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Editorial

Exploring the next generation of international entrepreneurship



A B S T R A C T

In this Editorial, we begin by sketching out two areas that we believe will prove promising for researchers in international entrepreneurship in the foreseeable future: (i) asymmetric information leading to adverse selection; and (ii) the adoption of emerging digital technologies, including social media, aimed at reducing asymmetric information, via the development of informational capabilities. We then summarize the articles in the special issue and how they encompass the above areas. We also suggest ways in which some of these articles could be extended to further develop and broaden the above areas, so to solve entrepreneurship-driven research and/or policy questions. In sum, we see a successful path forward for researchers and policy makers in international entrepreneurship over the coming decade via embracing interdisciplinary research to expand and deepen research questions.

1. Introduction

In the era of digital connectivity, entrepreneurship has become an international phenomenon, with investors crossing borders to scout for the best business opportunities and to find actors in different locations and positions across global value chains (McDougall & Oviatt, 2000; Reuber et al., 2018). The fast-changing nature of the phenomenon and the pervasiveness of digital environments in international business have generated a growing interest in the causes and consequences of international entrepreneurship (e.g., Dimitratos et al., 2016; Knight & Liesch, 2016; Monaghan et al., 2020; Schwens et al., 2018a; Verbeke & Ciravegna, 2018), which, yet, need to be analyzed through a multidisciplinary approach centered on the international business literature. Ever broader efforts of integrating different functional disciplines to address new and challenging problems, both in domestic and international entrepreneurship, are likely to grow exponentially in importance in the coming years, in particular due to the global chaos created by COVID-19, the effects of which will impact international entrepreneurship over the current decade and beyond (Zahra, 2020). As a response, this Special Issue titled “Exploring the Next Generation of International Entrepreneurship” seeks to improve our understanding of the fast-changing and multifaceted phenomenon of international entrepreneurship.

In this Editorial, we first highlight the increasingly prominent role of asymmetric information in entrepreneurship (for a discussion, see, for instance, Dutta & Folta, 2015). We argue that firms that are unable to manage the negative repercussions associated with informational asymmetry will be unable to survive in the long term. We further discuss the potentially important role that asymmetric information might play within international entrepreneurship and its related costs on entrepreneurial ventures, particularly when dealing with the digital

international business environment and less developed institutional contexts. Second, we probe into the role of digital technologies under uncertainty and their potential for cost reduction, information access and processing, and prediction. Complementarily, we also highlight the potential pitfalls of too much reliance on technology in decision making processes about internationalization, which may lead to the underestimation of organizational constraints characterizing entrepreneurial ventures, causing time compression diseconomies and inefficient international strategic decisions (Chang and Rhee, 2011; Dierickx and Cool, 1989), and excessive risk-taking behaviors. Third, we stress the need to embrace interdisciplinary research to find efficient solutions for the next generation of research questions in international entrepreneurship. Toward that end, we explore links and complementarities across international business and other research streams, including finance, law, innovation management, and strategy.

The article concludes by summarizing the contributions of the papers included in the special issue, how they tie into the above themes, and underscore promising areas for future research. More specifically, we highlight how many of the works included in this Special Issue address - from different perspectives - the key role of *informational capabilities* in the current digital business environment (Leonardi, 2007). Such capabilities, derived from the potential of new digital technologies and communication channels, may become core for shaping and sustaining future internationalization strategies by reducing informational asymmetries associated and the liabilities connected to smallness, newness, and foreignness. Overall, we hope that more researchers will use the tools and ideas we provide here to “connect the dots” in ways that generate new research providing ever deeper insights on brand new and reimagined existing questions.

The first four co-authors were guest editors of the special issue and are listed alphabetically. The fifth co-author was supervising editor of the special issue.

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2. International entrepreneurship: a view from above

The increasing connectedness of global markets and countries has exposed entrepreneurial firms, and particularly those in the high-tech sectors, to international competition even when they do not cross national borders and operate domestically (Autio et al., 2021; Monaghan et al., 2020). While, for instance, new information and communication technologies reduced costs borne by entrepreneurial firms (thus favoring the internationalization of their business activities), their limited international experience and scant internal resources may still represent important liabilities and barriers to fully exploit opportunities in international markets (Autio, 2017; Kim & Cavusgil, 2020; Lu & Beamish, 2001).

