



# The evolving international entrepreneurship orientations and international entrepreneurship capital in the rapidly changing and digitizing international environments

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## Abstract

The relationship between entrepreneurial orientations and internationalization has been examined extensively, but the recent developments in the rapidly changing environment point to the need for further examination of international entrepreneurs' orientations in their own embedding contexts and beyond. There is ample evidence suggesting a positive relationship between the firm's combined overall international entrepreneurial orientation, its extent of innovativeness, export (or international marketing), collaborative, and socio-cultural orientations and the scope and speed of its internationalization. The aim of this article is to examine the challenges and developments among the integral components of international entrepreneurial orientations and their associated activities, strategies, and resources to integrate their interactive impacts for better understanding of the broader concepts of *international entrepreneurship orientations* and *international entrepreneurship capital* in the increasing complexities of entrepreneurial internationalization processes.

**Keywords** International entrepreneurship orientation · International entrepreneurship capital · Business networking and collaborative orientation · Exporting and international marketing orientations · Socio-cultural and political orientations · Emerging trends in international entrepreneurship · Internationalized digitized small digital ventures (ISDVs) · ISDVs · ISDV-Multi-sided online Platforms

## Introduction

The recent, and still fresh, experience of COVID-19 pandemic of the past 3 years, is a reminder of the evolving nature of global problems that are becoming increasingly more complex and require solutions far beyond one region, nation, or even continent.

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There is a significant need for leaning from the lessons of the past to prepare for the unfolding uncertain future.

Despite the urgent need for valiant efforts to slow down, control, and eventually stop the coronavirus from inflicting more damages worldwide, the virus inflicted 590 million human beings, and 6.4 million people in different countries of the world lost their lives, regardless of their race, age, and citizenship. COVID pandemic turned out to be a truly rapidly evolving and unexpected global crisis that harmed the human race rapidly and without discrimination or warning. Even in the highly advanced, developed, and rich countries, COVID-19 inflicted many people and caused unprecedented number of deaths. Despite their highly advanced technological and industrial conditions, as well as high capabilities and resources, citizens in countries, such as the USA, the UK, France, Germany, and Italy, among others, a relatively large and unprecedented number of citizens were inflicted by the coronavirus (i.e., number of infections in the USA, 93 million; UK, 24 million; France, 33 million; Germany, 32 million; and Italy, 21 million<sup>1</sup>) and many lost their lives (i.e., number of deaths in the USA, 1.03 million; UK, 186 K; France, 150 K; Germany, 146 K; and Italy, 174 K). Human losses profoundly affected families directly, and their societies at large indirectly. The national health-care systems found themselves in a true crisis and incapable of stopping damages caused by the virus. In the cases of people who are still struggling with the aftermath of coronavirus (popularly called “the COVID Long Haulers”), the healthcare and medical systems are still incapable of offering them relief, let alone an effective treatment for temporary relief and eventual cure or solution(s). In the meantime, the world as a whole lost tremendous employment, productivity, and wealth, while encountering significant uncertainties for more than a year before entrepreneurial innovations in a handful of institutions began to offer promising deterrents.

The experience of the COVID pandemic crisis suggests that the world had not prepared and lacked effective solutions for the specific problem inflicting the humanity starting in 2019, regardless of where they were located and what was their state of capabilities, development, technology, and wealth, and for a period of time, when governments were forced to impose curfews, strict lockdowns, and restricted assembly, mobility, and travel in order to reduce the virus inflicting more damage. Eventually, the innovative and entrepreneurial efforts of a handful of companies (e.g., AstraZeneca, Moderna, and PfizerBioNTech) and a few national R&D institutions (e.g., China, India, Russia, and South Africa) offered different vaccines that provided some protection, and reduced complications and death for regular COVID patients, but very little, if any, to the “COVID Long Haulers” yet.

Closer to international entrepreneurship, countless number of unsuspected and under prepared SMEs, and even internationalized smaller firm, also suffered substantially from the rapid emergence of COVID-19 in the early 2020. Lockdowns adversely affected their sales, while restrictions on assembly and mobility as well as higher absenteeism due to COVID-stricken labor force disrupted their production and sales, nationally and internationally. Additionally, their respective

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<sup>1</sup> Source of number: national statistics and recent WHO reports.

national governments' campaigns in favor of "buying local," and the near collapse of international shipping, logistics, and trade adversely impacted international supply chains worldwide. Consequently, smaller firms suffered more severely than others. Etemad (2020a, 2021b, c, 2022c) reported that at least two significant factors seriously affected the national and internationalized SMEs (iSMEs), including (i) they *had not expected a crisis and had no plans* to deal with the adverse effects of an unexpected and serious problem(s), let alone a rapidly unfolding global crisis, and (ii) *they were underprepared, if not unprepared, and incapable of moving forward* during the early days of the crisis. For example, smaller firms who had not digitized their business models, logistics and international transactions, and overall operations found themselves nearly defenseless and were soon forced to stop operating. Some were badly compromised and faced bankruptcy.

In contrast, however, the more advanced and more capable SMEs, which were better prepared for severe difficulties, saw the crisis problems as vast opportunities. They began to switch to their contingency or alternate plans and also engaged in necessary adaptation and customization through innovation and for the enfolding difficulties. They not only minimized, and possibly avoided losses, but also prospered handsomely (Etemad 2022b and Etemad, 2021c, b<sup>2</sup>).

While the COVID-19's intense period lasted nearly 3 years, and waning now, the signals and symptoms of global warming have been with the humanity for more than two decades. They are *intensifying and cannot be locked down to reduce, or stop, their devastating effects damaging indiscriminately*. The symptoms of global warming, such as extreme heat and record droughts, have affected some regions, while hard torrential rains, mudslides, and destructive floods have inflicted others. The extreme heat and wildfires have destroyed (and some are still burning) vast forested areas and housings in others, causing property losses and destructions forcing involuntary shifts in populations. More importantly, the losses in forests' capacity for absorbing environment's carbon and reducing intensification of global warming are becoming alarming with unknown future impacts. Despite the world encountering the adverse effects of global warming for the past two to three decades, a portfolio of potentially effective remedies and solutions are not yet insight, and the critical question is why? Any reasonable suggestions may have significant implications for SMEs, iSMEs, and their respective planning, management, and operations, which all relate to the current and future conduct of international entrepreneurship (IE), which urges us to explore potential problems and corresponding solutions.

The above question's broader implications are at least fivefold: (i) What are the basic early signals of a partial, if *not hopefully total, solution(s)* for reducing the adverse effects of any related slowly developing, or pending, global crisis, such as floods, forest fires, droughts, heat, and other hazard that affect masses in the world;

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<sup>2</sup> In Etemad's (2022b) SMEs Crisis Management volume, more than 10 chapters document cases of iSMEs viewing the COVID crisis as an opportunity for respond to forced changes in their buyers and suppliers encountering difficulties and also forced changes in consumers and market behaviors in general, and in their rapidly evolving expectation in particular. Their respective entrepreneurial orientations and proactive innovativeness and risk tolerance have helped them significantly (for more details also see Etemad 2022a and b and 2021b).

(ii) where and when do we collectively and individually start efforts to devise effective solutions; (iii) when and which productive and problem-solving institutions should be asked to view problems as opportunities to resolve them with their entrepreneurial and innovative solutions in a timely manner; (iv) how long can designated institutions, including SMEs and iSMEs, among others, tolerate the intensification of the devastating damages of pending crisis before potentially effective and practical solutions are devised; and (v) what capabilities, orientations, and resources are necessary for deploying the solution before it is too late?

Ideally, one should be addressing all of the above questions as much and as quickly as possible. However, and except for very few, most of the above fall far beyond the scope and the focus of this article and this journal. Therefore, the discussions that follow will be bounded within the scope of aims and objectives of this article as stated below.

