Effectuation Network Relationship Vis-A-Vis Causation Network Relationship: A Study from High-Tech SMES in Malaysia

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The aim of this paper is to enhance the understanding of high technology Small and Medium (SME) internationalisation by looking at initial international opportunity discovery process using effectuation theory. Drawing from the effectuation theory, we examine the extent to which different types of network relationships and individual cultural differences impacts the process of international opportunity discovery in Malaysia. Multiple case analysis were used to explore to see the effectiveness of different forms of network relationships and compare the effectuation approach with the causation approach. The result shows that the SMEs entrepreneurs tend to follow effectuation rather than causation at the initial stage of their internationalisation particularly in their opportunity discovery process. Their initial relationship with co-partners such as friends and local communities allowed them to enter the international market in a short time. This study contributes to the field in several ways. First, it provides an empirical research from developing country perspective which remained unexplored. Second, it provides a clear explanation about key antecedents under the effectuation theoretical lens and adequate investigation for the rise of the phenomenon.

Key words: Internationalisation, Opportunity, Effectuation, high-tech
Introduction

Recent research in the field of international entrepreneurship (IE) has emphasized the concept of international opportunity (Esteve-Perez and Rodriguez, 2013; Garcia and Calantone, 2002). The entrepreneurial behaviours focused on international opportunities have been found to be critical in IE (Esteve-Perez and Rodriguez, 2013; Becker and Egger, 2013). International opportunities, however, are often depicted in rather abstract and unspecified ways and the research suffers from narrow theoretical discussion in relation to the concept of opportunity (Idris and Saridakis, 2018). To address these issues, we draw from entrepreneurship research and present alternative conceptualizations of opportunities as a basis for more in-depth study of international opportunities in IE (Andersson, 2011). To further articulate a future research agenda, we review the state of knowledge on opportunities in the IE field by content-analysing articles published between 1989 and 2018 (Welch et al., 2002; Johanson and Vahlne 2003, 2006; Bell and Loane, 2010). All the analysed articles incorporate the concept of opportunity and people who take advantages from the opportunity into their studies (Andersson, 2011; Laurell, Andersson and Achtenhagen, 2013).

The effect of globalisation in bringing countries together and virtually eliminating distances, has led to the growing trend of domestic companies seeking internationalisation. This has caused researchers to shift their focus from traditional internationalisation theories to international entrepreneurship (IE). This field of research has received both conceptual support (Knight and Cavusgil, 1996; Madsen and Servais, 1997, 2002) as well as empirical support (Jones, 1999; Madsen et al., 2000), with a greater focus on network and start-ups (Oviatt and McDougall, 1994; Knight, 1997, 2000; Knight and Cavusgil, 1996).

However, this research, due to being relatively nascent is rife with several gaps (Chandra, Styles and Wilkinson, 2009; Shane and Venkataraman, 2000). Only a few studies focusing on the internationalisation process have included a network structure as a key element in the process of opportunity discovery in an international arena (Bembom and Schwens, 2018; Kujala and Torroos, 2018; Fernhaber and Li, 2013; Johanson and Vahlne, 2009). Interestingly, these studies have explained the network relationships that emerged in the process of internationalisation, but not how these networks are structured or how they were formed in the first place (Alvarez and Barney, 2005; Shane and Cable, 2002; Coviello and Munro, 1997; Sharma and Blomstermo, 2003). Furthermore, there are very limited number of studies that analyse the interplay between network relationships and opportunity discovery for emerging economies (Zain and Ng, 2006). Most of the empirical or case study research has focused on developed countries and unable to generalise to other continents due to socio-economic variables (Ibeh and Kasem, 2011; Galkina and Chetty, 2015; Kontinen and Ojala, 2011; Johanson and Vahle, 2006, 2009).
This study attempts to contribute to the above-identified gaps by focusing on a case-study approach using the SMEs in Malaysia as the base (Zain and Ng, 2006). Malaysia is representative of several socio-economic indicators in the Southeast Asian region and the results of the study can be extrapolated for the region, with reasonable assumptions. Along the lines of Oviatt and McDougall, (2005), we argue the significance of network relationships in developing and thereafter improving the information and knowledge to support the process of international opportunity discovery. While existing literature focuses only on the network between the entrepreneur and its partners, we argue that through the partners, the entrepreneur is exposed to more knowledge and information, thereby effectively increasing his network structure through new variables such as trust. The rest of the paper is organised as follows. Section 1 provides a brief overview of the literature and highlights this paper’s goals in relation with the literature. Section 2 details the methodology and the summary of the companies used within the case study. Section 3 interprets the findings and discusses the same while section 4 concludes.