Despite the difficulties and limitations, particularly severe in the early phases of a firm's development, operations and production decisions, as well as those about strategic R&D projects, all involve a multitude of partners and locations (Colombo et al., 2009), because of the increased geographic spread of tangible and intangible assets (e.g., skilled migrants) used as production and innovation inputs (Di Gregorio et al., 2008; Gerschewski et al., 2015; Marino et al., 2020). This global dispersion of assets, people, technologies and information presents its own challenges (Ambos et al., 2021; Scalera et al., 2018). The use of, for instance, social media, artificial intelligence and other online outlets may address those challenges. Indeed, it helps collecting information from different locations, thus leading, on the one hand, to enhanced generation, development and promotion of entrepreneurial ideas in multiple countries simultaneously with limited duplication costs (Fischer & Reuber, 2011; Sigfusson & Chetty, 2013), and, on the other hand, to the matching of international syndicates of entrepreneurial financiers (Hadded & Hornuf, 2019; Allen, Gu, & Jagtiani, 2021). This facilitates the design and implementation of internationalization strategies by entrepreneurial firms.

The international dimension of entrepreneurship is also evident in public policy decisions (Cumming et al., 2009). Even though such policy decisions are designed to aid local communities, they tend to be centered on comparative and competitive jurisdictional analyses (Terjesen et al., 2016). For instance, public policies targeting international new ventures often have implications which go beyond a single country or regional marketplace, as well as policy interventions aimed at sustaining the competitiveness of industrial clusters fostering the collaboration between local entrepreneurial firms and MNEs (Wright et al., 2007). These types of policy interventions are among the most important drivers of the rapid development of international entrepreneurship in emerging economies (Kiss et al., 2012).

In the race for international customers, entrepreneurial firms from emerging economies have heavily extended their global footprint (Lu et al., 2010; Ma et al., 2016; Yiu et al., 2007). Well known businesses like Lufax, Flipkart, Snapdeal and Lianjia represent examples of Unicorn companies born in China and India with a market value of over 6 billion US dollars, thereby attesting to the potential of emerging markets on giving birth to fast growing start-ups. Entrepreneurial firms from emerging economies suffer from traditional weaknesses related to the liability of newness and smallness (Lu & Beamish, 2006; Rosenbusch et al., 2011), as well as from the disadvantages associated with the liability of "emergingness" (Madhok & Keyhani, 2012). The literature has identified a number of factors (e.g., ethnic communities, diaspora, brain circulation) that may facilitate the international expansion and operations of emerging market ventures, and ultimately their ability to create knowledge and source financial resources (Dimitratos et al., 2016; Filatotchev et al., 2009; Riddle et al., 2010; Saxenian, 2005; Zhou et al., 2007). Additionally, the growing importance of peer-to-peer lending and crowdfunding in emerging economies is another important driver worth considering (Allen et al., 2021). Direct peer-to-peer online micro lending has become increasingly popular in large markets like China, and donations/rewards-based and equity crowdfunding markets have been doubling in size each year in recent times (Cumming & Johan,

2019; Coakley & Lazos, 2021; Rossi et al., 2021). These marketplaces typically involve international investors and encourage entrepreneurs to expand globally (Cumming & Johan, 2019).

Internal and external forces toward the internationalization of entrepreneurial firms have also favored their participation in global value chains and collaborations with large corporations and MNEs (Ambos et al., 2021; Zahra & Garvis, 2000). Collaborations with increasingly internationalized entrepreneurial firms have become one of the key strategies for external knowledge sources by established firms, which can then leverage the international orientation of entrepreneurs toward novel business ideas and technological innovations that span the globe (Birkinsha, 1999; Lee & Williams, 2007; Verbeke et al., 2007; Zahra & Covin, 1995). Large corporations and, particularly MNEs, have been also engaging in corporate venture capital (CVC) investments (Colombo & Murtinu, 2017) in order to leverage the major opportunities associated with the internationalization of entrepreneurial realms (Dushnitsky, 2012; Dushnitsky & Lenox, 2006). Investments in foreign entrepreneurial firms can provide benefits to both the investing MNEs and the invested entrepreneurial ventures. While the former can access new investment opportunities, potential disruptive technologies and new markets, the latter enjoy the rich knowledge of the MNE internal network and the endorsement of reputable international MNEs.

