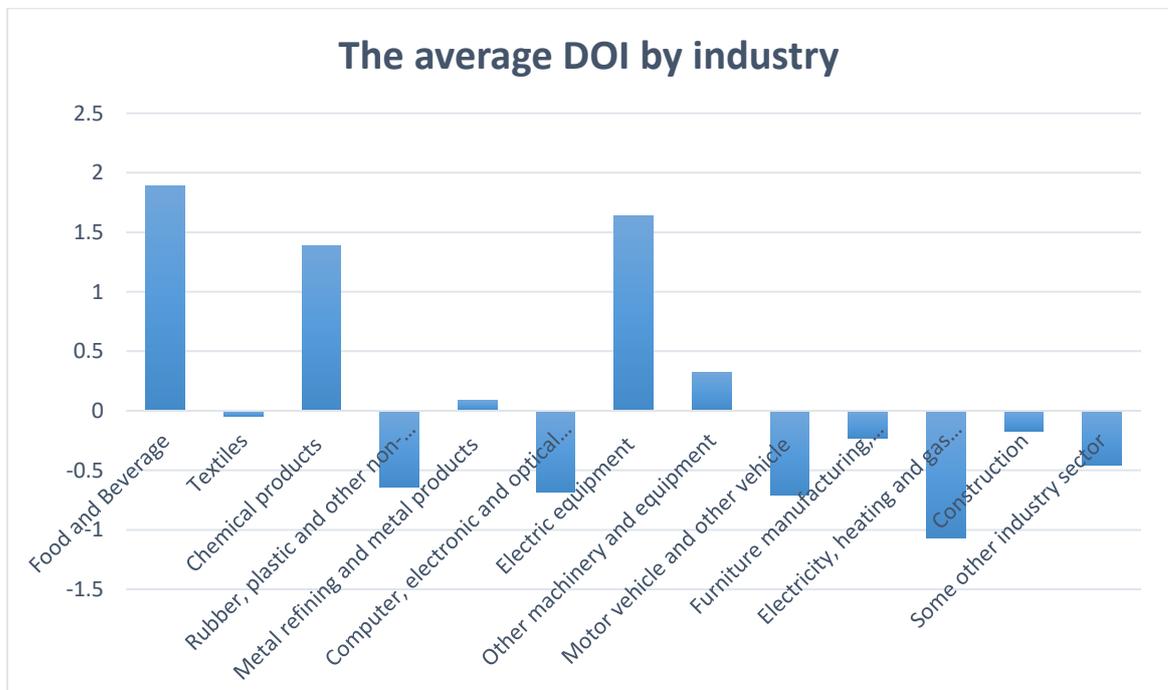


Figure 20: The average DOI by industry

Overall, industries that have the highest number of international respondents (metal refining and metal products, and other machinery), had slightly over the average DOI values. This demonstrates that although many firms had succeeded in internationalizing, they have internationalized gradually and over a long period of time. Meanwhile, industries having small number of international respondents (food and beverage, electric equipment and chemical products) had higher DOI values, meaning fewer firms have been internationalizing, but they succeeded to perform well by this measure.

4.3.3 Subjective internationalization performance

Regarding the level of success in internationalizing, a subjective measure was derived from a set of seven Likert-scale statements in the international performance section of the survey questionnaire. The statements consist of as below:

- “Generally speaking, we are satisfied with our success in the international markets.”
- “We have achieved the turnover objectives we set for internationalization.”
- “We have achieved the market share objectives we set for internationalization.”
- “Internationalization has had a positive effect on our company’s profitability.”
- “Internationalization has had a positive effect on our company’s image.”
- “Internationalization has had a positive effect on the development of our company’s expertise.”
- “The investments we have made in internationalization have paid themselves back well.”

The content of the statements were aiming to inquire respondents to provide their subjective opinions on how well their overall internationalization process which had performed in relation to growth of turnover, market share, overall profitability and customer profitability as well as positive effects derived from it. As a consequence, the statements could be observed as measuring perceived internationalization performance (i.e. productivity) of firms. These statements were calculated into summated scale, providing a single value measuring the subjective performance of internationalization. This value had an overall mean at 4.17, with a standard deviation of 1.48. Differences in the average value of subjective internationalization performance across industries are illustrated in figure 21.

