

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

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

**Structured Abstract:**

**Purpose:** The primary objective 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:** 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 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: a) managerial social capital and financial and non-financial performances; and b) managerial cognition and financial and non-financial performances.

**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 in order to succeed in international markets. These two factors are critical to accumulate foreign knowledge.

**Originality/values:** This study provides empirical evidence on dynamic managerial capability and FMK accumulation of export manufacturing firms in low-tech emerging economies context. Out of 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.

## **Plain summary**

The study establishes the antecedents and the outcomes of foreign market knowledge accumulation in the context of emerging economies. The fundamental question of this study is: *What role does dynamic managerial capability play on foreign market knowledge and firm performance?* The sample consists of 365 export-manufacturing firms from an emerging economy in the apparel industry, namely Bangladesh. Structural equation modeling analysis has been conducted to test the hypothesized model. Results show that foreign market knowledge fully mediates the relationship between: a) managerial social capital and financial and non-financial performances; and b) managerial cognition and financial and non-financial performances. We have found that managerial human capital has an insignificant role to play as an antecedent to foreign market knowledge and firm's performance.

Keyword: managerial human capital; managerial social capital; managerial cognition;

## **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 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 organization. In most cases, the top-level managers usually make use of valuable knowledge through strategic actions to generate economic value, such as in B-2-B marketing activities (Todd, Javalgi, & Grossman, 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 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 in order 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 & 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: a) it enables entrepreneurs to respond to strategic changes in the market and b) 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 & 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, Autio, & Sapienza, 2001). However, the causal relationship between DMC and FMK is yet to be established (Åkerman, 2015; Fletcher, Harris, & Richey Jr, 2013). This study has attempted to fulfil this research gap. The fundamental research question of this study is: *What role does dynamic managerial capability play to foreign market knowledge 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 & 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 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 & 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 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, Alvarez, and Urbano (2015). The rest of the paper is organized as follows. The second part of the paper discusses the theoretical perspective of DMC and the foundation of FMK and proposes the hypotheses. The third part of the paper highlights the research methodology and analyses. Section four describes potential findings and results. Final part of the paper argues the outcomes, theoretical contributions, implications, limitation, and future direction of the research.

## **Theoretical Foundation**

### *Dynamic managerial capability (DMC)*

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 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) 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” (p. 189). Yet remarkably, great opportunities are only derived from valuable, rare, and noteworthy information (Huikkola & Kohtamäki, 2017).

Three building blocks potentially complement DMC. They are: a) managerial human capital, b) managerial social capital, and c) managerial cognition. In order to reach the performance of the firm, entrepreneurs need to transform the information to actions and involve routine procedures to deploy decision (Augier & 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 are crucially important (Roberts, Campbell, & Vijayasathy, 2016). Each dimension of DMC is unique, and

there are no covariates between the dimension of the same larger concept (Helfat & Martin, 2015).

Capability development requires time, effort, specialization, and intelligence. Managerial human capital is derived from previous qualification, experience, and on-going training activities (Castanias & Helfat, 1991). It enables entrepreneurs to process information through cognitive concentration to take decision, for instance, resources mobilization and deployment decision (Helfat & 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 & 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 & 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 global mindset as a pre-requisite of entrepreneurial cognition in order to survive and continue international operation (Nummela, Saarenketo, & Puumalainen, 2004).

### ***Foreign market knowledge (FMK)***

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: a) foreign business knowledge, b) foreign institution knowledge, and c) internationalization knowledge (Eriksson et al., 1997). An interesting question at this juncture is: Why do firms need to accumulate FMK? 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, Majkgard, & Sharma, 2000); and the aftermath effects of each decision contributes to firm performance. Knowledge also plays a critical role to develop dynamic marketing capability in order 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 & Wictor, 2003). Hence, the question that is yet to be answered is: Does FMK accumulation process require the dynamic managerial capability 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

& 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 suggests that DMC enables entrepreneurs to respond to strategic changes (Teece, 2012). Seminal work of Adner and Helfat (2003) propose 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, the entrepreneurs should have a higher level of DMC which consists of managerial human capital, managerial social capital, and managerial cognition.

