

Internationalization of Emerging Economy SMEs: A Tripod Approach

Abstract

Research acknowledges that SMEs in advanced economies leverage institutional resources for their internationalization. But, knowledge on how emerging economies SMEs (EESMEs), competing in international markets (IMs), internationalize regardless of their size, liabilities, and foreignness is limited. Thus, by extending an integrated strategy tripod framework this study develops new theorizations to account for how EESMEs internationalize and compete in complex IMs with limited market power. Survey data involving 120 Iranian EESMEs is tested to investigate the moderation effect of international market knowledge (IMK) on their internationalization. From our analysis, it emerged that the internationalization strategies adopted by EESMEs are not only influenced by managerial perceptions of the industry, firm, and institutional factors, but also they are positively moderated by international market knowledge. Thus, IMK strengthens the influence of international supportive policies, as formal institutions, on the degree of EESME internationalization. Moreover, it implies that, EESMEs managers have to consider; (i) resource-based, institution-based, and industry-based factors as drivers for their internationalization and (ii) how IMK overshadows the effect(s) of contextual factors on their internationalization strategies.

Keywords: *Emerging Economy SMEs, Internationalization, International market knowledge, Strategy Tripod, Iran*

Introduction

With the growing role of emerging economies in reshaping the global business landscape, interest in understanding the internationalization processes of emerging economies' SMEs (EESMEs) is also on the rise. Research suggests that EESMEs are becoming more successful in international markets “without [having] the benefit of resource advantages, proprietary technology, or market power... [and] strategic assets such as core technologies and brand awareness” (Luo & Child, 2015 p.379). Against that backdrop crucial questions about how EESMEs in the Middle East compete with their more resourceful global and local competitors arise. Such questions become more pronounced especially for EESMEs that operate in contexts such as Iran known to have extensive market and resource constraints.

In recent years, scholars have conducted extensive research that has focused on the antecedents of SMEs' internationalization, that are often segmented by the managerial, firm, and environmental levels (see Kuivalainen et al., 2012). A large proportion of these studies tend to focus largely on the effects of individual and/or firm-level antecedents on the internationalization of SMEs, with some of them paying more attention on SMEs from emerging economies (e.g. Cho & Lee, 2018; Ismail, & Kuivalainen, 2015; Penghua, Mengli, & Yuping, 2020; Volchek, Jantunen, & Saarenketo, 2013; Thai, Turkina & Simba, 2022). The success of EESMEs in their internationalization cannot be fully explained based upon specific predictors at one or two levels of analysis, as shown in the majority of studies. The predictors of these SMEs' internationalization success uniquely integrate into a multi-level model, which needs to be explored. The central role of this integrated model warrants understanding the multi-level antecedents of EESMEs' internationalization.

To that end, this study examines a multi-level perspective to explain how EESMEs integrate their generic resources with the conditions of their market and institutional environment for successful internationalization. In a way, we contend that the relationship between international market knowledge (IMK) and SMEs' internationalization may be contingent on industrial and institutional contexts.

In keeping with that, this research adopts and extends Peng, Wang, & Jiang's (2008) tripod theoretical framework, which incorporates the institutional theory, the industry-based view (Porter, 1980), and the resource-based view (Barney, 1991) to account for the international business activities of firms. This multi-level approach helps to incorporate context as an essential explanatory variable for the strategic behaviors of EESMEs (Young et al., 2014). Thus, with this study we advocate an integrative perspective calling not only for explicit considerations of institutional effects, but also for their integration with resource-based considerations and industry-based. In some way, the study responds to research calls by Meyer and Peng (2005), Peng (2001, 2003, 2008), Wright et al. (2005), and Yamakawa, Peng, and Deeds (2008) for more integration between institutional, industrial and resource-based views in the research on firms' internationalization. More specifically, and although the strategy tripod perspective advances the integration of the three legs of the strategy tripod, many studies often list them individually. There is very little understanding of their interactive effects (Lu, Liu and Wang, 2010; Peng et al., 2009; Yamakawa, Peng and Deeds, 2008) to provide a broad and balanced view of the determinants of EESME internationalization. Thus, with this study, we pinpoint the strategy tripod factors that not only may help EESMEs overcome resource scarcity and institutional voids but also advance understanding on the complexity of exporting within such a context.

Moreover, such a perspective advocates for examining the interactions of the three legs in terms of how the value of a certain resource varies with industrial and institutional settings (Lu, Liu and Wang, 2010; Meyer et al., 2009).

To fully explore the mechanism through which EESMEs can exploit and integrate the predictors of their internationalization process at firm, industry, and institutional levels, it is essential to study the direct and interaction effects of the three theoretical prongs. However, studies on the internationalization of SMEs largely eschew the direct effects of two of the theoretical prongs of the tripod framework (e.g. Saikia, Das & Borbora 2020; Torkkeli, Kuivalainen, Saarenketo & Puumalainen, 2019; Volchek, Jantunen, & Saarenketo, 2013) let alone the interaction effect of the theoretical prongs (e.g. Ashna, Paul, & Chavan, 2021; Penghua, Mengli, & Yuping, 2020). Despite research calls for a more comprehensive model (see Meyer & Peng, 2005; Yamakawa et al., 2008) to better understand the multi-level drivers of EESMEs' internationalization, new research is yet to test such a model. This knowledge gap in the research on firm internationalization led us to study the relationship between the three leading perspectives to provide a more precise comprehension of EESMEs' mechanism in combining the resources and exploiting the opportunities, particularly in the context of emerging economies. We recognize that not all EESMEs are capable of taking advantage of the opportunities or neutralizing the threats in their external environments at institutional and industry levels which makes it a priority for these firms in terms of strengthening their corresponding resources and capabilities. Existing research points towards international market knowledge as one of the key resources (Musteen et al., 2014).

It also suggests that prevailing environmental conditions can have an impact on a firm's resources and capabilities as they can moderate their supporting effect on a firm's internationalization strategy (Akbar, Balboni, Bortoluzzi *et al.*, 2017; Bortoluzzi, Chiarvesio, Di Maria, *et al.*, 2014).

On account of that we were motivated to examine how international market knowledge, as a special capability of EESMEs, moderates the role of the industry and institutional predictors in their internationalization in variable business contexts such as Iran. To undertake our research, we developed and tested our hypotheses on 120 SMEs from Iran, an emerging economy with high informal institutions and high uncertainty. We used managers' perception on the assumption that managers of EESMEs must continuously navigate their external environments to be able to carry out their business, which makes it essential to understand their perceptions when researching the predictors of their internationalization process (Jahanshahi & Brem, 2019). We found that various factors comprising resources, institutional factors, and industry, contribute to EESMEs' internationalization with international market knowledge as one of the critical resources that strengthen the influence of governmental policies as formal institutions on the degree of EESME internationalization. On the basis of these emerging insights, this study contributes to the literature in two major ways.

First, the study advances the theoretical understanding of international SMEs, particularly the enterprises from emerging economies. In some way, it develops contextual insights to account for the managerial approaches EESMEs can deploy to mitigate institutional voids and resource limitation in their internationalization efforts (see Dekel–Dachs, Najda–Janoszka, Stokes *et al.*, 2021; El Makrini, 2017).

We present a multi-level perspective (based on the tripod framework) to account for how EESMEs confronting severe resource constraints may thrive in international competition (c/f Liedong, Peprah, Amartey *et al.*, 2020b). In that context, we introduce and extend a distinctive combination of the three interrelated components of the tripod framework to delineate the underlying antecedents of EESME internationalization.

