The Role of Technological Capabilities: A Study of Malaysian High-Tech Born Global Companies’ Early Internationalization

Sathiswaran Uthamaputhran, Solomon Gbene Zaato, Noor Raihani Zainol, Nur Ain Ayunni Sabri, and Nadzirah bt Mohd Said

Faculty of Entrepreneurship and Business, Universiti Malaysia Kelantan, 16100 Kota Bharu, Kelantan, Malaysia
sathiswaranw@gmail.com

Abstract. Technological capabilities are important because they play crucial role to born global and successful internationalization of businesses in terms of their innovativeness, creation of business links, technological learning, and the attainment of international experience. This paper aims to enhance the understanding of high-tech born global companies in Malaysia by looking at the role of technological capabilities among high-tech born global companies’ early internationalization in Malaysia. Although the innovation and technological capabilities have been the subject of inquiry by prior studies, very little research however have been done into the role of technological capabilities. Multiple case analysis was used to explore the role of technological capabilities towards the early internationalization of high-tech born global companies in Malaysia. The results of the study show that all three technical capabilities: technical knowledge, supporting technological tools and technology partners have a positive influence on early internationalization in Malaysia. However, technical knowledge and technological tools seems more important for these companies in Malaysia to expand their businesses into the international market. This study contributes to the field in several ways. First, it provides empirical research on internationalization by looking at the early internationalization that have been used in Malaysia and secondly, the study provides a model that explains how technological capabilities are used under the resource-based view theoretical lens.

Keywords: Internationalization · Technological capabilities · Technical knowledge · Technological tools

1 Introduction

High technology born global companies are those that start and run a business in the technology industry and develop new or radical products to create value propositions. They are often engaged with high-level research and development (R&D) activities, knowledge sharing exercise and working with a high level of technical people under one roof. Resources such as managerial capabilities alone are crucial for business but not
sufficient to expand the business into the international market. Under the resource-based view (RBV) theoretical lens, this study examines the role of supporting technological capabilities combining specific technical knowledge, technological tools and technical partnership in determining born global internationalization process especially on how these capabilities act as early stage resources of their internationalization.

The exploration of high-tech born global has been there for many years as indicated by McDougall (1989) publication on born global companies. Various aspects have been extensively found from various internationalization studies, particularly in the US and Europe to enhance the understanding of how internationalization has evolved (e.g. Knight and Cavusgil 2004; Pangarkar 2008; Kyläheiko et al. 2011; Paul and Sánchez-Morcilio 2019). In this study we address a question that seems to be a major concern for many scholars and practitioners; to what extent technological capabilities support the early internationalization.

Studies related to the reasons or factors that support internationalization process have been a major interest for many entrepreneurship scholars since the 2000s (e.g. Andersson 2002; Oviatt and McDougall 2005). However, what makes this study different from others is that not many studies showed the link between technological capabilities and internationalization from the Malaysian perspective. This has created the necessity to have a model that can give a holistic view of internationalization from different parts of the world. A better understanding of key factors that support the early stage of the internationalization process of a company capable of addressing the niche area and eventually create a new focus for many entrepreneurs in the market. Unlike external forces, studies related to internal forces such as technologies and innovation is still lacking in many ways and has made the underlying theoretical models look weak and incomplete. The existing model such as resources-based view (RBV) theory which often explains the valuable, rare, inimitable and substitutable resources and capabilities of a firm does not capture the technologies’ perspective in a different part of the world which still remains unexplored. As per our knowledge, the role of supporting technological capabilities has been overlooked in the past, probably because of its nature as an intangible asset and does not directly influence organization growth and profit. In this regard, our study makes three contributions to the existing literature on high-tech born global companies and internationalization.

First, our study contributes to the specialized literature by investigating the key resources that are associated with the early internationalization of high-tech born global in Malaysia mainly by identifying organizational capabilities such as technical knowledge, technological tools and technical collaboration or partnership. Second, the unit of analysis used in this study is from Malaysia which is a rare sample and helps to understand the companies from another part of the world. We will take a broader view that incorporates high-tech born global companies from Malaysia to see how they create efficiency in their workplace to support internationalization through the technological capabilities which will help Malaysia companies to be more innovative, establish more business partners, technological learning, psyche distance and also gain international experience. Third, it contributes to the policies associated with internationalization vital to understand the role of technological capabilities.
The remainder of the work structured as follows. First, this study presents a review of literature that explains the resources-based view, internationalization and technological capabilities and proposed a theory to support our arguments in second and third. The qualitative methodology and sample will be presented in the fourth section. The case will be presented in the fifth section. The final section includes the conclusions, limitations and future studies will be presented.

