



Journal of Business & Industrial Marketing

The antecedents and the outcomes of foreign market knowledge accumulation - the dynamic managerial capability perspective

Md Imtiaz Mostafiz, Murali Sambasivan, See Kwong Goh,

Article information:

To cite this document:

Md Imtiaz Mostafiz, Murali Sambasivan, See Kwong Goh, (2019) "The antecedents and the outcomes of foreign market knowledge accumulation – the dynamic managerial capability perspective", Journal of Business & Industrial Marketing, <https://doi.org/10.1108/JBIM-09-2018-0263>

Permanent link to this document:

<https://doi.org/10.1108/JBIM-09-2018-0263>

Downloaded on: 03 June 2019, At: 00:51 (PT)

References: this document contains references to 87 other documents.

To copy this document: permissions@emeraldinsight.com



Access to this document was granted through an Emerald subscription provided by emerald-srm:226873 []

For Authors

If you would like to write for this, or any other Emerald publication, then please use our Emerald for Authors service information about how to choose which publication to write for and submission guidelines are available for all. Please visit www.emeraldinsight.com/authors for more information.

About Emerald www.emeraldinsight.com

Emerald is a global publisher linking research and practice to the benefit of society. The company manages a portfolio of more than 290 journals and over 2,350 books and book series volumes, as well as providing an extensive range of online products and additional customer resources and services.

Emerald is both COUNTER 4 and TRANSFER compliant. The organization is a partner of the Committee on Publication Ethics (COPE) and also works with Portico and the LOCKSS initiative for digital archive preservation.

*Related content and download information correct at time of download.

The antecedents and the outcomes of foreign market knowledge accumulation – the dynamic managerial capability perspective

Md Imtiaz Mostafiz

Faculty of Business and Law, Taylor's University, Subang Jaya, Malaysia and Sheffield Business School, Sheffield Hallam University, Sheffield, UK

Murali Sambasivan

Faculty of Business and Law, Taylor's University, Subang Jaya, Malaysia and Thiagarajar School of Management, Madurai, India, and

See Kwong Goh

Faculty of Business and Law, Taylor's University, Subang Jaya, Malaysia

Abstract

Purpose – The purpose of this study is to establish the antecedents and the outcomes of foreign market knowledge (FMK) accumulation in the context of emerging economies. The antecedent is dynamic managerial capability (DMC) with managerial human capital, social capital and cognition as its dimensions. The outcomes are financial and non-financial performances. This study bridges the gap by linking individual-level capability and FMK accumulation to achieve performance.

Design/methodology/approach – This study has utilized a survey-based approach to collect data. The sample consists of 365 export manufacturing firms operating in the apparel industry of Bangladesh. Structural equation modeling analysis has been used to test the hypothesized model.

Findings – The direct effects of managerial social capital and managerial cognition on FMK accumulation are positively significant. The results also show that FMK accumulation fully mediates the relationship between: managerial social capital and financial and non-financial performances and managerial cognition and financial and non-financial performances.

Practical implications – Export manufacturing entrepreneurs in the low-tech industry should focus more on the network development and leverage on their cognitive mentality as a global mindset to succeed in international markets. These two factors are critical to accumulate foreign knowledge.

Originality/value – This study provides empirical evidence on dynamic managerial capability and FMK accumulation of export manufacturing firms in low-tech emerging economies context. Out of the three building blocks of DMC, this study has found that managerial social capital and managerial cognition of entrepreneurs are crucial as antecedents to FMK accumulation and firm performance.

Keywords Dynamic managerial capability, Foreign market knowledge

Paper type Research paper

Introduction

The importance of foreign knowledge in international industrial business is immense. It is considered as the most crucial intangible resource of the firm. Starting from the inception and continuing the business either in the domestic or international markets, a culture of accumulating knowledge can deliver a significant competitive advantage to the firm. The knowledge base of the firm is developed from a strategic action of discovering, collating and sharing culture. Knowledge can be generated from anywhere within the organization or outside the organization. In most cases, the top-level managers usually make use of valuable knowledge through strategic actions to generate economic value, such as in B2B marketing activities (Todd *et al.*, 2014). Accumulating foreign market knowledge

(FMK) is considered as one of the critical success factors and a continuous process for firms that internationalize. Drawing upon the knowledge-based view, knowledge is the most crucial intangible resource to achieve competitive advantage (Grant, 1996). Due to the changes in international policies, technological advancement, competitive advantage, agency's influences and clients' preference, the entrepreneurs must keep themselves up to date through foreign knowledge to sustain in the international markets. This critical action of accumulating FMK requires entrepreneurs with a set of dynamic capabilities to respond to the saturated business environment.

Dynamic managerial capability (DMC) is the capability of top managers to build, integrate and reconfigure organizational resources and competencies (Adner and Helfat, 2003). DMC is directly related to entrepreneurship and provides an edge for entrepreneurs to exploit and objectify opportunities (Teece, 2012). Two critical aspects are notable of DMC:

The current issue and full text archive of this journal is available on Emerald Insight at: www.emeraldinsight.com/0885-8624.htm



- 1 it enables entrepreneurs to respond to strategic changes in the market; and
- 2 it stimulates the decision of resources allocation, optimally.

DMC is rooted in three building blocks:

- 1 managerial human capital;
- 2 managerial social capital; and
- 3 managerial cognition (Adner and Helfat, 2003).

On the one hand, Teece (2016) argues that DMC enables entrepreneurs to sense, seize and transform opportunities to respond to strategic changes, and on the other hand, argues that attractive opportunities can be exploited from valuable and rare information and knowledge (Yli-Renko *et al.*, 2001). However, the causal relationship between DMC and FMK is yet to be established (Åkerman, 2015; Fletcher *et al.*, 2013). This study has attempted to fulfil this research gap. The fundamental research question of this study is:

RQ1. What role does DMC play in FMK and firm performance?

It is notable to investigate this research issue in an emerging economy because the empirical research paucity is evident in this early international business context (Knight and Liesch, 2016). The firms which are considered in this study of investigation are also known as export manufacturers. These firms are proactive, early internationalized and operate their businesses in multiple countries from the inception. This study considers these export manufacturing firms because individual-level capability such as DMC is critically important in this kind of entrepreneurial firms (Coviello, 2015). These firms, from an emerging economy, have resource constraints, limited access to information and have a lower level of competencies compared to firms from developed economies (Roudini and Osman, 2012). Hence, DMC plays a very crucial role to identify correct information, market, valuable resource, raw material suppliers and so forth.

The contribution of this study is twofold. First, this study unfolds the causal relationship between DMC and FMK accumulation. The empirical establishment merits more profound insights into international business knowledge and strategic management development. It will enhance the knowledge corridor of knowledge-based view and the theory of dynamic capability at an individual level. Understanding the mechanism of FMK, which leads to success, strengthens the relationship between DMC and firm performance. This study also reveals whether FMK accumulation is channeled in the right direction by investigating the direct effects of FMK accumulation on firm performance. Second, this study investigates firms from an emerging economy which complements the early international business literature from the capability perspective and contributes to the research initiatives indicated by Knight and Liesch (2016) and Tabares *et al.* (2015). The rest of the paper is organized as follows. Section 2 of the paper discusses the theoretical perspective of DMC and the foundation of FMK and proposes the hypotheses. Section 3 of the paper highlights the research methodology and analyses. Section 4 describes the potential findings and results. Section 5 of the paper argues the

outcomes, theoretical contributions, implications, limitation and future directions of the research.

Theoretical foundation

Dynamic managerial capability

DMC is the outgrowth theory of dynamic capability to explain the individual-level capability to respond to strategic action of the firm. It is the capability of managers or entrepreneurs to sense, seize and transform opportunities. Both operational (such as routines) and strategic actions (new opportunities) of the firms can be influenced by the DMC of entrepreneurs (Teece, 2012). Substantial development has been done to improve the DMC theory. Helfat and Martin (2016) bring the idea of innovation and creativity which are the outcomes of entrepreneurial actions that shape through DMC. O'Reilly and Tushman (2008, p. 189) denote DMC as the "capacity of senior managers to ensure learning, integration, and when required, reconfiguration, and transformation-all aimed at sensing and seizing opportunities as markets evolve". Yet remarkably, great opportunities are only derived from valuable, rare and noteworthy information (Huikkola and Kohtamäki, 2017).

Three building blocks potentially complement DMC. They are: managerial human capital, managerial social capital and managerial cognition. To reach the performance of the firm, entrepreneurs need to transform the information to actions and involve routine procedures to deploy a decision (Augier and Teece, 2009). Competitive advantage is one of the critical performance outcomes that is delivered from DMC. For instance, to develop competitive business assets, entrepreneurs must have higher level of DMC to accumulate knowledge and process it to achieve an advantage from it. Information is the bridge between the intention and performance outcomes. Although, entrepreneurs improve their capability on an ad hoc basis, but the need of DMC is immense in a volatile business market (Oxtorp, 2014). Not all capabilities are DMC, and not all entrepreneurs will have it. However, to confirm the maximum yield of DMC, the continuous presence of all three building blocks is crucially important (Roberts *et al.*, 2016). Each dimension of DMC is unique, and there are no covariates between the dimension of the same larger concept (Helfat and Martin, 2015).

Capability development requires time, effort, specialization and intelligence. Managerial human capital is derived from previous qualification, experience and ongoing training activities (Castanias and Helfat, 1991). It enables entrepreneurs to process information through cognitive concentration to take decision, for instance, resources mobilization and deployment decision (Helfat and Martin, 2015). Although managerial human capital is a well-established concept in management, international business literature profoundly recognizes the concept of managerial social capital to sustain in the market (Coviello and Cox, 2006). It takes both informal and formal network relationships of entrepreneurs that develop the conduits of information to take the decision to execute strategic actions (Nahapiet and Ghoshal, 1998). However, DMC also considers managerial cognition because all three building blocks complement each other. Adner and Helfat (2003) argue that managerial cognition is contextual,

and international entrepreneurs must posit a global mindset as a pre-requisite of entrepreneurial cognition to survive and continue international operation (Nummela *et al.*, 2004).