Second, through empirically observing EESMEs activity in emerging economies, we develop new insights into the underlying mechanism that define their methods of combining intangible and tangible resources in such a way that they benefit from opportunities arising in markets. In some way, we elaborate on the moderating effect of IMK by showcasing how it (IMK) enables EESMEs to take advantage of industry and institutional conditions to enhance their internationalization process. Such perspectives provide deep and penetrating insights into how EESMEs in emerging economy contexts leverage IMK for their internationalization as compared to large MNEs that can also access government support through their established connections and lobbying capabilities. Thus, this study builds new knowledge about an SME phenomenon emerging in rarely studied international contexts. In some way, it aligns with Bruton *et al.*'s (2021) call for developing indigenous theorizations that are context sensitive to develop inclusive management and entrepreneurship research.

Third, the contextual perspectives developed in this research hold theoretical and practical implications for several stakeholders. For academics our new framework (see Figure 1) introduces fresh theorizations encouraging dialogical contextualism to better understand pathways for SME internationalization (c/f Hamann, Luiz, Ramaboa *et al.*, 2020; Dabić, Maley, Dana, *et al.*, 2020). Likewise, for international business managers, the framework provides guidance in way they formulate their internationalization strategy regardless of the small size,

resource limitations and location of their SMEs. Equally, policy institutions in emerging economies are encouraged to consider international supportive policies (in terms of resources) to enhance the EESME internationalization strategies.

Theoretical Foundations

Internationalization can be defined as the process of adapting a firm's operations to international environments (Calof & Beamish, 1995), geographically expanding a firm's network of relationships (Johanson & Vahlne, 2009), or a pattern of entrepreneurial behavior (Jones & Coviello, 2005). Although these definitions can apply across all types of SMEs, Kiss, Danis, and Cavusgil (2012) argue that, despite the emergence of a growing line of research on the internationalization of SMEs, most studies have focused on developed economies, with a bias towards North America, Western Europe, and Japan (Thai & Chong, 2013). Elsewhere research presents empirical evidence suggesting that when compared to developed market firms, emerging market firms (EMFs) follow a different internationalization process (Luo & Tung, 2007), have different motives (Kalotay & Sulstarova, 2010; Moghaddam, Sethi, Weber, & Wu, 2014) and business approaches (Thai, Turkina, & Simba, 2022). Such differences exist due to dissimilar institutional, industry and resource factors between developed markets and emerging markets (c/f Dekel–Dachs, Najda–Janoszka, Stokes *et al.*, 2021). In particular, institutional vulnerability (e.g., ambiguous property rights protection, poor law enforcement, corruption in public services) and industry regulatory uncertainty are common in emerging markets as compared to advanced economies (Luo, Sun, & Wang, 2011; White, Hemphill, Weber, & Moghaddam, 2018).

On the other hand, social networks (business and political ties) are considered a much more important resource in emerging markets (Bai, Johanson, Oliveira, & Ratajczak–Mrozek, 2021). Such differences do not just affect large firms but also SMEs in the emerging markets (Hill & Mudambi, 2010). From that perspective, it becomes important that new research pays attention on understanding ways in which institutional, industry and resource related factors affect the internationalization of emerging market SMEs (Wu & Deng, 2020).

Internationalization of SMEs from Emerging Economies

Emerging economies are in the process of moving from formally planned economies to market economies through economic liberalization and free–market principles, such as increasing transparency, deregulation, privatization, and emphasizing entrepreneurial activities to improve global competitiveness (Zahra et al., 2000). They are different not only due to their geographical positioning but also in terms of their weak market structures, poorly specified property rights, and high institutional uncertainty (Thai & Chong, 2013). Increasing competitive pressure from the deregulation and liberalization of markets (Saarenketo et al., 2004) and the reduction of government subsidies and protections have encouraged EESMEs to expand abroad. Furthermore, the integration of the liberalization of emerging economies and their consequent participation in the global economy has enabled local firms to experience rapid growth. These economies are recognized not only for the emergence of large multinational corporations but also for the development of rapidly internationalizing entrepreneurial start–ups (Volchek, Henttonen, & Edelman, 2013).

EESMEs internationalize for three main reasons: to exploit new niche markets, to obtain knowledge resources that can enhance their competitiveness at home and abroad, and to learn from and potentially replicate the strategies of large multinational firms (Yamakawa, Peng, &

Deeds, 2008; Moghaddam et al., 2014). However, they are less resource–endowed and competitive when compared to SMEs in the developed economies (Zhu et al., 2006). Due to fast and frequent changes in their institutional environments, where information is censored by governments (Peng, Wang, & Jiang, 2008; Zhu et al., 2006), EESMEs must cope with both typical SME challenges (i.e., lack of managerial and marketing skills, lack of financial resources) along with constraints stemming from institutional voids (Aulakh et al., 2000).

Research on the internationalization of EESMEs has identified antecedents at managerial, firm, and environmental levels (Kuivalainen et al., 2012). Most studies focus on antecedents at a single level, such as managerial characteristics (Shih & Wickramasekera, 2011; Musteen et al., 2014), firm–level resources (Knight & Kim, 2009), market factors (Crick & Crick, 2014), or institutional factors (Nuruzzaman et al., 2020). The essential role of institutions has led researchers to rely on the institution–based view when studying the growth of new ventures in emerging economies (Yamakawa et al., 2013; Yamakawa et al., 2008). The international business literature, however, has specifically suggested that a comprehensive multiple perspectives is needed when studying phenomena from emerging economies (Meyer & Peng, 2005; Peng, 2003)¹.

Strategy Tripod Theoretical Framework

To fully understand emerging economies contexts and their unique associated business phenomena, it is important that researchers incorporate the institution–based view, along with the resource–based and industry–based views (Meyer and Peng, 2005; Peng, 2003; Young, Dimitratos, and Dana, 2003).

¹ see, for example, Amal & Rocha Freitag Filho, 2010; Cheng & Yu, 2008; Mtigwe 2005; Volchek et al., 2013; Zhu et al., 2006; Zucchella, Palamara, & Denicolai, 2007

The ‘strategy tripod’ suggested by Peng et al. (2008) is a multilevel theoretical framework that integrates institutional theory with the resource–based view and the industry–based view. This multi–level approach makes it possible to investigate the interaction effects between factors at various levels, which, we argue, may exist due to the high uncertainty and informal institutions in emerging economies. Scholars have used the three theories of the tripod perspective in various fields such as innovation (Bao, Su & Noble, 2021), knowledge creation capability (Su, Peng, & Xie, 2016), and emerging multinationals political connections (Chen, Li, & Fan, 2018)².

Our review of the international business literature indicates that the majority of studies use the tripod perspective to explore the international performance of large firms or MNEs in emerging economies (e.g. Cui, Jiang, & Stening, 2011/China; Gao, Li, & Huang, 2019/ China; Gao et al., 2010/China; Gaur, Ma, & Ding, 2018/China; Saikia, Das & Borbora, 2020/India; Williams, Ridgman, Shi, & Ferdinand, 2014/ Trinidad and Tobago). For example, Gao et al. (2010) examine the effects of general strategies of firms, the free market mechanism of industry, and the effects of intermediate institutions on the export behaviors of the wholly–owned subsidiaries of foreign firms in China. Similarly, Cui et al. (2011) use the three theories of the tripod perspective to show that the low–cost advantages of Chinese firms, the competitive intensity as well as the learning and market opportunities of their host countries’ industry; and the regulative, normative, and cognitive restrictions of their institutional environment determine their FDI entry strategy. In a more recent study, Saikia et al. (2020) use the tripod perspective to show that the internationalization (outward FDI) of Indian multinationals has significant associations with the depth of their prior knowledge (as a resource) and their home and host countries’ institutional factors, but the insignificant association with the industry competition.