Existing Literature

International opportunity discovery in SMEs

Research concerning the process of international opportunity discovery of small companies can be traced back to McDougall’s (1989) work that explains the entrepreneur’s behaviour of identifying international opportunities. Scholars in the field of entrepreneurship particularly focussed on what led some entrepreneurs and not others, to discover international opportunities (Chandra, Styles and Wilkinson, 2009).

Shane and Venkataraman (2000) posit that international opportunity drive the internationalisation process and is arguably a key topic in SME research. Earlier theories of international opportunity discovery are along two key lines – the Uppsala Model and the Born Global model (Johanson and Vahlne, 1977, 2009; Oviatt and McDougall, 2007). Under the Uppsala model, the entrepreneur discovers the international opportunities through an established chain and enters the lesser-distanced countries (Johanson and Vahlne, 2009). In the Born Global model, the entrepreneur uses several unique resources and capabilities to exploit the international opportunities in a quicker fashion. Interestingly, the concept of international opportunity has grown alongside the concept of international entrepreneurship in the internationalisation studies. The importance of entrepreneurial behaviour in scanning, discovering, organising and enacting the international opportunity made the linkage between entrepreneurship and opportunity discovery a crucial joint-factor in internationalisation studies (Chandra and Coviello, 2010; Ellis, 2011). Eckhardt and Shane (2003) define it as “situations in which new goods, services, raw materials, markets and organizing methods can be introduced through the formation of new means, ends and means-ends relationships”.  

291
More recent works have begun to shed light on the process of international opportunity discovery. A study by Muzychenko and Liesch (2015) provide an empirical evidence of factors that determine the entrepreneur’s opportunity discovery through personal variables such as risk perception and social network. Also, a study of managers in Turkish companies (representative of the context of emerging countries) also provides a similar result that emphasised on knowledge, commitment and uncertainty associated with the process of international opportunity. Those factors have been a strong nexus with the firm’s internationalisation especially on how to discover and exploit a lucrative opportunity within a specific context (Shane, 2000; Venkataraman, 1997). As evidenced in Acedo and Florin (2006), who took the sample of Spanish ventures, the role of individual-level characteristics provides a valuable advantage for a new entrepreneur to succeed in the international market. These findings support Adichvili, Cardozo and Ray (2003) who utilised Dubin’s (1978) theory to build a framework to explain the individual characteristics.

**Network relationship and opportunity discovery**

Network relationship has become a powerful strategy for new entrepreneurs to enhance their resource base (Idris and Saridakis, 2018). The interaction with other partners, regardless of social networks or business networks, often provides them with diverse resources, which can be used to discover the international opportunities (Crick, Crick and Chaudhry, 2019). The entrepreneur is often facing a high level of risk and uncertainties which requires for them to rely on network relationship to exploit the international opportunities (Fletcher, 2008). The network relationships are highly varied and require changes because no two relationships begin or end in the same way. Thus, networks eventually change for better or worse relationships (Sanchez, Vial and Martinez, 2018; Huang and Wilkinson, 2013). Different actors and activities in the relations allow the entrepreneur to achieve their objectives (Hedstrom, 2005; Crick and Spence, 2005; Johanson and Mattson, 1988; Jones and Coviello, 2005; Ibeh and Kasem, 2011; Chetty and Holm, 2000).