Foreign market knowledge

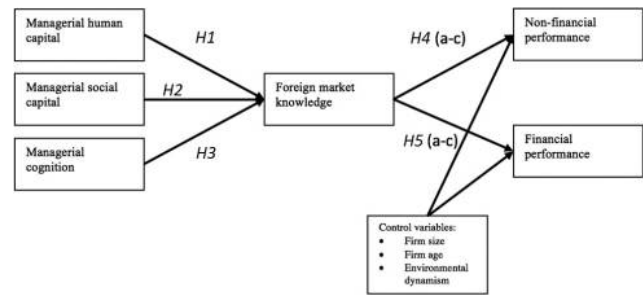
FMK is the knowledge base of the firm which facilitates the firm to survive and continue its business in the international market. Three particular knowledge bases are needed to establish within the firm: foreign business knowledge, foreign institution knowledge and internationalization knowledge (Eriksson *et al.*, 1997). An interesting question at this juncture is: Why do firms need to accumulate FMK? This is because the repository of FMK enables firms to enjoy intangible unique and valuable resources. The knowledge-based view suggests that knowledge is an important strategic resource of the firm (Nonaka, 1994). It is an intangible resource to achieve sustainable competitive advantage (Barney, 1991). Knowledge influences the decision to market entry, expansions, pace and market selection (Eriksson *et al.*, 2000), and the aftermath effects of each decision contributes to firm performance. Knowledge also plays a critical role to develop dynamic marketing capability to achieve innovation (Falasca *et al.*, 2017). Eventually, knowledge develops the firm's ability to deal with uncertainties. Although the development process of knowledge base of the firm is a gradual process, early internationalized firms are proactive and accelerate the accumulation process and treat knowledge as endowed resources of the firms (Andersson and Wictor, 2003). Hence, the question that is yet to be answered is: Does FMK accumulation process require DMC of entrepreneurs?

As indicated earlier, three types of knowledge are highlighted by Eriksson *et al.* (1997) to explain FMK. First, foreign business knowledge assists firms to develop the knowledge base of potential competitors, customers, emerging and existing market condition. Second, foreign institution knowledge delivers the information of new/foreign cultures, values, norms, formal and informal institutional rules and regulations (Eriksson *et al.*, 1997). For instance, changes in the exportation or importation policies. Apparently, to get valuable and very confidential information regarding new policies, entrepreneurs must have a robust network inside the institution. Although internationalization is a critical process, for early internationalization, the risk is much higher. Third, internationalization knowledge develops the abilities of the firms to respond to this risk. It refers to the knowledge of adaptability, international operations and international market engagement (Zhou, 2007). The awareness of possible opportunities and handling new disputes can be dealt with the knowledge from foreign business and foreign institutional knowledge. However, the internationalization knowledge stimulates the process of realizing those opportunities by taking appropriate actions in the international market (Mostafiz and Goh, 2018). But, do all entrepreneurs have the ability to create economic value and deal with uncertainties in the international market? This paper addresses this critical research issue.

Hypotheses development

Drawing upon DMC, this study proposes the following conceptual framework, as highlighted in Figure 1. The fundamental theoretical underpinning of the framework

Figure 1 Conceptual framework



suggests that DMC enables entrepreneurs to respond to strategic changes (Teece, 2012). Seminal work of Adner and Helfat (2003) proposes the definition of DMC as the capacity of managers to build, integrate and transform resources and competencies. FMK is a critical intangible resource of the firm, and the accumulation process of FMK is a continuous strategic action of the firm. This study argues that, to create economic value and successful performance from knowledge, entrepreneurs should have a higher level of DMC which consists of managerial human capital, managerial social capital and managerial cognition.

Relationship between dynamic managerial capability and foreign market knowledge

Managerial human capital

Managerial human capital refers to the skill, knowledge and the analytical ability of entrepreneurs which is derived from previous educational, experience and training activities to respond strategic changes (Adner and Helfat, 2003). The learning orientation of the firm and managerial human capital is intimately connected, and it enhances the ability of the firms to transform information into action (Dimov, 2007). Human capital is a core resource in small-medium size firm if it is rare, unique and inimitable (Campbell *et al.*, 2012). Higher level of human capital, such as more experiences of entrepreneurs, can deliver the opportunity to bypass the conventional market and develop a new market (Seghers *et al.*, 2012). Efficient human capital delivers neat alternatives for financial success. Sometimes, mobilization of existing strategy in a new manner requires new learning. This type of learning is the outcome of continuous training and development of human capital. Although, replication, common practices and learning are not so dynamic, to sustain in the volatile business environment, entrepreneurs need to adapt to changes and keep themselves up to date. Adaptation and learning require both tacit and explicit knowledge, and entrepreneurs with a high level of human capital can develop this (Grichnik *et al.*, 2014). Efficient human capital improves the proactive behavior of entrepreneurs, their critical thinking and a variety of other operational and strategic capabilities (Zhao *et al.*, 2005). Undoubtedly, managerial human capital is a very critical antecedent and a success factor. Therefore, we propose:

H1. There is a positive relationship between managerial human capital and FMK of the firms.

Managerial social capital

Social capital and social network relationships get most attention in international business research (Knight and Liesch, 2016). Social capital is the most critical success factor and antecedent to achieve successful internationalization. In fact, nascent entrepreneurs need strong social capital to commit internationalization and continue operation in the international market (Davidsson and Honig, 2003). The social capital of the entrepreneur develops from business partners, alliances, government officials, union leaders and other potential and influential stakeholders (Turnbull *et al.*, 1996). These network relationships increase entrepreneurial power, control and gain international footprints in multiple markets (Kiss and Danis, 2010). Managerial ties, trust and solidarity between entrepreneurs strengthen this networking relationship. It is not necessary for a social network to happen from an external relationship. Strong internal social networking also plays a role in capability development, for instance, the marketing capability of the firm (Kemper *et al.*, 2011). Other benefits in emerging economies include: alleviate resource constraints, build political liaison, give first-mover advantage and provide tax promotional benefits. These can be feasible if the social capital of entrepreneurs is effective and efficient. Managerial social capital of entrepreneurs potentially escalates the growth and performance of the firm in a distinctive way (Coviello, 2006). New opportunities are essential for resources configuration, and these opportunities require new sources of information (Mostafiz *et al.*, 2019a, 2019b). Strongest network relationships of top-level management provide an edge to gather information, thus enhancing the knowledge base of the firm. Higher level of DMC of entrepreneur facilitates them to identify new sources of information for resource reconfiguration (Andersson and Evers, 2015). The results from effective social capital, such as strategic alliances between businesses, also provide meaningful insights to improve the innovative culture and creativity level of firms (Luk *et al.*, 2008). Hence, the importance of FMK that might deliver from managerial social capital of entrepreneur is immense to sustain in the international market. Therefore, we propose:

H2. There is a positive relationship between managerial social capital and FMK of the firms.

Managerial cognition

Building a knowledge base of the firm is a primary duty of entrepreneurs. Directly or indirectly, an entrepreneur influences the quality and the value of the knowledge base of the firm. The mental and knowledge structure, belief system and processing capability of information of entrepreneurs are ultimately responsible for strategic action and outcomes. Adner and Helfat (2003) have conceptualized managerial cognition as the mindset of entrepreneurs to execute multiple types of strategic actions, simultaneously. Apart from that, if international entrepreneurs want to sustain in the international market, then they must follow the global mindset (Oviatt and McDougall, 1994). It is defined as a vision of entrepreneurs to practice openness and cultural diversification which increases the propensity of entrepreneurial commitment toward international markets and creates synergy among diversity (Gupta and Govindarajan, 2002). A global mindset of entrepreneurs is a complete international orientation

which also smoothens the internationalization process by developing learning capability, adaptation, international marketing and technological advancement (Weerawardena *et al.*, 2007). It is a pre-requisite of international success (Nummela *et al.*, 2004). For instance, a global mindset of entrepreneurs enables them to create new ventures, anticipate future market and changes and commit decision on resource allocation. These are the critical success factors to sustain in the international market. A successful entrepreneur will never compromise and always seek for valuable information. Only effective information can deliver successful international expansion. Evidence has shown that wrong information can lead to accidental internationalization (Hennart, 2014). Therefore, if the global mindset of the entrepreneur is active, then it can create a bridge between the variety of organizational goals that are related to the international market and bring success. Therefore, we propose:

H3. There is a positive relationship between managerial cognition and FMK of the firms.

