Faroque, Anisur; Morrish, Sussie; Kuivalainen, Olli; Sundqvist, Sanna; Torkkeli, Lasse

Microfoundations of network exploration and exploitation capabilities in international opportunity recognition

Published in:
International Business Review

DOI:
https://doi.org/10.1016/j.ibusrev.2020.101767

Published: 01/02/2021

Document Version
Publisher's PDF, also known as Version of record

Published under the following license:
CC BY-NC-ND

Please cite the original version:
Microfoundations of network exploration and exploitation capabilities in international opportunity recognition

Anisur R. Faroque, Sussie C. Morrish, Olli Kuivalainen, Sanna Sundqvist, Lasse Torkkeli

A LUT University, Yliopistonkatu 34, Lappeenranta, 53850, Finland
B Department of Management, Marketing and Entrepreneurship, University of Canterbury, New Zealand

ARTICLE INFO

Keywords:
Network exploration
Network exploitation
Microfoundations
International opportunity recognition
Market change

ABSTRACT

While international entrepreneurship (IE) recognizes opportunity recognition (OR) as a central activity and the prominent role of network capabilities in OR, it is not informative as to how different network capabilities influence OR in international markets. We utilize dual network capability through the lens of exploration-exploitation to better understand how these two different capabilities influence the identification of international opportunities. Given that microfoundations perspective and prior experience in IE are under-developed and under-theorized, we explore founder’s prior experience as an essential microfoundation for the dual network capability. By employing structural equation modeling on a sample of 647 early internationalizing firms from a developing country, the study demonstrates that founders’ prior experience is a significant microfoundation of dual network capability in international OR. However, both exploration and exploitation capabilities fail to bring new opportunities in a changing market environment. A post-hoc analysis reveals that at a higher level of market change, younger firms benefit more from network exploration, whereas older firms achieve greater success when leveraging benefits from network exploitation. The study concludes with implications and future research avenues.

1. Introduction

International entrepreneurship (IE) has been defined as “the discovery, enactment, evaluation, and exploitation of opportunities across national borders” (Oviatt & McDougall, 2005, p. 540), and therefore the recognition of international opportunities lies at IE’s core. The discovery and assessment of international opportunities can be network-driven (Chandra, Styles, & Wilkinson, 2009; Nowiński & Rialp, 2016), and network-assisted recognition of international opportunities might explain early and rapid internationalization (Mort & Weerawardena, 2006). This network-based view of international opportunity has a greater relevance especially for mature industries (such as apparel), characterized by lower knowledge intensity. In mature industries, products are easily imitable; therefore, competition is intense, and most firms risk failing under cost and competition pressures (Hirsch-Kreinsen, 2008). With greater changes in trade policies across borders and customers’ demands and competitors’ strategies, firms in these industries are facing far more challenges, which necessitates them to rely more on networking to recognize opportunities in international markets (Galán & Torsein, 2020).

Several of the main internationalization models also see networks as drivers of the internationalization process of firms (Johanson & Mattsson, 1988; Johanson & Vahlne, 2009). However, the knowledge of how networks from a capability perspective affect an internationalizing firm’s entrepreneurial activities—especially those related to international opportunity recognition (OR)—is limited: As Jones, Covello, and Tang, 2011, p. 643) have noted, “research on the nature and impact of a dynamic networking capability is warranted.” While some recent studies have since highlighted how network-related organizational capabilities impact firms’ internationalization (e.g., Weerawardena, Mort, Liesch, & Knight, 2007), “research on capabilities needs microfoundations” (Gavetti, 2005, p. 599) because micro-level origins may play an important role in the evolution of organizational capabilities (Felin & Foss, 2005). Wilden, Hohberger, Devinney, and Lavie (2018) call for uncovering the microfoundations of exploration and exploitation specifically by extending the two notions to new domains. Literature on this topic does not significantly ensure a conclusive picture, and the antecedents of these capabilities remain unclear (Almahendra & Ambos, 2011)
An entrepreneur’s prior experience may serve as an essential microfoundation for network capabilities in identifying international opportunities (Lafuente, Vaillant, Vendrell-Herrero, & Gomes, 2019). Every entrepreneur has a set of idiosyncratic knowledge, experience, and skills that essentially constitute his/her mental model that he/she contributes while starting a venture and continue affecting a firm’s operations (Morris, Kuratko, Schindehutte, & Spivack, 2012). Thus, without a proper understanding of these micro variables, understanding the evolution of a firm’s capabilities is difficult. This “human side factors” constitutes microfoundational perspective to advance our collective understanding of networking (Liu, Sarala, Xing, & Cooper, 2017). The motivation for this study arises from these calls, and the purpose of this study is to analyze the microfoundations of network capability in international OR of firms. In doing so, this study contributes to literature in several ways.

First, we contribute to the internationalization literature by invoking microfoundations perspective in network capability development by exploring the individual-level origins of network capabilities (Felin, Foss, & Ployhart, 2015). The results of the present study indicate that entrepreneur’s prior experience constitutes an essential microfoundation as an antecedent to network capability. Despite numerous studies indicating that firms develop capabilities from experience, there is a lack of empirical work that would explain how they do so (Bingham, Howell, & Ott, 2019). Thus, the study contributes by taking the interpretation of microfoundations as “bringing individuals back in” (Felin et al., 2015, p. 578), in response to the call to “put the person back into entrepreneurship” (Rauch & Frese, 2007, p. 353), and as “experience as an individual level is under-theorized in IE research” (Jones & Casuli, 2014, p. 47). Although strategy and organization research has made progress on this approach, numerous questions exist regarding the micro-level origins of capabilities (Felin & Foss, 2005; Teece, 2007) and, while entrepreneurship research has somewhat embraced the microfoundation approach (Bryant, 2014), IE has tended to overlook this view until now.

Second, the study contributes by distinguishing between exploration and exploitation type capabilities in IE and international OR: We categorize network capabilities through the exploration and exploitation lenses in line with the exploration–exploitation perspective (March, 1991) and “capability-based view of [an] internationalizing firm” (Teece, 2014). While this exploration–exploitation dichotomy has recently been widely applied in alliance network and alliance portfolio literature (e.g., Lavie & Rosenkopf, 2006; Rothaermel & Deeds, 2004; Yamakawa, Yang, & Lin, 2011), it has not been extended to network research—specifically, network capability and internationalization. Since network capability forms the foundation for entrepreneurial success (Gronum, Verreyne, & Kastelle, 2012), the exploration–exploitation dichotomy in network capability may shed new light on the entrepreneurial outcomes such as OR. Indeed, the few recent studies that assess international OR (Andersson & Evers, 2015; Blanken-Holm, Johanson, & Kao, 2015; Hilmersson & Papaoannou, 2015) implicitly suggest that network capabilities may be linked to the recognition of international opportunities perhaps through explicating the role that the capabilities for exploring and exploiting network relationships may play in international OR. However, to our knowledge, such a study does not yet exist. That is an omission since developing this dual network capability can be expensive for an internationalizing firm and the problem seems highly resource demanding. It is therefore important to understand how firms’ abilities to explore and exploit their business network relationships can offer the most favorable outcomes in international markets in general and in their ability to recognize international opportunities in particular. The results of this study demonstrate that international entrepreneurs’ earlier experience (i.e., managerial, industry, and technical/functional) increases both network exploration and exploitation capabilities.