**Effectuation versus Causation Network Relationship**

The focus of this study is in line with the principals of effectuation models such as “who I know”, “what I have” and “who am I” (Sarasvathy et al, 2013). Sarasvathy (2008, p227) has quoted the effectuation model as central for the decision-making behaviour in uncertain situations and many scholars support the fact that it is a theory that supports the human action as a key factor shaping the future to reduce risk and uncertainties (Dew et al. 2011; Wiltbank et al., 2009). There are two important processes highlighted in effectuation papers, “Effectuation” and “Causation.” Effectuation processes take a set of means as given and focus on selecting the 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. It has been applied in various disciplines such as (Augier and Sarasvathy, 2004), economic (Dew et al., 2009) and marketing (Read et al. 2009a). This theory has been strongly associated with the international activities and strategies as highlighted in some papers such as Galkina and Chetty (2015), Schweizer, Vahlne and Johanson (2010). Sarasvathy et al. (2014) have noted that INV “network dynamics can be understood more richly through an effectual lens, which highlights the ability to leverage entrepreneur networks as ultimately being more crucial than the prevalence of networks per se”.

One of the goals of this paper is to explain the different types of relations in the context of effectuation and causation. Different types of relations are crucial for the foreign expansion especially for SMEs that usually lack international resources and capabilities (including financial resources and knowledge) (Oviatt and McDougall, 1994; Madsen and Servais, 1997; Agndal and Chetty, 2007). Different relations and their antecedents such as trust and commitment also improve the decision-making ability and make the international transactions more secured (Etemad, 2004; Oviatt and McDougall, 1994).

In the early internationalisation models such as the Uppsala model, the focus was on international opportunity discovery by acquiring market knowledge and commitment. In the later work, the Uppsala Model scholars acknowledge the involvement of network relationship in the internationalisation process (Johanson and Vahlne, 2006). In any market, the opportunity discovery process occurs through strong commitment and trust with the network relationship in both the domestic and international markets (Johanson and Vahlne, 2009). Several Uppsala Model scholars show how the internationalisation occurs through building and developing relations with network actors (Wright et al., 2004; Johanson and Vahlne, 2009). Since there is a strong “liability of outsidership”, building a partnership inside the market through incremental and steady relationships, may enable the entrepreneur to discover international opportunities faster. Interestingly, even now, the cultural factor is still a major factor that influences the Uppsala entrepreneurs. The national culture and individual culture of the firm has significantly impacted the internationalisation activities (Hayton, George and Zahra, 2002; Porter, 1990). As per the understanding, the individual culture affects the development of knowledge and the decision level to discover international opportunities. Some scholars claim that the decision-making may not necessarily be rational or systematic as supported by Aharoni (1966) who explains that firms that go abroad use subjective judgements and knowledge of the individual.

Most of the studies on international new ventures do not yet include effectuation in explaining the network relationship, especially in born global firms. In effectuation, the entrepreneur develops their relationship with network partners and potential partners who are willing to
support the entrepreneur’s decision and their international activities. This is contrast with the causation.

**Methodology**  
*Data Collection and Preparation*

To establish a model that explains the network relationship from a Malaysian context, we have conducted a series of inductive interviews with the entrepreneurs using the guideline developed by Wright et al. (1988), Eisenhardt (1989) and Yin (1994). Our main focus was on Malaysia SMEs (i.e. firms with fewer than 250 employees) and specifically Malay entrepreneurs who are major contributors to the country’s growth. These entrepreneurs have already established their business in the international market. SMEs contribute to almost 99.2 percent of total business establishments in Malaysia. In 2015, SMEs had an average of 6.1% in Gross Domestic Product (GDP) compared to 7.6% in 2014. SME contribution to GDP increased to 36.5% in 2015. The main sectors that contributed to GDP growth were mining and quarrying and construction. Malaysian SMEs’ exports have declined to 17.6% of total exports. The establishment of the National SME Development Council (NSDC) in 2004 has made the SME gross domestic product (GDP) increased and surpassed on overall GDP. Also, with the introduction of a new policy - the Tenth Malaysia Plan (TMP) led to the growth of SMEs which in turn supports the overall growth of the country.

