The essence of entrepreneurial internationalization: Managing the dynamic complexity of interactive relationship and reflective adaptations

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Introduction

The notion of complexity in entrepreneurial decisions and processes has historical roots and is broadly based, but the causes, components, and the extent of interactions that give rise to the complexity are neither traced nor discussed comprehensively. The issues of interactions, consequent adaptations, and corresponding complexity deserve special attention and possibly a few special issues to address the various facets of them. The task of fully mapping the components, their temporal impact over every decisions' life cycles, from inception to conclusion, and their consequent effects on other related decision and process will be a daunting task, especially when such entrepreneurial decisions reflect and dynamically *adapt to the changing conditions in the context(s), within which decisions are made over time*. However, these issues are neither recent nor new phenomena. The “entrepreneurs”¹ of the ancient eras faced higher risks, uncertainties, general complexities, and even personal hardships that are nearly unimaginable today.

The documented historical roots of entrepreneurship go as far back as 130 BCE paralleling the famed “Silk Road,” which started from the present-day Shanghai on the coast of East China Sea and passed through many cities of the ancient Chinese and Persian Empires. This network of roads connected major cities, such as Xian (the seat of Chinese dynasties for centuries) and the predecessor of present-day Mash-had and Isfahan in the northeast and central Iran, respectively. The roads further extended westward beyond the Persian Empire, passing through Assyria and present-day Turkey to reach the heart of Europe for nearly 1600 years (from 130 BCE to 1453 CE, when the Ottoman Empire closed the road). In 1877 CE, the German geographer, scientist, and traveler Ferdinand F. von Richthofen called them as the “Silk Routes,” referring to

¹Although the French term “entrepreneur” was suggested centuries later, we have used it for consistency.

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the *network of trading routes* that the connected major centers of production and consumption going back to the ancient China during the Han Dynasty, when traders of that era, traveling with organized “caravans,” brought and bought tradable commodities in one location and sold in another along the routes.

The true history of trading roads and international traders, however, predates the Silk Road and Han Dynasty and goes far back to the network of “Royal Imperial Roads” in the ancient Persian Empire during the Achaemenid Empire (500–330 BCE). These “Persian Imperial Roads” extended from the north of Persia (present-day Iran) to the Persian Gulf in the south and from the foothills of Himalayan Mountains on the east to the Mediterranean Sea in Asia Minor (present Turkey) in the west. This network of roads was developed originally for post and had postal stations along the way with the fresh supply of horses and provisions for envoys to deliver messages throughout the empire as quickly as possible. The network eventually extended to the Indian sub-continent in the east to the present-day Egypt in the west with tributaries reaching smaller cities in the ancient Persian Empire. This network of roads provided the infrastructure for trade and also constrained the market reach of international traders.

The predecessors of international entrepreneurs—the network of entrepreneurial traders During the Silk Road era, organized missions of international traders, called trading “Caravans,”² traveled from one roadside resting place, called Caravan Sarra (or Caravan Serais³), to the next, where traders could rest and get their required fresh provision to continue on-ward to a trading city. These caravan sarra resembled their predecessor postal stations on the Persian Imperial Roads. These traders were, indeed, the historical predecessors of international entrepreneurs of the time that traveled across borders and cultures facing high levels of uncertainty, tolerating untold hardships and yet acted proactively and resolutely in their trading functions while taking large risks. Some missions took more than a year and were often attacked by pirates and thieves that harmed them, threatened their livelihood, and robbed them of their precious cargos along the road.

In the absence of organized and reliable information and forecasts of demands and supplies in different locations for different tradable goods, including artifacts, blankets, carpets and rugs, fibers, gunpowder, perfumes, saddles, silk, spices, textiles, bronze, silver, and gold, amongst many others, these trading entrepreneurs faced *tremendous uncertainty and dealt with large complexities* that required large adaptability, flexibilities, and other human proclivities. Yet, they took daring decisions and immeasurable risks proactively. Furthermore, they relied on fellow traders and interacted with their buyers, suppliers, and supporting services for concluding transactions.