### **The aims and objectives**

The main aim of this article is neither finding a cure for COVID-19, nor suggesting a solution for a global warming crisis; but it ambitiously aspires to explore thought-provoking potential pathways for identifying, and possibly formulating, innovative solutions by entrepreneurially oriented institutions, especially by or through iSMEs. It will argue that our institutions need individually, and collectively, to acquire and behave more proactively, innovatively, and entrepreneurially in searching for, and devising, solutions for potential difficulties facing them in particular, and all of us in general, in the very near future, which will in turn require the need to look at the institution's prevailing problems as opportunities to exploit, regardless of their size, region, shape, and colors, for which to find an actual, or a promising pathway(s) toward amicable solutions enabling us to formulate effective and timely ultimate solution within *their available capabilities and resources entrepreneurially, innovatively, and proactively*. Such progressive forward-looking entrepreneurship is unlikely to be easy, nor rewarding monetarily in the short term, but capable of offering financially and socially rewarding benefits in the longer terms. Accordingly, *the main theme of this article is to explore the interaction among entrepreneurial proactivity, innovativeness, and collaborative pathways to solutions with affordable risks, which may in turn enable them to benefit from the opportunity associated with unexpected, but foreseeable problems, in their prevailing environmental context.*

### **The structure of this article**

Structurally, this article will consist of two main parts. Following the above introduction, a brief *literature review and further developments* will examine required capabilities and resources in typical international entrepreneurship cases. An *integrative discussion of the various arguments and concepts* and examples of emerging internationalization patterns will follow. The second part will present brief highlights of the other four articles included in this issue. Conclusion and implications of both parts will appear at the end of this article.

## Literature review and further development

Internationalization has been a complex process and the prevailing near crisis atmosphere may have added to its previous challenges. Managing SMEs effectively, especially in iSMEs that need to navigate in troubled waters, requires higher capabilities, entrepreneurial commitments, sufficient resources, and time, all of which are in short supply and have their own respective sense of urgencies.

A cursory examination of typical IE transaction suggests that an *optimal combination of orientations, if not commitments, is prominent, if not as the necessary conditions for success in normal* circumstances and is even more critical in the longer term and problematic conditions. However, and as briefly discussed earlier, the international entrepreneurship is currently encountering extra-ordinary conditions, and may also face added challenges that are far beyond the scope of an article, or even a journal. However, prior conceptualizations, research, and problem-solving for meeting of previous challenges may have contributed to increasing the overall *entrepreneurial capital*<sup>3</sup> in paving promising pathways forward. This article will, therefore, draw on the rich set of already-accumulated experiential knowledge, insights, and wisdom of the extant literature in searching for better understandings and higher knowledge in solving potential, yet unexpected challenges, by a simple characterization of typical IE transactions in normal environmental contexts.

### Characterization of typical IE transactions

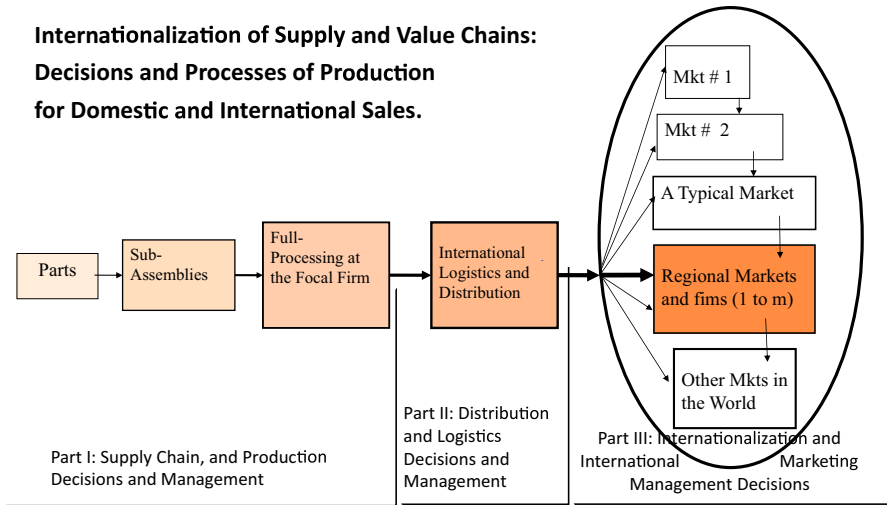
The typical components of an IE transaction are shown in the simple schematic of Fig. 1. As shown in Fig. 1, decisions and operations can be examined in three major parts, each of which requires its own capabilities, knowledge, and orientations that are necessary for performing its necessary tasks. They are further highlighted as follows.

#### Part I: Supply chain and production management decisions

Generally, SMEs' and especially iSMEs' products are completed at the firm's home, which involves, and is supported by, the firm's supply chain, before the final output is completed and ready for sale at home and in international markets. The supply chain management may include international outsourcing of some parts and sub-assemblies from foreign suppliers. Such outsourcing of supply chain components is a form of *inward internationalization* (Welch and Loustarinen 1993, Loustrainen 1988), which replicates most internationalization decision, including search for reliable supplier, contract negotiation, timely management of logistics, and transportation to accommodate efficient production (e.g., through just-in-time production). All of

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<sup>3</sup> This concept will be defined in terms of its integral components not yet discussed. In short, however, it includes a coherent combination of entrepreneurial and other orientations and other human, social, and psychological capitals.



**Fig. 1** Simplified Schematics of decisions involved in production and sales nationally and internationally

above are based on, and supported by, entrepreneurial orientation (EO)<sup>4</sup> and some business networking and collaborative management capabilities and orientations (BNCO), amongst others, for creating higher value (e.g., Johnston and Lawrence 1988), which will be further discussed in a later section.

## Part II: Domestic and international distribution decision

As an integral part of domestic marketing, distribution processes and decision must be made so that the products become conveniently available in the markets and for potential customers. Selection and management, including smooth collaboration with distribution institutions, are as critical as pricing and marketing communication and promotion, which also require EO, market, and marketing orientation as well as distribution management through BNCO.

## Part III: International marketing decisions and internationalization management

This part replicates some categories of decision in part II, including distribution and marketing; but their foreign market contexts are likely to differ from those at the firm's (or internationalized firms (iSMEs)) home environments, which requires special sensitivities to foreign markets' socio-cultural and political-legal environmental

<sup>4</sup> There is an extensive and very large literature discussing different aspect of entrepreneurial or entrepreneurship orientation. The following is a relatively short listing of that literature, some of which are also mentioned in the text of this article: Acosta et al. (2018), Ahmed and Brennan (2019), Etemad (2015), Felzensztein et al. (2015), Godwin Ahimbisibwe and Abaho. (2013), Hernández-Perlines, et al. (2020), Karami and Tang (2019), Kraus et al. (2012), Lumpkin and Dess (1996), Onwe et al. (2020), Ripollés-Meliá et al. (2007), Semrau et al. (2016), Wiklund and Shepherd (2005).

difference. Such differences set internationalization processes apart from their counterparts at home, and they are extensively discussed by a diverse and rich literature of internationalization, ranging from the traditional view (e.g., Johanson and Vahlne 1977 and 2009, Johanson and Wiedersheim-Paul 1975, among others), born globals (e.g., Pawęta, 2016, Cavusgil and Knight 2001 and 2015, Madsen & Servais 1997, Etemad and Wu 2013a, b, Rennie 1993), international new ventures (INVs) (e.g., McDougal 1989, McDougal and Oviatt, 1996, 2000 and 2003, Oviatt and McDougal 1994, 1995 and 2005) to the recent internationalization of smaller digitized ventures (ISDVs) (Etemad 2022a). The field of cross-cultural management (e.g., Adler 1983) and international marketing (e.g., Cavusgil and Zou 1994) also address contextual differences. Similar to parts I and II, discussed above, certain capabilities, experiential knowledge, and insights, as integral parts of their respective international entrepreneurial orientation, would be necessary (e.g., Celec et al. 2014). The effective decisions of each part may improve upon processes and decisions in previous or the next parts. Part III also include EO, BNCO, export marketing orientation (EMO) (in cases of relatively smaller firms), international business, and international marketing orientation (IMO), in cases of relatively larger firms.<sup>5</sup> Regardless of the orientation and size of the firm, certain sensitivity to environmental differences (e.g., differences in socio-cultural and political-legal environments, and also differences in consumer behaviors and expectations) is required for efficient management of processes and effective decisions in all the three parts. The potential and true impacts of the various orientations on different parts and even on the whole process of internationalization will be briefly highlighted below.

### **Brief High lights of various orientations**

Different orientations' impacting international entrepreneurship have been of scholarly interest for some time and there is an extensive literature on them. As a result, even a brief literature review is beyond the scope of this article; but their selected impacts and interactions are heighted below so that a comprehensive picture can emerge at the end.