We identified eight entrepreneurs (Company A to Z) that have established themselves in international markets and done so rapidly. The number of companies is reasonable for this type of a study that provides insights and increasing the number might cause a theoretical saturation and data asphyxiatiion (Eisenhardt, 1989; Pettigrew, 1990, p.281). We have chosen the companies or entrepreneurs from a snowballing technique. The entrepreneurs have been selected due to their direct approach and hands-on experience working with different stakeholders and engaged with outside people. They have certain level of knowledge and engaged with a strong level of commitment with networks (McCartan-Quinn and Carson, 2003). We also obtained data from company Web pages, articles from newspapers and other industrial publications. The companies were selected using purposeful/ theoretical sampling following guidance provided by Eisenhardt (1989), Locke (2000) and Patton (1990). The basic assumption of this theoretical sampling is to select the cases that predict the similar pattern or outcome or predict the contrasting result but providing with justification (a “theoretical replication” as explained by Yin, 2003). Explanation is essential for theoretical replication where it helps to answer the queries of “why”. We have included the explanation building to describe the process and sequence of the network relationship connection with the process of opportunity discovery.
We have interviewed the entrepreneur using semi-structured interview techniques that allows for open-ended questions. Additionally, we have ensured that the company representative interviewed is of a position that allows him/her to have specific knowledge on internationalisation. We have assured anonymity and confidentiality of the representatives. The interview was recorded and included multiple probes in the interview protocol follow Huber and Power (1985)’s approach.

The data involved is concerning the explanation of actions and activities between network relationship and the process of international opportunity. As explained by Yin (2003) this data uses a narrative approach. The main focus of this research is to gain insights on how the entrepreneur discovered the international opportunity.

**Findings**

*Effectuation processes at the initial stage of the opportunity discovery*

All the companies in the case studies relied heavily on the effectuation’s actor and their actions when deciding on international opportunity discovery. The valuable information gained from the relations made them establish their business in multiple markets. From the cases we can deduce that the Malaysian SMEs found personal networks to be more crucial at the initial stage of their internationalisation. Subsequently, they followed the rational strategy of improving their capabilities and capacities through collaboration with business partners to ensure the success in exploiting the international opportunity.

From the analysis of the case studies, we found that the founders of these companies extensively relied on the network relationship with stakeholders and potential stakeholders to accelerate the process of international opportunity discovery. The interviewee does not have knowledge on international market. However, they didn’t use a comprehensive or deliberate analysis to make a decision on internationalisation. According to Johansson and Vahlne (1977) the international opportunity is created within the development of international knowledge, which drives the internationalisation. There were two important situations that explain the effectuation logic in these companies. First, the changing market conditions have made the company learn and understand the global business environment before they exploited international opportunities, which this study has pointed out in terms of the entrepreneur knowledge gap and psychic distance. Second, resource scarcity made them look for different entry modes into international markets. However, they relied strongly on people that they knew (personal networks) to support them achieve their internationalisation goals. Below is the result from several entrepreneurs from the cases.

The founder of Company H shared his experiences as the role of stakeholder when he first found an international opportunity in Indonesia.
‘...In Indonesia, I actually spoke to some of my friends there who have a business there...When I worked there I had a good relationship with some of local people there...usually went out for drink and playing badminton...They helped me to give information in marketing (customer taste and preference) and operation sides and that actually made me to set my mind to decide on my idea and Indonesia can be a good market for me...’

If we looked at the Company H, the entrepreneur’s experience clearly shows the importance of unexpected relationships with the local community as a stakeholder, as it helped develop strategies for use to enter the Indonesian market. This local community helped provide information related to customer tastes and preferences, and some operational information that could be used to sense and shape a potential international opportunity.

Similarly, the founder of Company E also emphasized that they engaged with the existing customers, Airclub. The entrepreneur tends to “follow the customer” who goes abroad as highlighted in several articles (Eriksson et al. 2000; Erramilli and Rao 1993; Madsen and Servais 1997). This new strategy shows that the entrepreneur applied effectuation than causation. The founder was quite satisfied with his strategy. He remarked:

‘Our plan was to enter to some countries, but none of us actually had the chance to learn about international markets. When Airclub approached us, the first thing came to my mind was: wow, it is a big company and how I can use it... I had the chance to talk with Mr James Fernando, the CEO of Airclub and allowed us to use our brand in their kiosk machine...’