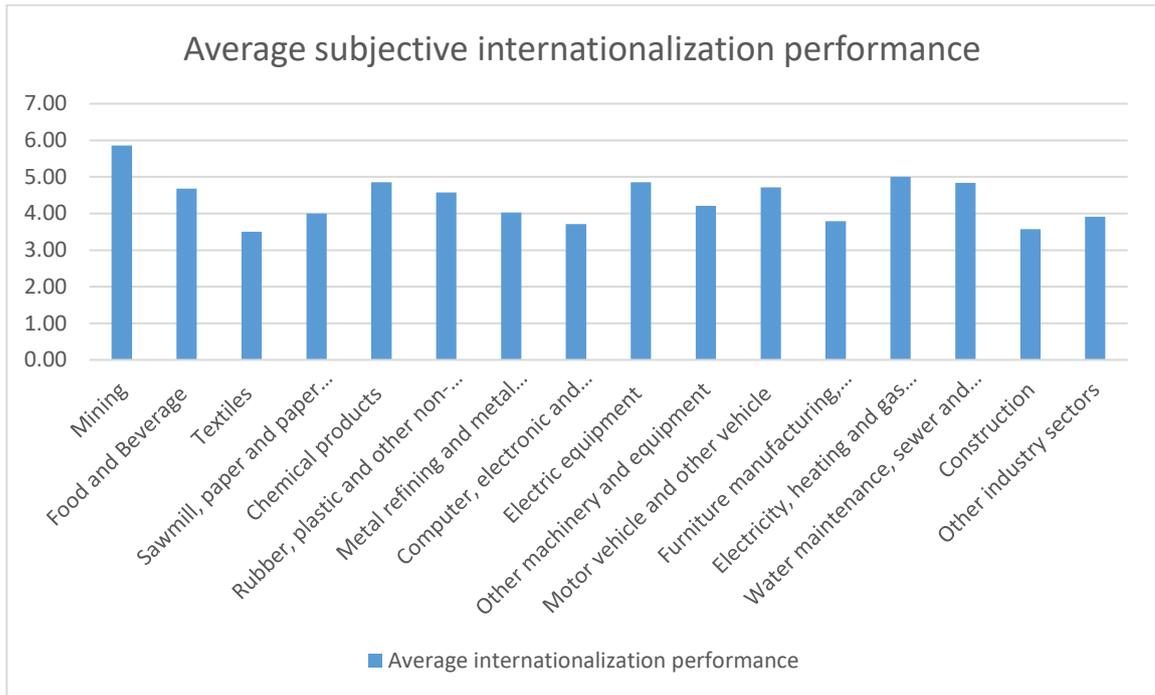


Figure 21: Subjective average internationalization performance by industry

Generally, it can be observed from the figure 21 that there are differences in the subjective internationalization performance between several industries. Specifically, leading in the subjective internationalization performance is the mining industry but it was followed closely by other industries.

Besides, the one factor solution's result of subjective international performance respectively captured 86.1% of total variance (Kaiser-Meyer-Olkin test value (KMO) = 0.83, Barlett's test for the approach $p < 0.01$). Cronbach's alpha for the variable resulting measure were 0.92 which indicating a sufficiently reliable scale (Table 4).

Table 5: The Factor Structures of Subjective International Performance Variables

Measure	Total Variance Captured (%)	KMO	Bartlett's Test of Sphericity	Communalities	Factor Loadings	Cronbach's Alpha	Item Included
International Performance	86.1	0.83	$p < 0.01$	0.79 – 0.92	0.89 – 0.91	0.92	<ul style="list-style-type: none"> • Generally speaking, we are satisfied with our success in the international markets • We have achieved the turnover objectives we set for internationalization

4.4 Validity and Reliability

In academic research, it is imperative to evaluate the precision and accuracy of the research whether it is qualitative or quantitative. In order to do so, the research paper is expected to avoid subjective intuitions which are elaborated as a result of the connection between the researcher and his or her material (Saunders et. al, 2009). According to Babbie (1975), reliability and validity are considered as the two crucial technical considerations for constructing and evaluating important qualities (e.g. precision and accuracy) in measurements of research findings (Babbie, 1975).