### **Entrepreneurial orientation**

EO is considered the most highly significant entrepreneurial characteristic that addresses capabilities necessary for improving upon the firm's performance (e.g., Onwe, et al 2020, Ahmed and Brenen 2019, Acosta et al, 2018, among others). The concept of EO was first recognized and defined by Miller (1983). He defined the concept in terms of a three-dimensional structure portraying an entrepreneur as a person who "engages in product market *innovation*, undertakes somewhat *risky ventures* and is the first to come up with *proactive* innovation beating competition" (Miller, 1983, page 771—emphasis added). The *interactive inter-relations of the three prominent attributes*

<sup>5</sup> There is an extensive literature discussing different aspects of marketing, exporting, and international marketing activities and orientation, including but not limited to Acosta et al. (2018), Boso et al. (2013), Kohli and Jaworski (1990), Jaworski and Kohli (1993), among many others.

of innovativeness, risk-taking, and pro-activeness are the highly significant characteristics that collectively characterize EO. Other entrepreneurship scholars soon recognized and confirmed Miller's (1983) structure (e.g., Covin and Slewinn 1989). Lumpkin and Dess (1996) added the two attributes of *Competitive Aggressiveness and Autonomy* to Miller's EO structure to portray entrepreneurial orientation as a five-attribute characterization of entrepreneurship, whereby an entrepreneurially oriented agent (individual or institution) would act autonomously, innovatively, and proactively, and tolerate a certain level of risk while competing aggressively in achieving its expected outcomes associated with the firm's EO, including IE in an international context.

Differing from McDougal and Oviatt's (2000, page 903) characterization of entrepreneurial internationalization (or IE) as "a combination of innovative, proactive and risk seeking behavior that crosses national borders to create value in organizations," the true international entrepreneurship requires much more, not less, attributes than those in the EO defined by McDougal and Oviatt (2000), and even those by Miller (1983), and Lumpkin and Dess (1986) characterizations. In the increasingly complex global environment of rapid globalization (Etemad 2004; Etemad and Wright 2001, 1999; Dana, Etemad and Wright 1999; Etemad, Dana and Garu 2022, among others), deglobalization and re-globalization of different forms (e.g., other forms of internationalization and de-internationalization before the emergence of ISDVs), the crisis-ridden environment due to the occurrence of unexpected events such as the COVID pandemic, and unexpected extreme environmental events and occurrences as discussed earlier,<sup>6</sup> a three- or five-attribute orientation is no longer complete, nor strategically effective and sound. As implicitly pointed out earlier, it is only prudent to suggest that IE needs richer capabilities defined by more functionally specific orientations.

Despite the prevailing, and emerging, complex environment(s), IE is still viewed as an opportunity for achieving international growth. However, entry into a potential foreign market(s) is inherently riskier than operations at home due to home and host environmental differences under normal circumstances, which require an environmentally well-adapted entrepreneur at the helm to envision and manage appropriate innovation in the product, production, and marketing processes to control the magnitude of risk and uncertainties (Knight 1921) associated with the host's prevailing economic, socio-cultural, and political-legal environments differences, in addition to the adverse impact of the other unexpected world events or occurrences (e.g., Coronavirus and its mutating variants). Although the adverse effect of a few adversities can be controlled by the proper mode of entry and prudent strategies, exposure to others remain uncovered. However, a certain level of "innovativeness," "pro-activeness," and "competitive aggressiveness" may reduce, and possibly avoid, succumbing to the indigenous and international competition in foreign local markets and help tolerate internal and external risk-causing actions and events. In light of such potential challenging exposures, a firm is not forced to opt for growth

<sup>6</sup> For example, environmental occurrences, such as the extreme heat and droughts, contribute to wildfires in one region of the world, while hard torrential rains causing landslides and devastating floods, and hurricanes and tornados, among others, are causing death and property losses in other regions.



in international markets from the outset, unless good strategic reasons urge the firm to enter and compete in certain foreign markets, which in turn suggests the possible need for at least one other orientation, namely, exporting and international marketing orientations (EO or IMO) (Acosta et al., 2018), motivating the firm to engage in export marketing or marketing adapted to local foreign markets (Cavusgil and Zou 1994), which are discussed below. Similarly, a firm may consider other strategies for reducing its risk exposure and increasing its competitiveness through, for example, strategic partnership by entering into collaborative arrangements with potent local and international firms. The main reason for such collaborative or networking arrangements can include expediting effective entry while avoiding strategic mistake due to the firm's initial unfamiliarity with the host market's environment, unless the firm had taken the time to familiarize itself with the host market's complexities before aiming to enter its target market, which in turn suggests the need for acquiring pertinent information prior to entry internally, or develop collaborative or BNCO with others, some of which are further explored through other complementary capabilities and orientations discussed below.

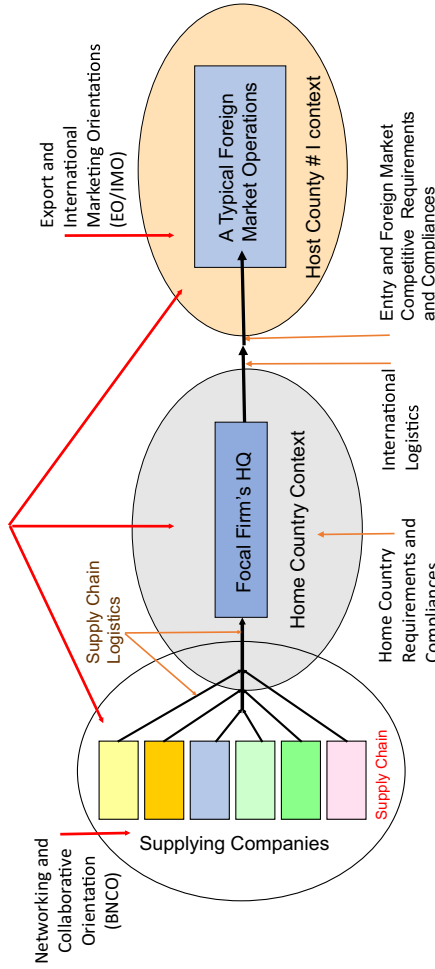
### **Business network and collaborative orientation**

As shown in Fig. 2, in a truly double-sided internationalization (i.e., inward through international outsourcing and forward through exporting and other forms of foreign sales), many different functions and agents are involved in completing an international transaction, including members of the firm's supply chain, value net, transportation, and logistics that ensure the arrival of supplies and subassemblies at the firm's home location in an economically and timely fashion on the supply and production side, as well as the members of national and foreign value net on the other side. The value net side includes the distribution and logistics networks that make products and services available to their respective customers, especially in the international markets. Johanson and Valhne (2009) observed that "the outsidership" in foreign markets poses as a barrier to establishing collaborative relations for smooth inward and outward operations.<sup>7</sup> The effective management of such array of networks embedded in different socio-cultural, legal, and institutional environments requires certain level of familiarity with their respective environmental requirements, especially their legal restrictions, and depends on the firm's knowledge of, and proper response to, respective environmental characteristics and requirements for effective management of their mutually beneficial relations. The supply chain side calls for managing BNCO and the management of value net side depends on a degree of familiarity with, and sensitivity, if not the socio-cultural orientation (SCO), to the

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<sup>7</sup> There is an extensive literature on intra-firm collaboration and networking, including Ciravegna et al. (2014), Felzensztein et al. (2015), Johanson and Valhne (2009), Karami and Tang (2019), Thornton et al. (2015), Torkkeli et al. (2012), Yu et al. (2011), among many others. Similarly, there is a rich literature on the older topic of collaborative advantage, including Chan et al. (1997), Doz and Hame (1998), Johnston and Lawrence (1988), Huxham (1993), Kanter (1994), among many others.

**Required Orientations for Optimal Internationalization Decisions and Operations**  
**Entrepreneurial, Environmental, Networking and Collaborative Orientations for all Operations**



**Fig. 2** Schematic representation of orientations necessary for effective operations

norms and expectations of the various collaborating agents involved (highlighted next.)

### **Environmental or socio-cultural orientation**

Generally, all agents and operations are embedded in their own respective environmental contexts. The extensive literature of international marketing offers a wealth of critical and experientially based suggestions about international customers' different expectations and consumer behaviors for a long time, which are a part of, and also influenced by, their respective economic and socio-cultural environments (e.g., Cavusgil and Zou 1994; Zou and Stan 1998). Similarly, the lessons of cross-cultural management (e.g., Adler 1983; Chevrier 2003, etc.) suggest extreme caution and prudence in approaching different markets to avoid misunderstandings and consequent losses and unexpected results. Similarly, the literature of supply chain management also suggests prudence in dealing with international members of upper stream supply chains, local foreign national, and the international distribution networks. Combined, they point to the internationalized firm's need for a strong environmental or socio-cultural orientation (SCO), requiring pertinent information and experiential knowledge of the locational context (Johanson and Wiedersheim-Paul 1975).