The interviews with other entrepreneurs have provided further interesting results which support the effectuation approaches as an important concept for the process of international opportunity discovery. For instance, networks with the employees within a company enabled the access to their knowledge and experience that aided the process of discovery of an international opportunity. The founder of Company C explains:

‘My technical person (employee) is a brilliant guy, he went to United States, Dubai and many other countries, see how they work there, learned new things (refers to knowledge)...’

From the above cases, we can understand that most of the entrepreneurs saw the unexpected network relationships as being an important part in their international opportunity discoveries. Even before the internationalisation, they relied on personal networks, which stemmed from commitment and trust, but they also relied on other unexpected relationships from existing customers and employees who engaged in some outside activities that could co-create opportunities. The social relationship with potential partners appears to be important in making
decisions based on the concept in Sarasvathy’s effectuation concept. For instance, the founder of Company D also explained the importance of social networking as a potential stakeholder, who played a key role when he discovered his first international opportunity. The founder from Company D explains:

‘I sat down with my friend in a coffee shop and talked to him few hours just to understand how to run a business in overseas...We shared a lot of things, such as how to sell the product, marketing stuffs, how customer in this country want to meet and so many things.’

**Causation processes at later stage of the internationalisation**

The cross-case findings reveal that some companies have built and developed the relationship with strategic partners. Here, we can say that the entrepreneurs have used a more causation approach than an effectuation one. Entrepreneurs in the case studies, needed to develop and improve their internal resources and capabilities including technology, knowledge and learning. Ushering new technologies and upgrading their knowledge set helped these entrepreneurs in improving their initial exploration and hasten the process of opportunity discovery in international markets, as evidenced by the snippets from the studies.

Company D was developing technical knowledge through its partnerships with Altavista and VetTech, which allowed the company to access its technical information and technologies in more intensive ways in order to support its international activities. The information from partners was shared and assimilated into the company’s international processes, technologies, and products. Company D’s founder explained:

‘...My team worked with Altavista an Australia company on a daily basis to improve our product and solve the technical problems relating to online business...help us to develop search engine...’

Additionally, Company F was also supported by its business networks. At the initial stage, Company F could not handle various issues from its clients and this led the company to seek a business partner to provide a support system. This included technologies and technically proficient manpower. However, they approached a potential partner in a more systematic way, especially factoring in specific needs that the partner can deliver as they did not want to commit with someone that is not ultimately beneficial for them.

‘We actually partnered with a local company called VetTech to help us improve our technical side. Once we knew that we were growing, we immediately went looking for a partner...we try to find a partner who can help us... we want to lead the market; we have a new innovation that no one else has...’
The entrepreneur’s perception towards cultural differences when deciding on international opportunities

The analyses reveal that the case study subjects gradually progressed towards the international market by considering the influence of distance factors especially cultural factors. Both in effectuation and causation processes, the cultural factors tend to be a major variable that drive the development of network relationships. They entered foreign countries similar to their domestic base and, once they acquired better access to knowledge, learning, and experience, they then chose to enter more distant countries. Essentially, they targeted regional opportunities first mainly to avoid the risks and uncertainties that exist in unknown markets. It can be argued that the entrepreneurs’ cultural background and experiences had shaped their own perceptions and judgments of cultural barriers as the main determinants when making a decision with regard to international opportunities. The concept of cultural barriers can be explained through the use of simple illustrations, e.g. a Hindu forbidden from eating beef, a Chinese company only using its local payment gateway to buy a product, or a Halal product for the Muslim customers.

It emerges that cultural factors are a major influence for the entrepreneurs when they seek advice from personal networks. Several entrepreneurs in the cases prefer to have someone from the similar culture in the business. This is due to development of trust that came from their similar religion and cultural practices. In the interviews, the entrepreneurs claim that a strong mutual understanding exists between two individuals who came from similar cultures. Trust acts as a building block that contributes towards the success of the international market entry.

Several entrepreneurs from the cases have explained the cultural bounded partnerships. For instance, entrepreneur D explained that when he decided to enter foreign markets, the first person he consulted with was his close friend from a similar culture where he provided knowledge related to the product acceptance and development in the international market.

‘... I prefer to talk to someone with my own culture. That’s because I feel more comfortable when talking to him...’

Similarly, the entrepreneur from Company A also said that he relied and trust people who came from a similar culture more than those from other cultural backgrounds. He further explained that trust is a major concern for him because he claimed that some of them have tried to copy his idea.