4.4.1 Assessment of reliability

Reliability is the extent in which data collection methods and analysis methods lead to consistent findings in both qualitative and quantitative perspectives (Golafshani, 2003). Thus, it demonstrates the precision of measures, or how likely the measurements would be reproduced if the measure was repeated (Human, 2007). There are several techniques for cross-checking the reliability of the measurement (Babbie, 1975) such as

- Test-retest method: at different times with the same measure
- Split-half method: at the same time with the same measure (measuring internal consistency).

Since the survey has been conducted, the test-retest method is not relevant assessment of reliability for this thesis. Through test-retest method, controls for variations across time, confirming that the reliability of a measure does not depend on the time when it is measured. It is found upon the idea that using the same measure on same respondents at different times, similar results should be obtained, which following to affirm the reliability of the measure. While the causation and effectuation construct have been tested multiple times across several years, these tests all involved different respondents in different years (e.g. Chandler et al. 2011, Perry et al. 2012, Finnish respondents in this survey data) with different backgrounds. Therefore, this makes the assessment through test-retest method inapplicable.

The reliability of the causation and effectuation construct can be made through assessment of split-half technique by measuring internal consistency. Splitting the measure in half artificially gives values for Cronbach's alpha and the Spearman-Brown prediction formula.

With split halves, the correlation between the two indicates reliability (Babbie, 1975). The reliability of first- and second order constructs of a measure can be determined in part by the value of the Cronbach's alpha coefficient, by receiving a value between 1 and 0, with values closer to 1 indicating better reliability. In testing of established theory, the values should exceed 0.7 (Hair, et al., 2009).

In addition, regarding factor analysis, the reliability of the resulting factors can be assessed through composite reliability (CR) values. High CR values indicate internal consistency which mean that the used measures all consistently represent the same latent construct. CR values are calculated from the squared sum of factor loadings of each construct and the sum of the error variance terms for a construct. For these values, 0.7 or higher indicates good reliability, with values between 0.6-0.7 acceptable, provided that other indicators of the construct validity of the model are good. (Hair et al. 2009)

In this thesis, the assessment of the reliability of the causation and effectuation construct were conducted by examining the Cronbach's alpha values mainly. Moreover, factor analyses have their reliability which is determined by the CR values.

4.4.2 Assessment of validity

Validity refers to the extent to which an empirical measure adequately reflects the real meaning of the concept under consideration. By this mean, validity concerns issues regarding whether the measure actually measures what it is supposed to be measuring. There are several criteria of success in making measurements that are appropriate to these agreed-on meanings of concepts consisting of face validity, criterion-related validity, construct validity, content validity, internal validation, and external validation. (Babbie, 1975)

In addition, to account for potential common method bias, the survey was followed ex-ante, the guidelines set forth by Podsakoff, MacKenzie, Lee (2003) and Chang et al. (2010). The measures were drawn to ensure respondents' anonymity. Scales and items, which are used in the analysis, are placed in different parts of the larger survey inquiring about variety of issues concerning SMEs, thus the respondents are unlikely to have conscious responding with expected theoretical linkages in mind (Chang et al. 2010, 179). Furthermore, the survey included several negatively worded items to avoid any potential halo effect in the responses. Finally, during the analysis, Harman's single-factor tests (7% single factor variance) to

check for common method biases in the empirical data. The results indicated that there were no single factors underlying the data. As the result, common method bias was not found any sign to have a significant effect on the results of the analysis.

4.5 Modeling procedure

Since much of the raw data collected were ordinal and the aggregation of these variables would yield continuous variables, the thesis apply an ordinary least squares (OLS) linear regression model to test the hypotheses.