Mediating role of foreign market knowledge

This study argues that DMC of entrepreneurs enhances the performance of the firms through the acquisition of FMK. Knowledge is something which is developed over time. In this study, we conceptualize that, to develop the knowledge base of the organization, entrepreneurs need specialized capability which is delivered from DMC. A previous study suggests that FMK plays a significant mediating role between entrepreneurial proclivity and the pace of internationalization (Zhou, 2007). Given that knowledge is considered the most important intangible asset of the firm (Autio *et al.*, 2000), FMK is the acquisition of information which requires experimental knowledge on the international market, competitors, customers and potential business partners. Cantwell and Piscitello (2000) denote that FMK increases the innovative culture of the firm through market expansion. Presutti *et al.* (2007) have conceptualized that FMK can be gained from weak ties with customers to achieve foreign success. In a high-tech organization, FMK plays a very important role to develop new idea, strategic deployment of resources and increase a firm's willingness to invest in R&D activity to respond to market stimuli (Cantwell and Mudambi, 2005). If internationalization is a strategic initiative, then a higher level of FMK fastens the internationalization process. If the entrepreneurs have the ability to acquire and accumulate valuable knowledge on formal and informal institutions, then the barriers of market expansion will minimize to a great extent. Market expansion is considered as one of the key revenue-generating strategies of exporting firms (Gabrielsson and Pelkonen, 2008). Åkerman (2015) suggests that entrepreneurs having market-specific knowledge and internationalization knowledge increase the firm's ability to realize better opportunities. As FMK is a continuous process, existing FMK improves the absorptive capability of the firms, which in turn, makes the process easier for the accumulation of new knowledge. Rich FMK increases the confidence of entrepreneurs to deal with uncertainties and ease the internationalization process of the firms (Liesch *et al.*, 2011). For instance, if entrepreneurs want to position a new product in the international market, then greater knowledge is a pre-requisite for success (Musteen *et al.*, 2014). If FMK is

delivered from an appropriate network, then chances of risky resources commitment will minimize, and at the same time, entrepreneurs survive from costly mistakes which are associated with the internationalization efforts. We argue that, if the entrepreneurs have effective human capital, social capital and managerial cognition, then the chances of better performance are certain through the accumulation of FMK from the international market. Therefore, we propose:

- H4a. FMK positively mediates the relationship between managerial human capital and non-financial performance of the firm.
- H4b. FMK positively mediates the relationship between managerial social capital and non-financial performance of the firm.
- H4c. FMK positively mediates the relationship between managerial cognition and non-financial performance of the firm.
- H5a. FMK positively mediates the relationship between managerial human capital and financial performance of the firm.
- H5b. FMK positively mediates the relationship between managerial social capital and financial performance of the firm.
- H5c. FMK positively mediates the relationship between managerial cognition and financial performance of the firm.

Research methodology

Research design and samples

The sample of this study consists of export manufacturing firms operating in an emerging economy, Bangladesh. According to the WTO, this export manufacturing industry of apparel products is considered as the world's third-largest exporters of readymade garments (WTO, 2017). This industry is a low-technology but labor-intensive industry and plays the role as contract manufacturers for large multinationals. These firms operate their business in a business-to-business environment. There are approximately 5,500 firms registered under BGMEA (Bangladesh Garment Manufacturers and Exporters Association) and BKMEA (Bangladesh Knitwear Manufacturers and Exporters Association). This study adopted a random sampling method to select firms from BGMEA and BKMEA. And, 800 firms were invited to participate in this study; however, only 470 firms completed the survey. The data of DMC and FMK were collected from the entrepreneurs and top managers of the firms. These entrepreneurs are considered as the founders of their firms. In the context of apparel industry of Bangladesh, entrepreneurs/founders play the role of the CEO. They are solely responsible for taking all strategic and major decisions. During the data collection, we encountered difficulties to collect data directly from the entrepreneurs, because they were too busy to fill out the questionnaire. In those situations, we approached the second person-in-command who was very close to the entrepreneurs, for instance, deputy

managing director or general manager of the firm. This approach of collecting data facilitates this study to control social desirability bias. Chandler and Hanks (1994) highlight the importance of collecting data from subordinates or peer than self-assessment. We also conducted the review of the data from an anonymous person in the firm to check the accuracy of the data to minimize the social desirability (Zahra and Covin, 1995). For higher reliability and validity, this study collected financial data (return on assets (ROA) and return on equity (ROE)) from the finance manager of the company. The data collection on the performance of the firm was conducted by a face-to-face structured survey with the finance manager of the firms. The manager provided the information of ROA and ROE for the past five years from the annual report of the firm. Lastly, the operational manager provided the non-financial data on international market operations and perceived success of the firms. The complete questionnaire is given in Appendix.

Measurement

This study measured international performance based on financial and non-financial performance. The financial performance of the firm was measured based on the average of ROA and the average of ROE for the past five years (Cerrato and Piva, 2015; Jantunen *et al.*, 2008). The non-financial performance of the firms was measured through operational and perceived success (Gerschewski *et al.*, 2015; Hult *et al.*, 2008) on a seven-point Likert scale where 1 represents "strongly dissatisfy" and 7 represents "strongly satisfy". The mechanism of using objective and subjective data to measure the dependent variable and collecting data from multiple sources helped this study to control common method bias variance (CMV) (Podsakoff *et al.*, 2003).

This study had four exogenous variables: managerial human capital, managerial social capital, managerial cognition and FMK. Four items were used to measure managerial human capital such as prior managerial and entrepreneurial experience, academic qualification and training activities on ordinary scales (Grichnik *et al.*, 2014). We asked the entrepreneurs on their *prior managerial experience* and captured the responses, where 1 represents no prior experience; 2 represents one year experience; 3 represents two years of experiences; 4 represents three to four years of experiences; 5 represents five to seven years of experiences; 6 represents eight to ten years of experiences; and 7 represents more than ten years of prior managerial experiences. We have used the same ordinal scale for *prior entrepreneurial experiences* by asking them *the number of years they had spent working for the start-up firms before start the current company*. Academic qualification is measured by using a seven-point ordinal scale, where one represents primary school qualification; two represents secondary school qualification; three represents diploma qualification; four represents three years of ordinary degree; five represents a bachelor's degree; six represents a master's degree qualification; and seven represents higher professional qualification. Prior training experiences were captured by asking the entrepreneurs about the *number of training activities obtained by their own (such as legal, marketing, sales, strategy, etc.) which is related with the current company, prior to start and during the position as CEO of your company*. This study captured the responses of prior training experiences on a seven-point ordinal

scale where 1 represents no training activity; 2 represents one training activity; 3 represents two training activities; 4 represents three to four training activities; 5 represents five to seven training activities; 6 represents eight to ten training activities; and 7 represents more than ten training activities. Managerial social capital was measured based on tie, trust and solidarity of entrepreneurs to capture the strength of network relationships (Kemper *et al.*, 2011). Managerial tie was captured on a seven-point Likert scale where 1 represents “very little tie” and 7 represents “very extensive tie”. We captured *trust* and *solidarity* also on a seven-point Likert scale where 1 represents “strongly disagree” and 7 represents “strongly agree”. Managerial cognition was measured based on the entrepreneurial global mindset which consisted of international commitment, pro-activeness and vision (Nummela *et al.*, 2004), on a seven-point Likert scale where 1 represents “strongly disagree” and 7 represents “strongly agree”. This study captured FMK based on foreign business knowledge, foreign institution knowledge and internationalization knowledge (Eriksson *et al.*, 1997; Hadley and Wilson, 2003) on a seven-point Likert scale where 1 represents “much worse” and 7 represents “much better”. Items considered for foreign business knowledge were: top manager’s knowledge about foreign competitors and top manager’s knowledge about the needs of foreign clients/customers. Foreign institution knowledge covered top manager’s knowledge about foreign language and norms, foreign business laws and regulations and host government agencies. Lastly, internationalization knowledge captured top manager’s experience in identifying opportunities, dealing with foreign business contacts and managing international operation. FMK was operationalized as a second-order construct. This study controlled the relationships between exogenous and endogenous variables through firm size, firm age and environmental dynamism. Firm size was measured based on the number of employees, and age was measured based on firm’s experience of operation in the international market (Gerschewski *et al.*, 2015). Environmental dynamism was measured on a seven-point Likert scale where “1” represents to very high dynamism and “7” represents to low dynamism (Schilke, 2014).

Results

Descriptive statistics

Table I highlights the age and size of the firms. The results show that 24.08 per cent firms had 200-500 employees and another 24.60 per cent firms had more than 2,000 employees. The results of firm age show that only 11 per cent of firms were more than 20 years old. This study conducted an accuracy check of the firm’s internationalization age, export percentage and country of foreign operations. The results show that all these firms internationalized at their establishment/inception. The response rate of the study was approximately 59 per cent. Furthermore, a data cleaning process was conducted by performing Mahalanobis *D-square* test ($p < 0.001$) to identify extreme values. Rigorous multidimensional normality test such as Mardia’s multivariate kurtosis was conducted. All extreme cases were eliminated from the data set, and finally, 365 valid cases were brought forward to hypotheses testing. The critical

Table I Data characteristics of the sample ($N = 365$)

Characteristics	No. of enterprises	(%)	Cumulative
No. of employee			
< 150	3	0.7	0.7
151-200	7	1.83	2.53
201-500	92	24.08	26.61
501-1000	84	21.99	48.6
1,001-2,000	102	26.7	75.3
> 2,001	94	24.60	100
Firm age (years)			
1 to 5	77	20.15	20
6 to 10	92	24.08	44.23
11 to 15	93	24.34	68.57
16 to 20	76	19.89	89.46
More than 20	44	11.51	100

ratio of Mardia’s coefficient was 1.89, which indicates normal distribution of the data set (Mardia, 1970).

The correlation of the variables, mean score, normality and VIF are highlighted in Table II. All constructs were significantly correlated at the $p < 0.05$ level. The mean value of the constructs suggested that the categories of the items were in agreeable/acceptable position. The VIF value of the constructs indicated that the effects of multicollinearity were minimal (< 5) (Graham, 2003). We conducted Harman’s single-factor test to identify the effects of CMV, and the result showed that the first component percentage of variance was less than 50 per cent (35.84 per cent) (Fuller *et al.*, 2016). Hence, the effects of CMV were minimal (Podsakoff *et al.*, 2003).

Exploratory factor analysis

This study conducted exploratory factor analysis (EFA) before conducting CFA and SEM (Sharif *et al.*, 2018). Table III highlights the results of EFA. We conducted EFA based on the maximum likelihood estimation with varimax rotation. The KMO Bartlett’s test of sphericity was 0.938 and *p-value* was 0.000. Based on eigenvalue, the results suggested eight unidimensional factors. These factors were: managerial human capital, managerial social capital, managerial cognition, foreign business knowledge, foreign institutional knowledge, internationalization knowledge, non-financial performance and financial performance. Theoretically, managerial social capital includes three multidimensional factors such as the managerial tie, trust and solidarity. However, EFA suggested one single unidimensional factor for managerial social capital. Furthermore, EFA suggested multidimensional factors for FMK. This result leads this study to capture FMK as a second-order constructs for the structural model. The study did not require to drop any item due to lower factor loadings.