² See more studies: Innovation (Heredia, Yang, Flores, Rubiños & Heredia, 2020), CSR strategies of export firms (Barin Cruz, Boehe & Ogasavara, 2015), & compositional capability of SMEs (Sun, Maksimov, Wang & Luo, 2021)

Overall, existing studies have shown the necessity of combining the resource-based, industry-based, and institutional-based views to have an insightful understanding of the internationalization of firms. In fact, there are studies on the internationalization of SMEs that have applied two of the three theories, such as the resource-based view and institutional-based view (e.g., Ashna et al., 2021; Ismail, & Kuivalainen, 2015; Penghua et al., 2020; Torkkeli, Kuivalainen, Saarenketo & Puumalainen, 2019; Volchek, Jantunen, & Saarenketo, 2013) or the industry-based view and resource-based view (Cho & Lee, 2018). However, there is a scarcity of research that applies the three theories of the tripod perspective in exploring the internationalization of SMEs. Although the application of the tripod perspective in exploring the antecedents of EESMEs has been theoretically explained (see for example: Yamakawa et al., 2008), research is yet to empirically examined the three legs of the tripod perspective for EESMEs' internationalization.

It can be argued that, the determinants of internationalization are not independent, they are interrelated, and each one can moderate the effects of the others (Gao et al, 2019). Internationalization as a strategic choice of firms is indeed the outcome of a dynamic interaction between institutions, firms' resources, and/or industry characteristics (Peng, 2003; Penghua et al., 2020). The dynamics of these interactions have received some attention in the literature; however, very little research has paid attention on the interaction effects for the internationalization of EESMEs, which has led us to fill this gap in this study (see Table 1). As an understudied context, we took one step further to explore research in the MENA region. We found two studies that have examined the role of resources and environmental factors on internationalization (Al-Hyari,

Al-Weshah, & Alnsour, 2012; Narooz, and Child, 2017), while others discuss the resource-based view (e.g. Boughanmi, Al-Mandheri, Al-Oufi, & Omezzine 2007; El Makrini 2017)³.

Insert Table 1 about here

Hypotheses Development

To respond to the scholars' call (e.g. Meyer & Peng, 2005; Yamakawa et al, 2008) for a more comprehensive model, we adopt the tripod perspective in which firm internationalization strategy is the result of specific industry, firm, and institutional conditions. The resource-based view asserts that the internal environment, particularly firm resources, are used to define firm strategy and (Barney, 1991). The industry-based view states that industry forces determine the firm positioning and strategy (Porter, 1980). SMEs that are mostly price takers are more sensitive to industry factors. The institution-based view highlights that formal and informal institutions influence strategic choices, resulting in institutional environments that favor some strategies over others (Peng et al., 2008). In the following section, we present our hypotheses on how these theories can help explain the internationalization of EESMEs.

Institution-Based View

The tripod perspective suggests that the institution-based view is a critical factor (along with two other views, resource-based and industry-based views), to explain the firm's behavior, particularly in emerging economies. Due to the higher level of uncertainty and changing pace, the institutional environment impact is even more pronounced in the context of emerging

³ El Makrini, H. (2015); Haddoud, M. Y., Nowinski, W., Jones, P., & Newbery, R. (2019); Ibeh, K., & Kasem, I. (2011); Antoldi, F., Cerrato, D., & Depperu, D.(2013).

economies, especially in the case of the EESMEs' internationalization (Cuervo–Cazurra et al., 2018; Nuruzzaman et al., 2020). Institutions in emerging economies can be either supportive or hazardous, driving SMEs to internationalize either through supporting policies or to escape local hazards (Nuruzzaman et al., 2020). The institutional environment includes both formal and informal factors (North, 1990). The more an emerging economy's formal regulatory environment is undeveloped and weak, the more challenging is the EESMEs' internationalization (Volchek et al., 2013). The values and norms formed by informal institutions also influence the intentions of entrepreneurs to pursue international entrepreneurial opportunities (Muralidharan, & Pathak, 2017). Therefore, we argue that both formal and informal factors of the institutional environment will influence the EESMEs' degree of internationalization.

The formal regulatory dimension of an institutional environment is a coercive mechanism that includes rule setting, monitoring, and sanctioning. The formal regulative environment influences the starting of a business, its strategic choice, and the decisions on international activities. In particular, governments can provide both direct and indirect support and assistance programs, which play a key role in the internationalization process of SMEs (Finchelstein, 2017). These programs help owners to overcome mental barriers and develop positive perceptions toward international operations (Ndubisi et al., 2009). Governments can also provide support to both entrepreneurs and investors, including resource acquisition, consultation services, and risk management (Volchek et al., 2013). SMEs in less supportive institutional environments have less chance to internationalize and get involved in international markets. For example, the underdeveloped political, legal, and governmental policies in Jordan have reduced the performance of the Jordanian SMEs in exporting (Al–Hyari et al., 2012).

Emerging market firms increase their internationalization activities through foreign direct investments when the policies of their home country's government are perceived as supportive and encouraging (Gaur et al, 2018). EESMEs will have a higher degree of internationalization when their home country's institutional environment is perceived to be supportive (Ma, Ding, & Yuan, 2016). In sum, when the home country formal regulative institutions are perceived helpful and supportive, EESMEs become more internationalized:

Hypothesis 1: EESMEs that perceive their governmental policies as being supportive are more likely to have a higher degree of internationalization.

Industry-Based View

As one of the three prongs in the strategy tripod perspective, the industry-based view highlights the importance of industry competition and firm strategy in building and sustaining a firm's competitive advantage (Su et al., 2016). We therefore expect that industry characteristics (e.g., emerging, traditional industry) may affect the SMEs' internationalization patterns and processes (Cerrato, & Piva, 2012). Prior studies have shown how industry characteristics shape the scope, speed, and process of SMEs' internationalization (Andersson et al., 2014). Thus, the internationalization of SMEs also depends on the characteristics of the industry.

In this study, we focus on domestic competition intensity (Coviello & Munro, 1995; Faghihi, Tajedin, & Tajedin, 2010). As firms in emerging economies face higher competition in their home county market, they follow a springboard strategy and internationalize not only to obtain access to new technologies and resources but also to secure the advantage of foreign markets' opportunities (Luo & Tung, 2007).

In terms of domestic competition intensity, firms focus on domestic market expansion over internationalization if their comparative expansions costs are lower (Buckley, 1993; Karadeniz & Göçer, 2007). Once SMEs face a growing number of competitors and less market share in the domestic market, the SME pursues internationalization in search of new markets (Crick & Crick, 2014; Elango, 2007).

As more global competitors enter the firm's domestic market, the industry can become intensely competitive, motivating the SME to expand abroad (Gaur, Kumar, & Singh, 2014; Yamakawa et al., 2008). Each industry's unique competitive pressure is likely to result in different levels of globalization (Yang et al., 2009). We therefore hypothesize that:

***Hypothesis 2:** EESMEs that perceive high competition in their domestic industry are more likely to have a high degree of internationalization.*

Resource-Based View

Besides the institution-based view and industry-based view, the strategy tripod theoretical framework also suggests the resource-based view as a potent framework for defining the firm's competitive advantage and explaining its internationalization, particularly in emerging economies. The resource-based view suggests that firms can exploit their unique capabilities, skills, and resources to achieve a sustainable competitive advantage in international markets (Andersson, 2000). SMEs, however, often lack sufficient resources, capabilities, and market power to expedite their internationalization (Hutchinson, Fleck, & Lloyd-Reason, 2009). As such, the manifestation of entrepreneurial knowledge and skills as inimitable resources (for example, market knowledge and intelligence, technologies and trade relations) can create a

sustainable competitive advantage for an SME and improve its organizational capacity to mobilize resources (Ndubisi, Shamsuddoha, & Ali, 2009).

Research suggests that international market knowledge is crucial towards the successful internationalization of SMEs (Musteen et al., 2014; Oviatt & McDougall, 1994). In line with that, Liesch and Knight (1999, p. 386) noted that “a SME’s readiness for involvement in international markets can be interpreted as being a function of its state of informedness on targeted foreign market(s).” This can be true for EESMEs with managers who typically have very limited international experience (Musteen et al., 2014). As well, it can be argued that international market knowledge is particularly important in overcoming the liability of foreignness of EESMEs. Gaining such essential knowledge about international markets can allow EESMEs to overcome market perceptions about their product being inferior giving them the opportunity to compete in their new market environment.