The European counterparts of the ancient international entrepreneurs of the Silk Road era, who characterized the term “entrepreneurs” later on, were not very different. The record from the seventeenth and eighteenth centuries document valiant efforts of

² Merriam Webster Definition of “caravan” for the above context is a company of travelers on a journey through desert or hostile regions; also with a train of pack animals”. Source: <https://www.merriam-webster.com/dictionary/caravan>

³ A Caravanserai (/kær væns ra /) was a roadside inn, where travelers (caravaners) could rest and recover from the day’s journey. Caravanserais supported the flow of commerce, information, and people across the network of trade routes covering Asia, North Africa, and Southeast Europe, especially along the Silk Road. Source: <https://en.wikipedia.org/wiki/Caravanserai>

such traders then, who bought popular commodities, such as wines from wine-producing regions in the central and southern France, and transported them to lands beyond for sales. They also faced similar uncertainties, took large risks, experienced hardship in organizing support for their travel and yet functioned with a degree of commitment and intensity to succeed. The noteworthy commonality amongst them was the human attributes that in our contemporary parlance are called “entrepreneurial orientation, capabilities, commitments and motivations”, to which I will return in highlighting other articles in this issue.

The prevailing entrepreneurial system After the passage of few centuries, however, the details of historical records, documenting the difficulties and complexities of the olden times and previous eras, have lost recency and the contemporary entrepreneurship is forced to re-visit to “re-design the wheel” by debating concepts that were experienced before and have had older precedents, such as, adaptability, interrelations, opportunity, risk bearing, and dealing with complexity. Although neither are these amongst the main mandate of the journal nor the focus of this issue, the Journal of International Entrepreneurship is pleased to follow-up on earlier article appearing in the journal characterizing international entrepreneurship (IE) as a set of interrelations and interaction⁴ constituting a dynamic open complex adaptive system—DOCAS (Etemad 2004). With an emphasis on interactive relations, and their consequent adaptations, this system serves as a contextual, if not conceptual, framework for highlighting the four research papers that follow this article. Collectively, articles of this issue further expand and explore a few novel aspects of entrepreneurial internationalization (EI) decisions and set the stage for continued discussion, research, and publication(s) of EI within the context of dynamic open complex adaptive systems.

The *main objective of this regular issue* is to highlight the *interactions* and the corresponding complexities that characterize entrepreneurship in general and point especially to those associated with, for example:

1. Individual entrepreneurs⁵ interacting with, and adapting to, the dynamics of their prevailing context(s), including their respective enterprise and its related industry,
2. The complexities associated with conforming with the international entrepreneurship’s multiple environmental contexts,
3. The required entrepreneurial flexibility and adaptations in light of the dynamics of change at home and abroad, and
4. The conformity with suppliers for delivering value to their ultimate customers.

They collectively add to the dynamism and complexity of *interactions* in internationalization decisions and processes, where not all are free of constraints. Although such interactions, if not chain reactions, occur routinely amongst the various stakeholders and active agents, both at home and in international markets, we focus mainly on the focal entrepreneur(s) and the operating entrepreneurial enterprise for optimal effect(s)

⁴ The term “interaction(s)” refers to the process of proactive anticipation, possible adaptations, continuous monitoring, and assessment of outcomes over time. This is also a learning process that enables further improvement through monitoring and consequent adaptations.

⁵ We refer to the team of influential decision-makers as the “entrepreneur” to abstract from a potentially complicated intra-organizational dynamic for simplicity.

of combined interactions that influence, if not alter, international entrepreneurship processes and outcomes eventually. It is, therefore, logical to suggest that *the essence of success in entrepreneurial internationalization is in amicable management of such interactive complexities*, as stated in the title of this article.

Limitations Unfortunately, the limitation of double-blind and peer-reviewing process is not conducive to the publication of lengthy manuscripts tracing the overtime complexities of interactive relations amongst all influential actors, agents, and their respective interrelations all at once. Furthermore, the entrepreneurial adaptive response in reaction to the exerted influences results in a dynamic transformation process over time, which most methodologies cannot capture. These processes also add to the complexity of research and necessitate a longitudinal approach over the life cycles of dominant influences and corresponding interactions that cause, if not force, adaptation and further change.

Structurally, following this introduction, the highlights of the four research articles addressing complementary aspects of intensive interactions within their respective dynamic open complex adaptive systems will appear next. A discussion of implications, lessons, and a brief agenda for further research concludes this article.