5 FINDINGS AND ANALYSIS

5.1 The relationship between causation, effectuation and SME international performance

A multiple linear regression was run to predict the first hypothesis, whether causational decision-making logic has positive impact on the SMEs international performance. The results, as seen in Table 6, provided support for this notion and thus H1. The first two models are made to test the causational impact on subjective of SMEs international performance. Hence, dependent variable in Model 1 and 2 are subjective of SMEs international performance, while independent variables are firm size and age as control variables and causational logic. Either the model with the control variables (Table 6, Model 1; $F(2, 84) = 3.800, p < 0.05, R^2 = 0.083$) or the one with the main effects (Table 6, Model 2; $F(3, 83) = 3.034, p < 0.05, R^2 = 0.099$) were significant. However, the coefficient for causation was positive but non-significant ($\beta = 0.2, p > 0.05$). Following by the models testing the causational impact on the objective of SMEs international performance (degree of internationalization) which dependent variable in both Model 3 and 4 are DOI. The overall regression of both model with control variables only (Table 6, Model 3; $F(2, 40) = 13.556, p < 0.05, R^2 = 0.404$) and the one adding the main effect (Table 6, Model 4, $F(3, 39) = 8.902, p < 0.05, R^2 = 0.406$) were significant. However, when looking at the predictors individually, the company size (total employees in Finland and abroad) ($p < 0.05$) was a significant predictor of the objective SMEs international performance (DOI), but both the company age and the causational decision-making logic ($p > 0.05$) were not significant. Thus, the size of the company was linked to better international performance. As the coefficient for the causational decision-making logic was non-significant in both the subjective and objective

SMEs international performance, hence H1 was not supported. Therefore, applying causal decision-making logic does not have positive impact on international performance under the control variables such as firm age and size.

Table 6: Results of the Hypothesis 1 Testing

Causation and Subjective SMEs International Performance					Causation and Objective SMEs International Performance (Degree of Internationalization - DOI)			
	Model 1 (Controls Only)		Model 2 (Full Model)		Model 3 (Controls Only)		Model 4 (Full Model)	
	β	t-Value	β	t-Value	β	t-Value	β	t-Value
Firm age	0.007	1.124	0.007	1.167	0.016	1.748	0.015	1.681
Firm size	0.006	2.165	0.005	1.788	0.013	4.621	0.013	4.485
Causation			0.2	1.209			-0.071	-0.401
R ²	0.084		0.099		0.404		0.406	
Change in R ²			0.016				0.002	
F	3.800		3.034		13.556		8.902	

The second hypothesis was also tested with the similar multiple linear regression method, that is effectuation would predict positive impact on company overall international performance. Model 1 and 2 deploy the subjective of SMEs international performance as a dependent variable, while model 3 and 4 deploy DOI as the dependent variable. Either the model 1 with the control variables (Table 7, Model 1; $F(2, 85) = 4.254, p < 0.05, R^2 = 0.091$) or the model 2 with the main effects (Table 7, Model 2; $F(3, 84) = 2.812, p < 0.05, R^2 = 0.091$) were significant. However, the coefficient for effectuation was positive but non-significant ($\beta = 0.19, p > 0.05$). Next, the thesis tested for similar effects on objective international performance. Both models overall (Table 6, Model 3 and Model 4) with the control variables and with main effects increased in statistical significance and predictive power (Table 7, Model 3; $F(2, 40) = 13.556, p < 0.01, R^2 = 0.404$ and Table 7, Model 4; $F(3, 39) = 11.657, p < 0.01, R^2 = 0.473$). As the coefficient for effectuation was negative ($\beta = -0.257$) but statistically significant ($p = 0.030 < 0.05$), thus it can be concluded that the stronger effectuation decision-making logic has applied, the weaker the international performance was. Therefore, the H2 was not supported. In other words, applying effectual decision-making logic does not show positive impact on international performance under the control variables such as firm age and size.

Table 7: Results of the Hypothesis 2 Testing

Effectuation and Subjective SMEs International Performance					Effectuation and Objective SMEs International Performance (Degree of Internationalization - DOI)			
	Model 1 (Controls Only)		Model 2 (Full Model)		Model 3 (Controls Only)		Model 4 (Full Model)	
	β	t-Value	β	t-Value	β	t-Value	β	t-Value
Firm age	0.008	1.263	0.008	1.251	0.016	1.748	0.014	1.655
Firm size	0.007	2.229	0.007	2.206	0.013	4.621	0.014	5.199
Effectuation			0.019	0.161			-0.257	-2.256
R ²	0.091		0.091		0.404		0.473	
Change in R ²			0.000				0.069	
F	4.254		2.812		13.556		11.657	

5.2 The relationship between causation, effectuation and SMEs degree of internationalization (DOI)

Table 8: Mean, Standard Deviations and Correlation between the Variables used in the Analysis