3. Asymmetric information and international entrepreneurship

Domestic competition within and across industries forces entrepreneurs to internationalize their activities, thereby subjecting themselves to increased risk. Entrepreneurial ventures distinguish themselves from other types of firms also because of their limited access to information (Stuart & Sorenson, 2007). A natural way of dealing with asymmetric information is through signaling one's worth to the other in some credible (i.e., costly) manner. Notably, there seems to be an increasing recognition of the value of signaling within the field of entrepreneurship, and also within international entrepreneurship (Reuber & Fischer, 2011).¹ For instance, many underdeveloped and developing economies lack the formal mechanisms, like credit bureaus, to reliably classify entrepreneurs and businesses into high/low risk categories. In such a milieu, being able to credibly signal one's quality to the broader markets is a powerful tool that can effectively separate the wheat from the chaff.

In the area of microfinance, arguably the quintessential example of entrepreneurship, adverse selection and moral hazard issues are paramount without reliable rating agencies and may lead to inefficient contracts which might limit the action choices of the entrepreneur, especially in new relationships (Chakravarty & Pylypiv, 2017; Chakravarty & Shahriar, 2015). A recent paper by Bauchet, Chakravarty and Hunter (2018) explores such dynamics in the context of borrowers and entrepreneurs of Compartamos Banco in Mexico. The authors show how the act of purchasing additional costly life insurance contracts bundled with their loan is strategically used by good borrowers as a (costly) signal of their quality. These borrowers exhibit a significantly better loan repayment record than similar non-signaling borrowers. Thus, good borrowers are able to credibly separate themselves from lower quality borrowers. However, the value of such a signal dissipates in subsequent transactions.

¹ The idea of asymmetric information owes a large debt to Akerlof (1970) who was the first to model trading under asymmetric information, using the example of a used cars market where sellers know more about the quality of their cars than the potential buyers. Other classic examples include signaling in the job market (Spence, 1973) or signaling through dividends in publicly traded companies (Bhattacharya, 1979). Importantly, asymmetric information can easily be extended to entrepreneurship where the entrepreneur might know more about her quality (such as innate ability, drive and moral character) and her project's characteristics (e.g., modularity and specificity of resources) than the potential financier (Denis, 2004), or vice versa.

In a world of mismatch between workers' and employers' beliefs about innate abilities and skills, capable individuals can signal their quality by becoming entrepreneurs (relative to holding a regular salaried employment), thus being the sole residual claimants of their abilities—instead of their employers. [Hegde and Tumlinson \(2014\)](#), for example, provide a simple model to show that, holding the signal constant, entrepreneurs have greater abilities than employees. It is reasonable to similarly argue that, in a world comprised of individuals with heterogeneous abilities across distinct tasks, workers naturally select themselves into occupations where they feel they have the most competitive advantage. However, considering that some occupations require years of specialized training beginning at an age when individuals are arguably unable to make sophisticated life changing choices, self-selection into occupations as driven by heterogeneity in abilities does not lead to zeroing asymmetric information. For instance, entrepreneurs can also be assumed to be overconfident individuals who have an extraordinary belief in their abilities.

This idea is even more true in the case of international entrepreneurs; bearing these latter a greater business risk than domestic entrepreneurs, self-selection into international entrepreneurship (relative to domestic entrepreneurship) represents a more powerful signal. However, when dealing with the severe uncertainty derived from the complex international environments, international entrepreneurs should aim at reducing asymmetric information with foreign partners, financiers, governments, and customers, among others. We argue that one of the most efficient ways to do so is the use of digital technologies in different forms.

4. Digital technologies, informational asymmetry and uncertainty reduction

Informational asymmetry leads to increased uncertainty or risk. Therefore, any technology that reduces informational asymmetry also serves to lower risk and represents an added tool in the entrepreneurs' toolbox to take better calibrated decisions ([Agrawal et al., 2018](#)).