### **Export marketing or international marketing orientation**

Internationalization is neither the only growth-oriented strategy, nor the most optimal one. Assuming that foreign consumer behavior and expectations are similar to those at home is a recipe for the likely failure. As discussed earlier, international operations are riddled with hazards and risks that are not present in other growth strategies, including diversification into related and complementary products and services at home or focusing on highly similar market niches, where consumer behaviors, needs, and market structures are very similar, if not the same (e.g., professional needs for software in an industry). The above arguments point to a need for marketing orientation in general and exporting as well as international marketing orientation in particular (EMO or IMO).<sup>8</sup>

### **International entrepreneurship capital**

The above brief review of the necessary orientations and capabilities in a typical international supply chain and value net suggests that at least a handful of other orientations are present, can at least complement, and potentially enhance an international firm's *entrepreneurial internationalization through* a diverse and rich set of managers with *capabilities, orientations, and resources necessary for a particular*

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<sup>8</sup> There is an extensive literature on intra-firm collaborative and synergistic networking, including Acosta et al. (2018), Boso et al. (2013), Chetty et al. (2018), Feder (2015), Jaworski and Kohli (1993), Kohli and Jaworski (1990), Narver and Slater (1990), Raju et al. (2015), among many others.

situation (Celec et al. 2014). Combined, such characteristics (capabilities, orientation, and corresponding resources) facilitate, if not augment, the management of international operations and transactions and differentiate international management from its national counterparts. For ease of referencing and for differentiating them from others, one can call the combination as the required *international entrepreneurship capital (IEC)* (Keen and Etemad 2011b) that is similar, if not superior, to financial or intellectual capital in solving problems. In practical terms, *IEC's integrative and interactive facilitations complement the required specific orientations, capabilities, and resources that improve upon the ultimate outcomes and avoid costly mistakes.* The minimal, yet specific, orientations necessary for enhancing the management of different parts, and their required activities in a typical international transaction, are shown in Fig. 2's simple schematic characterization.

## Discussions and examples of emerging internationalization patterns

This discussion will consist of three parts. The first part will further examine the evolution of certain orientations over time prior to the emergence of global online marketplaces. The second part will present a few typical case studies of internationalization processes of the international small digitized ventures (ISDVs) through online multi-sided digital platform, while the third part will examine the evolutionary change in the nature of traditional orientations in ISDV internationalization through the online platform's global marketplace(s), while platforms assume a range of required complementary functions, but not manufacturing and production. Combined, the three parts should offer higher clarity.

### Further examination of orientation attributes

The extant literature of orientations has opened up the previously black box of "the firm," and would offer an alternative integrative and inclusive approach to managing the complexities of entrepreneurial internationalization. As discussed earlier, Miller's (1983) EO attributed three significant orientations or capabilities, e.g., *innovativeness, proactiveness, and tolerance for certain risk level*, to entrepreneurs. Lumpkin and Dess (1996) added *Competitive Aggressiveness and Autonomy* attributes to Miller's structure to propose an augmented five-component structure reflecting the extent of significant entrepreneurial capabilities. Accordingly, an entrepreneurially oriented agent (firm or individual) is *expected to approach its entrepreneurial projects autonomously, innovatively, and proactively with certain competitive aggressiveness and in so doing would be prepared to tolerate certain level of risk to accomplish the project's aims within its associated embedding context(s) and environment(s).*

### Additional flexibilities

As discussed earlier, internationalization is inherently complex and more diverse than similar operations at the firm's home due to its varied environments, consisting

of interactions among the firm's home, the host's target market, and possibly international environments, which require additional complementary capabilities (discussed earlier) and certain level of flexibilities in using them, while applying selected, if not all, EO's attributes. Traditionally, for example, the channels of distribution have been considered as intra-firm institution(s), on which firms depend, and with which they need to collaborate to deliver their goods and service to their intended target markets and potential customers in a satisfactory and timely manners. Therefore, in an entrepreneurial firm, their products and services<sup>9</sup> are only available in their target market(s) satisfactorily when the firm and channel member collaborate well. Very few exceptional firms (e.g., Coca Cola, Walmart, Amazon.com) have had sufficient resources to establish their own distribution channels at home and abroad with limited dependence on traditional logistic and distribution channels, which raises the question of what level of *aggressive competitiveness, or autonomy, as opposed to collaboration, cooperation, dependence, and a degree of accommodations* a smaller firm can exercise against traditional channels, especially in local foreign markets in the early stages of its entry and operations in such markets, when the firm is an outsider lacks connection to local network. Hymer (1976) attributed the lack due to foreignness of the firm and called it the disadvantage of "foreignness," while Johanson and Vahlne (2009) called it "outsidership." Similarly, the delivery of services internationally requires the involvement of local, and mostly independent, agents, who may require collaborations and resist any level of aggression and aggressiveness of partners. However, it may be tolerated if through collaboration, aggressiveness results in higher competitiveness against competitors. Therefore, some adjustments in certain attributes of EO are necessary for arriving at an *optimal level of overall international entrepreneurial (or entrepreneurship) orientation (IEO)*. In favor of time and space, no further examination, or adjustments of other attributes of the traditional EO, and other necessary orientations (discussed earlier) will be presented. However, it suffices to add that different environmental and operational contexts may require additional flexibility to enhance and support mutual synergy, dependence, and trust for more effective delivery to the international markets, and *cooperation as opposed to aggression*, within their joint supply chain and value net for obtaining better outcomes.

### International entrepreneurship orientation

The above discussion suggests that the general international entrepreneurship orientation is likely to be (i) more complex than its domestic counterparts, (ii) requires different capabilities, flexibilities and resources, (iii) also requires innovativeness in adapting to the prevailing conditions in different foreign markets for meeting their requirements entrepreneurially, (iv) relies heavily on nearly indispensable innovations of different nature and magnitudes according to the challenges facing the entrepreneurial agent (firm or individual), and finally (v) depends on complementary collaborations without which

<sup>9</sup> For avoiding complexities, due to the distinctions between the distribution of goods and services, we have implicitly included license- and franchise- holders for producing and delivering services locally in the local, and international, channels of distribution.

optimal, if not maximal, success is unlikely. Accordingly, various potent attributes of EO, and IEO, in and for a given situation, need to be consistent, coherent, and supportive of other orientations to achieve an overall optimally effective ultimate outcome(s) in international markets.

### **Collaboration, innovation, and networking**

Aside from the critical importance of innovation, its deployment in different markets would usually need certain levels of cooperation and coordination among the focal firm and few other local institutions with different specialized capabilities for dealing with challenges of commercializing novelty and novel solutions. Such situations in particular, and implementation of innovation in different markets in general, need managerial coordination within different internal departments and the external expertise, which in turn need careful and detailed examinations prior to engaging others in inventions, novelty, and innovative solutions for preserving their integrity and avoid abuse and dissipation. However, a more in-depth discussion of innovation (or entrepreneurial innovativeness) as well as the concepts of risk-taking and uncertainty associated with entrepreneurial innovation are beyond the scope of this article.

### **International entrepreneurship capital**

The *concept of international entrepreneurial (or entrepreneurship) capital*, proposed earlier, conceptualized in terms of an optimal combinations and permutations of EOs, or IEOs, combined with other required orientation attributes, is highly likely to offer a more comprehensively potent entrepreneurial approach(es) to resolving challenges by drawing upon an optimal combination of capabilities, orientations, resources, and time for solving problems in a given challenge facing entrepreneurial agents. The inclusion of time aspect is necessary for two reasons. It takes time to develop capabilities and resources, and different challenges require different spans of time for resolving them that need to be planned at the outset. Therefore, IEC deserves full discussion of its own due to its highly significant entrepreneurial potentials (we will return to the need for the further development of this topic at the end).