Reliability and validity

Table IV highlights the results of reliability and validity analyses. The values of composite reliability (CR) and Cronbach’s α were higher than 0.7 and, therefore, confirmed the internal consistency of the constructs (Hair *et al.*, 2010). SPSS AMOS (version 24) was used to compute confirmatory factor analysis (CFA) and structural equation modeling (SEM) using

Table II Correlation matrix and descriptive statistics (N = 365)

Constructs in the model	1	2	3	4	5	6
(1) Managerial human capital	0.799					
(2) Managerial social capital	0.569**	0.788				
(3) Managerial cognition	0.489**	0.495**	0.765			
(4) FMK	0.322**	0.483**	0.442**	0.742		
(5) Financial performance	0.201**	0.263**	0.292**	0.542**	0.923	
(6) Non-financial performance	0.504**	0.562**	0.586**	0.544**	0.494**	0.736
Mean score	20.58	72.36	39.77	60.55	9.3	44.41
SD	3.11	8.89	4.96	5.22	1.75	5.27
Skewness: statistics	0.223	-0.199	-0.258	-0.193	0.134	-0.062
Kurtosis: statistics	-0.714	-0.041	-0.336	0.346	-0.529	0.006
VIF	1.674	1.812	1.704	1.981	1.501	2.528

Notes: Diagonal is the square root of the AVE; ** Correlations significant at the 0.05 level; *** correlations significant at the 0.01 level

maximum likelihood estimation. The average variance extracted (AVE) values of the constructs were higher than 0.50, and the square root of AVE (highlighted in Table II) was higher than the correlation of that variable with other variables. Therefore, the assumptions of convergent and discriminant validity were established (Fornell and Larcker, 1981; Mostafiz et al., 2019a, 2019b). The model fit indices of measurement model and structural model are highlighted in Table V.

Hypotheses testing

A two-step method was used to test the hypothesized relationships. The second-order measurement model suggested adequate model fit indices (χ^2 (chi-square) = 1,404.566, *df* (degree of freedom) = 922, $p < 0.000$, $\chi^2/df = 1.523$, CFI (comparative fit index) = 0.953, IFI (incremental fit index) = 0.954, TLI (Tucker–Lewis index) = 0.950, SRMR (standardized root mean-square residual) = 0.0321, RMSEA (root mean-square error of approximation) = 0.038). The standard loadings of the constructs were higher than 0.50 and, therefore, represented adequate loadings (Anderson and Gerbing, 1988). The first-order measurement model also provides adequate fit indices ($\chi^2 = 1,399.566$, *df* = 912, $p < 0.000$, $\chi^2/df = 1.535$, CFI = 0.953, IFI = 0.953, TLI = 0.949, SRMR = 0.0376, RMSEA = 0.038). The threshold values for χ^2/df should be in between 1 and 3; CFI, IFI and TLI values should be higher than 0.900; and SRMR and RMSEA values should be lower than 0.050 (Sharif et al., 2018). Both model fit indices are showing adequacy. CFI, IFI and TLI represent the good fit indices of the model if the value is higher than 0.900. Whereas, RMSEA represents the fit indices of badness of the model if higher than 0.050. The results of this study indicate that the FMK construct is acceptable from both perspectives as second- or first order, however, subject to the results of the EFA. The structural model also highlighted acceptable model fit indices ($\chi^2 = 1m535.518$, *df* = 1001, $p < 0.000$, $\chi^2/df = 1.534$, CFI = 0.952, IFI = 0.952, TLI = 0.948, SRMR = 0.0421, RMSEA = 0.048) (Ho, 2013). Furthermore, the bootstrapping method was used to test the mediation effects with 5,000 re-sampling by following the guidelines of Preacher and Hayes (2008). Table VI represents the results of hypothesized relationships. Six hypothesized relationships were supported and three relationships were not supported. The supported direct hypotheses were: managerial social capital to

FMK ($\beta = 0.327$, $p < 0.000$) and managerial cognition to FMK ($\beta = 0.151$, $p < 0.000$). The coefficient (β) value between managerial social capital and FMK is stronger than the coefficient between managerial cognition and FMK. The mediating supported hypotheses were: managerial social capital to FMK to non-financial performance ($\beta = 0.200$, $p < 0.05$), managerial social capital to FMK to financial performance ($\beta = 0.250$, $p < 0.05$), managerial cognition to FMK to non-financial performance ($\beta = 0.234$, $p < 0.05$) and managerial cognition to FMK to financial performance ($\beta = 0.293$, $p < 0.00$). The direct unsupported hypothesis was: managerial human capital to FMK ($\beta = -0.017$, $p = 0.853$). The mediating unsupported hypotheses were: managerial human capital to FMK to non-financial performance ($\beta = -0.013$, $p = 0.852$) and managerial human capital to FMK to financial performance ($\beta = 0.010$, $p = 0.846$). The results also showed that firm size, age and environmental dynamism were significant control variables.

Discussions and implications

Following the appeal of Åkerman (2015) and Helfat and Martin (2015), this study contributes to the knowledge of DMC and FMK. The fundamental idea articulated in this study has been to identify antecedents and outcomes to FMK. This study has shown that managerial social capital and managerial cognition of entrepreneurs play significant roles as antecedents to FMK and improve the performance of export manufacturing firms. It is a noteworthy contribution to international business and strategic management literature which unfolds the causal relationship between DMC, FMK and firm performance. This study contributes significantly to the individual-level capability of entrepreneurs (DMC) (Adner and Helfat, 2003) and its impact on FMK (Eriksson et al., 1997). Figure 2 represents the final research framework with standard estimates.

This study used the data from one of the largest export manufacturing industry in the apparel industry in the world. Drawing on the dynamic managerial capability theory and FMK perspective, this study tested the research model through SEM. This study created the linkage between the attributes of DMC, FMK and firm performance. The first attribute of DMC, managerial human capital, turned out to be insignificant. We hypothesized that managerial human capital positively influenced

Table III EFA (N = 365)

Items	Factor loadings							
	1	2	3	4	5	6	7	8
Item 44								0.866
Item 45								0.749
Item 36		0.618						
Item 37		0.598						
Item 38		0.585						
Item 39		0.559						
Item 40		0.559						
Item 41		0.610						
Item 42		0.619						
Item 43		0.565						
Item 30							0.583	
Item 31							0.709	
Item 32							0.590	
Item 25				0.571				
Item 26				0.601				
Item 27				0.736				
Item 28				0.602				
Item 29						0.446		
Item 30						0.804		
Item 31						0.674		
Item 1			0.601					
Item 2			0.783					
Item 3			0.591					
Item 4			0.721					
Item 5	0.776							
Item 6	0.740							
Item 7	0.752							
Item 8	0.701							
Item 9	0.737							
Item 10	0.701							
Item 11	0.727							
Item 12	0.747							
Item 13	0.753							
Item 14	0.725							
Item 15	0.741							
Item 16	0.718							
Item 17	0.736							
Item 18		0.576						
Item 19		0.673						
Item 20		0.734						
Item 21		0.704						
Item 22		0.735						
Item 23		0.717						
Item 24		0.684						

Notes: Rotated factor matrix with maximum likelihood estimation. Factor loading is significant at 0.500

the FMK accumulation and improved the performance of the firm. Our operationalization of managerial human capital was based on prior managerial experience, prior entrepreneurial experience, academic qualification and training activity. In this context of export manufacturing firms in the apparel industry, managerial human capital was not significantly important. A possible reason for such results could be contextual. In a low-technology labor-intensive industry where firms play a significant

role as contract manufacturers, the higher level of human capital does not add sufficient value to the accumulation of FMK and firm's performance. It is notable to mention that, in the emerging economy like Bangladesh, the quality of training and development is not effective. Due to resource constraints, the government cannot provide adequate support and initiate training and development programs for entrepreneurs. Unavailability of training programs creates hindrance in the development of productive human capital through specialized skills and abilities. Evidence of human capital from other studies has shown mixed results. For instance, [Campbell et al. \(2012\)](#) have noted that diversified human capital creates a constraint in employee mobility. Higher level of heterogeneity in managerial human capital is rare, valuable and inimitable in early internationalized firms. [Dimov \(2010\)](#) denotes similar industrial experiences limits the capability of entrepreneurs to identify opportunities from broader markets. Similar patterns of managerial and entrepreneurial experiences are the conventional processes of entrepreneurial development. [Li and Zhang \(2007\)](#) have studied human capital and have identified that extraordinary human capital of entrepreneurs in the high-tech industry has a high level of negotiating power with government policymakers. Our study in the low-tech industry has identified an insignificant relationship. Similar types of insignificant relationships have been reported by [Davidsson and Honig \(2003\)](#) while identifying first-time sales opportunities. The accumulation of knowledge requires critical analysis and revisions of the market to identify correct information. Critical analysis requires a great deal of creativity and innovation. More sophisticated training and development can bring creativity in entrepreneurial behavior and promote flexibility in decision-making in export manufacturing firms. Previous research has also highlighted a few positive relationships between human capital and strategic actions of the firms, such as in tourism industry ([Haber and Reichel, 2007](#)). Therefore, it is noteworthy to mention the contextual role in this research. When the diversified experience of entrepreneurs takes place, then the level of knowledge corridor will be higher to process information ([Gruber et al., 2013](#)). In a competitive foreign market, valuable knowledge is the power and a critical success factor, and entrepreneurs should unlearn first to learn and accumulate new knowledge.