Figure 1 goes here

### ***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 & 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, Coff, & Kryscynski, 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, Manigart, & Vanacker, 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, in order 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, Seibert, & Hills, 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 & 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 & Honig, 2003). The social capital of the entrepreneur develops from business partners, alliances, government officials, union leaders, and other potential and influential stakeholders (Turnbull, Ford, & Cunningham, 1996). These network relationships increase entrepreneurial power, control, and gain international footprints in multiple markets (Kiss & Danis, 2010). Managerial ties, trust, and solidarity between entrepreneurs strengthen this networking relationship. It is not necessary for 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, Engelen, & Brettel, 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 the 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., 2019). 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 & Evers, 2015). 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 is 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 & McDougall, 1994). It is defined as a vision of entrepreneurs to practice openness and cultural diversification which increases the propensity of entrepreneurial commitment towards international markets and creates synergy among diversity (Gupta & Govindarajan, 2002). 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, 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 seeks 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 FMK*

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 knowledge-base of the organization, entrepreneurs need specialized capability which is delivered from DMC. 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, Sapienza, & Almeida, 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, Boari, and Fratocchi (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 firm's willingness to invest in R&D activity to respond to market stimuli (Cantwell & 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 & Pelkonen, 2008). Åkerman (2015) suggests that entrepreneurs having market-specific knowledge and internationalization knowledge increase the firm's ability to realize better opportunities. Since 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, Datta, & Butts, 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 proposed:

*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 5500 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. Eight-hundred 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 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 & Covin, 1995). For higher reliability and validity, this study collected financial data (return on assets and return on equity) 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 last 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 1.

### ***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 return on assets; and the average of return on equity for the last five years (Cerrato & Piva, 2015; Jantunen et al., 2008). The non-financial performance of the firms was measured through operational and perceived success (Gerschewski, Rose, & Lindsay, 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: 1) managerial human capital, 2) managerial social capital, 3) managerial cognition, and 4) foreign market knowledge. 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; 7 represents more than ten years of prior managerial experiences. The same ordinal scale we have used 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 seven ordinal scale where one represents primary school qualification; two represents secondary school qualification; three represents diploma qualification; four represents 3 years of ordinary degree; five represents Bachelor degree; six represents Master 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 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 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 & 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 (1) foreign language and norms, (2) foreign business laws and regulations, and (3) host government agencies. Finally, internationalization knowledge captured top manager's experience in (1) identifying opportunities, (2) dealing with foreign business contacts, and (3) 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 seven-points Likert scale where '1' represents to very high dynamism and '7' represents to low dynamism (Schilke, 2014).

## **Results**

### *Descriptive statistics*

Table 1 highlights the age and size of the firms. Results show that 24.08% firms had 200 - 500 employees and another 24.60% firms had more than two thousand employees. The results of firm age show that only 11% of firms were more than twenty years old. This study conducted an accuracy check of the firm's internationalization age, export percentage, and country of foreign operations. Results show that all these firms internationalized at their establishment/inception. The response rate of the study was approximately 59%. Furthermore, 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 thrown away from the dataset, and finally, 365 valid cases were brought forward to hypotheses testing. The critical ratio of Mardia's coefficient was 1.89, which indicates normal distribution of the dataset (Mardia, 1970).

Table 1 goes here

Table 2 goes here

The correlation of the variables, mean score, normality, and VIF are highlighted in Table 2. All constructs were significantly correlated at  $p < 0.05$  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 ( $< 5.0$ ) (Graham, 2003). We conducted Harman's single factor test to identify the effects of CMV and result showed that the first component percentage of variance was less than 50% (35.84%) (Fuller et al., 2016). Hence, the effects of CMV was minimal (Podsakoff et al., 2003).

### *Exploratory factor analysis*

This study conducted exploratory factor analysis (EFA) before conducting CFA and SEM (Sharif, Mostafiz, & Guptan, 2018). Table 3 highlights the results of EFA. We conducted EFA based on 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 lead 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.

Table 3 goes here

### ***Reliability and validity***

Table 4 highlights the results of reliability and validity analyses The values of composite reliability (CR) and Cronbach Alpha were higher than 0.7 and therefore, confirming 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 maximum likelihood estimation. The average variance extracted values (AVE) of the constructs were higher than 0.50 and the square root of AVE (highlighted in Table 2) was higher than the correlation of that variable with other variables. Therefore, the assumptions of convergent and discriminant validity were established (Fornell & Larcker, 1981; Mostafiz et al., 2019). The model fit indices of measurement model and structural model are highlighted in Table 5.