Third, this study contributes to the opportunity-based view in entrepreneurship and IE. The entrepreneurial opportunity, defined herein as the product–market opportunity (Schumpeter, 1934; Singh, 2001), is recognized as a central concept in both entrepreneurship (Short, Ketchen, Shook, & Ireland, 2010) and IE (Ettemad, 2015). However, despite the noted importance of network-related capabilities in the field of IE, to our knowledge, no previous studies illustrate the relationship between international OR and network capability. Two specific areas thus far remain unassessed: impact of network capabilities on international OR and the differential internationalization outcomes due to the adoption of different types of networking: exploration and exploitation. As such, we take a cue from strategic entrepreneur—that posits that entrepreneurial firms must simultaneously practice opportunity-seeking (exploration) and advantage-seeking (exploitation) behaviors (Hoang & Antonic, 2003; O’Donnell, Gilmore, Cummins, & Carson, 2001; Slote-Kock & Coviello, 2010).

Given the differences in how activity is focused across network exploration and exploitation, we might specifically anticipate some differences in how firms apply these capabilities in international OR depending upon the changing international market environment. Firms must adjust their strategic postures to match the market change rate (Achrol & Stern, 1988). In this study, we specifically focus on market change—a core environmental feature of internationalization. The market environment is considered to have a prevalent influence upon organizational behavior and the success of organizational activities (Covin & Slevin, 1989), and thus firms should align with market conditions to realize superior performance abroad (Cadogan, Sundqvist, Puumalainen, & Salminen, 2012). The relationship between entrepreneurial activities and performance is also context specific (e.g., Lumpkin & Dess, 1996), and there are likely to be changing market conditions where opportunities are identified as a result of network activities (Arenius & De Clercq, 2005; Wiklund & Shepherd, 2003). Therefore, there exists a potential moderator between organizational factors and entrepreneurial processes such as OR (Short et al., 2010). This environmental element deals with shifts and changes in customer preferences and desires; in stable markets (relative to highly changing markets), customer preferences do not considerably change, and any changes are fairly predictable and certain (Sundqvist, Kyläheiko, Kivalainen, & Cadogan, 2012). The main research questions in this study therefore are: (a) What is the impact of entrepreneurial microfoundations of network capability on international OR? and (b) what role does market change play in this process? To investigate these questions, we employ structural equation modeling based on data collected from a low-tech apparel-exporting industry in Bangladesh, a South Asian developing country.

2. Literature review

2.1. Entrepreneurs’ prior experience as a microfoundation of network capability

According to the Cambridge Dictionary, experience is (the process of acquiring) knowledge or skill by doing, seeing, or feeling. The term “experience” is employed very frequently in past entrepreneurship literature and in recent IE literature. Morris, Kuratko, Schindehutte, and Spivack (2012) identify that entrepreneurs scholars define the term “experience” in five ways: as the outcome of involvement in previous entrepreneurial activities (Baron & Ensley, 2006); as the experientially acquired entrepreneurial know-how (Corbett, 2007); as the sum of experiences in a founder’s career (Shane & Khurana, 2003); as the collective set of events that constitute the entrepreneurial process (Blauve, 1994); and as the direct experience associated with an entrepreneurial context (Cope & Watts, 2000). However, we use the term “experience” to describe founders’ prior knowledge and skills gained through securing managerial position either in the same industry or in a technical or functional area or in both. Researchers are also interested in the quality of experience because entrepreneurs’ success and failure
experiences are related to opportunity identification, new venture creation, and reentry (Amankwah-Amaoh, Bosu, & Antwi-Agyei, 2018; Hsu, Wiklund, & Cotton, 2017; Mueller & Shepherd, 2016).

Recent research has characterized network capability as a dynamic capability. But, most of these studies investigate the impact of dynamic capability from macro level (Abell, Felin, & Foss, 2008; Felin & Foss, 2005), lacking an appreciation of the microfoundations that provide an explanation for the origins and development of dynamic capabilities (Fallon-Byrne & Harney, 2017). Microfoundation is “the underlying individual-level and group actions that shape strategy, organization, and, more broadly, the development of dynamic capabilities” (Eisenhardt, Furr, & Bingham, 2010, p. 1263). Individual is the nucleus of microfoundations. In an organization, the founder-entrepreneur is considered the most influential microfoundation. Research on both dynamic managerial capabilities (Helfat & Martin, 2015) and the importance of upper echelons (Carpenter, Geletkanycz, & Sanders, 2004; Hambrick & Mason, 1984) suggests that an entrepreneur influences the development of a firm’s dynamic capabilities (Bendig, Stresse, Flatten, da Costa, & Brettel, 2018). Owner-managers are likely to have relatively more influence than other individuals of an organization (Makela, Sumelius, Höglund, & Ahvikt, 2012). An entrepreneur might be one person, but his/her actions vastly influence the routines of many organizational members due to his/her power and role model function (Helfat & Martin, 2015).

Founder of a firm brings human capital or resources in the form of his/her own life experiences (Cooper, Gimeno-Gascon, & Woo, 1994), and entrepreneurial ventures rely heavily upon these resources (Brush, Greene, & Hart, 2001). Prior experience and knowledge are considered a resource in a firm and are often explained by the resource-based view (Barney, 1986; Penrose, 1959; Wernerfelt, 1984). Prior experiences as “intangibles” are strategic firm resources that enable a firm to create sustainable value (Kristandl & Bonits, 2007). Entrepreneurs’ experiential knowledge resources establish the initial foundation for competitive advantage and lead to the development of other important resources and capabilities (West & Noel, 2009). All in all, the founder or entrepreneur and his/her experience can be perceived as a microfoundation that serves as an explanation for a capability creation (i.e., as a capability’s origin) (Felin, Foss, Heimeriks, & Madsen, 2012).

2.2. Network capabilities from an exploration–exploitation perspective

Individuals and organizations seemingly possess two different focuses regarding activities: exploration and exploitation. This exploration–exploitation tension resonated and was applied in diverse management research areas after it was originally proposed by March (1991) in the organizational learning area. Here, we apply the distinction from the network perspective. A firm’s links with its environment do not constitute evidence of a network unless the focal firm is obviously influenced by the network partners (Joyce, Woods, & Black, 1995). Therefore, the mere existence of a network is not sufficient for accessing network resources; rather, firms must activate the network—whether it be existing or evolving—by its capability. This corroborates with Gilmore and Carson’s (1999, p. 31) definition of a network, in which contribution from network partners is necessary for a network to exist.

Existing network research in entrepreneurship and IE predominantly focuses on the network content, governance, and structure, devoting a considerable amount of discussion to the network types and the importance of strong rather than weak ties without reaching a definitive conclusion. Against this backdrop, a recent phenomenon that defines a network as a dynamic capability appears to be an alternative because network capability—and not the network per se—initiates, develops, and activates network relations and mobilizes network resources, which recent research findings in entrepreneurship and IE also support. Furthermore, exploration and exploitation are the two essential building blocks of dynamic capabilities (Zhan & Chen, 2013). However, merely a few studies in both fields investigate network as a capability and primarily concentrate on the exploitation of existing ties. Therefore, research that explores the network’s dual capability (exploration and exploitation) is warranted with a process perspective by combining both the antecedents and outcomes of such capabilities (Hoang & Antoncic, 2003; O’Donnell et al., 2001; Slotte-Kock & Covello, 2010).

Two broad types of different activities between which firms divide attention and resources—exploration and exploitation—have been originally proposed by March (1991). Exploration is understood as “the pursuit of knowledge, of things that might come to be known” and exploitation as “the use and development of things already known” (Levinthal & March, 1993, p. 105). More specifically, exploitation is an orientation to the short-term, whereas exploration has a more future-based or long-term focus (Bodwell & Chernek, 2010; He & Wong, 2004). Exploitation activities may be directed toward gaining efficiency, while exploration activities promote flexibility within an organization. From the resource perspective, exploration’s success is determined by a firm’s capability to seek, acquire, and attract external resources whereas successful exploitation requires the capability to increase and extend the use of existing internal assets (Hsu, Lien, & Chen, 2013).