Variable	Mean (SD)	1	2	3	4	5	6
1. Causation logic	5.19 (1.12)	1.000					
2. Effectuation logic	3.64 (1.39)	0.258**	1.000				
3. Subjective international performance	4.17 (1.48)	0.169	0.035	1.000			
4. Objective international performance	-0.02 (1.29)	0.104	-0.161	0.482**	1.000		
5. Firm size (employees)	163.15 (1354.86)	0.070	0.047	0.269*	0.602**	1.000	
6. Firm age (years)	35.28 (24.34)	0.022	0.084	0.193	0.296	0.039	1.000

** Correlation is significant at the 0.01 level (2-tailed), * Correlation is significant at the 0.05 level (2-tailed)

The third and fourth hypotheses were tested by firstly checking the correlation between causation, effectuation and the overall performance (subjective performance); and compare the absolute value of differences between causation and effectuation toward the objective

international performance (degree of internationalization). With the positive or negative correlation and statistically significant between causation, effectuation with SMEs international performance, the hypotheses can be tested for support or rejection.

In this chapter, the thesis tested hypothesis H3, that is, the positive relationship between causation and SMEs' performance is weaker for higher levels of DOI than for lower levels of DOI. According to the Pearson's correlation test, neither the relationship between causal logic ($r = 0.104$, $p > 0.05$) nor effectual logic ($r = -0.161$, $p > 0.05$) with SMEs international performance were statistically significant. Therefore, since both H1 and H2 were rejected, together with the insignificant of the Pearson's correlation tests, both H3 and H4 were not supported.

6 DISCUSSION AND CONCLUSION

The following chapter will firstly summarize the thesis's findings, pointing out the most relevant results. Secondly, it will indicate the theoretical contributions, linking the findings to previous literature. Thirdly, it will suggest the practical implications that the thesis discloses and lastly, the limitations and areas for future research are discussed.

6.1 Summary

The thesis try to look over the connection between entrepreneurial behaviors (decision-making logic) toward the SME's degree of internationalization and their companies' international performance. It was constructed by the theory-based framework with four hypotheses. These hypotheses were later empirically tested with a sample of Finnish SMEs. The data was collected the initial cross-sectional sample of firms from the Amadeus online database, following the SME definition of the OECD, that is, firms employ from 10 to 250 employees. The average age of them which internationalized are relatively young at 14 years old. Some of the companies have already well-established international operations, while some are just start their international operations recently. The companies are diverse from several industries with comparatively difference in industry-specific percentages. This highlights the broadness of the field, covering a variety of different industry sectors. Moreover, the surveyed companies have different first entering country where they have had international activity in. Surprisingly, besides the geographically closest countries, there were 24 different countries named in 82 responses. All in all, it seems like that Finnish SMEs

are not constrained to the closest geographically markets while deciding on the first strategically target for foreign entry.

As causal and effectual logics are both addressing to uncertainty of unpredictable future (Sarasvathy, 2001, 2009), thereby larger companies' size or older companies can impact to the uncertain environment positively. Therefore, the thesis also takes into account of the company age (in years) and size (number of employees) as control variables in testing the hypotheses.

What is the effect of entrepreneurial decision-making logic on different degree of internationalization of SMEs?

Overall, both entrepreneurial decision-making logics consisting of causation and effectuation have not shown any effect on different degree of internationalization of SMEs (DOI). None of causational or effectual decision-making logics were found to have positive impact on the degree of internationalization of SMEs. Even though effectual decision-making logic neither show positive impact on SMEs' DOI (international performance), the thesis found that effectual decision-making logic would possible predict the SMEs international performance. In detail, the finding indicates that the stronger effectual decision-making logic has applied, the weaker the international performance or degree of internationalization of SMEs was.

What is the effect of entrepreneurial decision-making logic on achieving the internationalization's goals of SMEs?

Identifying the relationship between entrepreneurial decision-making logic and international performance were not succeed in this data. According to Pearson's correlation test, none of causal logic or effectual logic have statically significant relationship with SMEs international performance. Also, the relationship of both causational and effectual decision-making logic did not have positive impact toward SMEs' degree of internationalization, hence the hypotheses concerning the differences between positive impacts of entrepreneurial decision-making logics on different level of SMEs' degree of internationalization were not found. Thus, it can be concluded that with this data, the thesis could not draw any conclusion

regarding the effect of entrepreneurial decision-making logic on achieving the internationalization's goals of SMEs.