The highlights of this issue

This issue of the journal presents four complementary and scholarly papers that explore certain aspects of interactions contributing to, if not forming and shaping, the complexities that characterize the contexts, within which entrepreneurial internationalization operates. The second article, following this one, is entitled as “Firm-level entrepreneurship and international performance: A simultaneous examination of orientation and action” and is co-authored by Mojtaba Hosseini, Hossein Dadfar, and Staffan Brege of Linköping University of Sweden. This article sets out to explore relationship between entrepreneurship at the firm and international performance in a sample of SMEs based in Iran while treating environment as a moderating factor. The authors interviewed the CEOs of 216 firms, who agreed to participate in the study, at the end of which questionnaires were completed. Some 198 usable questionnaires formed the information set on which the analysis and findings are based. The implied overall lesson of this research is that there are multiple interactions amongst the entrepreneur-founder-managers, the top management team (TMT), other entrepreneurially oriented actors in the firms, interacting with stakeholders within and outside the firm and their corresponding economic and sociocultural contexts (e.g., the external environment). As a result, the ultimate performance outcomes are the consequence of their combined *interactive and entrepreneurially oriented actions*. Each and everyone may take an initiative on the behalf of the firm while interacting with others, including the influential agents outside the firm. By a logical extension, an entrepreneurial firm adapts, evolves, learns, and grows over time due to their continuous interactions and adaptations, within the confines of their resources and capabilities. Such set of interactions are principally initiated by entrepreneurial motivations and constrained by the firm’s resources and capabilities (Katona 1975) and may resemble, if not simulating, a dynamic, open, complex, and adaptive system (DOCAS).

Previous studies had associated firm-level entrepreneurship (FLE) with other constructs, such as entrepreneurial orientation (EO), corporate entrepreneurship (CE), and entrepreneurial management (EM), each of which has a few dimensions of its own in their simplest forms.

Following a long list of scholars, starting with Covin and Miles (1999), classifying most construct into one of three categories at different levels, the authors confirm that FLE could be viewed as the organizational strategy, or corporate philosophy, enabling entrepreneurial actions (EA), which is *not limited to the actions of certain, or few, employees, managers, or corporate groups but it may include all of them in principle*. Entrepreneurial actions are inevitably, if not inadvertently, influenced by their own personal entrepreneurial motivations and abilities (Locke and Latham 2004) as well as entrepreneurial orientations that motivate them to arrive at actions that are supported by others in the firm due to their prior interactions. As an example, consider that certain employee(s), group(s), or even a division(s) need to intensively interact internally for adopting a firm-level entrepreneurial orientation, acting as unified organ resembling an entrepreneur, and behaving entrepreneurially to secure certain outcomes.

The research focus of this paper is to explore the various interactive influences that lead to observable performance. Accordingly, the paper's research question is which combination of entrepreneurial agents and actions, motivated by their own entrepreneurial characteristics, orientations, and motives, impacts performance in general and growth through internationalization in particular?

Regarding the entrepreneurial orientation (EO), Miller (1983), for example, initially introduced entrepreneurial orientation in terms of only three correlates of "pro-activeness," "risk-taking," and "innovativeness." Following Miller, other scholars (e.g., Covin and Miller 2014; Covin and Slevin 1991; Lumpkin and Dess 1996, 2001; Lyon et al. 2000; Rauch et al. 2009; Stevenson and Jarillo 1990, amongst others) have further explored the construct and found other correlates (or dimensions) that affect related aspect of entrepreneurship. Regardless of the dimensionality, Memili et al. (2011), for example, suggested that "*entrepreneurial orientation is the driving force for corporate entrepreneurship*" [emphasis added] and thereby relating EO to what Burgelman (1983) had already called corporate entrepreneurship (CE), i.e., entrepreneurship embedded within the corporate context, which operates in home and possibly in many host country contexts. These pioneering developments, amongst others, have formed the initial, and possible pathways to our evolving, perception of entrepreneurial internationalization in action.