Indeed and by developing IMK, EESMEs can expedite their internationalization process (c/f Freeman et al., 2010). Crucially, IMK attenuates EESMEs weaknesses often associated with their resource limitations comprising financial and human resources (see Musteen et al., 2014; Simba & Ndlovu, 2014). From that perspective, we contend that firms that are able to develop in-depth knowledge about their customers, business regulations including market requirements amplify their chances of successfully internationalizing (Falahat et al., 2020). Based on that understanding, it is conceivable that the knowledge they (EESMEs) accumulate through a market assessment exercise can mitigate the difficulties associated with their internationalization (Musteen et al., 2014). In particular, IMK contributes to the internationalization of SMEs by including the competencies of managers and employees (Knight & Kim, 2009), human networks (business, social and technological) (Antoldi, Cerrato, & Depperu, 2013; Zhou et al., 2007), and

knowledge capital related to technology for example (see Zahra, Matherne, & Carleton, 2003). Research has shown that intangible resources play an important role in the internationalization of business ventures (Radulovich, Javalgi, & Scherer, 2018; Zahra et al., 2003). Based on that understanding we theorize that:

Hypothesis 3: EESMEs with greater intangible resources including IMK are more likely to have a higher degree of internationalization.

The Interaction Effects Within the Tripod Strategy Framework

To enhance comprehension of SMEs' internationalization, researchers have integrated different theoretical perspectives to include predictors at multiple levels of analysis (Abebe & Angriawan, 2011; Kuhlmeier & Knight, 2010; Musteen et al., 2014; Yamakawa et al., 2008). Although there are studies (i.e. Gaur et al., 2018) that have examined the interaction effects of predictors at multiple levels using the tripod framework, research is yet to test these interaction effects for the internationalization of SMEs. Gaur et al. (2018) argued that the effects of the home country's environmental factors are subject to firms' international experience portfolio. In other words, their study shows that firms' resources can moderate the effects of industry and institutional variables on internationalization (Gaur et al., 2018). Landau et al. (2016) argue that a firm's capability to identify and leverage supportive state policies (an intangible resource) may vary from one firm to the next. As such, even if the policies exist, a firm may not be able to exploit them and therefore unable to internationalize. We therefore argue that a firm's international market knowledge is one of the key resources among EESMEs and will moderate the relationship between (1) the industry competition and (2) the formal and informal institutional factors with their degree of internationalization.

The interaction effect of international market knowledge and institutional factors

The supportive policies in an emerging economy can lead EESMEs to be more internationalized; however, not all EESMEs are able to do so. The owners of new ventures may desire to enter the international arena from inception (Oviatt & McDougall, 1994), however, only those who can afford the risks of internationalization and are capable of managing its complexities and costs are positioned to leverage their own objective characteristics (e.g., normative institutions) and take the advantage of the government policies (e.g., regulative institutions). These entrepreneurs perceive the existence of business and economic knowledge in their institutional environment that can help SMEs to pursue their internationalization (Volchek et al., 2013).

One of the main drivers for EESMEs' internationalization is the support of their home countries' institutional environments (Cuervo–Cazurra et al., 2018). Their internationalization is challenged by their home country's historical experiences, political legacies, and cultural differences (Nuruzzaman et al., 2020), which exacerbate their liabilities of foreignness and newness (Zhou, Wu, & Luo, 2007). EESMEs are not equally capable of taking advantage of their institutional supports. The level of their capability (resource) enables them to benefit from their institutional environment effectively. This brings up the moderating effect of firm–level resources, particularly international market knowledge, on the impact of institutional factors on EESMEs' internationalization which has rarely been studied. Having the international market knowledge acquired through managers' connections and international experience helps SMEs develop more precise assessments of the supportive state policies and exploit them properly to achieve their international ambitions. SMEs with these kinds of entrepreneurs become creative, innovative, and risk–tolerant in their internationalization (Johns & Coviello, 2005), which leads them to be more successful in their internationalization (Styles & Genua, 2008).

Regarding the international supportive policies, a manager's network may facilitate access to such institutions, while a manager's competencies may facilitate the firm's ability to leverage the institutions. Thus, access to the international market knowledge enables EESMEs to develop plans that benefit from supportive state policies, which can significantly help them in their internationalization. Therefore, we can summarize that SMEs with stronger international knowledge are more capable of recognizing and benefiting from the supportive policies of government for international trade, which increase the chance of their internationalization.

***Hypothesis 4:** The effects of the home country's supportive policies on the internationalization of EESMEs are positively moderated by EESMEs' international market knowledge.*

The interaction effect of international market knowledge and industry condition

Unfavorable industry environments at home often force emerging economies' firms to use an escapism approach and pursue international opportunities (Cuervo-Cazurra, 2012). Elements such as the availability of input factors, their qualities, and the competitive landscapes of domestic markets can make some industries unattractive (Gaur et al., 2018). This study argues that competition by local and foreign players in home industries (the domestic competition intensity) makes it difficult for EESMEs to operate domestically. Thus, such an industry unfavorableness creates a springboard opportunity for EESMEs to internationalize not only to escape a highly competitive domestic market but also to overcome a shortage of strategic resources that are not available domestically (Luo & Tung, 2007).

Although intensified competition of EESMEs' domestic market might force them to expand to foreign markets, their managers need to understand the pros and cons of industry practices in the host country (Shin, Seidle, & Okhmatovskiy, 2016). Indeed, international market knowledge, particularly industry-specific knowledge, developed through the managers' connections, who are players in the same industry, can equip EESMEs with successful plans to expand internationally. More specifically, higher levels of international market knowledge allow EESMEs to extend their understanding of the nature of foreign competition, identify markets that have strategic resources, and exploit potential opportunities of foreign markets without being subject to unreasonable competitive pressures. EESMEs cannot take advantage of this springboard opportunity equally because of the differences in their capabilities and international market knowledge. This means EESMEs' capabilities (resources) can moderate the extent to which industry factors might lead them to internationalize. We therefore hypothesise that:

***Hypothesis 5:** The effects of domestic industry competition on the degree of internationalization of EESMEs are positively moderated by EESMEs' international market knowledge.*

The interaction effect of industry condition and institutional factors

Research on internationalization has numerous studies that have focused on the interplay between industry conditions, the institutional factors and firms' internationalization (see for example; Amorós, Basco, & Romani, 2016; Autio, George *et al.*, 2006). Within this research there is near universal acknowledgement that such factors directly influence the internationalization strategies of SMEs (Simba, 2013).

For EESMEs that have an international dimension to their operations it means that there is greater need for devising internationalization strategies to limit the impact of external factors and expedite their expansion (c/f Freeman, Hutchings, Lazaris *et al.*, 2010; Simba, 2015). In some way, and as they devise their strategies, they need to pay attention to conditions within their industry and the institutional factors that can have a bearing on their operations.

Prior research recognizes that institutions can define, enable, as well as constrain strategic choices firms make (Marinova, Child, & Marinov, 2015) as they form the institutional embeddedness of business activities (North, 1990) in a specific country context (Nuruzzaman, Singh, & Gaur, 2020). Elsewhere scholarly research associates firm strategy with firm specific advantages, industry conditions and institutions (Peng & Delios, 2006). In the context of developed economies, institutions are considered as effective mechanisms for firm and industry development as they, in most cases, maintain conditions for the effective implementation of market mechanisms (Meyer Estrin, & Bhaumik, 2009). Contrary to the way institutions are perceived in developed economies, in emerging economies they are largely seen as less-developed highly inefficient and not able to guarantee effective markets mechanisms (Marinova, Child, & Marinov, 2015). Perceived in this way, it might mean that EESME managers have to confront their specific situations with internationalization strategies that account for institutional voids, market imperfections and resource limitations. This is important due to the fact that institutional differences in emerging markets are more salient and both formal and informal institutions severely impact the development of business (Makino, Lau, & Yeh, 2002) .