2 Literature Review

2.1 Resource Base View

This study will discuss the technological capabilities under the resources-based view (RBV) theoretical lens (Barney 1991; Wernerfelt 1984). This model helps to develop a more conceptually rigorous model to explain why technological capabilities matter for early internationalization of high-tech born global. Early studies on key resources support the argument that some companies have firm-specific resources that make them create advantages and be competitive in the market. A resource is a unique tool which considered as anything that can be thoughts as a strength and weakness of the company. Scholars that used the RBV model argued that the resources in the company can create competitive advantages due to its characteristics that are valuable, rare, imperfectly imitable and imperfectly substitutable (Barney 1991; Conner 1991; Peteraf 1993).

Resources based view theory has been a major research paradigm that helps the scholars to identify the key factors that support the process of internationalization and opportunity discovery (Hitt et al. 2006; Tseng et al. 2007). Several scholars have identified several important resources in their research. For instance, to access the international market, Coviello and Munro (1997) highlighted two important resources called network relationship and innovation. These two resources will make the company to quickly enter the international market. Similarly, Uthamaputhran et al. (2019) explained that hiring talented people with specific knowledge in the company can assist the company to be more competitive. Tseng et al. (2007) have investigated the importance of firm resources which can influence the internationalization process and proposing a framework based on specific knowledge and property-based resources. In short, resources in the company seems very crucial and driving forces to support business strategies. Consistent with other scholars who defined a firm as a “collection of physical and human resources”, this study will take a further step to identify the technology capabilities as a major enabler that supports the process of internationalization in high-tech born global.

In this study, the focus is technological capabilities as key resources which is an important unique asset for small companies. These technological capabilities set as a bridge between the home and host country and overcome the liability of foreignness. Many studies have shown great support for the use of technological capabilities such as specific technology tools and technical knowledge. According to Autio et al. (2000) in their study of 61 high-tech new ventures in the United States internationalization occurs by offering a different product in multiple countries and increase their product’s features. This is sole because of their technologies and expertise in their companies. Knight and Cavusgil (2004) also emphasized early internationalization by emphasizing the development of innovation activities and technologies. He argued that innovation
and technological capabilities seem crucial for product acceptance globally. We believe born global companies’ nature lacking financial power, human capital and other tangible resources allow them to take a different approach to make the presence in the international market.

2.2 Technological Capabilities and Internationalization of Born Global Companies

According to Calof and Beamish (1995, p. 16) internationalization is the process of adapting the firm’s operation through its strategy, structure, and other related resources to the international market. Born global company’s development and survival in the international market depends on its strategic resources. Some companies decide to enter the international market in an incremental way which often reflects the stage model developed by Johanson and Vahlne in 1977. Meanwhile, some companies such as born globals and international new ventures (INV) acquire unique resources to reach the international market quickly. Since internationalization is a growth strategy, the entrepreneur needs to find a key strategy that allows the company to eliminate the liability of foreignness and eliminate the international barrier between the countries. This can only be done with the support of innovation activities. Innovation is a process that helps to unlock the potential opportunities. It allows the entrepreneur to modify and change the business model to achieve better outcomes.

Several scholars explained the link between technological capabilities and internationalization in the company. For instance, Paul et al. (2017) argued that technical knowledge can create a competitive advantage for the product and leading to the process of internationalization. Introducing a better product in terms of design and features quicker the company presence in the international market. Geldress-Weiss and Carrasco-Roa (2016) argue that to compete in the international market, the company must be able to be innovative and creative in creating new methods and products. Autio et al. (2000) claim that companies that engage with the “cutting-edge” technology have the chance to widen their international knowledge and increase their performance. Some other scholars in internationalization also claimed that innovation as a key driver that makes the business operate faster and in a more efficient way (Geldress-Weiss and Carrasco-Roa 2016; Leonidou et al. 2007; Pla-Barber and Alegre 2007). For instance, Pla-Barber and Alegre (2007) stress the important role of innovation in foreign markets, discussing the possibility that a single market may not support firms’ innovative activities. Hence, internationalization may act as a destination where innovative firms can gain economic advantages. Since many studies have highlighted the role of technologies in the process of internationalization, this study will investigate the elements in technological capabilities only which we believe is a part of innovation and need further investigation.