### **Further empirical analysis: Three typical case studies of internationalized small digital ventures through online multi-sided platforms**

Globalization, deglobalization, and re-internationalization over the past three decade (Madhok 2021), and especially during the COVID-19 pandemic (Etemad 2021a, b, c; Etemad 2022a, b), expedited digitization processes in firms for expanding nationally and internationally more rapidly. Smaller and specialized suppliers with a few and narrow product lines, which were not fully capable of meeting traditional internationalization challenges before, explored e-commerce and online internationalization seriously, especially through *symbiotic and synergistic*

*collaboration* with the large online multi-sided digital platforms, such as Alibaba.com, Amazon.com, Shopify.ca, Spotify.com, and Wayfair.com, amongst many others, which had successfully created and are operating international marketplaces of their own. Their collaboration advantages have resulted in far exceeding the challenges, difficulties, and risks of traditional internationalization without having some of the required capabilities and orientations discussed earlier. Their relatively rapid and significant emergence have begun to pose challenges not only to the traditional theoretical view of internationalization; but also their collaborations are enabling them to “indirectly”<sup>10</sup> internationalize forward through the much larger and more resourceful online multi-sided digital platforms. Etemad (2022a) suggests that *ISDVs’ indirect internationalization is substantially different from the traditional methods, and their internationalization processes are easier, and faster than their traditional process, and requires less capabilities and resources*, regardless of their nationality and geographic locations. Although the supplying firms are mostly smaller, are less capable, and use less resources to internationalize on their own, they have succeeded in leveraging the platform’s resources and capabilities, including the platform’s brand equity and prominent presence online, by using potent collaborative strategies to the extent that online shoppers buy their branded products and services without questioning their credibility, identity, brand equity, etc., as they are represented by highly reliable large digital multi-sided platforms that support their online presence through their online operations and websites. We briefly highlight three case studies as examples of what such collaboration of smaller firms and large multi-sided platforms have already accomplished and are likely to be emulated broadly by others.

### **The case of Shopify.com (or Shopify.ca)<sup>11</sup>**

Shopify is based in Ottawa, Canada. More than 1,700,000 suppliers and vendors have actively internationalized in 175 country markets through the massive Shopify online platform. Some have internationalized inwardly (Welch and Loustarinen 1993) to serve their home markets, while others collaborate with Shopify as supplying firms for others’ outward internationalization, all through Shopify’s multi-sided platform. In addition to their respective IEOs, their *mutual collaborative orientation leading to actual collaborations* provide these firms the necessary capabilities to cooperate with the members of their supply chain, logistic, transportation, and distribution channels, which collectively enables their inward and forward internationalizations.<sup>12</sup> In a typical ISDV-multi-sided platform’s B2B relationship, active cooperation and collaborative orientation have become imminently more important

<sup>10</sup> Their internationalization is “indirect” because the smaller firms supplying the platforms’ global sales do not usually directly deal with global customer. The district transaction-related affairs are conducted by the platforms. However, the supplying firms internationalize as they sell internationally and generate sales revenues in international markets, where platform is present and serves.

<sup>11</sup> For more detailed information, see the introductory Website of Shopify.com at [https://www.shopify.com/free-trial?ref=rrs1&utm\\_campaign=feb2022](https://www.shopify.com/free-trial?ref=rrs1&utm_campaign=feb2022),

<sup>12</sup> See the general discussion of collaborative orientation’s advantages earlier, and its characterization in the schematic representation of different orientations in Fig. 2 as well as further elaborations in Table 1.

than their traditional internationalization, as both the platform and their internationalizing suppliers (or vendors) rely on each other to benefit synergistically (and even symbiotically in some cases) from their mutual collaboration and multi-sided dependences<sup>13</sup> (e.g., supplying products to the supply chains of few other iSMEs for their respective activities).

### The case of Spotify.com<sup>14</sup>

Spotify is a Swedish-based online platform company. It initially offered a range of music tunes of worldwide origins to some music lovers. It provides music and other creative podcasts to about one billion listeners and viewers across more than 80 national markets in the world. Currently, it also offers advertising for mostly corporate clients in addition to a wide range of rich complementary services on its platform, including entertainment services for “streaming” by its large number of customers worldwide. Practically, all of what Spotify offers worldwide are supplied to it by its suppliers, some of which are very small, for streaming by international listeners and viewers. Spotify has expanded its global reach and primary services over time and has become the dominant global marketplace for uploading and streaming music, and other entertainment offerings. It is open to nearly all suppliers and buyers of all sizes, regardless of their location, nationality and structures, ranging from independent artists to organized large orchestras and the large traditional music production firms. For example, independent creators, who could not imagine international sales revenues, are indirectly internationalizing by placing their innovative creations and complementary services on Spotify and receive some payments for others’ streaming of their offerings. Although the intangibility of Spotify’s services set it apart from other online platforms, it uses nearly all its orientation, including EO, BNCO, and EO/IMO to generate benefit and share them with its suppliers of music and creative arts. Currently, Spotify offers a very wide range of different arts, music, and creations in a large number of languages, allowing users *to build their own personal favorite playlists*. In comparison with other typical goods and services platform, Spotify’s relations with its suppliers are based on trust, which in turn allows for *mutually synergistic, symbiotic, and indispensable relationship on both the supply side and also for that segment of international music lovers who do not want to pay for accessing their favorite music, and forming their own playlist, among other complementary services available on Spotify’s website* (see Etemad 2022a for more details of Spotify’s operations). Spotify reaches its more than a billion music lovers, and other streamers, on Spotify website across Asia, Africa, the Caribbean, Europe, and Latin America. Consequently, musicians and innovative creators supply their music and other digitized creation to Spotify for worldwide distribution to a large number of people streaming them in more than 80 reported markets directly and others indirectly for receiving a portion of Spotify’s net revenues from Spotify for their uploading their offerings. Spotify is a vivid example of how

<sup>13</sup> For more detailed description of such collaborative relation, see Etemad (2022a).

<sup>14</sup> For more detailed information, see the introductory Website of Shopify.com at [https://www.shopify.com/free-trial?ref=rrs1&utm\\_campaign=feb2022\\_](https://www.shopify.com/free-trial?ref=rrs1&utm_campaign=feb2022_)



multi-sided online platforms have internalized practically all the processes that suppliers had to do themselves. In Spotify's particular case, there is hardly any difference between supplying creators who are reaching their international customers in different global markets through Spotify.

### The case of Wayfair.com<sup>15</sup>

Wayfair is a Boston-based online platform company. It was founded in 2002 and has grown rapidly over time. It *sold more than 14 million items, which are all supplied to it by more than 11,000 global suppliers*. It has 17,000 employees and its revenues exceeded \$14 billion in 2021 from sales in its global marketplace. It also promotes its offering heavily on most browsers, which its clickable hyperlinked images enable the viewer to reach Wayfair website directly with one click on the images of any of its advertised products. Similar to the previous cases, such wide presence capabilities are far beyond the abilities of most of its suppliers; but their mutual collaborations make them possible. Its online marketplace platform is actively present in North America and Europe (i.e., the USA, Canada, Germany, Ireland, and the UK) with effective market size of about 500 million customers (from a potential customer population of more than 700 million). It routinely allows its smaller and larger suppliers to offer their products *under their own brand names* in the Wayfair online marketplace *and compete with other suppliers for potential customers' comparisons side by side* (i.e., Similar to the traditional local markets). The EO, the IEO, and the BNCO relations of Wayfair with its suppliers are synergistic, as they generate mutual benefits for each other. For some smaller suppliers, who heavily rely on Wayfair and its massive advertising promoting their branded products to generate ever larger international exposure and revenues, reliance on Wayfair is nearly symbiotic bordering on their full dependence on Wayfair platform. Such dependence on Wayfair's online marketplace is truer for smaller suppliers than for Wayfair, as Wayfair is not necessarily dependent on some, if not many, of its suppliers. Once a potential customer searches for a product category on the Wayfair.com's website, all different branded products in that category along with their associated information, including detailed list of attributes, prices, service terms, and warranties, are provided for the customer's comparisons and final selection. Such presentation of branded products enables customers to compare products of different brands before buying their choice with the highest perceived value, which is in part based on their implicit perception that the selected brand would be also supported by Wayfair. Such perception is nearing the perception associated with co-branding of the supplier's and the Wayfair's brands. Naturally, such a perceived co-branding is much more valuable to the suppliers, especially the smaller ones, than to Wayfair.com, transforming the suppliers' relation with Wayfair to a near one-way full dependence on Wayfair (i.e., a one-way symbiotic reliance with relatively higher benefits for the supplier through higher brand equity and international sale revenues than the supplier's own independent internationalization), while both benefit from their mutual

<sup>15</sup> For more details, see the website of Wayfair.com at <https://www.wayfair.com/>.