The relationship between managerial social capital and FMK accumulation is positively significant. In fact, managerial social capital indirectly influences the financial and non-financial performance of the firms. Managerial social capital has turned out to be the most significant antecedent in the model ([Table VI](#)). The level of international competition is intense in an industrial business environment. It can be minimized through valuable knowledge and easier diffusion of important networks. Although, export manufacturers directly do not communicate with end customers, understanding the trend and customer demand directly influences the innovative process of the firm ([Faroque et al., 2017](#)). Managerial social capital also improves the information inflow regarding buyer and suppliers ([Lee and Ha, 2018](#)). Networking with important agents and potential stakeholders can embrace FMK accumulation in the organization. Our findings reveal that managerial social capital of the entrepreneurs help them establish a broader set of the international knowledge base which provides less redundant knowledge. This study captures

Table IV Summary of the reliability and validity analysis and CFA

Items/constructs	Standard loadings
Managerial human capital ($\alpha = 0.871$, CR = 0.876, AVE = 0.639)	
Item 1 Prior entrepreneurial experiences	0.724
Item 2 Prior managerial experiences	0.847
Item 3 Prior academic education	0.732
Item 4 Training experiences	0.856
Managerial social capital ($\alpha = 0.955$, CR = 0.955, AVE = 0.621)	
Item 5 Top manager at buyer firms	0.778
Item 6 Top manager at supplier firms	0.771
Item 7 Top manager at competitor firms	0.809
Item 8 Political leader in various levels of the government	0.788
Item 9 Officials in industry bureaus	0.794
Item 10 Officials in regulatory and supporting organizations such as tax bureaus, state banks, commercial administration bureaus and the like	0.779
Item 11 I assumed that he or she would always look out my interest	0.786
Item 12 I assumed that he or she would go out of his or her way to make sure I was not adversely affected	0.800
Item 13 I felt like he or she cared what happened to me	0.779
Item 14 I believed that this person approached his or her job with professionalism and dedication	0.798
Item 15 Members of my business network believe that the needs of the whole network should take priority over personal needs	0.817
Item 16 Members of your business network accept decisions take within the network even when they have different opinions	0.752
Item 17 Problem-solving by many members of a business network gives better results that those by individuals	0.790
Managerial cognition ($\alpha = 0.908$, CR = 0.908, AVE = 0.586)	
Item 18 It is important for our company to internationalize rapidly	0.632
Item 19 Internationalization is the only way to achieve our growth objective	0.796
Item 20 We will have to internationalize to succeed in the future	0.763
Item 21 The growth we are aiming at can be achieved mainly through internationalization	0.762
Item 22 The entrepreneur of the company is willing to take the company to the international markets	0.847
Item 23 The company's management uses a lot of time in planning international operations	0.784
Item 24 The company's management sees the whole world as a one big marketplace	0.756
Foreign market knowledge ($\alpha = 0.846$, CR = 0.710, AVE = 0.552)	
Foreign business knowledge	
Item 25 Top manager's knowledge about foreign competitors	0.670
Item 26 Top manager's knowledge about the needs of foreign clients/customers	0.724
Item 27 Top manager's knowledge about foreign distribution channels	0.741
Item 28 Top manager's knowledge about effective marketing in foreign markets	0.644
Foreign institutional knowledge	
Item 29 Top manager's knowledge about foreign language and norms	0.670
Item 30 Top manager's knowledge about foreign business laws and regulations	0.792
Item 31 Top manager's knowledge about host government agencies	0.704
Internationalization knowledge	
Item 32 Top manager's experience in identifying opportunities	0.754
Item 33 Top manager's experience in dealing with foreign business contacts	0.686
Item 34 Top manager's capability for managing international operation	0.564
Non-financial performance ($\alpha = 0.904$, CR = 0.905, AVE = 0.543)	
Item 35 New product and service introduction in international markets	0.754
Item 36 Time to market for new products/service internationally	0.717
Item 37 Number of successful new product/service in international markets	0.740
Item 38 Global reach (i.e. presence in strategically located countries worldwide)	0.747
Item 39 International reputation of the firm	0.670
Item 40 Gaining a foothold in international markets	0.763
Item 41 Success of main international business	0.784
Item 42 Success of main international business from competitor perspective	0.712
Financial performance ($\alpha = 0.920$, CR = 0.920, AVE = 0.852)	
Item 43 ROA	0.944
Item 44 ROE	0.902

Note: Refer to Appendix 1 for details of the items

Table V Model fit indices

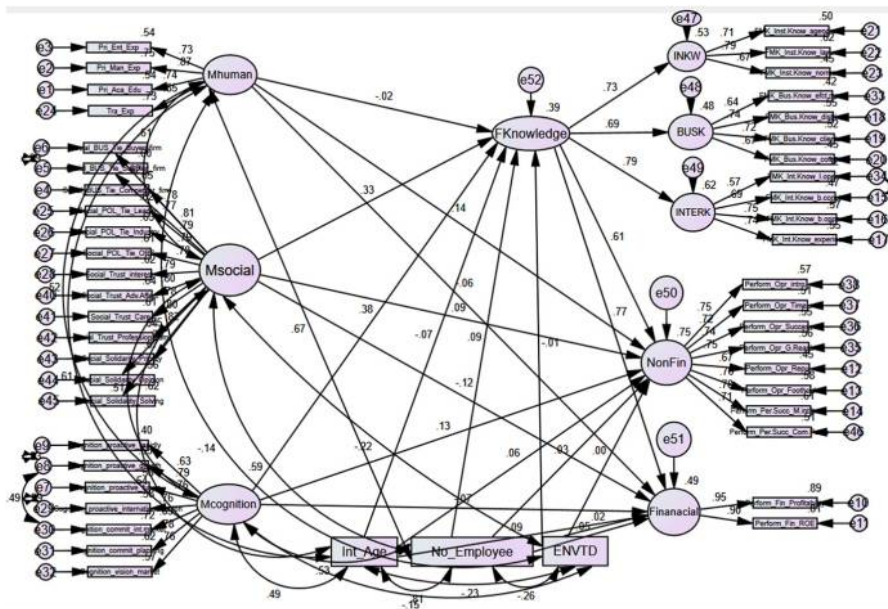
Model	χ^2	df	χ^2/df	RMSEA									
				(RMSEA)	(90% C.I.)	GFI	CFI	NFI	RFI	IFI	TLI	SRMR	PCLOSE
Measurement model (second order)	1,404.566	922	1.523	0.038	0.034-0.042	0.862	0.953	0.876	0.867	0.954	0.950	0.0321	1.000
Structural model	1,535.518	1001	1.534	0.038	0.034-0.042	0.855	0.952	0.873	0.863	0.952	0.948	0.0421	1.000

Table VI Results of hypothesized relationships

Hypothesis	Standard estimates	Critical ratio	p-value	Conclusions
H1 HC -> FMK	-0.017 n.s.	-0.186	0.853	Not supported
H2 SC -> FMK	0.327***	3.909	0.000	Supported
H3 CG -> FMK	0.151**	4.766	0.000	Supported
Mediating relationship				
H4 a	-0.013 n.s.	-	0.852	Not Supported
H4 b	0.200**	-	0.002	Supported
H4 c	0.234**	-	0.001	Supported
H5 a	-0.010 n.s.	-	0.846	Not Supported
H5 b	0.250**	-	0.013	Supported
H5 c	0.293**	-	0.000	Supported

Notes: Critical ratio greater than 1.96 is significant at ** $p < 0.05$, *** $p < 0.001$; n.s.: not significant

Figure 2 Research framework (standardized estimates)



Notes: Coefficient is significant at ** $p < 0.05$; *** $p < 0.001$

the solidarity of social capital of entrepreneurs. This finding indicates that, if entrepreneurs have mutual confidence with each other, the chances of risky knowledge accumulation and commitments will be lower. This finding extends the knowledge (Musteen *et al.*, 2014) to the individual-level capability perspective by providing evidence and creates a direct link between DMC attributes and FMK accumulation and benefits associated with the financial and non-financial performances of export manufacturing firms. Furthermore, through this study, we argue that managerial social capital of entrepreneurs is equally important to improve financial and non-financial benefits. This study significantly contributes to the international business context from emerging economies by using objective and subjective data while measuring international performance. Although social capital and network relationships are highly recognized in the early internationalization literature, most of the previous studies

from this context use subjective data which create generalizability issues. Our study addresses this important knowledge gap to highlight the importance of social capital to achieve the ROA and ROE.

The hypothesis between managerial cognition and FMK accumulation has turned out to be significant. The conceptualization of managerial cognition is based on an entrepreneurial global mindset. We have captured the global mindset based on entrepreneurial proactive behaviors, international commitment and vision. Our study complements the earlier study of Kyvik *et al.* (2013) by highlighting the contribution of a global mindset as an antecedent to FMK accumulation in an international business context. One of the most critical competitive advantages of the apparel industry of Bangladesh is the labor advantage. However, other countries such as India, Vietnam and Sri Lanka are also providing similar advantages in the low-tech apparel industry (WTO, 2017).

Hence, our study highlights that the knowledge base of the firm through DMC by explicitly focusing on the entrepreneur's global mindset is critical for international development. This result supports the idea of Ghannad and Andersson (2012) by highlighting the importance of a global mindset in the internationalization process.

This study has found that FMK accumulation fully mediates the relationship between managerial global mindset and financial performance; managerial global mindset and non-financial performance of the firms. Hence, our investigation contributes to the international business literature by providing evidence on the global mindset by highlighting the importance of FMK accumulation to gain global footprints, reputations and continuously develop the market share. Currently, the apparel industry of Bangladesh is positioned third in the world ranking in exporting readymade garments (WTO, 2017). Faroque *et al.* (2017) have investigated this industry and highlight the importance of capability to achieve international performance. Our study complements Faroque *et al.* (2017) by contributing to evidence on individual-level capability and creates a link between DMC, FMK and firm performance.

This study also identified an insignificant mediating effect of FMK on the relationship between managerial human capital and non-financial performance and between managerial human capital and financial performance. In a low-tech industry, managerial human capital turns out to be insignificant. The main concept in the literature highlights a positive relationship between experience and knowledge. However, emerging markets are incredibly volatile, and Dimov (2010) argues that diversified experience can bring significant value to the knowledge base. As mentioned earlier, broadening the knowledge corridor can bring significant diversity in the knowledge base of the organization (Gruber *et al.*, 2013). It can also improve the information processing mechanism of the firms. In this study, we did not capture the diversified experiences of entrepreneurs. Future research can significantly benefit if managerial human capital includes the measurement of diversified experiences. Then, FMK as the mediator may bring different results in a different research context.