Another important component that such SMEs should consider in internationalization relates to competitive dynamics of their domestic markets as they sometimes influence business regulation in emerging economies (Lee, Jiménez, Yang *et al.*, 2020).

Research suggests that competition in a firm's home country interacts with other environmental factors to influence its internationalization (Chen, Zeng, Wu *et al.*, 2020). This shows that competition in emerging markets presents huge a challenge to EESMEs and they are often congruent with prevailing institutional framework governing the business environment (Li, Xia, Shapiro *et al.*, 2018). To that end, we hypothesize that:

Hypothesis 6: The effects of the home country's regulative institutions on the internationalization of EESMEs are positively moderated by the effects of domestic competition intensity.

Our hypotheses are presented in Figure 1 and presented as follows.

Insert Figure 1 about here

Methods

Empirical setting

To test our hypotheses, we studied Iranian SMEs in the information and communication technology (ICT) industry sector for three reasons. First, as an emerging economy, Iran has undergone a plethora of sanctions in the last 40 years. Despite the sanctions and contextual constraints, managers of Iranian EESMEs have successfully manoeuvred through the complexity of their multilevel context (firm, industry, institutions) to grow both domestically and internationally.

Second, we selected Iran as it possessed a high number of SMEs; 85% of firms had less than 50 employees (Iran Statistic Center, 2014). ICT firms also have the short life-cycle of high-tech, knowledge-based firms that encourages internationalization (Kuivalainen et al., 2007). There is also a large number, with over 15,000 Iranian ICT firms created in 2017 (Communication Era, 2018). Finally, three domestic drivers encouraged Iran's SMEs to enter foreign markets: Article 44 of the Constitution of the Islamic Republic of Iran on privatization and deregulation, the government's support for the non-oil companies, and speculation of Iran's participation in the World Trade Organization.

We surveyed the top managers of 180 manufacturing and service ICT firms. With a response rate of 66.6%, we received 120 usable surveys. Per Armstrong and Overton (1977), we tested response bias by comparing early respondents (75% of total) with the late respondents (25%) across all constructs. The results of the t-tests indicated no significant differences ($p < .05$) between the two groups, suggesting that response bias was not a significant problem in the study.

Our stratified sample included ICT firms involved in a mix of activities: communication (33%), software (29%), services (21%) and hardware (17%). The average firm age at internationalization was six years. The managers were educated (62% undergraduate and 38% graduate degrees), with an average age of 36 years old. Most of the managers involved in international activities were between the ages of 25 and 35. Work experience averaged 11 years (max 25, min 2).

Variables and Measurement

We derived multiple indicators for measuring our theoretical constructs as they pertained to the three levels of analysis, firm, industry, and institutions. We designed our questionnaire by drawing on previously used measures (See Table 2). We developed a survey including 43 questions, which was reviewed by three senior professors at two Iranian universities, all specialists in international entrepreneurship and entrepreneurial firms. They examined the survey based on the context (Iran) and the ability of the questions to form the factors, leading to a final set of 22 items, with an additional five demographic questions. Each of the 22 items was measured on a five–point Likert scale. The variables were measured as follows (see Table 3).

Insert Table 2 & 3 about here

Dependent variable (Degree of Internationalization).

SMEs prefer nonequity modes when asset specificity is low and environmental uncertainty is high (Brouthers & Nakos, 2004). Liabilities of smallness and outsidership encourage SMEs to engage in lower–risk entry mode choices (Kahiya, 2017; Schweizer, 2013; Stoian, Rialp, & Dimitratos, 2017). As such, exportation is a common internationalization choice because it requires less resource commitment and therefore, reduces the external environmental risks of firms. Most Iranian SMEs are involved in either exporting or a combination of exporting and overseas sales offices/subsidiaries, rather than the off–shoring of production and manufacturing activities. We therefore focused on the former to measure the degree of internationalization. We asked respondents to identify the ‘export performance’ and ‘total number of sales subsidiaries in foreign markets’ compared to their competitors.

The use of subjective measures over objective indicators has been supported by several scholars (e.g., Sousa, 2004; Robertson & Chetty, 2000) in various cases such as: a) where managers are extremely reluctant to provide objective financial data; b) where most SMEs do not publicly report their financial performance data, which makes it impossible to check the accuracy of their report; c) when SMEs' managers rely on their perceptions of export performance rather than on objective, absolute ratings; and d) when there is a positive relationship between subjective and objective measures. Moreover, some scholars found that subjective measures are more reliable in measuring long-term aspects of export performance while objective measures are more beneficial in measuring short-term performance (Stoian, Rialp, & Rialp, 2011). Since most of the above issues are valid to our study setting (Iran), more precisely, we asked managers to self-evaluate, on a five-point Likert scale ("strongly disagree" = 1; "strongly agree" = 5), their perceived satisfaction with the following items: (i) compared to our main competitors, our firm exhibits higher export performance and (ii) compared to our main competitors, our firm has more sales subsidiaries in foreign markets. As we considered internationalization a formative construct, we conducted a principal component analysis (PCA), which formed a new factor that defined the firm's degree of internationalization of SMEs compared to its direct competitors.

Independent Variables.

To measure the influence of institutions (institutional-based view), we used four items related to international supportive policies from several scholars such as Bloodgood et al. (1996), Ahmed et al. (2006), Hernández, & Nieto, (2012), Puthusserry, Child, and Khan, (2020), and Arslan et al., (2020).

For the international supportive policies, we asked managers to identify their perception of the level of international supportive policies. For example, *I find the governmental exporting policies supportive (From Strongly disagree (1) to strongly agree (5)).*

To measure the influence of the domestic industry competition intensity (industry-based view), we adopted two measures, as suggested by Mariz-Pérez and García-Álvarez (2009) and Elango (2007). We measured domestic industry competition intensity by surveying the managers' perceptions on the 'domestic/global market ratio of the ICT sector' and the 'number of competitors in the domestic market of the ICT sector.' For example, to assess the later item we asked them to rate, *there are many firms/competitors in the market where we operate and sell our products (From Strongly disagree (1) to strongly agree (5)).*

To measure the influence of the firm resources (resource-based view), we used four items related to international market knowledge, drawing on Kungwansupaphan, and Siengthai (2014), Lindstrand, Melén, and Nordman (2011), and Musteen et al. (2014). For international market knowledge, we focused on the firm's human capital, in terms of knowledge and competence with respect to foreign markets and internationalization activities, along with connections with experts and foreign business individuals to obtain the knowledge. For example, *our firm recruits consulting services in the area of exporting and international markets (From Strongly disagree (1) to strongly agree (5)).*

As the independent constructs were conceptualized as first-order formative constructs, we conducted a PCA on each, revealing an acceptable level of variance (more than 50%) for all factors (see Table 3). In addition, for formative constructs, individual item reliability, convergent validity, and discriminant validity are irrelevant (Hulland, 1999), therefore, we followed the recommendation of Diamantopoulos, Riefler, and Roth (2008) to validate our constructs by

testing for multicollinearity. With Variance inflation factors (VIF) less than 5, our results indicated that the constructs could be maintained (Diamantopoulos & Winklhofer, 2001). The Cronbach's alpha of the five factors confirms the high reliability of our factors; for example, Cronbach's alpha coefficient of international market knowledge is 0.87 (see Table 3).