In most of the studies, technologies commonly defined based on their intensity and success in the company and industry in which they operate. It functions as a key resource that supports to create new value. Both internal and external factors are equally important and need to be included to see the success of the company. However, this study only looked at internal factors such as tacit knowledge, technical partners and advance technologies as technological capabilities that leading the process of internationalization. The combination of various technological capabilities allows them to venture into
other markets quickly (Brinkman and Hoegl 2011; Wu 2007). For instance, Sears (2017) explains the role of technological capabilities through the technological acquisition of two companies. The main focus is the development of new technical knowledge through recombining the resources and capabilities of the target and the acquirer. A combination of several resources and capabilities between companies helps the company to create value and lead them to enter the international market quickly. In this study, we are trying to look at the supporting technological capabilities in three main areas namely technical knowledge, supporting technologies and technical partnership.

2.3 Technical Knowledge

The use of knowledge in the process of internationalization has been acknowledged as a leading area of arguments for many international entrepreneurship scholars. The old internationalization model which was developed by Johanson and Vahlne in 1990 is the earliest model that explained the knowledge as an important variable. The theory depicts the internationalization process as a continuous interaction between “state and change” variable. Market commitment and market knowledge have a strong influence on entrepreneur decisions in internationalization (Johanson and Vahlne 1977).

Several scholars have shown support for the importance of specific knowledge in internationalization. For instance, Bai et al. (2017) claimed that technological knowledge contributes to the development of early internationalization by improving its ability to perceive and detect international opportunities. Drori et al. (2009) and Filatotchev et al. (2009) support the technical knowledge aspect as vital for early internationalization. They provide empirical evidence on engineers and scientists who worked in the labs around the world and how their experience-based knowledge was influenced their international opportunities. High-technology markets are dynamic and characterized by innovation and ongoing changes in product and process technology. It requires a certain level of knowledge and experience to deal with highly competitive rivalries across the countries. It is important to know that not only focus on the marketing and operation of the company but also developing and integrating the idea that can help to produce new products in international markets. Entrepreneurs are often targeting new products that have potential in various markets (Dai and Liu 2009) and able to engage in original technology and product development (Lin et al. 2014; Lin 2010; Liu and Almor 2016).

2.4 Technological Tools

The number of studies related to technological tools and international performance increasing recently due to recent trends of small and big companies relies on technologies as the main driver supports their business. The importance of technological tools has been clearly shown right now when the whole world is facing COVID-19, a deadly virus that affects the business. Supporting technological tools play a crucial role in identifying the opportunities and setting up marketing strategies (Camisón-Haba et al. 2019; Sears 2017; Amin et al. 2015). It helps the company to facilitate the innovation process and taking advantage of the market by creating a competitive advantage. It has become a key factor in increasing the born global probability of exporting. The technological tool is known as technologies that directly and indirectly engaging in business processes in
the company (Hall et al. 2001). Companies with an innovative approach in character will often get the chance to enter the international market quickly. Technologies such as cloud technology, conference call tool and Artificial intelligence help to mitigate the internationalization barriers and create a bridge between host and home country.

A study by Hosseini et al. (2019) argued that supporting technologies allow the entrepreneur to acquire information from other countries. It helped them to develop a product according to what customer needs. The technologies assist the entrepreneur to develop several effective solutions that can reduce the barriers. Previous studies on internationalization does not explain how born global creates an optimal sustainable advantage through resources. Thus, it is important to investigate how the company uses key resources such as technologies and knowledge to support the internationalization.

2.5 Technical Partnership

In recent years, network theory appears as a complement to the traditional theories where it has been included in the international entrepreneurship perspective. It has received widespread attention from internationalization scholars as a key driver that supports the BGs’ internationalization (Coviello and Munro 1997; Oehme and Bort 2015). By making a technical partnership through collaboration, born global companies can benefit from having information and knowledge, additional networks, machinery, and financial aids (Musteen et al. 2010). We must clearly understand the context in which the partnership operates and its relationship (Madsen and Servais 1997). Partners’ experience in various countries become a major addition for born global companies to get international contacts and detect global opportunities.