While March (1991) initially considered these two capabilities to be fundamentally incompatible, subsequent studies often categorize exploitation and exploration as orthogonal variables that can be simultaneously achieved (Aub & Menguc, 2005; Katila & Ahuja, 2002). The organizational ambidexterity concept has thus become a new paradigm in strategic management and organizational science (Kauppila, 2010). However, the exploration, exploitation, and ambidexterity perspectives in IB or IE are relatively new given their traditional focus on exploitation activities (Hsu et al., 2013), with a few recent exceptions (e.g., Lin & Si, 2019; Lisboa, Skarmeas, & Lages, 2013).

2.3. Opportunity-based view in entrepreneurship and IE

The discovery of opportunities is entrepreneurship’s core issue (Kirzner, 1973). The classical entrepreneurship school discusses OR’s properties (Cunningham & Lischner, 1991) because OR is one of the early steps of the entrepreneurial process. Given the opportunity concept’s importance in the mainstream entrepreneurship literature, numerous attempts have been made to define and operationalize opportunity as well as uncover the processes involved in opportunity identification. In this study, in line with Venkataraman (1997), we refer to opportunity as a set of ideas, beliefs, and actions to create an innovative new product/service, to improve an existing product/service, to imitate a profitable product/service in a less-than-saturated international market (Singh, 2001), or to enter a new international market (Schumpeter, 1934). In short, we indicate “opportunity” as a product–market IB opportunity. In the entrepreneurship literature, OR is defined as “the ability to identify a good idea and transform it into a business concept that adds value and generates revenues” (Lumpkin & Lichtenstein, 2005, p. 457).

Since opportunities also exist in international markets (Zahra & Duss, 2001; Zahra & Garvis, 2000), IE researchers address these questions to a certain extent by paying attention to the discovery, evaluation, and exploitation of entrepreneurial opportunities across international borders (Zahra, Korri, & Yu, 2005). Although this construct has received considerable attention in the mainstream entrepreneurship literature, research focus on this issue in IE is marginal (e.g., Kraus, Niemand, Angelsberger, Mas-Tur, & Roig-Tierno, 2017; Mainela, Puhakka, & Servais, 2014). Jones et al. (2011, p. 642) note that “the concept of opportunity recognition—is quite new to IE.” and Peiris, Akosie, and Sitha (2012) also identify that, since the first conceptualization of early internationalizing firm (Oviatt & McDougall, 1994), entrepreneurship’s role in IE research has been identified as a key aspect of the field, although its application has been quite limited. Although the contributions of several scholars are prominent in the field (e.g., Chandra et al., 2009; Dimitratos, Johnson, Plakoyiannaki, & Young, 2016),
considerable potential yet remains for opportunity research in IE.

In IE, Vahline and Johanson (2013, p. 13) recently defined international OR as a dynamic capability “to identify opportunities and to mobilize relevant resources both within the own firm and within other firms involved in the opportunity.” This assertion indicates that mobilizing resources is an important aspect of identifying and developing opportunities because, without proper resource orchestration, irrespective of whether these resources are controlled by the focal firm or by any other firm(s) in its networks, no idea can be developed and perceived as an opportunity and be thus subsequently acted upon. As a complex process, IE incorporates heavily contextualized and socially constructed activities that occur through joint cross-border coordination. Such a complex and contextualized process typically cannot be exclusively explained by descriptive entrepreneurial behavior categories (Fletcher, 2004). Scholars report that network actors with which firms are connected facilitate their access to knowledge and resources (Zhang, Ma, & Wang, 2012) through relationships with business actors, such as customers, distributors, and suppliers (Knight, Koed Madsen, & Servais, 2004; Sharma & Blomstermo, 2003; Zhang et al., 2012).

3. Hypotheses development

3.1. Prior experience and network exploration and exploitation capabilities

The dynamic capability approach builds upon the basic assumptions of resource-based view through its assertion that these unique firm capabilities develop over time (Teece, Pisano, & Schuen, 1992). According to this approach, firms accumulate knowledge, expertise, and skills through organizational learning. However, organizational learning is not limited to internal activity alone, but rather also results from utilizing knowledge generated outside the firm (Deeds, DeCarolis, 1997; Teece, Pisano, 2004; Sharma, & Schuen, 2003). Firms learn in areas that are related to previous activities, and thus “history matters” (Hill & Deeds, 1997; Teece, Pisano, & Schuen, 1992). In entrepreneurial firms, this history is essentially rooted into the firms’ founders, specifically in their previous work and job histories—prior industry, managerial and technical experience, all of which help bring pre-existent networks into the firms.

Network capability echoes the knowledge and experience of firms within a particular social context (Grant, 1996; Kogut, 2000). Any kind of prior experience can serve as a basis upon which firms may develop other kinds of relationships (Frels, Shervani, & Srivastava, 2003; Nelson & Winter, 1982). For example, maintaining one relationship favorably can lead to the generation of additional relationships. A firm whose founder possesses prior experience in the industry as well as managerial and technical/functional knowledge is generally likely to be more capable in managing relationships and mobilizing and deploying network resources (Kale, Dyer, & Singh, 2002).

Managerial capabilities are tied to often complex corporate histories (Teece, 2012) (which is also true at the “microfoundations level”). As relationships evolve historically (Nelson & Winter, 1982), founder’s prior experiences serve as the “microfoundation” upon which firms can further develop their networks (Gulati, 1999; Yaprack, Karademir, & Osborn, 2006). Once a firm builds up certain network skillsactualizing founder’s prior experience, it is more likely to exploit them to gain economic benefits (Gulati, 1999; Nelson & Winter, 1982; Yaprack et al., 2006). For example, Morris, Hammond, and Snell (2014) studied teams in a multinational consultancy firm and its knowledge resources and found that knowledge diversity in teams increases learning, global efficiency and local responsiveness, which eventually and help in forming a dynamic (internationalization) capability. At the individual level, it can be seen as reflected in the diversity of the knowledge base of a founder, stemming from earlier experience.

Network capability development is path dependent and path creative (Mu, 2013); it is path dependent because it relies on a founder’s prior network history and already established network ties, and it is path creative because it can be exploited or explored taking advantage of founders’ existing network relationships (Mu, 2013). However, this capability development process of early internationalizing firms need not take a path-dependent process in the new firm (Madsen & Servais, 1997) because these firms are essentially dominated by their founders, who bring in their previous knowledge and experience. The capability-building process in such firms is driven by entrepreneurial owner-managers with prior experience (Weerawardena et al., 2007). The level of investment in developing network capabilities is the lowest when a firm leans on the experience accumulation process (Zollo & Winter, 2002) and especially counts on the founders’ knowledge and experience acquired through their previous jobs, industry experience, and technical/functional and managerial roles. These firms can easily overcome the ambiguity associated with their partners’ skills (Crossan & Inkpen, 1995) due to their founders’ previous knowledge and experience. Therefore, we hypothesize the following:

Hypothesis 1. The greater the entrepreneur’s prior experience, the stronger the firm’s network exploitation capability.

Hypothesis 2. The greater the entrepreneur’s prior experience, the stronger the firm’s network exploration capability.

3.2. Network exploitation, exploration, and international OR

According to the network view of markets, OR hinges on the interaction between partners who build knowledge of and build trust in each other as they further commit themselves to the relationship. Opportunities are likely to emerge as a consequence of the privileged knowledge that the two partners develop during their interaction: “opportunity identification is a side-effect of an ongoing business relationship” (Johanson & Vahline, 2009, p. 1419). This knowledge may allow them to recognize opportunities that others do not (Agnal & Chetty, 2007). Thus, early internationalizing firms can exploit their existing relationships to recognize new product–market opportunities.

Some recent evidence indicates how managerial capabilities influence international OR (Andersson & Evers, 2015) as well as how the latter is a particular catalyst to the internationalization of small- and medium-sized enterprises (SMEs) (Hilmersson & Papaioannou, 2015). In this process, the ways in which firms create and exploit network relationships can affect their OR in international markets (Blankenburg-Holm et al., 2015).