Table 4 goes here

Table 5 goes here

### ***Hypotheses testing***

Two-step method was used to test the hypothesized relationships. The second-order measurement model suggested adequate model fit indices ( $X^2$  (chi-square)=1404.566,  $df$  (degree of freedom) =922,  $p < 0.000$ ,  $X^2/df=1.523$ , 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 & Gerbing, 1988). The first-order measurement model also provides adequate fit indices ( $X^2=1399.566$ ,  $df=912$ ,  $p < 0.000$ ,  $X^2/df=1.535$ , CFI=0.953, IFI=0.953, TLI=0.949, SRMR=0.0376, RMSEA=0.038). The threshold values for  $X^2/df$  should be in between 1 to 3, CFI, IFI, and TLI values should be higher than 0.900, SRMR and RMSEA values should be lower than 0.050 (Sharif et al., 2018). Both model fit indices are showing adequacy. The 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 FMK construct is acceptable from both perspectives as second-order or first-order, however, subject to the results of EFA analysis. The structural model also highlighted acceptable model fit indices ( $X^2=1535.518$ ,  $df=1001$ ,  $p < 0.000$ ,  $X^2/df=1.534$ , 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 5000 re-sampling by following the guidelines of Preacher and Hayes (2008). Table 6 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 ( $\beta$ ) 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 ( $\beta=0.010, p = 0.846$ ). Results also showed that firm size, age, and environmental dynamism were significant control variables.

Table 6 goes here

### **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 improves the performance of export-manufacturing firms. It is a noteworthy contribution to international business and strategic management literature which unfold 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.

Figure 2 goes here

This study used the data from one of the largest export manufacturing industry in the apparel industry in the world. Drawing on dynamic managerial capability theory and foreign market knowledge perspective, this study tested the research model through structural equation modeling. 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 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, the managerial human capital was not significantly important. 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 & Reichel, 2007). Therefore, it is noteworthy to mention the contextual role in this research. When the diversified experience of entrepreneurs take place, then the level of knowledge corridor will be higher to process information (Gruber, MacMillan, & Thompson, 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 6). 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, Morrish, & Ferdous, 2017). Managerial social capital also improves the information inflow regarding buyer and suppliers (Lee & 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 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 early internationalization literature, most of the previous studies from this context use subjective data which creates generalizability issues. Our study addresses this important knowledge gap to highlight the importance of social capital to achieve the return on assets and return on equity.

The hypothesis between managerial cognition and FMK accumulation has turned out to be significant. The conceptualization of managerial cognition is based on entrepreneurial global mindset. We have captured the global mindset based on entrepreneurial pro-active behaviors, international commitment, and vision. Our study complements the earlier study of Kyvik et al. (2013) by highlighting the contribution of 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 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 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 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) has investigated this industry and highlights 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 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, MacMillan, & Thompson, 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. Since 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 towards 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, Meyer, & Roath, 2017). This type of environment of developing network also fosters strategic cluster by promoting inter-firm cooperation (Radas & 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 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 contributes to firm's performance and contributes 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.

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List of Tables:

**Table 1** Data characteristics of the sample ( $N = 365$ )

| Characteristics       | Number of Enterprises | Percentage (%) | Cumulative |
|-----------------------|-----------------------|----------------|------------|
| <i>No of employee</i> |                       |                |            |
| < 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       |
| 1001 - 2000           | 102                   | 26.7           | 75.3       |
| > 2001                | 94                    | 24.60          | 100        |
| <i>Firm age</i>       |                       |                |            |
| 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        |

**Table 2** Correlation matrix and descriptive statistics ( $N = 365$ )

| <b>Constructs in the model</b> | 1            | 2            | 3            | 4            | 5            | 6            |
|--------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| (1) Managerial human capital   | <b>0.799</b> |              |              |              |              |              |
| (2) Managerial social capital  | 0.569**      | <b>0.788</b> |              |              |              |              |
| (3) Managerial cognition       | 0.489**      | 0.495**      | <b>0.765</b> |              |              |              |
| (4) Foreign market knowledge   | 0.322**      | 0.483**      | 0.442**      | <b>0.742</b> |              |              |
| (5) Financial Performance      | 0.201**      | 0.263**      | 0.292**      | 0.542**      | <b>0.923</b> |              |
| (6) Non-financial performance  | 0.504**      | 0.562**      | 0.586**      | 0.544**      | 0.494**      | <b>0.736</b> |
| Mean Score                     | 20.58        | 72.36        | 39.77        | 60.55        | 9.3          | 44.41        |
| Standard Deviation             | 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        |

Note: Diagonal is the square root of the AVE.