Managerial and policymaker implications

This research has potential managerial implications. As managerial social capital and managerial cognition have turned out to be significant antecedents to FMK accumulation, managers should encourage internal knowledge integration between departments and build a culture of network relationship so that valuable knowledge can be kept intact and risky knowledge can be avoided. Thus, FMK can enhance the firm's corporate strategy. Besides, managers can better understand FMK through their proactive behavior and higher level of commitment and vision toward international markets. These behaviors can be assimilated and integrated in the organizational structure to increase foreign operations. By increasing foreign activities, the firm will be able to generate higher profits, as well as gain foreign market reputation. New sources of FMK can also deliver information to minimize cost, such as cheap raw materials. It is noteworthy to mention that FMK evolves over time, and the gradual improvement of DMC is absolute.

Policymakers should focus on the improvement of DMC of entrepreneurs in the apparel industry. Policymakers can develop specialized and technical training activities, which can bring diversity in entrepreneurial profile. Entrepreneurs will be more capable in dealing with information and knowledge and, thus, their cognitive capability will flourish. The diversity is important because it transcends into firms' accumulating FMK, which can lead to greater financial and non-financial success. Entrepreneurs can learn technical skills and aspects that can foster innovation. It is evident that accumulation of correct FMK is an innovative process of the firms. Furthermore, organizing international trade fairs is a very important activity that policymakers can pursue. They can invite professionals from potential institutions such as export promotion bureau and government officials and endeavor a single platform where entrepreneurs can further extend their network. It can minimize the knowledge asymmetry between partners and promote proximity in network relationships. These associations facilitate entrepreneurs to get many advantages such as new license to open business or information regarding new opportunities, as well as enhance their relational capability (Rungsithong *et al.*, 2017). This type of environment of developing network also fosters strategic cluster by promoting inter-firm cooperation (Radas and Božić, 2009).

Limitation and conclusion

Although this study highlights important knowledge contributions and implications on DMC and FMK, the findings must be interpreted within the context of the study. This study examines the low-tech apparel industry in an emerging economy where managerial human capital turned out to be insignificant. This result cautions against a direct generalization of specific location and the samples of this study, especially the effects of managerial human capital on FMK accumulation and performance. This study is a cross-sectional study which is another limitation of this study. A longitudinal investigation of multiple years can capture the full benefit of FMK accumulation in internationalization and firm's performance. Future research can also consider comparative studies of multiple industries to provide empirical reinforcement in knowledge management literature. With regards to mediating and moderating effects, future study can focus on an accelerated internationalization process in investigating how it can improve performance by interacting with FMK. Government participation is another future research agenda which the scholars can look at. A potential area of future study can be in analyzing the impact of government participation in enhancing human capital and FMK accumulation process.

Finally, this research can be broadened further by incorporating firm-level capability. To complete the capability framework, future research can incorporate dynamic capability such as innovation capability, technological capability and absorptive capability to identify the factors that are most significant and empirically tenable in FMK accumulation and contribute to firm's performance and contribute to Jin and Cho (2018). Furthermore, future research can be benefitted from moderating effects. This study did not capture the data on entrepreneur's age. Future research could focus on socio-demographic characteristics of entrepreneurs and investigate how these factors such as *age* play the role as a moderator

between DMC and strategic outcomes. In conclusion, this research is one of the initial attempts to explain individual-level capability in FMK accumulation domain in low-tech industrial business from emerging economies. It can be considered as the springboard to future studies aimed at understanding FMK in internationalization and performance enhancement process. Such studies will help managers and policymakers to minimize the risk of knowledge asymmetry, understand networks and develop their cognitive mentality to sustain in the complex international market.

References

- Adner, R. and Helfat, C.E. (2003), "Corporate effects and dynamic managerial capabilities", *Strategic Management Journal*, Vol. 24 No. 10, pp. 1011-1025.
- Åkerman, N. (2015), "International opportunity realization in firm internationalization: non-linear effects of market-specific knowledge and internationalization knowledge", *Journal of International Entrepreneurship*, Vol. 13 No. 3, pp. 242-259.
- Anderson, J.C. and Gerbing, D.W. (1988), "Structural equation modeling in practice: a review and recommended two-step approach", *Psychological Bulletin*, Vol. 103 No. 3, pp. 411-423.
- Andersson, S. and Evers, N. (2015), "International opportunity recognition in international new ventures—a dynamic managerial capabilities perspective", *Journal of International Entrepreneurship*, Vol. 13 No. 3, pp. 260-276.
- Andersson, S. and Wictor, I. (2003), "Innovative internationalisation in new firms: born globals—the Swedish case", *Journal of International Entrepreneurship*, Vol. 1 No. 3, pp. 249-275.
- Augier, M. and Teece, D.J. (2009), "Dynamic capabilities and the role of managers in business strategy and economic performance", *Organization Science*, Vol. 20 No. 2, pp. 410-421.
- Autio, E., Sapienza, H.J. and Almeida, J.G. (2000), "Effects of age at entry, knowledge intensity, and imitability on international growth", *The Academy of Management Journal*, Vol. 43 No. 5, pp. 909-924.
- Barney, J. (1991), "Firm resources and sustained competitive advantage", *Journal of Management*, Vol. 17 No. 1, pp. 99-120.
- Campbell, B.A., Coff, R. and Kriscynski, D. (2012), "Rethinking sustained competitive advantage from human capital", *Academy of Management Review*, Vol. 37 No. 3, pp. 376-395.
- Cantwell, J. and Mudambi, R. (2005), "MNE competence-creating subsidiary mandates", *Strategic Management Journal*, Vol. 26 No. 12, pp. 1109-1128.
- Cantwell, J. and Piscitello, L. (2000), "Accumulating technological competence: its changing impact on corporate diversification and internationalization", *Industrial and Corporate Change*, Vol. 9 No. 1, pp. 21-51.
- Castanias, R.P. and Helfat, C.E. (1991), "Managerial resources and rents", *Journal of Management*, Vol. 17 No. 1, pp. 155-171.
- Cerrato, D. and Piva, M. (2015), "The effect of global orientation on the performance of international new ventures: evidence from Italy", *Management International Review*, Vol. 55 No. 6, pp. 857-883.
- Chandler, G.N. and Hanks, S.H. (1994), "Market attractiveness, resource-based capabilities, venture strategies, and venture performance", *Journal of Business Venturing*, Vol. 9 No. 4, pp. 331-349.
- Coviello, N. (2015), "Re-thinking research on born globals", *Journal of International Business Studies*, Vol. 46 No. 1, pp. 17-26.
- Coviello, N. and Cox, M. (2006), "The resource dynamics of international new venture networks", *Journal of International Entrepreneurship*, Vol. 4 No. 2-3, pp. 113-132.
- Coviello, N.E. (2006), "The network dynamics of international new ventures", *Journal of International Business Studies*, Vol. 37 No. 5, pp. 713-731.
- Davidsson, P. and Honig, B. (2003), "The role of social and human capital among nascent entrepreneurs", *Journal of Business Venturing*, Vol. 18 No. 3, pp. 301-331.
- Dimov, D. (2007), "From opportunity insight to opportunity intention: the importance of person-situation learning match", *Entrepreneurship Theory and Practice*, Vol. 31 No. 4, pp. 561-583.
- Dimov, D. (2010), "Nascent entrepreneurs and venture emergence: opportunity confidence, human capital, and early planning", *Journal of Management Studies*, Vol. 47 No. 6, pp. 1123-1153.
- Eriksson, K., Johanson, J., Majkgård, A. and Sharma, D.D. (1997), "Experiential knowledge and costs in the internationalization process", *Journal of International Business Studies*, Vol. 28 No. 2, pp. 337-360.
- Eriksson, K., Majkgard, A. and Sharma, D.D. (2000), "Path dependence and knowledge development in the internationalization process", *Management International Review*, Vol. 40 No. 4, pp. 307-328.
- Falasca, M., Zhang, J., Conchar, M. and Li, L. (2017), "The impact of customer knowledge and marketing dynamic capability on innovation performance: an empirical analysis", *Journal of Business & Industrial Marketing*, Vol. 32 No. 7, pp. 901-912.
- Faroque, A.R., Morrish, S.C. and Ferdous, A.S. (2017), "Networking, business process innovativeness and export performance: the case of South Asian low-tech industry", *Journal of Business & Industrial Marketing*, Vol. 32 No. 6, pp. 864-875.
- Fletcher, M., Harris, S. and Richey, R.G. Jr (2013), "Internationalization knowledge: what, why, where, and when?", *Journal of International Marketing*, Vol. 21 No. 3, pp. 47-71.
- Fornell, C. and Larcker, D.F. (1981), "Evaluating structural equation models with unobservable variables and measurement error", *Journal of Marketing Research*, Vol. 18 No. 1, pp. 39-50.
- Fuller, C.M., Simmering, M.J., Atinc, G., Atinc, Y. and Babin, B.J. (2016), "Common methods variance detection in business research", *Journal of Business Research*, Vol. 69 No. 8, pp. 3192-3198.
- Gabrielsson, M. and Pelkonen, T. (2008), "Born internationals: market expansion and business operation mode strategies in the digital media field", *Journal of International Entrepreneurship*, Vol. 6 No. 2, pp. 49-71.