Although existing network relationships may help an internationalizing firm identify new international opportunities, they may also restrict strategic options because opportunities can be limited by the existing networks’ boundaries (Eberhard & Crai, 2013). The importance of exploration and exploitation from the network perspective lies in their potential for improving business performance and sustaining competitive advantage (Gibson & Birkinshaw, 2004; He & Wong, 2004). Research also indicates that international opportunities may be identified through existing networks, as is often the case with high-tech firms (Coviello & Munro, 1997), or may be attributed to new networks, as is the case of family businesses that derive opportunities from new ties established during trade fairs (Kontinen & Ojala, 2011). When an early internationalizing firm fails to either broaden its network horizon with prospective partners or identify potential business opportunities beyond the pre-defined network boundary (Gaade, Huerem, & Håkansson, 2003; Gulati, Nohria, & Zaheer, 2000), the firm then becomes susceptible to network rigidity (Mort & Weerawardena, 2006). We argue that an early internationalizing firm can overcome network rigidity by broadening its network horizon through its network exploration capabilities, which may allow it to identify new international product–market opportunities (Companys & McMullen, 2007) that do not exist within the existing network boundaries. As such, we hypothesize the following:
Hypothesis 3. The stronger the network exploitation capability, the greater the firms’ international OR.

Hypothesis 4. The stronger the network exploration capability, the greater the firms’ international OR.

3.3. Network exploitation, exploration and international OR: a contingency explanation

A central concern of the organizational strategy regards making choices about how much to invest in different types of activities. Two broad types of qualitatively different learning activities between which firms divide attention and resources—exploitation and exploration—have been proposed in the literature (March, 1991); likewise, the exploitation–exploration dichotomy can be extended to network capability. We argue that the network exploitation perspective emphasizes that the identification of new opportunities is facilitated by a firm’s ability to exploit existing network relationships and resources, whereas the network exploration perspective focuses on a firm’s advantages based on its ability to explore new network relationships.

Networks is not solely an entrepreneur’s personal activity, but also an element of a company’s activity and structure (Dubini & Aldrich, 1991). An inter-organizational network is a mode of regulating interdependence between firms based on a cooperative game with partner-specific communication (Grandori & Soda, 1995). As specified previously, network exploitation emphasizes a firm’s ability to exploit an existing network and its resources, whereas network exploitation focuses on a firm’s ability to explore new network relationships. Thus, in support of both H1 and H2, and following Vahline and Jonsson (2017), one can assume that both perspectives are relevant for international firms in today’s global economy.

Accordingly, a closer look at the relative impact of network exploitation and exploration in IB environments seems reasonable given that market environment poses specific strategic and managerial challenges when firms cross borders. Network exploitation, with its focus on exploiting current network relationships to exploit existing and recognize new product–market opportunities, may be expected to be highly effective when new foreign market environments resemble current existing markets. When IB market environments differ from existing market environments, network exploitation may become unprofitable, whereas network exploration may better serve the needs. Network exploration capabilities can enhance firms’ alertness to market change, thereby promoting OR together (Chen & Liu, 2019).

Market changes can be incremental or radical (Gersick, 1991). The magnitude and speed of change are related to perceived uncertainty. Rapidly changing market environments are associated with severe unpredictability regarding the market characteristics/elements, like customers and competitors as well as high change rates in market trends and industry innovation (Miller, 1987). The shifts in demand and the conditions typical of a dynamic environment are likely to generate opportunities from which businesses can take advantage (Chandler & Hanks, 1994; Covin & Slevin, 1991; Zahra, 1993). These changes create dynamics in demand and offer new opportunities to firms that can deliver products and services attuned to the changing demand. In changing market conditions, capabilities are not easily transferable across different overseas markets, and competitors’ strategic actions may even change the nature of opportunities (Sundqvist et al., 2012) and redefine the rules of the game. In such a changing market environment, network exploitation strategies become more costly and uncertain, which may negatively affect OR. More specifically, firms that are limited by their existing networks, are less alert to opportunities in the changed environment. These firms, thus, fail to sense changes in market environment and therefore benefit less and may even face negative growth in such environments.

Under these changing market conditions, existing networks may fall short of identifying new opportunities for these firms because an existing network’s contributors have already established a generally closed structure that is limited in knowledge. Therefore, new information and knowledge related to customers, competitors, and other specific changes may not be captured within this existing framework of relations. Network exploration may be most necessary for success. In these cases, firms must proactively search for new network partners, and this exploration strategy will be linked to the OR in international markets. Thus, firms must set the course via market-driving behaviors and exploration (i.e., network exploration behaviors) (Sundqvist et al., 2012). In line with contingency theory, the environmental appropriateness of networking (Joshi & Campbell, 2003; Sigmund, Semrau, & Wegner, 2015) suggests that firms’ network strategies must fit their environmental contexts (Achrol & Stern, 1988; Grewal, Comer, & Mehta, 2001) because business environment has a profound influence on organizational success (Covin & Slevin, 1989). Therefore, firms should align with environmental conditions to realize superior international performance (Cadogan et al., 2012). Accordingly, we propose the following hypotheses:

Hypothesis 5. In stable markets (i.e. markets with no or very little change), network exploitation is positively related to OR in international markets; however, as markets change, the positive relationship between network exploitation and OR becomes weaker.

Hypothesis 6. In stable markets (i.e. markets with no or very little change), network exploration is positively related to OR in international markets; however, as markets change, the positive relationship between network exploitation and OR becomes stronger.

Fig. 1 summarizes the proposed hypotheses and presents the theoretical framework.

4. Research methodology

4.1. Data collection

4.1.1. Research context

Our study focuses on the early internationalizing firms in Bangladesh’s apparel industry. The apparel industry of this country is the dominant player in world apparel market and ranks second only to China (Lu, 2020). Whereas the majority of the world’s economy suffered during and after the 2008–2009 global financial crisis, Bangladesh’s apparel sector witnessed steady growth. Industry insiders predicted positive growth due to the ongoing trade tension between the US and China, which has encouraged apparel retailers in the US and other regions to increase their import orders from Bangladesh. Furthermore, industry analysts speculate that despite the COVID-19 crisis and looming economic recession, the future of this industry in the post-COVID era seems auspicious because Western retailers still treat few Asian countries including Bangladesh and Vietnam as their single largest apparel sourcing base, with no substitute (Lu, 2020).

Entrepreneurs’ prior experience played a key role in developing this industry, and Rhee (1990) proposed a catalyst model of development based on the success of Bangladesh’s apparel export industry. The employees of the country’s first export-oriented apparel company, established in 1978, received intensive training in an overseas plant in South Korea, returned with technical knowledge, and later received managerial experience. Most of these employees later left their jobs to start their own apparel exporting ventures by capitalizing on their already established network contacts. This trend continued, and thus the know-how transferred throughout the entire industry; however, no empirical evidence supports this assertion. Therefore, in this study, we include entrepreneurs’ prior experience and reveal its link with network capabilities and international OR.

4.1.2. Sample

A sample of 800 early internationalizers was randomly generated
Secondly, there exist some potential benefits of using managers as their business obligations, meeting engagements, and frequent travel. Specifically concerning variables such as self-efficacy and prior experience, if the respondent is the same individual he/she is evaluating, minimize social desirability bias and self-reporting bias, which are very common.

Firstly, firm founder-entrepreneurs are not easily accessible considering previous work history and experience. We collected data on entrepreneurs’ prior experience from firm managers for two specific reasons. Firstly, firm founder-entrepreneurs are not easily accessible considering their business obligations, meeting engagements, and frequent travel. Secondly, there exist some potential benefits of using managers as evaluators of entrepreneurs’ prior experience and knowledge; they can minimize social desirability bias and self-reporting bias, which are very common if the respondent is the same individual he/she is evaluating, specifically concerning variables such as self-efficacy and prior experience (Carr & Sequeira, 2007). Surveying senior managers for collecting data on founders is becoming a common practice in IE (Ahmed & Brennan, 2019).