Due to limited resources and capabilities, most of the small companies like born global heavily rely on partner’s technologies and contacts. Thus, the technical partnership could be a potential that leads to the achievement of international activities. It plays a crucial role in bringing new technologies and technical knowledge to support data-rich society supporting information sharing, collaboration and collective actions as mentioned by Costa et al. in 2016. From the network embeddedness perspective, a firm that is embedded in a web of relationships has the option of using this web of relationships to strengthen and develop current relationships, to look for new business partners or to dissolve existing business relationships (Törnroos 2004).

The network embeddedness approach looks beyond the single buyer-seller dyad to overall business relationships as connected dyads between actors embedded in webs of relationships. These actors interact with each other and have a degree of dependency on each other to support international business.

2.6 Research Model

Based on our review of studies related to internationalization and international entrepreneurship we propose a model in which all three technological capabilities are related and might have a strong connection with early internationalization of born global companies known as: 1) Technical knowledge, as an important knowledge, developed through individual and collaborative learning; 2) technological tools, that is tools such as cloud technology, conference call tool that enhance the knowledge and information
within the company; 3) technical partnership, that is a collaboration of two companies that can achieve the result together. The model we have created is basically what has been discussed in the literature and is extensively used in the internationalization field (Fig. 1).

![Research framework](image)

**Fig. 1.** Research framework

### 3 Research Methodology

Following suggestions from Eisenhardt (1989) and Yin (1994), this study chooses multiple case study method due to the exploratory nature of the research questions. According to them, the multiple case study helps the researcher to study similar patterns and theory between cases. Also, this method assists the researcher to explain the significance and cause-and-effect relationships of the examined phenomena (Yin 1994). The sample cases were selected based on the following criteria: a) the entrepreneur must be a Muslim, b) 25% profit must come from international business, c) is doing business in high-tech born global companies, and d) have a minimum of 20 employees and above. This study concentrated on Muslim entrepreneurs since Malaysia is predominantly an Islamic country with over 61% of Muslims. Furthermore, Malaysia is a multiracial country, where some of the businesses are less structured with an emerging market though it has the potential of going global.

From the snowballing sampling technique, eight (8) high-tech born global companies were identified who have all gave their commitment and willingness to share their internationalization experience. The main reason for choosing the high-tech born global is due to a smaller number of studies conducted for born global companies in Malaysia. First, Malaysia is a small and open economy with limited opportunities in the domestic market with variations in multiracial culture, language and business practices from other countries that makes this study very interesting to research. The results of this study provide a great challenge to the existing theories and models which are commonly used
in many pieces of research. The company’s reliance on specific resources and a large psychic distance between the two countries is a great area to research. Lu and Beamish 2001 suggest that the psychic distance between countries can make the company more entrepreneurial. Also, focusing on one single sector helps to support existing knowledge to the high-tech industry and helps to reduce the potential for confusing results (Miles and Huberman 1994; Leonard-Barton 1990).

The unit of analysis for this study are entrepreneurs in high-tech born global where eight (8) entrepreneurs were interviewed in Kuala Lumpur, the capital city of Malaysia. All of them had in-depth knowledge related to the internationalization process of the high-tech born global especially on their resources and entries to other countries. These professions correspond to those of informants that are commonly used in the field of international entrepreneurship (Coviello and Jones 2004). A face-to-face interview of 8 respondents was conducted using semi-structured interview questions which lasted between 60 to 90 min. This makes it possible asking about general questions followed by more detail questions (Yin 1994). The study used 8 respondents on the premise that it will help gain data that is considered sufficient enough to cover the breadth, depth and saliency of data necessary for reliable analysis and reporting (Curtis et al. 2000; Lincoln and Guba 1985) and to enable new insights and rich understandings (Patton 2015). On the number of participants to be chosen for an interview, Saunders and Townsend (2016) argued that it depends on several factors such as the purpose of the study as well as the epistemological, methodological homogeneous/heterogeneous groups, ethnographic and other practical issues that may determine the exact number of participants to involve in an interview.

During the interview, the interviewees were asked to explain their business information and later more detailed questions were asked about how they entered the first international market. The questions were divided into themes, and more detailed questions were asked. For example, the impact of actors for the initial international entry, what are the key resources used to support international activities, the importance of those resources for the company’s products and the impact of knowledge for international activities. Most of the themes in this study were based on guidelines provided by Yin (1994), and we try to make questions as non-leading as possible. The interviews were recorded in Bahasa Malaysia and transcribed manually. A second listening was conducted to ensure correspondence between the recorded and transcribed data. Complete case reports were sent back to the persons interviewed to ensure the validity and authenticity of the collected data. We also made field notes. For data triangulation and verification of the initial conclusions (Miles and Huberman 1994; Leonard-Barton 1990). All cases were compared and identified the pattern between cases and categorized under common themes. This helped to organize and summarise the collected data.