Stated briefly and differently, entrepreneurial actions that are rooted in respective EOs of different actors at *different levels of the organization, and situated in different contexts*, regardless of EO's level of complexity, interact with each other and their respective contexts. They subsequently shape corporate response and the consequent performance in their operating environments (e.g., home and multiple host-country contexts). The noteworthy point is that personal entrepreneurial characteristics generally motivate the initial entrepreneurial action(s), moderated by the EO and EA of influential agents, within and outside, the firm. Combined, they affect performance through the deployment of the firm's accumulated capabilities and the resources. This characterization of nested interactions necessarily includes not only the enacting entrepreneurial agents, including the founder and top management team (TMT), implementing the firm's strategy, all supported, or constrained, by the firm's resources

and capabilities; but it must also be consistent with the prevailing institutional and sociocultural norms, values, and expectations. At the societal levels, interactions necessarily extend beyond the firm's economic boundary conditions. At the functional levels, the firm's ultimate overall action leading to observable performance is reflective of all influential agents' explicit and tacit interactions, within and outside the firm, whose collective support of the agreed-upon strategy and subsequent action results in an observable performance. The schematic representation in Fig. 1, adopted from Etemad (2004), was designed to portray both the major levels (called interactive layers) of influential agents and their overall interactions resulting in typical entrepreneurial action(s). Based on the above discussions and those of the next three articles, and following the lessons of social cognitive theory (Bandura 1986, 2001, 2002), a modified version of the schematic in Fig. 1 will be presented later on in Fig. 2, representing influential interactions in a typical entrepreneurial context.

In sum, this article's theoretical arguments and empirical findings, including the structural equation modeling (SEM) characterization of relations, strongly point to a comprehensive complex adaptive system, within which actors interact with each other and with their respective environments. These interactions and their consequent

Fig. 1 A schematic representation of the four interacting layers in an interactive framework (adopted and slightly modified from Etemad 2004)

dynamic adoptions influence the firm's subsequent path of growth and internationalization overtime. Naturally, language abilities affect interactions and the knowledge of contextual requirements enables effective adaptations. These are the focal topics of the next article.

The third article of this issue is entitled as “Language ability and entrepreneurship education: Necessary skills for Europe's start-ups?” and is co-authored by Leanne Johnstone, Mariana Pio Monteiro, Ines Ferreira, Johanna Westerlund, Rosa Aalto, and Jenni Marttinen. The research supporting this article aimed to explore the impact of language ability on the success of European start-ups and their respective internationalization in three distinct environments—i.e., Finland, Portugal, and Sweden. In addition to multiple contexts, this article adopted a combination of the resource-based view (RBV) of the firm and the institutional framework in order to account for different contexts and for adding to its realism and richness. This framework not only enabled language abilities to be viewed as a potent firm resource in interacting within actor-context specific situations across contexts; it also resulted in adopting an analytically integrated perspective on the intense interactions in starting-up stages while addressing many of the issues discussed earlier as well. It reports that language ability(ies) enhances success of start-ups as well as their respective internationalization, as language abilities enable the entrepreneur-founder-managers to understand the sociocultural and institutional environment (the contexts for their activities) much earlier and easier in order to interact with, and adapt to, them more effectively than otherwise. Such entrepreneurial, or firm's, ability to communicate directly, and learn about, their context effectively can consequently minimize, if not avoid, risks associated with the asymmetry of information and knowledge about their markets, especially in the foreign environments, when the young firm's resources are constrained. Furthermore, their perception, and therefore, their ability to mitigate, if not resolve, conflictive situations, or *risky operations*, will be much more improved than those of others’.

In the context of dynamic open complex adaptive systems, these firms' better understanding of their *environmental context enables them to interact with all concerned for reducing the level of complexity in order to adapt faster and more effectively*