Of the respondents, 21 percent have up to five years of industry experience, 35 percent have six to ten, and the remaining 45 percent have more than ten. In addition, about 40 percent have up to three years of experience at their respective firms, 43 percent have four to ten, and the remaining 17 percent have more than ten. These experience levels ensure that the respondents possess enough experience at their respective organizations to act as the key informants. Of the respondents, 93 percent reported a close proximity to the entrepreneur(s) (5–7 on a scale of 7), which indicates their eligibility to comment on those entrepreneurs’ prior experience and knowledge.

4.1.3. Data collection instrument

A structured survey was applied to collect data. The survey comprised four measures for the concepts of interest (i.e., founders’ prior experience, network exploitation and exploration capabilities, international OR) and some demographics (i.e., firm age, number of employees, number of export markets). Face-to-face surveys were conducted using structured questionnaire aiming senior executives of the participating firms. Several research assistants were recruited and given rigorous training for data collection purposes. On average, these interviews lasted twenty minutes, and the respondents were motivated by a forwarding letter from the president’s office of the two exporters’ associations that requested their cooperation.

4.1.4. Measures

Network capability is defined as:

- the ability of a firm to systematically and competently exploit and mobilize and deploy network resources for the creation of value-added product and services as markets emerge, collide, split, evolve and die over time (Mu, 2013, p. 104).

This definition is consistent with prior studies and captures the dual network exploration–exploitation process. The three-item scale for network exploitation capability was adopted from the network capability construct of Walter, Auer, and Ritter (2006), representing firm’s coordination skills, relational skills and partner knowledge, measured by: 1) We discuss regularly with our key network partners how we can support each other, 2) We almost always solve problems constructively with our network partners, and 3) We know our network partners’ markets, products/services as well as their strengths and weaknesses.

Respondents were asked to indicate the firm’s position on the statement using a seven-point rating scale ranging from strongly disagree to strongly agree.

Network exploration capability comprises three components—alertness (Parida, Pemartin, & Frishammar, 2009), relational skills, and internal communication (Walter et al., 2006). Respondents were asked to indicate the firm’s position on the following statements using a seven-point rating scale ranging from strongly disagree to strongly agree: 1) We have our eyes open to find new network partners, 2) We have the ability to build good personal relationships with new network partners, and 3) In our firm employees have informal contacts among themselves in relation to establishing new network relationships.

International OR was measured by four items with seven-point Likert scales. In addition to the most frequently used items in the existing literature, such as the number of IB ideas (How many IB ideas did you identify in past three years: very few to many; e.g., Gordon, 2007; Singh, Hills, Hybels, & Lumpkin, 1999), some new items were generated to capture OR’s dynamic nature, such as the extent of modification from the initial idea to the opportunity (How much did you modify/develop the international opportunity from idea generation to OR: no change to major change; e.g., Gordon, 2007), the feasibility and desirability of innovative ideas (How many of novel or innovative ideas were considered feasible and desirable: very few to most; e.g., Ko & Butler, 2006; Ucbasaran, Westhead, & Wright, 2009), and the resource-shifting capability or strategic flexibility (How much are you able to shift organizational resources to capitalize on emerging opportunities in IB: very low to very high; e.g., Schilke, 2014).

Founders’ prior experience was measured by three items: prior managerial experience (the founder(s) of this firm has prior managerial experience before starting this business), industry experience (the founder(s) of this firm has previous industry experience before starting this business), and technical/functional experience (the founder(s) of this firm has prior expertise in a technical or functional area before starting this business) (Lee & Tsang, 2001; Ucbasaran, Westhead,
Wright, & Binks, 2003). Respondents were asked to indicate their degree of agreement with these statements using a seven-point rating scale ranging from strongly disagree to strongly agree. The market change construct was measured by two items on a seven point scale ranging from very low to very high: vulnerability to the change in trade policies across borders (Zhou, Barnes, & Lu, 2010) and the change in overseas customers’ demand and preferences, and competitors’ new product introduction rate and new selling strategies (Achrol & Stern, 1988).

4.1.5. Data

Data was collected between January and May 2012. After checking for missing values and conducting a rigorous normality test, our final dataset retained 647 cases, thus realizing a response rate of 81 percent. The data’s descriptive statistics are provided in Table 1. The study sample is quite balanced in terms of size (number of employees), as one half has less than or equal to 500 employees (in line with the definition of SMEs) and the other half has more than 500 (large firms). About 25 % of the firms export to up to three countries, 35 % up to six, 20 % up to nine, and 20 % up to ten and more. In terms of age distribution, about 25 % of firms are up to five years old, 35 % up to ten years, 32 % up to twenty years, and the remaining 8 % more than twenty years, thereby representing a strong mixture of differently aged firms.

4.2. Measurement validation

An exploratory factor analysis (EFA) was firstly conducted to identify the underlying dimensions in each measurement scale. During EFA, both network exploitation and exploration emerged as unidimensional constructs, while OR also emerged as a unidimensional measure (see Table 4). All items were fed in a confirmatory factor analysis (CFA) to test the hypothesized factor structure and assess the convergent and discriminant validity. The results obtained from the CFA model run are highlighted in Tables 3 and 4. The results show that the items employed to measure the constructs were both valid and reliable. Convergent validity is substantiated by the large and significant standardized loadings (t > 1.96, p < 0.001) of the items on the respective constructs. Discriminant validity was tested according to the procedure suggested by Fornell and Larcker (1981). Table 3 illustrates that the diagonal elements (i.e., the square root of average variance extracted [AVE]) are greater than the off-diagonal elements in their corresponding rows and columns.

Cronbach’s alpha, composite reliability (CR), and AVE were used in estimating reliability and internal consistency, results of which are presented in Table 4. The constructs’ Cronbach’s alpha and CR values exceed the minimum recommended level of 0.70, suggesting a high internal reliability among the constructs (Fornell & Larcker, 1981). In addition, all the AVE coefficients meet or exceed the recommended minimum level of 0.50, indicating the model’s ability to explain the constructs’ variance (Fornell & Larcker, 1981). The model fit statistics are also satisfactory (Hair, Black, Babin, & Anderson, 2010). The measurement model statistics for these variables are provided in Table 2.

4.3. Structural model

Since our model simultaneously assumes a series of interrelated relationships, we apply structural equation modeling (SEM) rather than the often-used multiple regression, which is restricted to examining a single relationship at a time (Cheng, 2001). Measurement model validation performed via an SEM-based CFA produces some additional advantages (e.g., more favorable psychometric properties) because relationships between the constructs’ indicators are studied jointly (Cheng, 2001) and because measurement error is considered when statistically analyzing data (Lomax & Schumacker, 2004).

In order to test the hypotheses, interaction terms were created by simple product terms. For instance, to create the interaction between export market change and network exploitation, we multiplied the single indicant score for market change with the single indicant score for network exploitation. After creating the interaction terms but before testing the model, Little, Bovaird, and Widaman (2002) recommended a procedure for orthogonalizing (residual centering) observed interaction terms was followed to handle possible multicollinearity issues.

5. Results

SEM was employed with maximum likelihood estimation to test the structural model’s relationships, for which Table 2 displays our model fit results. In the constrained model, the main effects freely predict prior experience, network exploitation, exploration, and international OR, while the interaction terms are forced to adopt a zero path magnitude with international OR. In the unconstrained model, on the other hand, all paths are allowed to freely predict the corresponding outcome variable. The unconstrained model exhibits a significant improvement (i.e., a decrease) in X² at 5 percent and also returns more favorable fit indexes; as a result, we apply the unconstrained model to test the hypotheses.