Which entrepreneurial behavior(s) is/are the driven(s) towards the internationalization of SMEs?

Generally, with this data, the thesis could not gauge the answer for the main research question. The findings did not demonstrate that any decision-making logic is the key driven toward the internationalization of SMEs. It can be imply that the internationalization or the success of achieving the international goals of SMEs is not necessarily contingent on the extent that their CEOs, founders, or owners engage in causal or effectual thinking.

6.2 Discussion

The role of entrepreneur firm characteristics as influencers and predictors of SME internationalization process and internationalization outcomes are increasingly taking center stage in business research (Knight and Cavusgil 2005; Child et al. 2017; Acosta et al. 2018).

The purpose of this thesis is to test the hypotheses on the literature on SMEs' internationalization processes using the effectuation and causation lens following the constructed measures of Sarasvathy (2001), Chandler et al., (2011) and Perry et al (2012). The findings of the thesis were that causation positively but not-significantly predicts SMEs international performance in contrast to effectuation, which negatively but significantly predicts SMEs international performance. This contradicts the conclusions of other prior studies examining the decision-making logic with internationalization outcomes relationship. For example, Read, Song and Smit (2009) discovered a positive relationship between effectual strategy making and new venture performance; or Nelson (2012) emphasized that effectuation logics positively affecting an entrepreneur's perception of his or her financial performance. The thesis disputes that the use of effectuation was positively associated with firms' international performance because the positive effect could be moderated by some other mechanism, such as entrepreneur's global mindset, and managerial experience (Nummela et al., 2004), to be key parameters in terms of the international performance of the firm.

In comparison to the previous studies conducted on decision-making logics in other contexts, the results of this thesis supports in some way previous scholars and current understanding of entrepreneurial decision-making logics related to internationalization outcomes. The fact that hypotheses were not supported from the analysis is not inconclusive for the research questions. However, it gives the impression that the answer to the research question then is, that the decision-making logic does not seem to have a large positive role in the internationalization outcomes. It was emphasized that the logic of both effectuation and causation are independent of the internationalization stage of a firm (Schweizer, 2015). Schweizer (2015) highlighted that the chosen logic is impacted by the nature of the perceived problem space, existing decision-making routines as well as heuristics and the incapability of entrepreneur to learn from previous internationalization decisions due to the distinguishing nature of each foreign expansion. Sarasvathy (2001, p.243-263) also states that neither of decision-making logics is superior, because their effectiveness is essentially contingent on the problem space characteristics. In specific, causal logic is more related under condition of risk while effectual logic is more connected under conditions of uncertainty (Ciszewska-Mlinaric et al., 2016). Moreover, previous studies also observed that entrepreneurs are not more tailored to a specific type of logic. For example, Eyana, Masurel and Paas (2018) highlighted that causation and effectuation have diverse implications on firms' performance. In their empirical study on Ethiopian entrepreneur, it is not found to claim that any decision-making logic is more superior compared to the other in outcomes such as firm performance. Therefore, this indicates that as a concept, decision-making logics transfers across borders, and its impact is not dependent on the country of origin of the entrepreneur.

Apparently, the findings of this thesis are context specific. The focus on a specific type of firm and diverse industry, however may have imposed some impacts on the results. It is possible that the selection of the firm's type and the diverse industry as the focus of the thesis may have affected the findings. For example, the focus of the type of firm and diverse industry factors might have overemphasized the degree of decision-making logics among the respondents. This effect might even have been intensified by the selection of a small open economy, such as Finland, as the context. Consequently, if used with a sample from a different type of firm, specific industry, or another country, the findings might not be as straightforward and robust as they are in this thesis.

6.3 Managerial implications

Managerially, the findings of the thesis point out that causation is not simply the opposite of effectuation. Instead, effectuation is a deliberate approach that follows principles as pointed out in Table 1. Therefore, causation and effectuation principles indeed help to increase awareness about the decision process, and thereby should enable entrepreneurs and SMEs' CEOs, founders, owners to communicate, debate and justify their decisions.