4.1. Shaping international strategies for entrepreneurial ventures

Nowadays entrepreneurs designing their international strategies are exposed to copious information available from a variety of sources and rapidly changing over time. Strategic decisions, like the selection of the optimal foreign market to enter next, should account, among other things, for the risk profile of the host country. However, the established measures of country risk only account for a small portion of the actual business volatility or risk ([Di Gregorio, 2005](#)). This might lead managers and entrepreneurs to inaccurately estimate the true risk underlying an FDI, an international collaboration, or another international strategic move; even worse, this may lead to potentially discard a lucrative international strategy altogether.

While large MNEs can typically use their large cash holdings and other resources toward pursuing high-commitment strategies abroad, entrepreneurs need—instead—to carefully evaluate and assess what is the net benefit associated with such internationalization strategies due to the limited availability of slack resources ([Chang & Rhee, 2011](#); [George, 2005](#); [Paeleman & Vanacker, 2015](#); [Schwens et al., 2018b](#)). However, under conditions of extreme uncertainty, standard statistical models and predictive tools (e.g., scenario analyses, past experience as reference) may not work. Severe, or extreme, uncertainty leads entrepreneurs to lean more into their tacit and subjective judgments ([Foss & Klein, 2012](#)) in order to make strategic decisions.

A key difference between international entrepreneurial ventures and MNEs is the timing of information search. Indeed, entrepreneurs need to carefully search for information on products and services, consumer preferences, suppliers, clients, platforms, etc. ([Zahra et al., 2005](#)) before expanding their activities abroad. While MNEs may enter foreign countries via greenfield or brownfield investments (among others) and directly search for this information since they can rely on their ample

international experience and the knowledge of their internal network of subsidiaries, for ventures it is essential to collect and process such information before executing their internationalization strategy. Thus, it would be strategic for ventures to familiarize with emerging digital technologies, such as cloud computing, social media, and big data analytics, to embed them in their decision-making process. In doing so, entrepreneurial ventures may reach higher levels of efficiency and profitability, by leveraging technologies to create, transfer, recombine, and store information in new ways that may disrupt the existing social structure and foster organizational changes via informational capabilities ([Lam et al., 2016](#); [Leonardi, 2007](#)). Entrepreneurial ventures, compared to large and established MNEs, are at an advantage because they tend to have a more flexible organization structure and a more open mindset ([Dean et al., 1993](#); [Levy & Powell, 1998](#)).

The new technologies allow entrepreneurs to save on (difficult-to-own-or-access) resources that would normally be dedicated toward foreign market entry and, instead, focus on the effective gathering and analyses of data with state-of-the-art analytical tools, which lead to the development of informational capabilities. Entrepreneurs can learn from social media like Facebook, Reddit, Twitter, Instagram and LinkedIn, about prevailing trends in consumer preferences and needs ([Fischer & Reuber, 2011](#); [Koo & Easley, 2020](#)). Thus, on the one hand, they can explore latent needs about products and services that are not yet available in the market and, on the other hand, they can observe products that are available in some markets, proceed to quickly imitate those products or invent around them, and export them to other markets. The power of social media technologies has been recently recognized in various disciplines, as it enables the information flow within organizations, complementing the traditional organizational channels and promoting new pipelines for information sharing ([Lam et al., 2016](#); [Leonardi, 2007](#); [Tanriverdi, 2005](#)).

Technology-enabled decision processes and informational capabilities allow entrepreneurs to carefully assess their entry into foreign markets via a more calibrated judgment about production costs, value chain issues, types of innovation and business models required in the host market, as well as other key business decisions (e.g., [Brynjolfsson & McAfee, 2014](#); [Furman & Seamans, 2019](#)). Specifically, advanced technologies can help solving the limited attention problem ([Ocasio, 1997](#)) that typically plagues entrepreneurial ventures. Entrepreneurs can use technologies to search for certain kinds of information, i.e., search for information within a narrower space, thereby improving their information processing ability and informational capabilities. Alternatively, certain advanced technologies can be adopted to perform routinized and codifiable activities ([Autor, 2015](#)), thereby freeing entrepreneurs to use their time valuably through better calibration of their judgment and making subjective decisions over alternative pathways ([Foss & Klein, 2012](#)). This may, in turn, improve the efficiency of the management and governance of the internationalization processes under scant resources.