The results of the hypothesis tests for the unconstrained model are presented in Table 5; in the first instance, H1 and H2 predict a positive relationship between founders’ prior experience and network exploitation and exploration capability (βs = 0.373 and 0.430, p < 0.001), respectively, and both are supported by the results. H3 predicts a positive relationship between network exploitation and international OR; the results reveal their positive relationship (β = 0.266, p < 0.001), thus supporting H3. The relationship between network exploration and international OR is predicted in H4, which is also supported (β = 0.233, p < 0.05).

Surprisingly, neither H5 (β = 0.073, ns) nor H6 (β = 0.044, ns) are supported. Therefore, these results suggest that, although they offer opportunities in stable markets, both network exploitation and exploration fail to lead to greater OR in a changing market environment, and it is very unlikely that network capabilities are not significantly related to OR in such conditions. This non-significance might be due to some other boundary condition effects that we did not include in our original model.

The purpose of conducting a post-hoc analysis is to enrich the analysis after the hypotheses are tested. A constructive post-hoc analysis identifies issues that can add to our understanding of the phenomenon and enable that researchers develop more informed research designs and hypotheses in the future (Shneor, Jansen, & Vissak, 2006). To shed further light onto this relationship, we conducted a three-way interaction as our post-hoc analysis (configurational approach; e.g., Wiklund & Shepherd, 2005) by including firm age as a boundary condition of these relationships. Addressing the effects of firm age on the relationship between network capability and OR is fruitful for several reasons (Sigmund et al., 2015); previous research points to the fact that firm age has a

Table 1

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Number of Enterprises</th>
<th>Percentage (%)</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of employees</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;100</td>
<td>107</td>
<td>16.7</td>
<td>16.7</td>
</tr>
<tr>
<td>101-250</td>
<td>77</td>
<td>11.9</td>
<td>28.6</td>
</tr>
<tr>
<td>251-500</td>
<td>148</td>
<td>22.9</td>
<td>51.5</td>
</tr>
<tr>
<td>501-1000</td>
<td>106</td>
<td>16.4</td>
<td>67.9</td>
</tr>
<tr>
<td>&gt;1000</td>
<td>209</td>
<td>32.1</td>
<td>100</td>
</tr>
<tr>
<td>Number of export markets</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-3</td>
<td>160</td>
<td>24.7</td>
<td>24.7</td>
</tr>
<tr>
<td>4-6</td>
<td>225</td>
<td>34.8</td>
<td>59.5</td>
</tr>
<tr>
<td>7-9</td>
<td>130</td>
<td>20.1</td>
<td>79.6</td>
</tr>
<tr>
<td>10 and over</td>
<td>132</td>
<td>20.4</td>
<td>100</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-5</td>
<td>160</td>
<td>24.7</td>
<td>24.7</td>
</tr>
<tr>
<td>6-10</td>
<td>228</td>
<td>35.3</td>
<td>60</td>
</tr>
<tr>
<td>11-20</td>
<td>205</td>
<td>31.7</td>
<td>91.7</td>
</tr>
<tr>
<td>20+</td>
<td>54</td>
<td>8.3</td>
<td>100</td>
</tr>
</tbody>
</table>
significant moderating effect on the relationship between network capability and firm performance (Semrau & Sigmund, 2012). Theoretically, this effect is grounded in the fact that younger ventures suffer from the liability of newness (e.g., a lack of organizational legitimacy) (Aldrich & Auster, 1986; Stinchcombe, 1965) and as a consequence may be forced to rely upon network capability to be successful (Sigmund et al., 2015). Although firm size indeed influences venture survival (Brüderl, Preissendorfer, & Ziegler, 1992) and financial performance (Sigmund et al., 2015), we did not include this result in our post-hoc analysis. Our research agenda involves investigating how network capability affects OR rather than firm survival, for which firm age seems more relevant.

When firm age was included, the model fit increased significantly and both relationships (exploitation → OR; and exploration → OR) became significant ($p = 0.174$ and $-0.166$, respectively; $p < 0.05$). Therefore, a higher level of market change seems to indicate that older firms leverage greater benefits from network exploitation. On the other hand, at a higher level of market change, younger firms leverage greater benefits from network exploration. Changes in the market environment can also offer new firms new growth opportunities (Drucker, 1985). In the post-hoc analysis, we additionally checked for the ambidextrous network capability’s impact on international OR, which however turned out to be non-significant ($p = 0.050$, $p > 0.10$).

Fig. 2 shows the significance of hypothesized relationships (along with extended post-hoc analysis).

6. Discussion and implications

This study has analyzed how exploitative- and exploratory-led network capabilities impact international OR. We herein argue that firms’ network-related capabilities, called “network capability” (e.g., Walter et al., 2006), should be categorized through the exploration-exploitation dichotomy because this approach allows us to assess how both types of capabilities affect internationalization. We also shed light on the entrepreneurial microfoundations of such capability development through founder’s prior experience. We differentiate between the network exploration and exploitation capabilities because the purposes of exploitation (of existing ties) and exploration (of new ties) differ (Laurell, Achtenhagen, & Andersson, 2017). The results raise some interesting implications regarding the extant literature on these topics. For instance, the result that both exploitation and exploration capabilities are linked to increased OR abroad is interesting in light of Lin and Si’s (2019) recent study, wherein they found entrepreneurs’ exploration to negatively affect early internationalizing firms’ internationalization speed. While in principle one might expect that increased international OR would also lead to more rapid internationalization, we point to two alternative explanations for our study’s differing results. Firstly, it is possible that the impacts of exploration and exploitation are context specific at the industry level. However, Lin and Si’s (2019) study was conducted on cross-sectional data and they found that the industry sector did not impact the results. Instead of the industry sector, we in this study suggest that dynamic organizational capabilities in the form of exploration capabilities may be more critical for rapid internationalization. This possibility is supported by studies in the IB and entrepreneurship domains that highlight the necessity of developing network-specific capabilities (e.g., Mort & Weerawardena, 2006; Zhou et al., 2010). As Lin and Si (2019) note, individual entrepreneurs need time to engage in exploration behaviors that may slow down the internationalization process of their respective companies. Our results imply that exploration behaviors are to an extent enacted in the form of corresponding network capability, and such a negative trade-off between exploration and international expansion may be overturned.

The fact that the exploration and exploitation network capabilities were both positive and significant in our analysis is further notable in light of studies concerning the dynamics of exploitation and exploration in other domains. As Penney, Combs, Gaffney, and Sexton (2018) recently found, different portfolios of alliances that would enable ambidextrous exploitation and exploration are context dependent and can be more difficult for companies to implement than theory suggests. As the mean values of the exploitation and exploration network capabilities (5.14 and 5.13, respectively) were herein both relatively high, international OR is seemingly a context wherein the development of such ambidexterity in alliance formation is both possible and highly beneficial. The results also in part contradict the notion of Lavie, Kang, and Rosenkopf (2011) that an ambidextrous exploration-exploitation enactment within a domain would be expected to pose negative performance implications. While our study did not explicitly focus on company performance, the ability to recognize international opportunities should be expected to lead to increased degrees of internationalization in both scale and scope. Moreover, as exploration and exploitation can lead to different types of innovation behavior (Camison, Boronat-Navarro, & Fores, 2018), this study’s results again illustrate that, for international OR, both exploration and exploitation capabilities can be independently beneficial rather than one type dominating over the other. This notion indirectly aligns our study to Karami and Tang’s (2019) findings, which assert that both networking capability and
they conclude that a microfoundational lens allows for an in-depth understanding of how network capabilities influence firms’ internationalization in general as well as their international OR in particular. In doing so, the findings regarding the role an entrepreneur’s prior experience plays extend the discussion emerging in recent studies that seek to link managerial micro-foundations to global strategy (e.g., Kunisch, Menz, & Cannella, 2019) by outlining how microfoundations lead to different types of capability development in the international domain.