- Gerschewski, S., Rose, E.L. and Lindsay, V.J. (2015), "Understanding the drivers of international performance for born global firms: an integrated perspective", *Journal of World Business*, Vol. 50 No. 3, pp. 558-575.
- Ghannad, N. and Andersson, S. (2012), "The influence of the entrepreneur's background on the behaviour and development of born globals' internationalisation processes", *International Journal of Entrepreneurship and Small Business*, Vol. 15 No. 2, pp. 136-153.
- Graham, M.H. (2003), "Confronting multicollinearity in ecological multiple regression", *Ecology*, Vol. 84 No. 11, pp. 2809-2815.
- Grant, R. (1996), "Toward a knowledge-based theory of the firm", *Strategic Management Journal*, Vol. 17 No. S2, pp. 109-122.
- Grichnik, D., Brinckmann, J., Singh, L. and Manigart, S. (2014), "Beyond environmental scarcity: human and social capital as driving forces of bootstrapping activities", *Journal of Business Venturing*, Vol. 29 No. 2, pp. 310-326.
- Gruber, M., MacMillan, I.C. and Thompson, J.D. (2013), "Escaping the prior knowledge corridor: what shapes the number and variety of market opportunities identified before market entry of technology start-ups?", *Organization Science*, Vol. 24 No. 1, pp. 280-300.
- Gupta, A.K. and Govindarajan, V. (2002), "Cultivating a global mindset", *Academy of Management Perspectives*, Vol. 16 No. 1, pp. 116-126.
- Haber, S. and Reichel, A. (2007), "The cumulative nature of the entrepreneurial process: the contribution of human capital, planning and environment resources to small venture performance", *Journal of Business Venturing*, Vol. 22 No. 1, pp. 119-145.
- Hadley, R.D. and Wilson, H.I.M. (2003), "The network model of internationalization and experiential knowledge", *International Business Review*, Vol. 12 No. 6, pp. 697-717.
- Hair, J.F., Anderson, R.E., Babin, B.J. and Black, W.C. (2010), *Multivariate Data Analysis: A Global Perspective*, Vol. 7, Pearson, Upper Saddle River, NJ.
- Helfat, C.E. and Martin, J.A. (2015), "Dynamic managerial capabilities: review and assessment of managerial impact on strategic change", *Journal of Management*, Vol. 41 No. 5, pp. 1281-1312.
- Helfat, C.E. and Martin, J.A. (2016), "Dynamic managerial capabilities: a perspective on the relationship between managers, creativity, and innovation in organizations", in Shalley, C., Hitt, M.A. and Zhou, J. (Eds), *The Oxford Handbook of Creativity, Innovation, and Entrepreneurship*, Oxford University Press, Oxford.
- Hennart, J.F. (2014), "The accidental internationalists: a theory of born globals", *Entrepreneurship Theory and Practice*, Vol. 38 No. 1, pp. 117-135.
- Ho, R. (2013), *Handbook of Univariate and Multivariate Data Analysis with IBM SPSS*, CRC press, Boca Raton, FL.
- Huikkola, T. and Kohtamäki, M. (2017), "Solution providers' strategic capabilities", *Journal of Business & Industrial Marketing*, Vol. 32 No. 5, pp. 752-770.
- Hult, G.T.M., Ketchen, D.J., Jr, Griffith, D.A., Chabowski, B. R., Hamman, M.K., Dykes, B.J. and Cavusgil, S.T. (2008), "An assessment of the measurement of performance in international business research", *Journal of International Business Studies*, Vol. 39 No. 6, pp. 1064-1080.
- Jantunen, A., Nummela, N., Puumalainen, K. and Saarenketo, S. (2008), "Strategic orientations of born globals: do they really matter", *Journal of World Business*, Vol. 43 No. 2, pp. 158-170.
- Jin, B. and Cho, H.J. (2018), "Examining the role of international entrepreneurial orientation, domestic market competition, and technological and marketing capabilities on SME's export performance", *Journal of Business & Industrial Marketing*, Vol. 33 No. 5, pp. 585-598.
- Kemper, J., Engelen, A. and Brettel, M. (2011), "How top management's social capital fosters the development of specialized marketing capabilities: a cross-cultural comparison", *Journal of International Marketing*, Vol. 19 No. 3, pp. 87-112.
- Kiss, A.N. and Danis, W.M. (2010), "Social networks and speed of new venture internationalization during institutional transition: a conceptual model", *Journal of International Entrepreneurship*, Vol. 8 No. 3, pp. 273-287.
- Knight, G.A. and Liesch, P.W. (2016), "Internationalization: from incremental to born global", *Journal of World Business*, Vol. 51 No. 1, pp. 93-102.
- Kyvik, O., Saris, W., Bonet, E. and Felício, J.A. (2013), "The internationalization of small firms: the relationship between the global mindset and firms' internationalization behavior", *Journal of International Entrepreneurship*, Vol. 11 No. 2, pp. 172-195.
- Lee, C.H. and Ha, B.C. (2018), "The impact of buyer-supplier relationships' social capital on bi-directional information sharing in the supply chain", *Journal of Business & Industrial Marketing*, Vol. 33 No. 3, pp. 325-336.
- Li, H. and Zhang, Y. (2007), "The role of managers' political networking and functional experience in new venture performance: evidence from china's transition economy", *Strategic Management Journal*, Vol. 28 No. 8, pp. 791-804.
- Liesch, P.W., Håkanson, L., McGaughey, S.L., Middleton, S. and Cretchley, J. (2011), "The evolution of the international business field: a scientometric investigation of articles published in its premier journal", *Scientometrics*, Vol. 88 No. 1, pp. 17-42.
- Luk, C.L., Yau, O.H., Sin, L.Y., Tse, A.C., Chow, R.P. and Lee, J.S. (2008), "The effects of social capital and organizational innovativeness in different institutional contexts", *Journal of International Business Studies*, Vol. 39 No. 4, pp. 589-612.
- Mardia, K.V. (1970), "Measures of multivariate skewness and kurtosis with applications", *Biometrika*, Vol. 57 No. 3, pp. 519-530.
- Mostafiz, I. and Goh, S.K. (2018), "International women entrepreneurs and international opportunity recognition skills for start-up ventures", *Journal for International Business and Entrepreneurship Development*, Vol. 11 No. 3, pp. 201-220.
- Mostafiz, I., Sambasivan, M. and Goh, S.K. (2019a), "Impacts of dynamic managerial capability and international opportunity identification on firm performance", *Multinational Business Review*, Vol. 27 No. 4.
- Mostafiz, I., Islam, Y. and Sharif, S.P. (2019b), "Partial least squares structural equation modeling in Asian tourism and

- hospitality research: a systematic review”, *Quantitative Tourism Research in Asia*, Springer, Singapore, pp. 207-221.
- Musteen, M., Datta, D.K. and Butts, M.M. (2014), “Do international networks and foreign market knowledge facilitate SME internationalization? Evidence from the Czech Republic”, *Entrepreneurship Theory and Practice*, Vol. 38 No. 4, pp. 749-774.
- Nahapiet, J. and Ghoshal, S. (1998), “Social capital, intellectual capital, and the organizational advantage”, *Academy of Management Review*, Vol. 23 No. 2, pp. 242-266.
- Nonaka, I. (1994), “A dynamic theory of organizational knowledge creation”, *Organization Science*, Vol. 5 No. 1, pp. 14-37.
- Nummela, N., Saarenketo, S. and Puumalainen, K. (2004), “A global mindset – a prerequisite for successful internationalization?”, *Canadian Journal of Administrative Sciences/Revue Canadienne Des Sciences de L’administration*, Vol. 21 No. 1, pp. 51-64.
- O’Reilly, C. and Tushman, M. (2008), “Ambidexterity as a dynamic capability: resolving the innovator’s dilemma”, *Research in Organizational Behavior*, Vol. 28, pp. 185-206.
- Oviatt, B.M. and McDougall, P.P. (1994), “Toward a theory of international new ventures”, *Journal of International Business Studies*, Vol. 25 No. 1, pp. 45-64.
- Oxtorp, L.A. (2014), “Dynamic managerial capability of technology-based international new ventures – a basis for their long-term competitive advantage”, *Journal of International Entrepreneurship*, Vol. 12 No. 4, pp. 389-420.
- Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y. and Podsakoff, N. P. (2003), “Common method biases in behavioral research: a critical review of the literature and recommended remedies”, *Journal of Applied Psychology*, Vol. 88 No. 5, pp. 879-903.
- Preacher, K.J. and Hayes, A.F. (2008), “Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models”, *Behavior Research Methods, Instruments, & Computers*, Vol. 40 No. 3, pp. 879-891.
- Presutti, M., Boari, C. and Fratocchi, L. (2007), “Knowledge acquisition and the foreign development of high-tech start-ups: a social capital approach”, *International Business Review*, Vol. 16 No. 1, pp. 23-46.
- Radas, S. and Božić, L. (2009), “The antecedents of SME innovativeness in an emerging transition economy”, *Technovation*, Vol. 29 Nos 6/7, pp. 438-450.
- Roberts, N., Campbell, D.E. and Vijayarathy, L.R. (2016), “Using information systems to sense opportunities for innovation: integrating postadoptive use behaviors with the dynamic managerial capability perspective”, *Journal of Management Information Systems*, Vol. 33 No. 1, pp. 45-69.
- Roudini, A. and Osman, M.H.M. (2012), “The role of international entrepreneurship capability on international performance in born global firms”, *Ibusiness*, Vol. 4 No. 2, pp. 126-136.
- Rungsithong, R., Meyer, K.E. and Roath, A.S. (2017), “Relational capabilities in Thai buyer-supplier relationships”, *Journal of Business & Industrial Marketing*, Vol. 32 No. 8, pp. 1228-1244.
- Schilke, O. (2014), “On the contingent value of dynamic capabilities for competitive advantage: the nonlinear moderating effect of environmental dynamism”, *Strategic Management Journal*, Vol. 35 No. 2, pp. 179-203.
- Seghers, A., Manigart, S. and Vanacker, T. (2012), “The impact of human and social capital on entrepreneurs’ knowledge of finance alternatives”, *Journal of Small Business Management*, Vol. 50 No. 1, pp. 63-86.
- Sharif, S.P., Mostafiz, I. and Guptan, V. (2018), “A systematic review of structural equation modelling in nursing research”, *Nurse Researcher*, Vol. 26 No. 1.
- Tabares, A., Alvarez, C. and Urbano, D. (2015), “Born globals from the resource-based theory: a case study in Colombia”, *Journal of Technology Management & Innovation*, Vol. 10 No. 2, pp. 154-165.
- Teece, D.J. (2012), “Dynamic capabilities: routines versus entrepreneurial action”, *Journal of Management Studies*, Vol. 49 No. 8, pp. 1395-1401.
- Teece, D.J. (2016), “Dynamic capabilities and entrepreneurial management in large organizations: toward a theory of the (entrepreneurial) firm”, *European Economic Review*, Vol. 86, pp. 202-216.
- Todd, R.P., Javalgi, R.G. and Grossman, D. (2014), “Understanding the characteristics of the growth of SMEs in B-to-B markets in emerging economies: an organizational ecology approach”, *Journal of Business & Industrial Marketing*, Vol. 29 No. 4, pp. 295-303.
- Turnbull, P., Ford, D. and Cunningham, M. (1996), “Interaction, relationships and networks in business markets: an evolving perspective”, *Journal of Business & Industrial Marketing*, Vol. 11 Nos 3/4, pp. 44-62.
- Weerawardena, J., Mort, G.S., Liesch, P.W. and Knight, G. (2007), “Conceptualizing accelerated internationalization in the born global firm: a dynamic capabilities perspective”, *Journal of World Business*, Vol. 42 No. 3, pp. 294-306.
- WTO (2017), “World trade statistical review 2017”, available at: www.wto.org/english/res_e/statis_e/wts2017_e/wts17_toc_e.htm
- Yli-Renko, H., Autio, E. and Sapienza, H. (2001), “Social capital, knowledge acquisition, and knowledge exploitation in young technology-based firms”, *Strategic Management Journal*, Vol. 22 Nos 6/7, pp. 587-613.
- Zahra, S.A. and Covin, J. (1995), “Contextual influences on the corporate entrepreneurship-performance relationship: a longitudinal analysis”, *Journal of Business Venturing*, Vol. 10 No. 1, pp. 43-58.
- Zhao, H., Seibert, S.E. and Hills, G.E. (2005), “The mediating role of self-efficacy in the development of entrepreneurial intentions”, *Journal of Applied Psychology*, Vol. 90 No. 6, pp. 1265-1272.
- Zhou, L. (2007), “The effects of entrepreneurial proclivity and foreign market knowledge on early internationalization”, *Journal of World Business*, Vol. 42 No. 3, pp. 281-293.