\*\*Correlations significant at the 0.05 level

\*\*\*Correlations significant at the 0.01 level

**Table 3** Exploratory factor analysis ( $N = 365$ )

| 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 |       |       |       |       |       |       |

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

**Table 4** Summary of the reliability and validity analysis and CFA

| Items/Constructs   | Std. loadings |
|--|---------------|
| <b>Managerial human capital</b> ( $\alpha = 0.871$ , 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         |
| <b>Managerial social capital</b> ( $\alpha = 0.955$ , 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 give better results that those by individuals                                    | 0.790         |
| <b>Managerial cognition</b> ( $\alpha = 0.908$ , 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 in order 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         |
| <b>Foreign market knowledge</b> ( $\alpha = 0.846$ , 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         |
| <b>Non-financial performance</b> ( $\alpha = 0.904$ , 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         |
| <b>Financial performance</b> ( $\alpha = 0.920$ , CR = 0.920, AVE = 0.852)   |               |
| Item 43 Return on assets   | 0.944         |
| Item 44 Return on equity   | 0.902         |

Note: Refer to Appendix 1 for details of the items.

**Table 5** Model fit indices

| Model                                   | $\chi^2$ | <i>df</i> | $\chi^2/df$ | (RMSEA) | RMSEA<br>(90% C.I.) | GFI   | CFI   | NFI   | RFI   | IFI   | TLI   | SRMR   | PCLOSE |
|---|----------|-----------|-------------|---------|---------------------|-------|-------|-------|-------|-------|-------|--------|--------|
| Measurement<br>Model (second-<br>order) | 1404.566 | 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<br>Model                     | 1535.518 | 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 6** Results of hypothesized relationships

| Hypothesis             | Std. Estimates | Critical ratio | p Value | Conclusions   |
|------------------------|----------------|----------------|---------|---------------|
| H1 HC -> FMK           | -0.017n.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                   | -0.013n.s.     | -              | 0.852   | Not Supported |
| H4 b                   | 0.200**        | -              | 0.002   | Supported     |
| H4 c                   | 0.234**        | -              | 0.001   | Supported     |
| H5 a                   | -0.010n.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  $**p < .05$ ,  $***p < 0.001$   
n.s.: not significant

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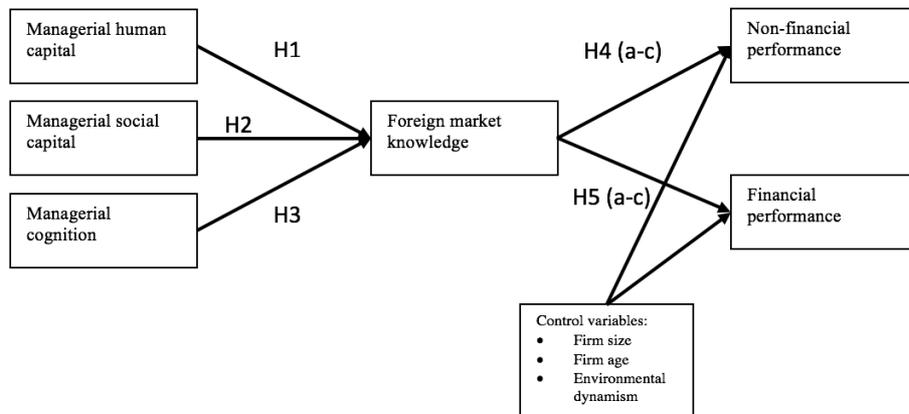