In sum, our aim is to contribute to the debate (e.g., Musteen, Francis, & Datta, 2010; Vasilchenko & Morrish, 2011; Yalcinkaya, Calantone, & Griffith, 2007) regarding when network exploitation and exploration are most likely to benefit international marketers. We may further progress this debate by linking different types of capabilities that capture the development and utilization of specific outcomes in the extent of international OR, assessing the role of market change and firm age in that relationship, and drawing from an empirical IE context that has until now received relatively scarce attention from scholars. Our results reveal that, in relatively stable markets, both network exploitation and exploration contribute new opportunities for international marketers, while in changing market conditions, both fail to offer any opportunities. As we subsequently added firm size in the configurational model (cf. Shirokova, Bogatyрева, Beliaева, & Puffer, 2016; Wiklund & Shepherd, 2005), the results indicate that, in the event of greater market change, network exploitation is more beneficial for older firms; conversely, younger firms can solely benefit if they focus on network exploration when the market change rate is high. This result directly contrasts Sasi and Arenius (2008), who determined that, in the early phases of internationalization, firms focus on exploiting their network relationships to their benefit. Our findings from post-hoc analysis can be explained by the liability of newness from which younger firms suffer. Since older and mature firms possess a broad base of networks and have earned significant experience and efficiency in managing networks, they can extract more favorable network performance advantages by exploiting existing opportunities. By contrast, the lack of legitimacy and trust in the

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Standardized estimate</th>
<th>t-value</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market change (control)</td>
<td>0.189</td>
<td>5.377</td>
<td>(p &lt; 0.001)</td>
</tr>
<tr>
<td>H1: Prior experience→Network exploitation</td>
<td>0.373</td>
<td>6.936</td>
<td>Significant</td>
</tr>
<tr>
<td>H2: Prior experience→Network exploration</td>
<td>0.430</td>
<td>7.610</td>
<td>Significant</td>
</tr>
<tr>
<td>H3: Network exploitation→International OR</td>
<td>0.266</td>
<td>7.044</td>
<td>Significant</td>
</tr>
<tr>
<td>H4: Network exploration→International OR</td>
<td>0.233</td>
<td>6.394</td>
<td>Significant</td>
</tr>
<tr>
<td>H5: Network exploitation x Market change→International OR</td>
<td>0.073</td>
<td>1.919</td>
<td>(Not significant)</td>
</tr>
<tr>
<td>H6: Network exploration x Market change→International OR</td>
<td>0.044</td>
<td>1.904</td>
<td>(Not significant)</td>
</tr>
<tr>
<td>Extended model</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H5a: Network exploitation x Market change x Firm age→International OR</td>
<td>0.174</td>
<td>3.305</td>
<td>Significant</td>
</tr>
<tr>
<td>H6a: Network exploration x Market change x Firm age→International OR</td>
<td>−0.166</td>
<td>−2.989</td>
<td>Significant</td>
</tr>
</tbody>
</table>

**Table 4**

**Table 5**

Results of the measurement model.

<table>
<thead>
<tr>
<th>Items/constructs</th>
<th>Std. loadings</th>
<th>CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior experience</td>
<td>0.716</td>
<td>0.741</td>
<td>0.49</td>
</tr>
<tr>
<td>1. The founder(s) of this firm has prior managerial experience before starting this business.</td>
<td>0.808</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. The founder(s) of this firm has prior industry experience before starting this business.</td>
<td>0.648 (13.058)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. The founder(s) has prior expertise in a technical or functional area before starting this business.</td>
<td>0.634 (12.514)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Network exploitation</td>
<td>0.771</td>
<td>0.762</td>
<td>0.765</td>
</tr>
<tr>
<td>1. We discuss regularly with our key network partners how we can support each other.</td>
<td>0.759 (15.00)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. We almost always solve problems constructively with our network partners.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. We know our network partners’ markets, products/services as well as their strengths and weaknesses.</td>
<td>0.629 (13.634)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Network exploitation</td>
<td>0.723</td>
<td>0.732</td>
<td>0.688</td>
</tr>
<tr>
<td>1. We have our eyes open to find new network partners.</td>
<td>0.782 (13.431)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. We have the ability to build good personal relationships with new network partners.</td>
<td>0.704</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. In our firm employees have informal contacts among themselves in relation to establishing new network relationships.</td>
<td>0.578 (11.925)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>International OR</td>
<td>0.821</td>
<td>0.822</td>
<td>0.732</td>
</tr>
<tr>
<td>1. How many international business ideas did you identify in past three years?</td>
<td>0.676</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. How much did you modify/develop the international opportunity from idea generation to opportunity recognition?</td>
<td>0.724 (15.346)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. How many of novel or innovative ideas were considered feasible and desirable?</td>
<td>0.772 (16.062)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. How much are you able to shift organizational resources to capitalize on emerging opportunities in international markets?</td>
<td>0.755 (15.823)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market change</td>
<td>0.722</td>
<td>0.74</td>
<td>0.76</td>
</tr>
<tr>
<td>1. Vulnerability to the change in trade policies across borders</td>
<td>0.663</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Change in overseas customers’ demand and preferences, competitors’ new product introduction rate and new selling strategies</td>
<td>0.858 (7.321)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
entrepreneurial microfoundations), dual network capability, and inter

6.1. Theoretical contribution

In this study, we investigate the links between prior experience (as entrepreneurial microfoundations), dual network capability, and international OR using SEM based on a sample of 647 early internationalizing firms in Bangladesh’s traditional low-tech apparel industry. These knowledge-intensive firms in a mature market diversify IE research in a fresh and unique industrial context (Jones et al., 2011).

Overall, this study’s results help develop a fuller picture of international OR’s antecedents in the IE field and thus add to the recently renewed literature concerning the topic (Åkerman, 2015; Andersson & Evers, 2015; Blankenburg-Holm et al., 2015; Hilmersson & Papaioannou, 2015; Mainela et al., 2014). We further reveal that, in a highly changing market, the recipes for capturing international opportunities by capitalizing on network capability differ (i.e., are opposing) for younger and older firms. Our results indicate that older firms can benefit from network exploitation when the market change rate is high, which generally supports the network view of internationalization: “opportunity identification is a side-effect of an ongoing business relationship” (Johanson & Vahlne, 2009, p. 1419) and “an ongoing relationship with another is so important as to warrant maximum efforts at maintaining it relationship” (Gounaris, 2005, p. 23). Further, our results link to organizational ambidexterity (Kauppila, 2010) and the fact that different approaches are beneficial when market change rates differ.

From a theoretical perspective, our results provide new insights into the liability (Stinchcombe, 1965) and learning advantage of newness (Autio, Sapienza, & Almeida, 2000). In a changing market environment, younger firms fail to exploit existing network relationships because they suffer from this liability. On the other hand, these early internationalizing firms can capitalize on new network relationships to identify new international opportunities because they lack long-established organizational routines and are unconstrained by bureaucracy and hierarchical thinking (Renko, Kundu, Shrader, Carsrud, & Parhankangas, 2016; Stinchcombe, 1965). Therefore, they tend to more easily recognize and quickly respond to the new opportunities arising from a changing market environment (Zhou et al., 2010). The configurational approach has particularly demonstrated that the relationship between EO and firm performance can be positive or negative depending on various combinations of market conditions (Shirokova et al., 2016). This study’s results support this view by identifying that, under higher levels of market change, younger firms benefit from network exploration and older firms from exploitation.