It is worth noting that the use of advanced technologies for improving forecasts and the efficiency associated with international strategies cannot be taken for granted. First, the introduction of certain technologies may represent a shock for some ventures and, if those technologies do not match the venture features (e.g., production inputs, routines, capabilities), such shock may actually increase the chances of venture failure. For instance, a technology-driven prediction may go against the prediction of a founder who may challenge the reliability of a forecast made by a non-human actor and, more in general, the use of technologies for designing and implementing internationalization strategies. This may lead to conflicts among founders (potentially resulting in a founder's departure) ([Colombo et al., 2014](#)), and to a slowdown of the internationalization of activities, thereby restricting the venture from building competitive advantages through first-mover advantages.

Second, advanced technologies may sometimes provide biased predictions over foreign scenarios, because their process of learning improves only over time, and via repeated iterations through previous

outcomes and decisions, which may not always be available. When there is little variance in past outcomes, it becomes difficult for smart algorithms to learn efficiently from the past, and thus their predictions will not help in dealing with current uncertainties (Mullainathan & Spiess, 2017). Specifically, in the case of internationalization, the relative likelihood of entering certain markets at the expense of other markets may be strongly influenced by rapid and unpredictable shocks to which learning algorithms might not have been exposed during their learning, or training, period. Further, the use of technologies may push entrepreneurs into a state of over reliance on *automated* predictions, thereby implicitly reducing their efforts on core activities. Expressed differently, technology-driven predictions may represent a pseudo lifeline that bears the risk to push international entrepreneurs to be less efficient at tasks that matter (see, among others, Choudhury et al., 2020; Foss and Lyngsie, 2014; and Goddard et al., 2012).

4.2. Sourcing capital in the digital international business environment

The increasingly interconnectedness across global markets also poses important challenges for entrepreneurs looking for financing opportunities globally. While financing—through banks, trade credit, venture capital, private equity, crowdfunding, microfinance, and other sources—is available in ever increasing ways worldwide, financiers are often reluctant to fund entrepreneurial projects simply on the basis of subjective conjectures (Langlois & Cosgel, 1993). Despite being potentially viable, judgments and gut feelings toward an entrepreneurial project need to be coupled with (often gross) quantitative and objective assessments—at least, to corroborate subjective judgments, which prove difficult at a distance. The above challenges become even more acute in the presence of significant underlying informational asymmetries, such as when the entrepreneur and the financier are embedded in different institutions and cultures (Dai et al., 2012; Liu & Maula, 2016). The use of new technologies (e.g., fintech, artificial intelligence, big data analytics, cloud computing) may ease the matching between international demand and supply of capital (Haddad & Hornuf, 2019; Allen et al., 2021) since informational capabilities can play an important role in unlocking otherwise inaccessible knowledge.

Among these new technologies, crowdfunding platforms are able to efficiently attract internationally dispersed capital sources (which would be otherwise not available) and reduce the uncertainty associated with the ventures' foreign strategies (for instance, via accessing information on the geographic distribution of pre-sales). Many crowdfunding platforms allow entrepreneurs to not only reduce uncertainty via pre-selling their product to a large number of geographically dispersed international lenders/customers but also, via evaluation, to get knowledge about the global demand for the product (Cumming & Johan, 2019). Indeed, placing a project on a crowdfunding platform allows the entrepreneur to develop a prototype, or its beta version, thereby elevating her project to a less uncertain stage (Stanko & Henard, 2017). Further, entrepreneurs can co-create the product with customers, and connect globally with knowledge experts (e.g., product designers), distributors, as well as other manufacturers (Hervé & Schwienbacher, 2018; Mollick, 2016). Initial coin offerings are a special form of crowdfunding that represents a further opportunity for entrepreneurial finance in an international context, particularly since to date they face less regulation and offer significant fundraising potential (Allen et al., 2021; Fisch, 2019; Philippi et al. 2021).