Figure 1 Conceptual framework

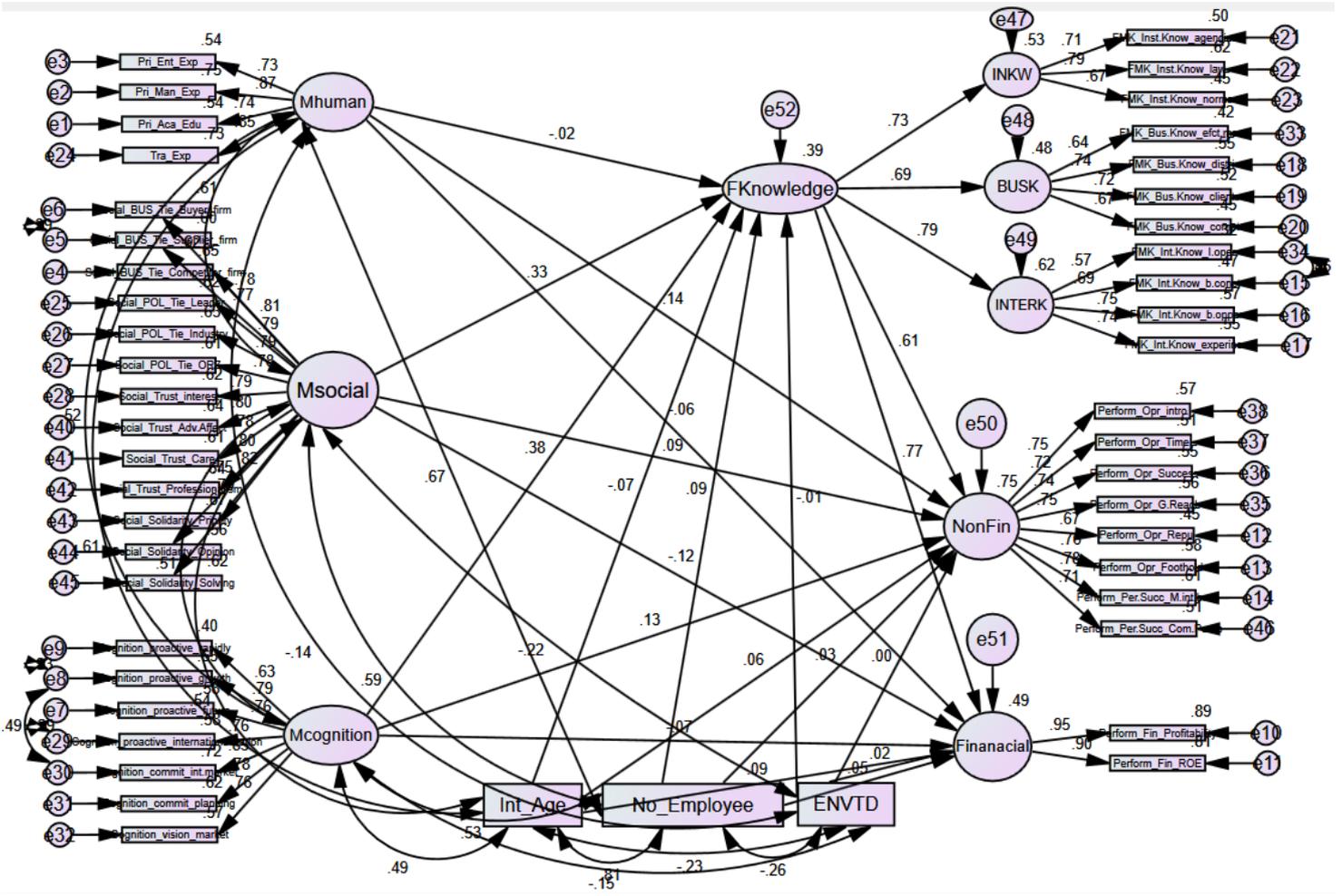


Figure 2 Research framework (standardized estimates).  
 Note: coefficient is significant at  $**p < .05$ ,  $***p < 0.001$

Appendix 1 Questionnaire items

**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

**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  |             |                |
| <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>   |                   |                |
|---|-------------------|----------------|
| To what extent do you agree with the following statements in terms of your network (e.g., customer, supplier, competition)    |                   |                |
|   | Strongly disagree | Strongly agree |
| 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    |

**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 |
| <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 |
|  | 1          | 2 3 4 5 6 7 |
|  | 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:<br>2 <sup>nd</sup> last year profitability:<br>3 <sup>rd</sup> last year profitability:<br>4 <sup>th</sup> last year profitability:<br>5 <sup>th</sup> last year profitability: |                  |
| Item 44. Return on Equity (ROE)   | $\frac{\text{Net Profit}}{\text{Equity}} * 100$ Last year ROE:<br>2 <sup>nd</sup> last year ROE:<br>3 <sup>rd</sup> last year ROE:<br>4 <sup>th</sup> last year ROE:<br>5 <sup>th</sup> last year ROE:   |                  |

| <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  |               |