**Table 1** Summary highlights of the selective features of the three online platform case studies

Online platforms	Initial and evolving orientations and extent of transactions	Brief description of tasks	Nature of relations	Benefits and costs of ISDVs
Shopify.com (based in Canada)	<ul style="list-style-type: none"> <li>- Online intermediary: matching consumer demand information to its online suppliers' offerings or demands</li> <li>- Operates a portfolio of 1,700,000 ISMEs and ISDV's in more than 80 countries</li> </ul>	<ul style="list-style-type: none"> <li>- Demand–supply matching</li> <li>- Optimizing logistics, fund collection</li> <li>- Supporting suppliers' online B2B relations and B2C stores on its Shopify marketplace</li> </ul>	<ul style="list-style-type: none"> <li>- Highly collaborative to the extent of symbiotic dependence</li> <li>- Mutually beneficial and synergistic relations</li> <li>- Ease of operations, collaboration, and buying and selling</li> </ul>	<ul style="list-style-type: none"> <li>- Easy access to international markets</li> <li>- ISDV's need much lower capabilities and smaller resources</li> <li>- Internationalization also takes much shorter time</li> </ul>
Spotify.com (based in Sweden)	<ul style="list-style-type: none"> <li>- On-line intermediary: matching information on music tunes to music lovers' favorites</li> <li>- Delivers offerings online through streaming</li> <li>- Operates in a global market of about one billion people in four continents</li> <li>- Suppliers can join and upload their digital products easily</li> </ul>	<ul style="list-style-type: none"> <li>- Music demand–supply matching and offering other related online services along with advertising free of charge, or for a minimal fee</li> </ul>	<ul style="list-style-type: none"> <li>- Providing unlimited tunes for customer play lists in two categories (no fees with advertising or no advertising and a small fees)</li> </ul>	<ul style="list-style-type: none"> <li>- Easy access to international markets</li> <li>- Suppliers need lower capabilities and smaller resources</li> <li>- Relations with platforms takes very little time for smaller firms to supply Spotify</li> </ul>
Wayfair.com (based in the USA)	<ul style="list-style-type: none"> <li>- Large online intermediary: matching consumers' needs with supplying firms' own branded products</li> <li>- Relatively smaller firms produce products for and deliver directly or through Wayfair</li> </ul>	<ul style="list-style-type: none"> <li>- Demand–supply matching, optimizing logistics, fund collection</li> </ul>	<ul style="list-style-type: none"> <li>- Wayfair carries and sells a large inventory of products</li> <li>- Wayfair advertises on online media very heavily</li> <li>- Supplier can use their own brands</li> </ul>	<ul style="list-style-type: none"> <li>- Easy access to international markets</li> <li>- ISDV's lower capabilities and smaller resources</li> <li>- It takes much shorter time for suppliers to sell internationally</li> </ul>

### Schematic Representation of ISDVs' Indirect Internationalization

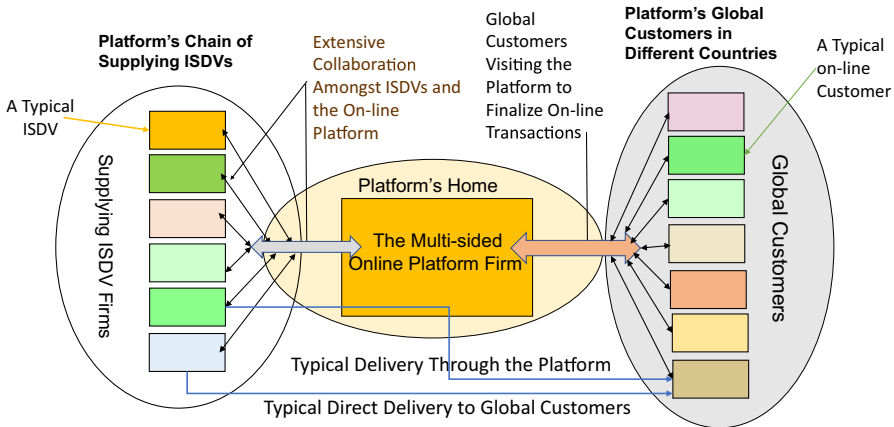


Fig. 3 Simplified representation of flows in ISDV-platform's collaborations in global sales

synergistic collaboration, as Wayfair does not produce any product of its own. More importantly, however, Wayfair's platform enables each of its smaller suppliers to become a born global, INV, or rapidly internationalizing enterprise (RIE) (Keen and Etemad 2011a & b, Keen and Etemad 2012, Etemad and Wu 2013a, b, Romanello and Chiarvesio 2019), once the supplier registers, accepts, and complies with Wayfair's requirements to become a supplier to the platform at nearly zero risk, minimal costs and efforts, and in much shorter time.<sup>16</sup> Therefore, once a supplier enters into an online collaborative relation with Wayfair platform, it is on its way to become an ISDV as it would shortly be present and be reachable by some more than 500 million potential international customers in Wayfair's five significant international markets, and also possibly reached far beyond through other online customers, suppliers, and social media.

It is noteworthy that the international growth of Wayfair also depends on its use of nearly all orientations presented in Fig. 2 presented earlier and principal flows in Fig. 3 (below). In favor of time and space, therefore, no further elaboration of orientations will be offered as their operational features are already discussed. In short, the overall concepts of orientation(s) take dramatically different forms along with correspondingly higher mutual benefits in ISDV-platform collaborations, while the focal ISDVs have utilized less capabilities and resources than a typical iSME, which had internationalized independently as further discussed below.

<sup>16</sup> This case, among others, justifies the inclusion of time as an integral component of the International Entrepreneurial Capital (IEC), as discussed earlier.

## The emerging evolutionary change in orientations of ISDVs' internationalization through online global marketplaces

As discussed in the above typical case studies, a few of the traditional orientations have gone through a significant evolutionary change in the collaborative processes for the ISDVs' internationalization through online platforms' global marketplace. A simplified schematic representation of operational flows and necessary capabilities is shown in Fig. 3.

As shown in Fig. 3, practically all information flows are either directed to, or pass through the platform, to reach the ultimate international buyers. For example, suppliers send in all brand information to the platform for posting on the platform's website, and once their offerings are purchased, the platform informs the supplier to deliver to the customer. In case of inventoried products in the platform's regional or national warehouse, the final shipping originates from the platform's storage and reaches customers directly. Similarly, global customers need to visit the platform's website directly, make their purchase decision, and pay for their purchase(s) online to the platform. Once all customers' information and sale requirements are completed and processed, both the supplier and the customer are notified. Suppliers receive shipping information and instructions; and buyers receive confirmation of their purchase, and delivery-related and other pertinent information. All two-sided actions (receiving, sending information, or shipping products) related to a transaction are shown by two-sided arrows in Fig. 3. Implicit in relations and transactions between a typical global customer and the platform (not shown schematically in Fig. 3) rely on capabilities associated with nearly all orientations in action. Although some orientations, such as BNCO, are not observable, they have evolved to become more prominent, overshadowing others. Similarly, competitive aggressiveness in certain situations has evolved into quest for global competitiveness, which is highly significant in ISDV-platform operational relations as they can deliver better consequent results against other similar operations.

Similar to the traditional cases, distribution and delivery from suppliers to customers at the far corners of the world have become operational bottlenecks and pose challenges. As a result, some platforms have established their own regional warehouses (e.g., Amazon.com<sup>17</sup>) with optimal inventory for popularly demanded products to avoid costly, long deliveries and customer dissatisfaction. Such deliveries are shown by a flow going through the platform in Fig. 3. However, most physical deliveries to customers are optimally managed by their respective suppliers.

In summary, and as shown in Table 1, nearly all traditional orientations and corresponding capabilities and resources, as discussed earlier, are present in the new modes of operations and in the emerging models of ISDV's internationalization through online platforms. Naturally and expectedly, some have gained more significance and joined the family of the "necessary conditions for competing with others," while others have lost their previous operational importance in the evolved and newly emerging

<sup>17</sup> Amazon.com uses its own storage and transportation facilities and vehicles to deliver to its Prime customers in the shortest possible time.

paradigms of international entrepreneurship. A brief comparison of ISDV platform collaborations in the three case studies are highlighted in Table 1.