Fig. 2 Schematic representation of various interactions in entrepreneurial internationalization

than others and thus control for adverse effects impacting their progress, especially in the early stages, where firms are nascent and vulnerable and comparative advantage are difficult to come by. The literature has discussed three basic risks, e.g., the risks of “Foreignness” (Hymer 1976; Zaheer 1995; Zaheer and Mosakowski 1997), “Newness” (Stinchcombe 1965 and Abatecola et al. 2012), and “outsidership” (Johanson and Vahlne 2003). The classic foreignness risk is associated with foreign companies’ *initial failure to well understand their host country’ environmental context, possibly due to their language deficiencies to interact for adapting properly* in a timely fashion. Earlier scholars (e.g., Johanson and Vahlne 1990, 2003) suggested a slower and more cautious approach to foreign markets in order to gain “experiential knowledge” through learning within the host country environment. Amongst the important contextual factors in the host country market is the consumer behavior, which changes dynamically over time. The success in nearly all market environments depends on deep and *direct understanding* of the consumers’ and markets’ true behavior—not through reports by others based on selected samples and generalized for the population as a whole. In contrast, a thorough understanding of consumers’ needs and wants, as well as their main reasons behind them, mostly at individual levels, enables the firm to meet them, and naturally, both language ability and prior knowledge through education can go a long way towards that understanding. Any characterization of consumer behavior based on a typical “average person” is likely to represent the central tendency of widespread distribution, thus failing to be inclusive of most, if not all, consumers.

The risk of newness, suggested by Stinchcombe (1965), is a two-sided phenomenon. When a company understands its market well and clearly communicates the comparative advantages of its “new” offerings (goods, services or processes) over those of its competitors, the risk can be minimized and possibly turned into an advantage. Similarly, when the firm understands why a new offering may pose a risk, it can properly adapt it to satisfy the needs well and thereby avoid the potential risk. In fact, most innovative products, processes, and services are new, and “newness” generally confers an advantage—not a risk—when properly presented. The risk of newness logically arises from failure to communicate the relative advantages of newness, not otherwise.

The risk of “outsidership,” proposed by Johanson and Vahlne (2003), suggested that foreign firms would not initially be well-connected, if connected at all, to the local networks, thus treated as outsiders. The literature of marketing, for example, refers to the channels of distribution, which are critical to success in any market, as “intra-firm network.” A thorough understanding of human behavior in such intra-networks of collaborative firms is essential for success in foreign firms, especially when the market is highly competitive, and small advantages, based on clear communication with the channel members, can separate successful products, services, and companies from others. As stated earlier, the key to resolving the outsidership situations is interactions that enable a thorough understanding of the consumer behavior and market needs in order to offer them what they value most. Similarly, the discriminating factor between the risk of failure and success is the information and knowledge of market behavior and needs. Generally, such knowledge is mostly tacit and their mastery requires skills, including language ability for outsiders. Living within and experiencing the focal market is the other alternative capable of accounting for the difference between success and facing the risk of failure. These arguments also directly relate to the other topic of this article that pointed to the facilitating role of education regarding the sociocultural

aspects of prospective foreign markets in addition to acquiring language abilities for interacting with the contextual elements of potential international markets. This is the reason behind large multinational enterprises (MNEs) employing truly multi-lingual, and preferably multi-cultural, employees who can easily bridge across the home and the host(s) market differences and function as effectively as the local citizens function.

The fourth article in this issue starts where the third article left off. Similar to the third article pointing to the role of education in facilitating better and deeper understanding of other contexts differing from one's native, or familiar ones, it provides a social cognitive perspective on the inter-relation, or interaction, of entrepreneurs and home (and host) country national (international) cultures through education. It is entitled as "The interplay of entrepreneurship education and national cultures in entrepreneurial activity: a social cognitive perspective" and is co-authored by Pyat P.Oo, Arvia Sahaym, Sakdipon Juasrikul, and Sang-Youn Lee. In spite of inconsistent reports regarding the impact of entrepreneurship educations on entrepreneurial activities in a few specific country environments, this article's analysis of a cross-cultural sample of 24,457 individuals in 38 countries confirms the positive impact of entrepreneurship education on entrepreneurial initiatives and activities. However, the relationship is moderated by sociocultural influences of their respective environments in the sampled countries.