“ It is not that I don’t trust everyone but in business you should not do that. Meaning that you cannot trust everyone ... So, from that day I decided to not trust other people especially from other culture in business but for sure if want to hang out as a friend I don’t see anything”
Discussion and Contributions

This paper examines the process of international opportunity discovery under the lens of the effectuation theory, which has received limited attention in this context. Further, the paper attempts to bridge the gap between the theories of entrepreneurship and internationalisation. In our research, the findings explain the “who I know” aspect of entrepreneurial means to support the process of international opportunity discovery at the initial stage of internationalisation. This is consistent with the Schweizer et al (2011) who support internationalisation from the concept of effectuation. The effectuation was identified at the entrepreneurial level and this research highlights how the entrepreneur applied the effectuation approach from their network discover international opportunities. Thus, the international opportunity discovery was created by who (and how) the entrepreneur connected, instead of a strategic plan on predefined internationalisation goals.

In this study, the network was formed on the basis of effectuation concepts and directly influenced the process of opportunity discovery by providing strategic information and determining which foreign market were viable entry choices. In line with the theory of effectuation, the entrepreneurs increased their opportunities in the international market by developing their means. This is similar to what Schweizer et al (2011) claimed, that companies acquire new knowledge through their existing relationships, which eventually help to support their entry into international market. The market research and planning seem less effective in effectuation and boost their international opportunity discovery through their knowledge from effectuation-based networks (Harms and Schiele, 2012). However, the causation-based networks are more important at the later stage of the internationalisation, which allows the entrepreneur to increase their resources and capabilities and focus more on sustainability.

This study provides several contributions that can increase the internationalisation knowledge through networks concept. First, this study focuses on effectuation-based networks beyond the existing models such as Uppsala Model to understand the impact of entrepreneurship from the individual perspective. Hence, it directly contributes to the International Entrepreneurship (IE) by explaining how the effectuation theory developed by Sarasvathy works in internationalisation (Schweizer et al. 2010; Harms and Schiele 2012; Sarasvathy et al. 2014). Second, this study is among the first that provides empirical evidence based in Malaysia. Additionally, we address the impact of network relationship on internationalisation. Furthermore, to our knowledge, this is amongst the first studies that provide a narrower integration of how network relationships function and their relevance in the process of opportunity discovery within the field of IE. Finally, our findings elaborate on the role of commitments, trust and cultural factors in determining international opportunity discovery.
Limitation and future directions

The current study has several limitations and opportunities for future directions. The main limitation is this study only focused on one particular country to see how the internationalisation occurs in developing markets. The data only from Malaysia prevented us from investigating the internationalisation in other regional countries which we identified as a limitation for this study. More similar studies from other regional countries such as China and India will help to adding new knowledge to the internationalisation. We do not empirically stress about some key variables which might be important for some countries at regional level. It is highly recommended the future studies to focus on some regional countries.

The internationalisation process and its antecedents are a global phenomenon; thus, it is useful to understand the concept from both developed and developing markets. Although understanding from developing markets is highly useful in enriching our study, it is crucial to compare and contrast the internationalisation from both markets to increase the richness in finding.

Our focus is a narrow sample of small companies that are in high-technology industries based in the Malaysia. Although our study does represent important industry in Malaysia, the issue of generalizability remains. Further investigation from various level of industries are needed especially high-tech vs non-high-tech is needed.

Conclusion

In conclusion, our study explains the key antecedents that remains a key catalyst that leading the process of internationalisation. For this study, these antecedents discussed under the effectuation theoretical lens. For SMEs pursuing internationalisation, personal network can be identified as crucial to support gaining the initial information about the internationalisation. The founders extensively relied on their relationship with stakeholders and potential stakeholders to discover and exploit the international opportunities. Further, the effects on new venture internationalization of international exposure from informal network relationships from similar culture differ from the effects of international exposure from formal relationships. Our study offers important insights into how the effectuation theory is work from the context of Malaysian SMEs. The founders from Malaysia followed effectuation approach at the initial stage of the internationalisation and eventually move to causation approach.
REFERENCES