Further reading

- Bartlett, W. and Bukvič, V. (2006), “Knowledge transfer in Slovenia: supporting innovative SMEs through spin-offs, technology parks, clusters and networks”, *Economic and Business Review*, Vol. 8 No. 4, pp. 337-358.

Appendix. Questionnaire

General information

1. Age of the firm: _____ year(s)
2. Firm age at internationalization: _____
3. Number of employees: Full time _____, Part time _____.
4. Your position in the firm: _____
5. Number of founder(s): _____,
6. Gender: a) Male _____ b) Female _____.

Managerial human capital

Item 1. Prior Entrepreneurial Experiences: Number of years you had spent working for start-up firms before start current company:

- a. No prior experience b. 1 year c. 2 years d. 3 to 4 years e. 5 to 7 years f. 8 to 10 years g. more than 10 years

Item 2. Prior Managerial Experiences: Years spent managing others business as a manager prior to start the current company:

- a. No prior experience b. 1 year c. 2 years d. 3 to 4 years e. 5 to 7 years f. 8 to 10 years g. more than 10 years

Item 3. Prior academic education: level of educational qualification achieved by your own prior to start the current company.

- a. Primary school b. Secondary school c. Diploma qualification d. 3 years' ordinary degree e. Bachelor Degree f. Master degree g. Higher professional qualification

Item 4. Training experiences: Number of training activities obtained by your own: (such as legal, marketing, sales, strategy etc.) which is related with your current company, prior to start and during the position as CEO of your company.

- a. No training activity b. 1 training c. 2 training d. 3 to 4 training e. 5 to 7 training f. 8 to 10 training g. more than 10 years

(continued)

Managerial social capital

You and other top managers at your company have heavily utilized personal ties, network, and connection with..	Very Little	Very extensive
<i>Business tie strengths</i>		
Item 5. Top manager at buyer firms.	1	2 3 4 5 6 7
Item 6. Top manager at supplier firms.	1	2 3 4 5 6 7
Item 7. Top manager at competitor firms	1	2 3 4 5 6 7
<i>Political Tie Strengths</i>		
Item 8. Political leader in various levels of the government.	1	2 3 4 5 6 7
Item 9. Officials in industry bureaus.	1	2 3 4 5 6 7
Item 10. Officials in regulatory and supporting organizations such as National Board of Revenue, Bangladesh Bank, Bangladesh Export Promotion Bureau, BGMEA, BKMEA and the like.	1	2 3 4 5 6 7

<i>Social trust</i>	Strongly disagree	Strongly agree
Prior to seeking information/advice from a key contact in my network (such as: customer, supplier, competition)		
Item 11. I assumed that he or she would always look out my interest.	1	2 3 4 5 6 7
Item 12. I assumed that he or she would go out of his or her way to make sure I was not adversely affected.	1	2 3 4 5 6 7
Item 13. I felt like he or she cared what happened to me.	1	2 3 4 5 6 7
Item 14. I believed that this person approached his or her job with professionalism and dedication.	1	2 3 4 5 6 7

<i>Solidarity</i>	Strongly disagree	Strongly agree
To what extent do you agree with the following statements in terms of your network (e.g., customer, supplier, competition)		
Item 15. Members of my business network believe that the needs of the whole network should take priority over personal needs.	1	2 3 4 5 6 7
Item 16. Members of your business network accept decisions taken within the network even when they have different opinions.	1	2 3 4 5 6 7
Item 17. Problem solving by many members of a business network give better results than those by individuals.	1	2 3 4 5 6 7

(continued)

Managerial cognition

	Strongly disagree						Strongly agree
Item 18. It is important for our company to internationalize rapidly	1	2	3	4	5	6	7
Item 19. Internationalization is the only way to achieve our growth objective.	1	2	3	4	5	6	7
Item 20. We will have to internationalize in order to succeed in the future.	1	2	3	4	5	6	7
Item 21. The growth we are aiming at can be achieved mainly through internationalization.	1	2	3	4	5	6	7
Item 22. The entrepreneur of the company is willing to take the company to the international markets.	1	2	3	4	5	6	7
Item 23. The company's management uses a lot of time in planning international operations.	1	2	3	4	5	6	7
Item 24. The company's management sees the whole world as a one big market place.	1	2	3	4	5	6	7

Foreign market knowledge

	Much worse			Much better			
<i>Foreign business knowledge</i>							
Item 25. Our top managers' knowledge about foreign competitors.	1	2	3	4	5	6	7
Item 26. Our top managers' knowledge about the needs of foreign clients/customers.	1	2	3	4	5	6	7
Item 27. Our top managers' knowledge about foreign distribution channels.	1	2	3	4	5	6	7
Item 28. Our top managers' knowledge about effective marketing in foreign markets.	1	2	3	4	5	6	7
<i>Foreign institutional knowledge</i>							
Item 29. Our top managers' knowledge about foreign language and norms.	1	2	3	4	5	6	7
Item 30. Our top managers' knowledge about foreign business laws and regulations.	1	2	3	4	5	6	7
Item 31. Our top managers' knowledge about host government agencies.	1	2	3	4	5	6	7

(continued)

<i>Internationalization knowledge</i>	
Item 32. Our top managers' ability in determining foreign business opportunities.	1 2 3 4 5 6 7
Item 33. Our top managers' experience in dealing with foreign business contacts.	1 2 3 4 5 6 7
Item 34. Our top managers' capability for managing international operations.	1 2 3 4 5 6 7

Non-financial performance for last five years

	Strongly dissatisfy	Strongly satisfy
Item 35. New product and service introduction in international markets.	1 2 3 4 5 6 7	
Item 36. Time to market for new products/service internationally.	1 2 3 4 5 6 7	
Item 37. Number of successful new product/service in international markets.	1 2 3 4 5 6 7	
Item 38. Global reach (i.e., presence in strategically located countries worldwide)	1 2 3 4 5 6 7	
Item 39. International reputation of the firm.	1 2 3 4 5 6 7	
Item 40. Gaining a foothold in international markets.	1 2 3 4 5 6 7	
Item 41. Success of main international business.	1 2 3 4 5 6 7	
Item 42. Success of main international business from competitor perspective.	1 2 3 4 5 6 7	
<i>Financial performance</i> for last five years		
Item 43. International profitability (return of assets)	$\frac{\text{Net Profit}}{\text{Total Assets}} * 100$ Last year profitability: 2 nd last year profitability: 3 rd last year profitability: 4 th last year profitability: 5 th last year profitability:	
Item 44. Return on Equity (ROE)	$\frac{\text{Net Profit}}{\text{Equity}} * 100$ Last year ROE: 2 nd last year ROE: 3 rd last year ROE: 4 th last year ROE: 5 th last year ROE:	

(continued)

<i>Environmental dynamism</i>	Extremely high	Extremely low
1. Market uncertainty (impacts of vulnerability to the change in trade policies across borders on performance).	1	2 3 4 5 6 7
2. Technology dynamics (impacts of change to technology relating to your main product / industry on performance)	1	2 3 4 5 6 7
3. Environmental dynamism (impacts of change in overseas customers' demand and preferences, competitors' new product introduction rate and new selling strategies on performance)	1	2 3 4 5 6 7

Corresponding author

Murali Sambasivan can be contacted at: [Murali Sambasivan@taylorsofmalaysia.com](mailto:Murali.Sambasivan@taylorsofmalaysia.com)