Control Variables. Consistent with prior studies on the internationalization of SMEs, we used six firm-level control variables. Firm age was measured as the number of years since founding. Firm size was captured as a composite measure of permanent workers–full-time employees (Bonaccorsi, 1992; Ganotakis & Love, 2012; Wagner, 2001; Zahra et al., 2003). Another important control variable is slack resources which enable firms to pursue international operations and overcome the associated risks (Sui & Baum, 2014). To control for slack resources, we asked the managers to indicate their perception of seven resources, for instance, their hardware resources (machinery, building, equipment, raw material, and transportation) compared to their competitors. Additionally, we measured industry growth by asking the managers' perceptions on the 'industry growth rate of ICT compared to other industries' and 'the profitability of ICT compared to other industries. High industry growth protects the financial performance of large firms, even when small competitors enter and take market share (Porter, 1980; McDougall et al., 1994). As such, during rapid growth, SMEs will encounter less retaliation from larger firms and, consequently, less competitive pressures. We also controlled for the industry sector (manufacturing vs. service), as the tendency of service firms to internationalize is less than that of manufacturing firms (Burgel & Murray, 1998). Finally, we controlled for the location of the firm within Iran, as location may influence a firm's access to the country's center of power and resources (Westhead, Ucbasaran, & Binks, 2004).

Data Analysis

To examine the effects of the four factors on the degree of internationalization of SMEs, we added them into our base model. In Model 1, we entered only the control variables and tested the effect of these factors on internationalization. Model 2, our comprehensive model, ran the regression analysis for all three levels simultaneously, providing a comprehensive perspective and a precise understanding of the drivers of internationalization. To test the main effects of independent constructs on internationalization (H1, H2, and H3), we used Ordinary Least Square (OLS) regression to quantify (1) the direction and strength of the relationship between the explanatory factors and degree of internationalization and (2) the causal effect of these factors on the degree of internationalization. OLS is the best linear unbiased estimators (BLUE), which is both efficient and has a minimum variance. The models and hypotheses are described in the following equations, where α is constant, β is the coefficient vector, and ε is the error term.⁴

$$(1) \text{INT} = \alpha + \beta \text{IND_GRW} + \beta \text{SI_RES} + \beta \text{Size} + \beta \text{Age} + \beta \text{IND} + \beta \text{LOC} + \varepsilon$$

$$(2) \text{INT} = \alpha + \beta \text{IND_GRW} + \beta \text{SI_RES} + \beta \text{Size} + \beta \text{Age} + \beta \text{IND} + \beta \text{LOC} + \beta \text{ISP} + \beta \text{COMP} + \beta \text{IMK} + \varepsilon$$

To test the interaction effect of international market knowledge on institutional and industry constructs (Hypotheses 4, 5, and 6), we ran two models (Model 3, 4 and Model 5) by using the PROCESS syntax for SPSS (Hayes, 2013), as identified by equations 5 and 6 (below). Before testing the interaction effects, we ran OLS to estimate the main effects of the constructs to assess how the model is improved by the moderating factors (for example, comparing changes in R²-sq).

$$(3a) \text{INT} = \alpha + \beta \text{IND_GRW} + \beta \text{SI_RES} + \beta \text{Size} + \beta \text{Age} + \beta \text{IND} + \beta \text{LOC} + \beta \text{IMK} + \beta \text{ISP} + \varepsilon$$

$$(3b) \text{INT} = \alpha + \beta \text{IND_GRW} + \beta \text{SI_RES} + \beta \text{Size} + \beta \text{Age} + \beta \text{IND} + \beta \text{LOC} + \beta \text{IMK} + \beta \text{ISP} + \beta \text{IMK} \times \text{ISP} + \varepsilon$$

⁴ INT= Internationalization, IND= Industry, LOC= Location, COMP= Domestic Competition Intensity, IND_GRW= Global Industry Growth, SI_RES= Slack Resources, IMK= International market knowledge, ISP= International Supportive policies

$$(4a) INT = \alpha + \beta IND_GRW + \beta SI_RES + \beta Size + \beta Age + \beta IND + \beta LOC + \beta IMK + \beta COMP + \epsilon$$

$$(4b) INT = \alpha + \beta IND_GRW + \beta SI_RES + \beta Size + \beta Age + \beta IND + \beta LOC + \beta IMK + \beta COMP + \beta IMK \times COMP + \epsilon$$

$$(5a) INT = \alpha + \beta IND_GRW + \beta SI_RES + \beta Size + \beta Age + \beta IND + \beta LOC + \beta ISP + \beta COMP + \epsilon$$

$$(5b) INT = \alpha + \beta IND_GRW + \beta SI_RES + \beta Size + \beta Age + \beta IND + \beta LOC + \beta ISP + \beta COMP + \beta ISP \times COMP + \epsilon$$

We used the Harman single factor test to control for common method bias (Podsakoff et al., 2003), which indicates that if a single factor explains all variables, common method variance is a serious threat to the analysis (Podsakoff & Organ, 1986). In our test results, all measures loaded into one common factor, with a total variance for the common factor of 23.3%. Since this variance was less than 50%, we concluded that common method bias was not a serious issue.

Results

The correlations of the variables included in our analysis are presented in Table 4. As expected, in our full model (Model 2), the effective factors on internationalization showed statistically significant correlations with internationalization, except for international market knowledge. Although international market knowledge was not correlated to internationalization, we proceeded to test the interaction effect of this factor. The negative relationship between the firm's age and internationalization emphasizes the tendency of younger firms to internationalize over older firms, consistent with prior studies that examined the internationalization of high-tech SMEs (Johnson, 2004; Kuivalainen et al., 2007). Industry type was negatively correlated with internationalization, suggesting that manufacturing companies plan for internationalization more than service ones.

Insert Table 4 about here

Model 2 tested the influence of institutional, industry, and resource factors on internationalization. The two institutional factors (international supportive policies & manager's international recognition) positively influence internationalization (see Model 2, Table 5). Thus, we found support for H1 (international supportive policies). We also found that the intensity of domestic competition (H2) is able to explain the internationalization of SMEs. As such, H2 was fully supported. Model 2 also shows the positive, significant impact of international Market knowledge on the internationalization of SMEs, showing support for H3.

Insert Table 5 about here

We tested the moderating effect of international market knowledge on institution factor (H4) and on the industry factor (H5), as shown in Models 3 and 4 (see Table 6). H4 predicts that international market knowledge positively moderates the relationships between the international supportive policies (H4) and internationalization.

As shown in Table 6, the interaction term of international market knowledge and the international supportive policies is positively and significantly related to internationalization. Therefore, our results show support for H4. In terms of industry factors, our results indicate that international market knowledge does not moderate the significant effect of the domestic competition intensity on EESMEs' internationalization. We also tested the moderating effect of industry factor (domestic competition intensity) on institution factor (H6), as shown in Models 5 (see Table 6). The moderating effect of industry is positive, but not significant.

Thus, H6 was not supported. The significant effects of the moderator are summarized and plotted in Table 7 and Figure 2.

Insert Table 6 about here

Insert Figures 2 and Table 7 about here

To summarize, our findings suggest that institutional factors are perceived by managers as most important in the internationalization process, followed by industry factors and firm factors (International Market knowledge). At the institutional level, the manager's international reputation accounts for the lion's share of the internationalization of ICT SMEs, while international market knowledge moderates the relationships between international supportive policies and internationalization.

Discussion

The main goal of this study was to understand the moderating effects of IMK on the internationalization of EESMEs known to have limited resources and market power (Radulovich, Javalgi, & Scherer, 2018). Accordingly, The outcomes of this study suggest that institutional variables have a more prominent role than the industry and firm-level (resources) factors. This shows that unlike in the developed economies where industry competition and the firms' resources have a significant effect on their internationalization, in emerging economies, the institutional factors have more significant effects and need special attention of researchers (Meyer & Peng, 2005; Young et al., 2014). IMK emerged as an important factor in the internationalization EESMEs. Results generated in research present IMK as a factor that has a significant positive moderating effect on the relationship between the perceived supportive policies (formal institutional factor) and EESMEs' internationalization. Such insights into the mechanisms underpinning the internationalization of EESMEs elaborate on how SMEs' knowledge of international markets leads them to look for supportive policies in their country and make the most out of those policies for successfully increasing their internationalization. Furthermore, funding assistance, such as duty drawback schemes and tax cuts, can increase SME export profits and competitiveness (Quaye, Sekyere, & Acheampong, 2017; Singh, Garg, & Deshmukh, 2010). Export credit guarantee schemes are generally designed to provide SMEs with competitive resources in their initial phase of export activities, along with the security to manage trade and political risks (Ndubisi et al., 2009).