## **Part two: The highlights of the other four articles included in this issue complementing this article**

Part one of this article's discussion of significant developments and evolution of various orientations in entrepreneurship, and especially in IE, aimed to further clarify their inner dynamics and impacts on entrepreneurial decisions that neither meet the eyes, nor attract the attention of suppliers, buyers, and other stakeholders. Although the firm's orientations impact decisions and the course of the firm's strategic actions, there are no bronze plaques in the firm's headquarters describing them, nor a detailed statement is posted on the firm's website for public information. They nearly remain hidden from outsiders; but the firm's patterns of behavior in its home and international markets are broadly observable manifestations of them. Generally, and regardless of internal strategies, interested outsiders can observe, and even research to document, the firm's relative behavior in the marketplace as compared to others to develop a comparative picture of their respective orientations. Generally, the firm's market offerings can point to, if not indicate, the firm's pattern of entrepreneurial orientations, capabilities, and resources through the outcome of its decisions and decision-making styles. For example, when a firm consistently offers well-adapted and cutting-edge product and services proactively, one can surmise their proactivity, innovativeness, and possibly competitiveness of their EO. Similarly, the extent of the firm's exporting orientation (EMO), international marketing orientation (IMO), or BNCO, can be assessed as compared to those of their competitors. On one polar extreme, usually older firms acquire or develop larger specific orientations over time, *which would be somewhat unique to them* (Etemad 2018 and 2017), while young and inexperienced start-ups exhibit *generic orientation(s)* early on in their corporate lives before they refine them, on the other extreme.

Theoretically, however, a strongly oriented new CEO can influence, if not change, the evolutionary path of corporate orientations and encourage strategic operating business units to evolve toward an overall desired orientation. Empirical and comparative longitudinal research can usually assess change and uncover tendencies in the prevailing patterns. Within that context, each of the next four articles identify certain existing unclaritys, if not gaps, through their research question, analysis and presentation of their finding. Researchers' learned insights also shed light on their research question about the concerned topic(s).

Part one of this article examined a range of the traditional orientations and asked if those orientations and their corresponding behaviors have remained intact, evolved proactively, or have changes in reaction to their respective environmental change(s) posing new challenges, which require search for potential strategic pathways for updating orientation and finding the desired solutions yet to be discussed in the extant literature. Following COVID-19's imposed restrictions causing observable behavioral change in buyers, suppliers, and other stakeholders, especially consumers have developed an increasing tendency to explore online offerings and switching more purchases to online

marketplaces. Combined, they have introduced a worldwide change and posed new challenges to most suppliers in more digitally advanced markets. Naturally, orientations have also evolved accordingly.

As discussed earlier, each of the next four articles addressed a perceived gap or unclear set of issues in the IE field and by their research are adding to, and also enriching, the field. Each of the following articles has already gone through the journal's *vigorous double-blind peer review and revision processes* and were accepted and then ear-marked for inclusion in this third issue of the journal's 20th anniversary. In favor of time and space, each article is briefly highlighted below as the full-length article is included in this issue and is easily accessible through the journal's website.

The second article of this issue is entitled as "Do CEO's traits matter in innovation outcomes?" It is co-authored by Nadia Loukil and Ouidad Yousfi. As the title indicates, the main research objective of this article is exploring the influence of CEO on the firm's innovativeness and extent of innovation. This article's research relates to, and also complements, a few arguments of the first article, including the firm's entrepreneurial orientation in general and its innovativeness in particular. It addresses EO's proactiveness and risk-bearing components implicitly. It is noteworthy that the firm's extent of innovativeness relates, and may very well depend on, the other two components of a three-attribute EO. Without proactive planning for increasing the firm's competitiveness by allocating adequate resources for R&D, which is inherently a risky corporate endeavor, the prospects of inventions, associated patents, and consequent successful commercialization of the patent-protected R&D results will be nearly impossible. Entrepreneurial CEOs are usually the influential decision-makers in allocation of resources to R&D and the extent of corporate risk exposure of the research. The CEO's decisions pave the pathway toward certain level of the firm's EO, which is influenced directly by the firm's pro-active planning of its competitiveness horizon and tolerance for certain risk level in near future as well as decisions altering the state of its entrepreneurial orientation. This research extended beyond EO at the corporate level by examining the CEOs' attributes that may have directly influenced the CEOs' patterns of decision-making. The authors analyzed both the CEO attributes of firms listed on the SBF120 index between 2001 and 2013, and the firm's number of patents. Their analysis and insight pointed to very interesting results, including the following:

- i) CEOs with business education and training were more likely to introduce new products sooner, while CEOs with science-based education were more likely to increase the number of patents in high-technology firms.
- ii) The longer is the CEO tenure, the lower are the consequent innovation outcomes, specifically in high-tech industry.
- iii) CEO owners are likely to invest in long-term profitable activities such as innovative projects.
- iv) Founder-CEOs encourage their firm(s) to also engage in process innovation.
- v) The number of patents decrease over the longer term over the tenure, and the presence of a female CEO.

This article not only examines the impact of the sampled CEOs' demographic attributes on firms' extent of innovation and innovativeness directly, on proactiveness, and risk-taking capacity implicitly; it also introduced CEOs as an influential factor in the evolution of firms' entrepreneurial orientations and entrepreneurial capital.

The third article of this issue is entitled as "Innovation as an internationalization determinant of Brazilian technology-based SMEs," and is co-authored by Bárbara Ilze Semensato, Fábio Lotti Oliva, and Gilles Roehrich. This article complements the first and second articles in this issue in general and adds to the second article insights in particular. This article extends our knowledge beyond measures of innovation as determinants of internationalization by examining other invention- and innovation-related characteristics. The general research theme of the article is exploring the impact of innovation characteristics on smaller firms' internationalization. Specifically, the authors asked: how do Brazilian technology-based SMEs innovate, and how do their innovation outputs, affect, if not determine, the state of their internationalisation? At the same time, they acknowledged that innovation and use of novelties—the commercial utilization of inventions and introduction of newly created novelties to the marketplace—interact with, and are affected by, the intra-firm's factors that are generally beyond the firm's control. Naturally, the broader, more competitive, and more complex international environments are likely to have more significant effects on an SME's innovation in the context of global markets. Innovation generally raises a firm's competitiveness, enabling it to become more competitively aggressive (a part of the five-attribute entrepreneurial orientation), especially in smaller and younger firms; it can also adversely affect them if, and when, the firm's managerial processes in the international markets cannot control for adverse external influences very well.

Specifically, this research's qualitative case study of six Brazilian firm was enriched by their firms' exporting statistics extracted from an annually updated and publicly available data on exporting firms to report the following significant results:

- i) That there is a strong prevalence of incremental product innovation in Brazilian innovative SMEs, i.e., in four of the six cases of the focal firms.
- ii) Only one firm was engaged in radical product innovation.
- iii) That Brazilian external organizational environment exerts significant interference on both innovation and internationalisation processes of Brazilian high-technology firms.

Therefore, this article supports the significant impact of entrepreneurial innovativeness (a part of EO) and its success in the international markets, despite external environmental interferences.

The fourth article of this issue is entitled as "The impact of human, social, and psychological capital on academic spin-off internationalization" and is co-authored by Mariluz Fernández-Alles, Dara Hernández-Roque, and Mirta Díaz-Fernández. This article not only picks up where the third article left off; but it

also provides research-based support for the concept of IEC proposed and briefly discussed in the first part of this article. The research of this article explores the case of academic spin-off (ASO). ASOs seem to have all desirable characteristics to become commercial successes and be profitable at home and international markets. Theoretically, such spin-off should not encounter too much difficulty in achieving their objectives successfully because of their founding entrepreneurs' significant credentials. However, this article's research findings do not support that theoretical expectation, and the logical question is "why is that the case?"

Returning, and following the earlier discussion regarding orientations and capabilities, these ASOs enjoy not only most of appropriate orientations and access to resources, but also their academic research, and conducive university environment, combined with founding academic entrepreneurs' rich network of international academic and scientist as well as university's internal and external financial support systems. Combined, they suggest that ASOs should experience a trouble-free path to success. Stated differently, the founding academic entrepreneurs of ASOs seem to be in the nearly unique privileged position (Etemad 2018 and 2017) of having most, if not all, desired orientations and capabilities to commercialize their creations and inventions successfully at home and internationally; and yet they experience difficulty.