4 Results

The study first captured the demographic data of the respondents as, four (4) male and 4 female each with 2 of them within the age group of 30 to 45 years, 3 of them in the age group of 45 to 50 years, while 2 of them were within the age group of 50 or more years. Out of the number of respondents, 5 of them had their first degree from Australia and
Britain, which might be a precursor for going into internationalisation and boost their performance, while the other 3 interviewees had secondary education as their highest level of education all within Kuala Lumpur, the capital city of Malaysia. The remaining part of the results is presented case by case is under the following subheadings.

The cases illustrate that high-tech born global companies in Malaysia used supporting technological capabilities to support them in the international market. Their lack of access to certain resources made them rely on some unique capabilities such as technical partners and technologies that are hard to find elsewhere. These capabilities are inextricably linked and interrelated with the process of internationalization and opportunity discovery. They played an important role in the international expansion of the high-tech born global in Malaysia in other countries.

The cases on technical knowledge show that the early stages of the internationalization process of Malaysian born global companies very much on the entrepreneurial process look much the same as the founding process. There is a lack of orderly sequential processes or ‘stages’ of discovery, evaluation, and exploitation, however, they are inextricably linked and interrelated- a ‘complex, chaotic’ process (Aldrich and Ruef 2006). It seems that Malaysian born-global companies relied strongly on “technical knowledge” and “technological tool” to support early internationalization.

4.1 Technical Knowledge

Based on the views of the interviewees, the process of internationalization in Malaysian companies at the beginning of the business starts with bringing in talented people from various places. According to some of the interviewees, the rapidly growing environment requires people who can bring their companies to the next level. These entrepreneurs believed that recruiting technical people with a high level of “technical knowledge” can help the company to lower its cost and add new value by introducing new technologies. For instance, the entrepreneur from Company C said that when they want to do project planning which is considered as a roadmap these technical people are the key. They involved in various decision-making activities in estimating the budget, scheduling, and coordination of the day to day activities. He further explained that failure to do good project planning will cause him losing of international clients.

Likewise, the entrepreneurs from Company C and F respectively said with the technical knowledge such as the ability to develop mobile apps and digital marketing, the company was able to get into the global market such as Indonesia and Thailand. With the introduction of their mobile apps, it has helped their company to push its market to other regional countries. In a nutshell, the technical knowledge in the born global helps the entrepreneurs to transform their company into digitalization with the introduction of new business models. For instance, Entrepreneur C said:

“People in my company helped me to develop mobile apps. Most of the transactions from overseas are through mobile applications…we need people who can do that and connect it with daily activities…”.
Entrepreneur F said:

“…They helped us in marketing activities specially to do email customers, promote the new products and so on…”.

To maintain consistency, the focus was on technical knowledge and its value-adding properties as they are related to operations, an activity and procurement domain common to many business organizations and one that has experienced major upheavals in technology. It should be noted that the relevance of technical knowledge is not limited to this functional activity in a firm. Firms may develop superior knowledge and expertise in applying and managing technology that directly impacts order processing, logistics, customer needs assessment, etc. It is a foundation for born global to create a competitive advantage.

4.2 Technical Tools

Next is the use of various supporting technologies to support the business processes within the company. For instance, the entrepreneur from Company B said:

“…When we started our business, cloud technology was already there in the market. We brought in cloud technology first to keep our records…my employees can access it for their work. It’s easy you know, to keep track and to develop a new product. We use it to understand what our customers like and we customize our products according to their taste…easy with cloud…”.

The adoption of new technologies in the company has significantly supported the process of early internationalization especially in getting information and knowledge about other markets. It is critical in sustaining a competitive advantage in the international market. For instance, social media has changed the way the company interact with customers. Big data has turned out to be a new data-driven revenue model that supports the born globals to generate more profit with new ideas. The entrepreneur from Company G said:

“…We have used computer software to share files and the same software as a communication tool to let people interact within a company…share information, ideas and discuss their issues in this platform…We first assume that doing business in other countries will be very difficult… with this free application, we found easy for us to interact with people from different countries and speaking other languages…”.