The paper draws on the social cognition theory (Bandura 1986) to posit, that "any *interaction between individuals and their environment* context may influence their behavior and attitudes" [emphasis added]. Generally, individuals monitor their environment in order to adapt their actions for obtaining the best outcomes. Entrepreneurs cannot be an exception. Following the social cognitive theory, entrepreneurs, whose success depends on acceptance of their actions by their respective consumers in particular, and the environment in general, would be expected to proactively anticipate change, make the necessary adaptations, and monitor outcomes. As stated earlier, the term "interactions" refers to the process of proactive anticipation, potential adaptations, continuous monitoring, and assessment of outcomes over time for further improvements. More importantly, however, entrepreneurs also *learn from the process and adapt their actions* for higher-value outcomes, which are also consistent, if not supportive, of earlier suggestion that entrepreneurship is a dynamic open and adaptive process. Internationalization introduces added layers of complexity and incremental dynamism, for which international entrepreneurs need to prepare and entrepreneurial education system(s), and educational institutions, can serve essential roles in the learning and preparation processes, especially for imparting information and knowledge concerning the sociocultural and institution differences in different international markets.

Although the composition and content of entrepreneurship education has been evolving rapidly (Kuratko 2005; Neck et al. 2014; Morris et al. 2014), there is room to further orient teaching and learning towards accepted theoretical principles and proven practice in entrepreneurship to instill *innovative, pro-activeness, and risk-taking characteristics*, at the minimum, in aspiring nascent entrepreneurs. In science education, basic theoretical principles are integral parts of education as they are examined routinely in laboratories and workshops and students learn about them directly and experientially. Social sciences, for the most parts, have yet to integrate practice within classroom curriculum. Given the socioeconomic impacts of entrepreneurship, the integration of entrepreneurial practice—e.g., within hand-on workshops

(similar to laboratories in sciences enabling experimentation), realistic simulations, and even in-stream internship—seem to be far overdue. However, the recent wave of university-based incubators and accelerators are promising moves in the right direction, but further integration within the educational institutions seems highly desirable.

The cross-cultural context and the findings of this article urge us to consider the international context of entrepreneurial internationalization and ask a few critical questions, including but not limited to:

1. How could aspiring internationally oriented entrepreneurs prepare for the moderating impact of differing sociocultural and institutional context prior to engaging in them?
2. How could the relevant international cross-cultural context be simulated, if not integrated, into curriculum of entrepreneurial training within and outside of educational institutions?

Such questions assume higher importance when the time horizon for preparation and proper orientation is short and compressed, especially when the economic dynamics of international competition pushes smaller and younger firms to internationalize as rapidly and as earlier on as possible. Furthermore, the question of how such simulations of different (and cross-cultural) environments can provide aspiring entrepreneurs an experiential knowledge, on which to draw when in need, remains as a challenge. Although a deeper discussion falls beyond the scope of this article, I will briefly revisit this issue in the conclusion.

The fifth and final article further expands the scope of the above discussions by exploring the impact of the *breadth and depth of international experience and entrepreneurial growth aspirations* on internationalization. It is entitled as “International experience, growth aspirations, and the internationalisation of new ventures” and is co-authored by Jan Henrik Gruenhagen, Sukanlaya Sawang, Scott R. Gordon, and Per Davidsson. The research supporting this paper started with two research questions: “To what extent does founders’ international experience explain subsequent internationalization activities?” and “To what extent do growth aspirations impact on the relationship between international experience and subsequent internationalization activities of [international] new ventures?”

Departing from prior studies, but consistent with the theory of INVs (Oviatt and McDougall 1994 and McDougall and Oviatt 2000), this paper conceptualizes internationalization as a multifaceted construct involving diverse activities across borders. Similarly, it proposes a two-dimensional construct to represent prior “experience” as a constituent of human capital in terms of depth (e.g., time spent abroad) and breadth (e.g., number of countries visited for a considerable time-period). As suggested by the theory of INVs, these enterprises would internationalize from “inception” (Oviatt and McDougall 1994, 2005), and the entrepreneur-founder’s prior knowledge and experience can play a significant role in the perception, and possible recognition, of opportunities in foreign markets in early stages leading to rapid internationalization to realize those perceived opportunities. However, rapid internationalization is contingent on the founder’s and top management team’s desire for growth in international markets, which implies that motivations may have a moderating role. As discussed earlier, Locke and Latham (2004) suggest that motivations affect how, and the extent to which, decision-

makers utilize their human capital and capabilities, including knowledge and prior experience, to achieve certain outcomes, such as international growth. This suggests that growth motivations can trigger internationalization process and provide it with the necessary support and energy to attain the desired objectives, thus confirming motivations' moderating role in internationalization. This paper's modeling and analysis of a longitudinal database of 313 young Australian firms in four waves of annual interviews resulted in two significant findings: (i) that the breadth of prior international experience has a positive impact on internationalization, while (ii) the interaction between the depth of prior international experience and growth aspirations positively impact internationalization activities. Naturally, the firm's resources and capabilities, as discussed earlier, enable or constrain the extent of its internationalization. These findings reconfirm, and close the circle of, arguments and earlier conceptualizations that entrepreneurial internationalization is based on, and moderated by, a complex set of interactions within and outside the firm.