Younger firms also suffer from resource constraints, and thus they should not employ exploitation and exploration strategies simultaneously to ensure the effective use of their limited resources (Parida, Lahtis, & Wincent, 2016). In a changing market environment, a firm should divest current relationships in favor of relationships more appropriate to the changed market reality (Porter, 1985). In fact, networks are dynamic in that new relations are forged and old relations discarded, and network fluidity depends on the organizational structure’s flexibility (Stadler, Rajwani, & Karaba, 2014), which is evident in new firms (specifically early internationalizing ones). Essentially, the emerging market firms benefit from explorative strategies (March, 1991) from developed market firm partners in building capabilities (Thomas, Eden, Hitt, & Miller, 2007).

We additionally contribute to the microfoundations research, which has received substantial interest in strategy and organization literature over the last few years (e.g., Felin & Foss, 2005; Lippman & Rumelt, 2003; Liu & Huang, 2018; Teece, 2007); however, this research stream has mostly been conceptual in nature (for a few exceptions, see e.g. Bingham et al., 2019; Morris et al., 2014) and consequently our study adds to the scant empirical findings. Although the study of the ‘whole’ is important, understanding the micro elements that constitute the ‘whole’ can lead to more rigorous work at the macro-level (Felin et al., 2015).

One major concern with microfoundations revolves around human resources, which is often considered one of the key determinants of organizational success (Unger, Rauch, Frese, & Rosenbusch, 2011). The central tenet of microfoundations research is to disaggregate collective concepts to understand how individual-level factors affect organizations and how individual interactions lead to emergent, collective, and

![Fig. 2. Results of hypotheses testing.](image-url)
organizational-level outcomes and performances (Abell et al., 2008). Inquiring into microfoundations can enhance our understanding of the primary components underlying capabilities, and clarifying these heterogeneous sources will in turn assist us in understanding how microfoundations contribute to heterogeneity among firms (Felín et al., 2012). Most importantly, understanding how capabilities are developed, maintained, and extended in terms of their constituent microfoundations poses managerial relevance, and here we have showed how founders’ characteristics and abilities (by studying the earlier experience) matter in developing networking capabilities.

6.2. Managerial implications

This study’s results have several important implications for entrepreneurs and managers operating in mature industries including apparel in developing countries. Apparel constitutes the major manufactured exports in many of these countries (e.g. 88 percent of exports in Haiti, 79 percent in Bangladesh, 59 percent in Lesotho, 52 percent in Cambodia, 43 percent in Sri Lanka, and 18 percent in India: Petruzziello, 2015). More than 60 percent of world clothing exports are manufactured in developing countries. The advanced countries lost their competitiveness in lower-tier mature industries; as a result, apparel manufacturing continues to shift from developed to developing countries (Ozawa & Bellak, 2011). Less developed countries from Asia and Africa enjoy preferential market access programs (such as the U.S.’s AGOA and the EU’s EBA) that allow the region to export apparel, duty free, to the U.S. and the EU. To capitalize on these programs, FDI from China and other countries move there to set up local productions.

Knowing when to switch between exploitation and exploration strategies places individuals or firms in a more favorable position because they capture and continue exploiting the most beneficial opportunities until better possibilities arise (Laureiro-Martínez, Brusoni, Canessa, & Zollo, 2015). This study’s results provide guidance for when the network exploitation and exploration capabilities should be adopted or abandoned. Firstly, firm managers must be able to assess and analyze the market environment as stable or changing. If the market environment is relatively stable, then either network strategy (exploitation or exploration) will work; however, in a changing market environment, both network strategies will fail to bring new international opportunities. In such an environment, managers of older firms can benefit from the exploitation strategy by exploiting their existing network ties; on the other hand, younger firms must explore new network relationships. Moreover, this study guides managers in terms of network capability’s microfoundation. Managers can capitalize on entrepreneurs’ prior experience gained by working in a managerial position, in the same industry, and in a technical/functional area to build the firm’s network capabilities. If managers rely on their entrepreneurs’ prior experience and knowledge, they can substantially reduce the firm’s investment costs in developing these capabilities. Further, we recommend that early internationalizing firms or their entrepreneurs recruit individuals who possess prior experience (managerial, industry, and functional/technical) and pre-existing networks (as a proxy for the network capability), which they would be able to utilize to identify new international opportunities. For aspiring entrepreneurs, we recommend that they attain varied work experience in their early career before they embark on their own early internationalizing ventures.

6.3. Policy implications

This study also provides important implications for public policymakers. Because the main objective of government export promotion programs is to promote entrepreneurship, our study provides clear guidance on how policymakers can accomplish this goal. Entrepreneurship is about identifying new opportunities (Davidsson, 1991; Stevenson, 1983), and policymakers can solely help firms explore new opportunities if they understand the delicate mechanisms of different network strategies. Our results indicate that, in a changing market environment, firms—specifically younger firms—are in need of government assistance. In such an environment, older firms can capitalize on existing networks, whereas younger firms that possess very few network ties constrained by a lack of a longstanding, trust-based relationship will most likely fail to capitalize on these networks, thus necessitating that they explore new network relationships. Against this backdrop, policymakers can establish programs that link younger firms with new buyers, suppliers, and export intermediaries. The government can do so by arranging apparel trade shows and fairs in the country, assisting younger firms in attending international apparel trade fairs, or accommodating them in overseas trade missions through which these firms may develop new networks beyond those already existing.

7. Limitations and future research

This study employs a cross-sectional research design—an approach that cannot fully capture the dynamic aspects of the model’s constructs. Future work should consider adopting a longitudinal research design, either qualitative or quantitative, to shed light on the changes in these relationships over time. The overall findings may be generalizable to other industries, although the results are likely to differ in high- and low-tech industry settings. A comparative study that incorporates both high- and low-tech early internationalizing firms may shed further insight into the existing IE theories.

Further, we adopt some elements of the network capability construct proposed by Walter et al. (2006) to measure “network exploitation capability” as unidimensional. Future research might take a multidimensional view of dual network capability and investigate the differential impacts on and relationships between each dimension and OR as well as these capabilities’ performance outcomes; we consider these first-order constructs, and thus future researchers might develop a higher-order construct. There are also arguments in literature (Zahra & George, 2002) that a capability can be construed as a “potential” and “realized” capability. This study has taken the perspective of realized (network) capability, in that the used scales assessed the extent of developed exploration and exploitation capabilities instead of the potential for each. As such, our explanation does not measure the “potential capacity”. Future studies could examine this further while also seeking to outline the process through which that development occurs—such qualitative longitudinal studies could also help explain some of the underlying mechanisms firms apply to access knowledge dispersed in the network (cf. Doz, Santos, & Williamson, 2001; Zahra & George, 2002).

We also acknowledge that one may anticipate some positive association to emerge between network exploitation and exploration capabilities because learning and experience earned in existing relationships can be utilized to initiate, develop, and sustain new relationships. The association between network exploitation and exploration capabilities may serve as a future research agenda to determine how the dual network capability influences each other and international OR. Also, the cultural underpinnings may serve as microfoundations (Zhang, Liu, Tarba, & Del Giudice, 2020) of such capability and bring new insights to theory and practice.

This study investigates moderating role of market change in the relationship between network capability and international OR; as such, future research might investigate other contextual factors, including external and internal ones and their configurations, which might clarify this relationship. Although the quality of one’s prior experience is important and worth investigating, given the study’s quantitative nature, we do not explore this scope herein. Some founders possess prior experience with failure, and their network capabilities might stem from such experience (Amankwah-Amoah et al., 2018). Future research might investigate how such accrued prior experience affects network capability and helps identify international opportunities from the microfoundations perspective. Finally, future research would also
benefit from different categories of prior experience, such as general and specific (Faroque, Mostafiz, Faruq, & Bashar, 2020; Hoang & Roth-aermel, 2005), by investigating their differential roles in network capability and OR.

References