Some entrepreneurs insist that they used some free software to enhance their efficiency. For instance, entrepreneur E stated that he used JIRA software to support his project management. He said:

“We used Jira to define our workflow, manage daily tasks and track our project done by our team. Before we used this application, it was very difficult to track
it because we have so many projects conducted concurrently but with this application, we managed to track ongoing projects, track user work-flows and set a timeline for the project...”.

The finding shows that the use of supporting technologies such as online applications helped the born global companies to overcome their international barrier and support the internationalization process. A latecomer such as Malaysia compared to United Kingdom and other developed countries must advance in technologies and innovation to benefit the international market opportunities especially in minimize the economic gap between themselves and other developed nations. One way to do it is by acquiring supporting technologies that can bridge the economic gap. For instance, a lack of understanding of any other language other than Malaysian and network relationships is no more a big issue for them with the support of these technologies. For these entrepreneurs, the use of technologies has become an important asset especially in improving their business efficiency and reduce laytime in the office.

4.3 Technical Partnership

For this study, we have also observed that to make Malaysia companies sustainable in the international market, they have built a network relationship strategically with local technology companies to continue getting resources for their companies. For example, the entrepreneur from Company A has made a personal relationship with a friend in India.

This relationship has helped him to develop marketing activities especially in identifying the local’s demographic information such as income level, gender, etc. He said, this relationship also allowed them to gain information related to the local market and ease them to develop the product needed to the end customer. It helped the company to overcome the liability of foreignness and mitigate the risk of entering the unknown countries to do business.

On the other hand, Entrepreneur B focuses on some partnerships with people they knew to sell directly to the international market. The entrepreneur’s experience through his education has made him develop some close relationships with people he knew in the international market. The entrepreneur said

“... we shipped directly there...and my friends in other countries do the rest...that’s why we need to have a close relationship...using local people there gives me a huge advantage to enter some important markets...our main idea does not just rely on an export which most of our competitors are doing but also selling directly to customers there through these people...” Finally,

Entrepreneur A said:

“...In Malaysia, people’s networking is very interesting because no matter what we always depend on each other regardless of race, culture, and religion...Since my business is halal oriented and operates in a niche industry, I frequently engage with close friends from my culture...some of them shared distributor contacts which they knew in other countries and that helped us to go faster with our product selling...”.
5 Discussion

This article contributes important insights into 1) the key factors that support early internationalization and 2) understand the role of technological capabilities in supporting early internationalization. In detail, this study investigates to what extent the high-tech born global companies in Malaysia used technological capabilities such as technical knowledge, technological tools, and technical partnership to support early internationalization. The empirical analysis from 8 entrepreneurs from the high-tech industry in Malaysia shows that born global companies likely to do international activities. However, it depends on their people inside the company, knowing that they have developed new technological tools.

The concept of innovation, the role of technological capabilities and entrepreneurial acts emerged strongly from the entrepreneurs’ interviews. The finding is like what other scholars argued. Saridakis et al. (2019) argued technological capabilities such as knowledge and technology tools as a necessary condition for success in starting international strategies and running entrepreneurial ventures. Chatterjee (2014) discussed the importance of entrepreneurial strategy and the involvement of supporting technologies in responding to the difficult and adverse conditions in the international market. Rana and Elo (2017) suggest that many emerging market companies that enter other markets building their inherent resources and first-specific resources which create a competitive advantage for them. These entrepreneurs in the interviews said that they created their competitive advantages through their technical and technological capabilities that offer them a new market to do the selling. For instance, the entrepreneur from Company B who stated technological capabilities as very important to capture people from various countries. The world has become borderless and it is important to understand various technological support that can make the company sell products to multiple countries.

The entrepreneurs in the cases believe that by advancing the technological capabilities, they can expand their business to other countries, and it does not require a huge investment. For instance, Company C stated that they sell their products from Malaysia to people in the United States through an online platform. They use people who have a technical background to support their operation and after-sales service. According to them, a system created to support good customer relationships will help them to sustain in the foreign market longer and help to support their internationalization. This has been previously explained by Parker in 2006 who found that entrepreneurs give much more weight to past knowledge gained than to new information when forming their expansion. Also, in a study of the Canadian software industry, Reuber and Fischer (1997) showed that SME management teams with more experiential knowledge especially technical use more foreign strategic partners and internationalize faster than firms with less internationally experienced management teams. Technical knowledge is essential for small companies in developing the value of a business relationship (Eriksson et al. 1997). It is important for the SME’s internationalization because firms tend to trust the knowledge that they have gained through accumulated experience. This type of knowledge is rich in detail and contains both codified and noncodified pieces of knowledge as well as cognitive and affective pieces of knowledge.