The IMK of EESMEs (intangible firm resource) did not significantly moderate the effect of the international reputation of EESMEs' managers (informal institutional factor) and the intensity of competition (industry factor) on EESMEs' internationalization.

This can be explained by the fact that IMK by itself is not a strong resource for EESMEs' internationalization as reflected in the significance of its direct effect compared to the institutional and industry factors. EESMEs' have major liabilities in terms of their tangible resources for internationalization which attenuates the significance of IMK in their internationalization process. However, since the main required resources are offered through the supportive international policies of the country, the integration of IMK and formal supporting institutional factors can significantly help EESMEs in their internationalization.

Theoretical contribution

Our study provides two contributions to the literature. First, we develop the international business literature, particularly in emerging economies, by developing a comprehensive conceptual model based on the tripod framework for the drivers of EESMEs' internationalization at firm, industry, and institutional levels. More specifically, we empirically test this comprehensive model for the first time. We argue that our Iran sample is representative of a challenging and interesting emerging economy, given the nation's high level of uncertainty and informal institutions.

We also believe that it is one of the first studies to investigate the EESMEs' internationalization (using a multilevel approach) in the Middle East, a region that has been understudied in the SME literature (Kiss et al., 2012; Zahra, 2011), supplementing regional work on Asia (Yan, Wickramasekera & Tan, 2018; Prashantham & Dhanaraj, 2010), Eastern Europe (Volchek et al., 2013), Latin America (Aulakh et al., 2000; Cardoza et al., 2016; Fastoso et al., 2012) and Africa (Ibeh, Wilson, & Chizema, 2012).

Second, our findings contribute to the international entrepreneurship and international strategy literatures by extending the resource-based view. Although some studies consider internationalization a process for enhancing EESMEs' international market knowledge to overcome their disadvantages in international markets (Yamakawa et al., 2013) and others investigate the role of social networks on internationalization (Musteen et al., 2014), we are comparing the direct and moderating effects of such resources. We contribute to these literatures by demonstrating how EESMEs' international market knowledge allows them to effectively leverage their contextual environment and benefit them accordingly.

Managerial implications

Our study provides some interesting practical implications, for both governments and EESMEs. In order to spur the internationalization of their SMEs, emerging economies should focus not only on providing international supportive policies but also on helping top managers gain confidence in their internationalization capabilities. Given that a manager's perception of their international reputation and international perspective positively influences internationalization, government activities that enhance this perception could be helpful to firms. Governments could also leverage their powerful positions to provide firms with the opportunity to develop their international market knowledge. Export development-related assistance, such as trade fairs, export workshops and seminars, overseas training programs, and business groups could help SMEs overcome mental barriers and develop positive attitudes toward internationalization. In conjunction with such efforts, governments could assist their SMEs in achieving international reputation by involving the SMEs in international activities and promoting these firms abroad, especially given the critical role that reputation plays in the internationalization process.

EESMEs seeking to engage in or enhance their level of internationalization should focus on the exploitation of international supportive policies and the development of both an international perspective and international reputation. They should realize that the first and most important key success factor for their internationalization process is their knowledge and involvement in their home country's formal and informal institutional environment. Their firm-level resources can be much more effective in their internationalization process if they can bring them in line with their formal institutional environment. They should assess not only their industry conditions but also their ability and willingness to engage in the process. If they fall short of these latter attributes, they would be well served to hire individuals who possess these characteristics.

Limitations and suggestions for further research

This study suffers from several limitations which may provide promising opportunities for future research inquiry. First, we only focused on firm resources as moderators in our tripod framework because EESMEs have the most control over this factor. While they have less control to change or impact institutional factors or industry factors, they are in a better position to improve their firm-level resources and use them as leverage to better take advantage of institutional and industry factors. In the future research direction section, we call for further exploration of interactions between industry-based factors and institutional-based factors. Second, while we have framed our assumptions on the tripod framework with references to Iranian SMEs in the ICT industry, the combination of internationalization antecedents of SMEs from other types of SMEs and different emerging economies may vary.

Since the emerging markets are not homogeneous, their differences might prevent us from generalizing our findings to SMEs in other emerging economies. Third, future studies may conduct a cross-country survey and employ HLM analysis and a finer-grain analysis of the roles of institutions and industry as contextual factors. Fourth, other than the variables studied in this paper, there are other essential factors impacting the internationalization of EESMEs, such as non-market factors and international entrepreneurial orientation. For instance, managing non-market environments in emerging economies is more critical for business success than managing market environments (Marquis & Qian, 2014); therefore, it proposes a fruitful avenue for studying these factors in the context of EESMEs.

Conclusion

Our study has identified some of the main drivers of EESMEs' internationalization at firm, industry, and institutional levels and examined their direct and interaction effects. We identified these driving factors through the theoretical lenses for the internationalization of SMEs and emerging economies. Using Peng et al.'s (2008) tripod framework, we integrated the institutional-based view with the industry and resource-based views to develop our theoretical model and hypotheses. We have introduced a comprehensive conceptual model to understand better the internationalization of EESMEs based on the three perspectives of the tripod framework.

The results of testing our model indicate that SMEs' international market knowledge (resource-based view), the intensity of their domestic competition (industry-based view), the country's supporting policies, and the international reputation of EESMEs' managers as formal and informal institutional factors (institutional-based view) have significant effects on internationalization of EESMEs.

In addition, we tested the moderating effects of SMEs' international market knowledge on the relationships between industry and institutional factors and EESMEs' internationalization.

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TABLE 1. SME internationalization from three perspectives.

Context	Country	Study	RBV	Institutional	Industry	Interaction
<i>Emerging economies</i>	China	Penghua, Mengli, & Yuping (2020)	√	√	N/A	N/A
	Russia	Volchek, Jantunen, & Saarenketo, (2013)	√	√	N/A	N/A
	Malaysia	Ismail, & Kuivalainen (2015)	√	√	N/A	N/A
	Fiji	Ashna, Paul, & Chavan (2021)	√	√	N/A	N/A
<i>Developed economies</i>	Finland	Torkkeli, Kuivalainen, Saarenketo & Puumalainen (2019)	√	√	N/A	N/A
	South Korea	Cho & Lee (2018)	√	N/A	√	N/A

Note: The internationalization was operated differently (FDI, international performance, & export behaviors)

N/A: Not Available

TABLE 2. Construct Measurement

Constructs	Items	References
Domestic Competition Intensity	Domestic/global market ratio in ICT sector	Mariz–Pérez & García–Álvarez (2009)
	Number of competitors in the domestic market of the ICT sector	Karadeniz, E. E., & Göçer, K. (2007); Elango (2007)
International Market Knowledge	Consultant – networking	Senik, et al., (2011) ;Zhou, et al., (2007); Kungwansupaphan, &
	Relation with foreign friends (businessmen)	Siengthai, (2014);Lindstrand, Melén, & Nordman, (2011);Musteen,
	Personnel’s competence	Datta, & Butts (2014) Arslan, et al., (2020); Puthusserry, Child, &
	Awareness of foreign markets	Khan, (2020) Cheng, & Yu, (2008); Hernández, & Nieto, (2012)
	Foreign work experience	
	Education abroad	
International Supportive Policies	Government export incentives	Ahmed et al., (2006) ; Christensen, Da Rocha, & Gertner, (1987);
	Cooperation between Iranian embassies and institutions in the host country	Nguyen, Le, & Bryant, (2013)
	Transparency in trading across border process	