Many studies have found out that entrepreneurs tend to interweave causation and effectuation logics as substitutes in their decision-making during the firm internationalization process (Chetty et al., 2015; Laine & Galkina, 2017; Hauser, Eggers, & Güldenber, 2019). As evidenced in the thesis's data, the fact that firms, which solely apply either causation or effectuation during the internationalization process, do not show positive impacts on their international performance. In different concerns consisting of the flexibility of strategic goals, the perception in affordable loss of the venture, and the response towards uncertainty of an unpredictable future, the thesis greatly agree with Hauser, Eggers, & Güldenber (2019) and Schweizer (2015) that experienced entrepreneurs or SMEs' managers should be able to switch the decision logic according to the decision context and the idiosyncratic nature of each foreign expansion.

This line of finding leads to implications for public-policy makers and venture capitalists. Both public-policy makers and venture capitalists have been attempting to support the internationalization of especially small firms, however, it is sometimes not simple to pick out potential companies. From their perspective, the identification of managers with a flexibility to be able to switch the decision according to the nature of the perceived problem context might prove to be essential in directing scarce resources to this potential group of successful exporters.

6.4 Limitations and Future Research

There are some limitations to the thesis's results should be taken into account. Firstly, the context of 141 Finnish SMEs, of which only 82 were internationalized, and which represented over sixteen industries, is comparatively precise. Owing to the fact that there is no firms employ more than 500 employees, neither firms outside of Finland were

comprised in the data sample. Therefore, the thesis's findings may not be appropriate to generalize over cultures or larger firms.

In the findings of this thesis, they indicate that solely causation or effectuation does not prove positive impacts on SMEs international performance. Interestingly, the failure to find a significant link between entrepreneurial decision-making logics and goal achievement related to internationalization has some appealing implications for future research. On the one hand, researchers should be very specific as to what constitutes good international performance. If the study takes international performance as the ability to gain and maintain a reasonable volume of profitable sales in foreign countries, it seems that the entrepreneurial decision-making logic does not have a large positive role in the internationalization outcomes. On the other hand, if performance is conceptualized as the fulfilment of goals, such a decision-making logic might be more relevant to the level of goals set by the company than to the ability to achieve them. Hence, future researchers might consider to alternative model in which internationalization objectives set by the firm play as an intervening variable between a decision-making logic and international performance.

Nevertheless, according to existing literature, effectuation and causation are constantly balanced in entrepreneurial action, and the same person can employ both logics interchangeably depending on the uncertainty of the circumstances (Sarasvathy 2001, 2008; Fisher 2012; Perry et al. 2012). For further study, studying the change from one logic to another, their dynamics and their paradoxical interplay in entrepreneurial activities would be necessary to find out whether, for instance, there are patterns in switching decision-making logic during the decision process of firms' internationalization. Thus, this further study would add insights in effectuation research.

APPENDIX

1. Causation decision-making logic

(1 = disagree strongly, 7 = agree strongly)

- We analyzed long run opportunities and selected what we thought would provide the best returns
- We developed a strategy to best take advantage of resources and capabilities
- We researched and selected target markets and did meaningful competitive analysis
- We designed and planned business strategies
- We organized and implemented control processes to make sure we met objectives
- We had a clear and consistent vision for what we wanted to do
- We designed and planned production and marketing efforts
- We work to position our operations in a way to make use of the market opportunities we foresee
- We make larger investments in order to realize value creation opportunities in future as well as possible

2. Effectuation decision-making logic:

(1 = disagree strongly, 7 = agree strongly)

- We experimented with different products and/or business models
- The product/service that we now provide is substantially different than we first imagined
- We tried a number of different approaches until we found a business model that worked
- We were careful not to commit more resources than we could afford to lose
- We allowed the business to evolve as opportunities emerged
- We adapted what we were doing to the resources we had
- We were flexible and took advantage of opportunities as they arose
- We avoided courses of action that restricted our flexibility and adaptability
- We used a substantial number of agreements with customers, suppliers and other organizations and people to reduce the amount of uncertainty

- We work to create new markets so that we can be defining the opening opportunities ourselves

3. International performance (subjective)

(1 = disagree strongly, 7 = agree strongly)

- Generally speaking, we are satisfied with our success in the international markets
- We have achieved the turnover objectives we set for internationalization
- We have achieved the market share objectives we set for internationalization
- Internationalization has had a positive effect on our company's profitability
- Internationalization has had a positive effect on our company's image
- Internationalization has had a positive effect on the development of our company's expertise
- The investments we have made in internationalization have paid themselves back well

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