As discussed earlier, the founding academic entrepreneurs are likely to have most academic and scholarly orientations, their associated capabilities and necessary resources, including EO, export and international marketing orientations (EMOs and IMOs), and BNCO among others, which their combination might have given rise to relatively high IEC. Based on the resource-based view of the firm (RBV) and network theory (NT), this paper further elaborates on IEC and proposes an alternative IEC, consisting of a combination of *human capital, social capital, and the psychological capital* of the academic entrepreneurs to form a semblance of international entrepreneurial capital in their founding academic entrepreneurs, which should well compensate for the difficulties and challenges that ASOs encounter. However, and based on earlier discussions in the first part of this article and its simplified schematic representations in Figs. 1, 2, and 3, *IEC's entrepreneurial and international context may not be present in the traditional concepts of human capital, social capital, and psychological capital, especially when their entrepreneurial orientation is not strong, if not lacking*. Consequently, some ASOs experience difficulties and problematic challenges that need further examination and developments.

The fifth article of this issue is entitled as "More power for international entrepreneurs: the effect of digital readiness of economies on channeling national R&D resources to entrepreneurship" and is co-authored by M. Mahdi Moeini Gharagozloo, Fatemeh Askarzadeh, and Ali Moeini Gharagozloo. This article complements other articles of this issue by confirming the significant importance of innovation in SMEs' successful internationalization and suggests national digitization to increase the ease of transferring national research and development's (R&D's) results and resources to entrepreneurial iSMEs, or others aspiring to commercialize and internationalize them can not only expedite and stimulate their actual internationalization processes; they may also contribute to national economic growth and development. As discussed earlier in the first part of this article and in the third article reporting on successful internationalization of Brazilian entrepreneurial and innovative SMEs in high-technology industries, the commercialization of inventions and



novelties holds the potential of increasing iSMEs' competitiveness at home and in international markets, if and when the adverse effects of external factors can be controlled. Consequently, such R&D-based international competitiveness can positively contribute to SMEs' national economy, especially when there is limited national market for national R&D outputs and resources, which in turn suggest a transfer of R&D results, and possibly complemented by their associated research programs and structures, to iSMEs with high potential for successfully commercializing them in international markets, which can lead to highly desirable ultimate results. Based on the analysis of more than 400 country-year international observations over 7 years (2010–2016), the authors report that the high extent of digitization in more digitally advanced economies, which has facilitated the transfer of national R&D resources to entrepreneurially and innovatively oriented SMEs, may have consequently contributed to the growth of their respective national economies, even when government entrepreneurship programs would not strongly stimulate innovative entrepreneurship directly, nor would they contribute to increasing internal market dynamics for attaining higher global competitiveness in the associated national R&D subject matters. This article highlights the positive role of national digital readiness in easing the transfer of national R&D resources to the private sector for stimulating competitive dynamics at home and increasing entrepreneurial iSMEs' global competitiveness nationally and internationally. In short, the research findings of this article point to the positive impact of digitization at all institutional levels, including national government, which can in turn facilitate iSMEs, ISDVs, and other interested entrepreneurial firms, to access national R&D resources to help increase privately held firms', and para-public institutions' internal and global competitiveness for increasing productivity and further growth.

## Conclusions and implications

Part I of this paper outlined and briefly highlighted the components of international entrepreneurial orientations (IEOs) and its constituent complementary orientation and resource capable of enhancing internationalization in the increasing competitive global markets. It also highlighted the evolutionary changes in the nature of orientations and how they are likely to evolve as more internationalized small digitized ventures (ISDVs) gravitate toward large multi-sided digital online platforms, such as Alibaba.com, Amazon.com, and Wayfair.com, among many others, which offer them effective pathways for their internationalizations. Etemad's (2022a) research reported that the ISDV-large online platform collaborations was on the rise, which will in turn affect traditional internationalization processes. The first part of this article was also designed to provide a fitting and integrative structure for the next four articles' complementary and confirmative (or even contradictory) findings to both clarify and enrich our collective understandings of IEO and further formation of IEC. In addition to easy access to the full-length articles in the journal and the journal's website, the above highlights of the other four research articles included in this issue discussed their focal issues, topic, and research-based findings. Therefore, there is no need for further comments, except for highlighting their significant implications. Consequently, and in

favor of time and space, only the significant implications of the last four articles of this issue are briefly highlighted as follows.

The research findings of the second article of this issue provided the empirical evidence that there is an observable relationship between the firm's orientations and its CEO's demographic attributes. The strategic implication of that research finding is that firms' top management teams' (TMT's), including the CEO's, characteristics, and decisions, may put the firm's entrepreneurial and other orientations on a more evolutionary path based on their experiential experience and as they see it strategically appropriate for the firm at the time. Logically, this implication points to engaging CEOs with strategies for potential updating of a firm's state of international entrepreneurial orientations and competitiveness when it appears to have fallen behind their perceived potentials and the state of the art in their home and international markets.

The third article of the issue supports all the significant impacts of high entrepreneurial innovativeness (a part of firm's EO, or IEO) on success of firms in the international markets, despite external environmental interferences. More importantly, it also provided research-based precautionary empirical insights for innovative SMEs' internationalization to be prepared to guard against potential external adverse interferences as well.

The fourth article's conclusion and stated implications of its research are highly significant in suggesting that education and training of academically oriented entrepreneurs should include international experience and entrepreneurial training prior to academic entrepreneurs' attempt founding an academic spin-off (ASO). Such academic backgrounds combined with experiential and entrepreneurial training is highly likely to form and enable academic founding entrepreneurs to become influential and successful international entrepreneurs capable of positively affecting their international supply chain and value net to ensure success domestically and internationally for their ASO ventures. It is noteworthy that similar research by Sułkowski and Patora-Wysocka (2020) has proposed potent recommendations for introducing appropriate entrepreneurship training in science, technology, and engineering and mathematics (STEM) curriculum to enable entrepreneurially oriented STEM students and academicians to succeed in launching their own respective ASOs, or starting up their ventures during and after graduation. Such desired outcomes depend on a prior or ongoing transformation toward *entrepreneurially oriented universities* and institutions of higher education as a few highly advanced research-oriented institutions have done already. In addition of creation of knowledge, such transformation in universities and in institutions of higher education's orientation enables the imparting of wealth creation ability in their in-stream student through their training of how to successfully commercialize their knowledge in the service of their society, including the generation of increasing employment and wealth creation.

The implications of the fifth article of this issue are relatively broad and encompass a wide set of related issues ranging from the increasing national digitization and R&D programs to higher transferring of national R&D resources to the private sector to improve upon firms' and the nation's global competitiveness. The analysis of more than 400 country-year observations over 7 years indicated that the transfer of national R&D resources to entrepreneurially oriented firms in highly digitized environments has been easier, faster, more successful, and possibly more productive

in such higher levels of digitization and digital readiness than others. The findings of this paper also point to the impact of the embedding environment's simulative, or adverse, impacts on entrepreneurial firms, which in turn implicitly suggests that conducive national policies and practice could be as important, if not more important, than firms' family of potent orientations capable of improving upon the firms' success and attaining higher outcomes. Furthermore, the fast-emerging internationalization trends favoring further ISDV-multi-sided online digital platforms collaboration also depend on efficient digital environment, and progressively innovatively and entrepreneurially oriented firms capable of competing globally with others side by side, which is becoming a common practice on prominent global digital platforms.<sup>18</sup>

In a summative analysis, *international entrepreneurship orientation (IEO)* and its constituent family of other complementary orientations, as discussed in the first parts of this article, motivate the acquisition of corresponding resources, which can collectively give rise to the potent concept of *international entrepreneurship capital (IEC)* that deserves further analysis and development.<sup>19</sup>

Finally, and on a personal note, the Journal International Entrepreneurship (JIEn) strives to publish cutting-edge articles to advance the state-of-the-art in the field as it has done in the past 20 years. Reportedly, the journal accounts for the publication of more than half of all cited articles published in prominent journals due to the admirable efforts of authors and well informed, instructive, and highly concerned blind peer reviewers, who deserve a note of thanks and gratitude. Therefore, I am delighted to invite the scholarly community, including authors and peer reviewers, to rise to the challenge of advancing our collective knowledge, and the international entrepreneurship field, with research and suggestions for further development of potent concepts, frameworks, and topics, especially including but not limited to international entrepreneurship orientation(s) and international entrepreneurship capital (IEO and IEC).

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<sup>18</sup> As described earlier, large platforms, such as Wayfair.com, offer numerous choices of products and brands in a given product category on the same page of their websites, enabling consumers to compare them all side by side, similar to their comparative purchases offline. Therefore, ISDVs' products need to be competitive and innovative enough to attract the attention of discriminating and informed international consumers online.

<sup>19</sup> Etemad 2022c provides a methodological perspective for identifying underexplored, and possibly ignored, subject matters and addressing their corresponding gap in the literature.

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