TABLE 3. Measurement Model Results of First–Order Formative Constructs

<i>Construct / Indicator</i>	<i>VIF</i>	<i>Weight</i>	<i>Eigenvalue</i>	<i>Loading (% of Variance)</i>	<i>Cronbach's alpha</i>
International Supportive Policies			2.19*	73.15*	.81
Government export incentives	2.028	.462			
Cooperation between Iranian embassies and institutions in host country	2.081	.556			
Transparency in trading across border process	1.565	.713			
Domestic Competition Intensity			1.98*	66.03*	.74
Domestic/global market ratio in ICT sector	1.727	.610			
Number of competitors in the domestic market of the ICT sector	1.696	.655			
International Market Knowledge			3.2*	64*	.76
Consultant – networking	1.030	.585			
Relation with foreign friends (businessmen)	1.760	.468			
Personnel's competence	1.250	.420			
Awareness of foreign markets	1.890	.263			
Foreign work experience	1.268	.631			
Education abroad	2.050	.259			
Internationalization			1.21	80.88	.75
Export	1.617	.966			
Sales office in host countries	1.890	.790			

* Eigenvalue >1 & % of Variance > 50%

TABLE 4. Correlation Results

Variable	Num.	1	2	3	4	5	6	7	8	9	10
1 Inter. Supportive policies	120	1.00									
2 Domestic Comp. Intensity	120	.338**	1.00								
3 Inter. Market Knowledge	120	-0.07	0.04	1.00							
4 Internationalization	120	.274**	.318**	0.06	1.00						
5 Global Industry Growth	120	.175*	-0.06	-0.06	0.00	1.00					
6 Slack Resources	120	.154*	-0.08	0.04	.285**	.160*	1.00				
7 Size	120	0.14	-0.02	-0.06	0.05	0.14	0.15	1.00			
8 Age	120	-.270**	-.338**	-0.11	-.386**	.243**	-.232**	-0.08	1.00		
9 Industry	120	.154*	.242**	0.02	-.192**	0.12	.263**	0.02	-0.09	1.00	
10 Location	120	.334**	0.12	0.08	-0.04	0.14	.352**	0.08	-.181*	.365**	1.00

*p < .10, **p < .05, ***p < .001

TABLE 5. Regression Results (Hypotheses 1 through 3)

Variables	Internationalization			
	Model 1	Model 2	Collinearity	
	<i>Coeff.</i>	<i>Coeff.</i>	<i>Tolerance</i>	<i>VIF</i>
Global Ind. Growth	.104	.074	.810	1.234
Slack Resources	.30***	.33***	.614	1.629
Size	.00	.00	.934	1.071
Age	-.07***	-.04***	.693	1.442
Industry	-.33***	-.44***	.786	1.277
Location	-.149*	-.238**	.711	1.406
Int. Supportive policies		.143**	.736	1.358
D. Comp Intensity		.29***	.656	1.524
Int. Market Knowledge		.132**	.673	1.486
Constant	2.44***	2.89***		
R	.540	.66		
R2	.291	.43		
F	11.82	14.36		
df2	112	108		

*p < .10, **p < .05, ***p < .001

TABLE 6. Interaction Effects of International market knowledge & Industry (Hypotheses 4 through 6)

Variables	Internationalization					
	Moderating effect of Int. Market Knowledge				Moderating effect of Industry (DCI)	
	Model 3		Model 4		Model 5	
	3a	3b	4a	4b	5a	5b
Controls						
Global Ind. Growth	.081	.101	.102	.109	.060	.035
Slack Resources	.228**	.221**	.332***	.324***	.391***	.371***
Size	-.001	-.001	.000	.000	.000	.000
Age	-.057***	-.055***	-.045***	-.046**	-.038**	-.041**
Industry	-.359***	-.379***	-.450***	-.452***	-.443***	-.451***
Location	-.261**	-.278**	-.199**	-.195**	-.215**	-.212**
Main Effects						
Int. Supportive policies	.211**	.218**			.15**	.136**
Domestic Competition Intensity (DCI)			.334***	.331***	.34***	.389***
Int. Market Knowledge (IMK)	.223**	.263**	.14**	.159**		
Interaction Effect						
Int. Supportive policies * IMK		.19*				
Competition Intensity * IMK				.026		
Int. Supportive policies * (DCI)						.084
Constant	2.862***	2.94***	2.81***	2.79***	2.761***	2.786***
R	.612	.618	.64	.646	.648	.651
R2	.37	.380	.417	.418	.42	.424
R2-chng		.01		.001		.004
F	12.776	11.67	15.28	13.55	15.5	13.91
df2	112	111	112	111	112	111

*p < .10, **p < .05, ***p < .001

TABLE 7. Significant Interaction Effect of International Market Knowledge

Variables	Conditional effect of X on Y at values of the moderator(s)					
	<i>IMK</i>	<i>Effect</i>	<i>t</i>	<i>P</i>	<i>LLCI</i>	<i>ULCI</i>
Int. Supportive policies	-1.00	.073	.725	.470	-.093	.239
	1.00	.48	4.22	.000	.292	.667

FIGURE 1. Theoretical Model

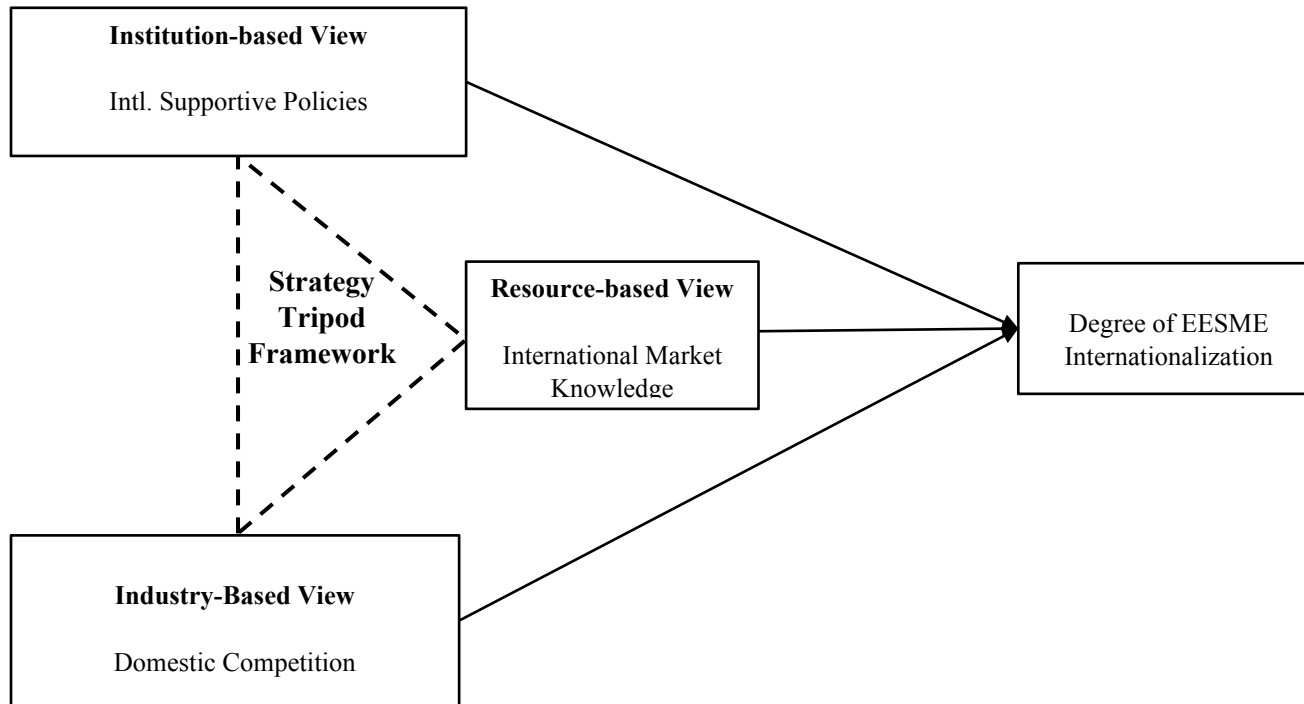


FIGURE 2. International Market Knowledge and International supportive policies