Similarly, the use of some technological tools facilitates integrated global operations. The most successful business operation these days is through the internet and with the
use of certain technologies such as JIRA, cloud technology, and mobile apps, the process of selling becomes faster efficient. It enables the entrepreneur in small companies like Malaysia to create a bridge between countries. It allows the company to create its strategies by allowing the transfer of knowledge and information to support internationalization. These technologies can help the entrepreneur to create a new market with unique global marketing strategies.

We argued that access to the international market through a network and other resources positively impacts the development and sustainability of early internationalization. However, it seems not to influence the early internationalization of high-tech born global in Malaysia. This is due to the local culture in Malaysia where small companies mostly relied on personal networking instead of business networking. A personal network is more unstructured and there is no contractual agreement between both parties. The information embedded in the network, together with the trust between network ensuring commitments and increase their capabilities to directly engage in the international market. One may expect the links to the network members in a personal network to give reliable information because of the embedded nature of the network relations. Granovetter (1985) observes that close-knit communities of traders “generate clearly defined standards of behavior easily policed by the quick spread of information about instances of malfeasance” (p. 492). Therefore, it seems critical for exporters to get an inroad into networks where they can access trusted information and translate that information into strategic action (Uthamaputhran 2018).

5.1 Managerial and Policy Implication

This study contributes to the internationalization and international entrepreneurship literature in several ways. First, this study extends the internationalization literature by looking at the phenomena from Malaysia and investigating the role of supporting technological capabilities on high-tech born global companies. Although this study might be like previous literature on internationalization, results still provide differences especially in the degree of using the supporting technological capabilities. For instance, the entrepreneurs in the case use free software, technical people, and the people they know socially more in supporting the early internationalization. Our result implies the importance of technical knowledge, technologies, and technical partnership in determining the level of internationalization achieved by born global companies. Second, our research sheds light on international entrepreneurship literature by recognizing the key resources that accelerate the process of internationalization in Malaysia. Many scholars highlighted the role of resources in developing international activities. For instance, Johanson and Vahlne (2009) have incorporated the increasing role of networks towards company internationalization.

Andersson (2011) suggests that increased reliance on resources can increase the chances to internationalize. Our study represents a meaningful first endeavor in understanding the role of supporting technological capabilities for born global companies in Malaysia for early internationalization. Furthermore, our research has practical implications as well. For practitioners, we show that strategic resources such as technical knowledge, supporting tools and technical networks are vital for firms because, ventures
that want to internationalize will have the chance to go abroad by focusing on their technological resources. It helps them to create a competitive advantage and accelerate the process of internationalization. For policymakers, our study notes the benefits of having firm-specific resources such as technological advancement for international activities.

5.2 Limitation and Future studies

The present study has several limitations and opportunities for future research. The main limitation is that the adoption of a purposive sample that prevents us from investigating deeper of the use of technological elements in the company. We believe that getting a different level of sample from various respondents within the company can help to enrich our understanding of internationalization in a specific context. Also, since we only focused on born global companies, we cannot understand the pattern in different types of companies such as multinational companies (MNC) or micro-level companies. We believe that the resources might be different in these companies. In the future, scholars need to pay more attention to more advance stages of internationalization or even de-internationalization. Understanding this pattern helps to create a model that explains the process of internationalization based in developing countries (e.g. Graves and Thomas 2008). Also, to date, we find studies related to entrepreneurial behavior and the formation of an entrepreneur’s psychological proclivity still lacking. We need more studies that can explain how the entrepreneur uses the cognitive process to identify international opportunities especially using their international skills, experience, and education.

Finally, although we have shed light on the connection between technological capabilities and internationalization yet still not many studies explain how the existing resources create new resources to support internationalization. For instance, how the existing network relationship in the company assists to create a new network and lead to the process of internationalization. We believe, there is much more work that can be done in identifying international opportunities.

Acknowledgement. This study was funded by Research Management Innovation Center (RMIC), Universiti Malaysia Kelantan with allocation RM9000.00.

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