Conclusions and implications

Each of the last four articles in this issue of the journal will explore certain aspects of an interactive relation from different, but complementary, perspectives. Combined, the research underlying these articles suggest that at least three sets of bilateral interactions will have potential impact on a firm's process of entrepreneurial internationalization over time, including (i) the entrepreneur-enterprise interactions, (ii) the entrepreneur-environment interactions, and (iii) the enterprise-environment (or context) interactions. Simply stated, these interactions arise from their respective embeddedness necessitating adaptations through interactions. Naturally, when there are other potentially influential forces, e.g., strong industry and institutional and structural influences affecting other interactions, they must also be taken into account. In addition to their own characteristics and motivations, founder-entrepreneur-managers (and other influential actors) are embedded in the enterprise that is endowed with certain capabilities and resources and constrained by certain voids and lacks, which can be empowering and disabling depending on their extent and impact on the formulated strategy. Such strategy is affected usually by how the entrepreneur and enterprise interact for arriving at amicable and optimal pathways for moving forward. Similarly, both the entrepreneur and the enterprise are embedded in their environmental context and need to interact with their respective economic, sociocultural, and institutional pillars of that context, thus giving rise, or adding, to the complexities facing them.

Internationalization introduces change in the context from the home to the host country environment requiring adaptations, the extent of which depends on pertinent interactions. However, such adaptations may trigger change at home as well, thus adding to the prevailing complexity. Therefore, the impact of interactions with other international markets' respective context must be also considered throughout the system and incorporated into the analysis from the outset, which may increase to the previous level of complexity. Therefore, the management of time and complexity assumes high importance. While the slower and later internationalized allows for accumulation of the required resources and capabilities over time, INVs and born globals need to compensate for the shorter time horizon and relatively constrained

resources and capabilities. This calls for a full cognizance of the various embedding contexts, their imposing requirements, and the necessary adaptation before such options are exercised.

The implications of the above discussions are twofold. First, all the following four papers refer to the crucial role of resources and capabilities, especially those that fall into the broader concept of human capital. Strong human attributes, ranging from education, language abilities, managerial experience, cross-cultural sensitivities and international experience to the extent of networks, are invaluable assets in dealing with internationalization complexities, especially in the internationalizing firm's earlier life cycle stages. Second, relevant hands-on entrepreneurship education, simulating realistic complex entrepreneurial challenges, coupled with true rewards and penalties can go a long way to prepare aspiring nascent entrepreneurs for facing challenges awaiting them. As such, entrepreneurship education and training fall at best at the margins, if not outside, of the curriculum at the traditional higher educational institutions. Therefore, collaborative arrangements with individuals and firms that have successfully taken up similar challenges need to be planned and offered to closely simulate the "real-world" situations in classroom settings. Naturally, such offering must be as comprehensive, as challenging, and as earlier on as possible before commitments to a path of international growth are made. Again, the extent of rewards and penalties needs to clearly point to the importance of the exercise.

The positive aspect of such educational training is that it points to the importance of firms' (and their TMTs') acquiring resources (e.g., language abilities and prior experience) and capabilities (e.g., learning and adaptability) to enable the young and aspiring firms to avoid costly mistakes and to manage international growth process well as they unfold overtime.

Finally and as suggested earlier, the schematic of Fig. 2, modifying that of Fig. 1, can portray the above interactive relations in their simplest forms. The width of the two-sided arrows in Fig. 2 represent the potential intensity of the respective interactions. The journal invites the scholarly and corporate communities to further elaborate and expand on the above framework in order to assist both the educational institutions and young aspiring entrepreneurs to respond to internationalization challenges successfully.

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