5. Articles in this special issue

This Special Issue features seven articles, each of them presenting important contributions to the international entrepreneurship literature. The articles included in this Special Issue employ a wide array of theoretical perspectives, methodologies, and levels of analysis to tackle relevant and novel issues in international entrepreneurship, shedding light on drivers, motivations, processes, and barriers in the current

international business environment, which is becoming increasingly digital and uncertain.

Two of these articles directly focus on the strategies and tools available to international entrepreneurs in the contemporary digital business environment, and analyze the new opportunities and challenges posed by the pervasive digitalization. Fraccastoro et al. (2020) adopt internationalization and networking theory to study social media as an enabler of international entrepreneurship. Their qualitative evidence is consistent with the view that social media capabilities, a form of informational capabilities (Lam et al., 2016), in conjunction with the capabilities of foreign partners, enable international growth through overcoming liabilities associated with smallness, newness, and foreignness. Tolstoy et al. (2020) study international e-commerce within retail-oriented small and medium enterprises (SMEs), as an example of digital establishment mode. They use effectuation theory to develop new insights into e-commerce and internationalization and test their theory with qualitative data from Swedish retail SMEs.

These articles stress the importance of the development of digital business capabilities and informational capabilities to cope with the digital international business environment. This evidence is likewise consistent with the findings of Aparacio et al. (2020), who highlight the access to communication as one of the most significant factors in driving export-oriented entrepreneurship which, in turn, positively affects economic growth. Drawing on institutional economics and emphasizing the importance of institutional heterogeneities across countries, the authors discuss, among other findings, the importance of communication to enhance the informational capabilities of new international ventures and stress the primary role of institutions in reducing uncertainty and facilitating international entrepreneurship.

However, to pursue international opportunities, informational capabilities should be complemented with experience and other knowledge-based and firm-specific capabilities, which have a primary role in reducing informational asymmetry in international business contexts. De Cock et al. (2020) study how venture founders' international experience affects the actual internationalization process of projects using a multiple case study approach. They identify four types of international entrepreneurs and show how these disparate types affect the strategic decisions made in the actual process of internationalization. Information capabilities may provide a substantial advantage to multi-ecosystem leverages—one of the types of international entrepreneurs identified by the authors—who can use new digital technologies to identify promising opportunities in the current digital international business environment to aggressively expand internationally. In a complementary fashion, Bahl et al. (2020) likewise draw on the organizational learning and capabilities-based literature to examine internationalization and innovation in transition economies. Interestingly, their evidence shows that internationalization is negatively associated with the likelihood of innovation. They also find that three knowledge-based capabilities (absorptive capacity, appropriation capability, and managerial capability) positively moderate the negative relationship between innovation and internationalization, thereby alleviating the negative effect of internationalization on the innovative capabilities of ventures from transition economies.

Finally, two articles in this issue address the topic of international entrepreneurial orientation from the perspective of large firms and MNEs. They underscore the importance of internal firm network and capabilities to capture and leverage international opportunities both within and outside the firm boundaries. Vanacker et al. (2020) focus on corporate entrepreneurship and, by linking it with firm performance, study the role of institutional contingencies. Specifically, the authors show how countries' intellectual property and employee protection institutions might serve to moderate the relationship between corporate entrepreneurship and firm performance. They use large sample evidence from 9,642 European firms and find evidence supporting the view that corporate entrepreneurship is enhanced in countries with lower risk in terms of less stringent intellectual property protection and employee

protection. [Maksimov and Luo \(2020\)](#) study how MNEs use international expansion as a springboard to improve global competitiveness and focus on the role of localized flagship foreign subsidiaries. A deeply localized flagship foreign subsidiary can facilitate diverse strategic goals depending on parent-level international entrepreneurial orientation, which may reduce the risk and uncertainty faced by the subsidiary. Their data strongly support the idea that parent-level international entrepreneurial orientation is a mediator in achieving international strategic success. These articles shed more light on internal and external organizational network dynamics to reduce asymmetric information in the process of leveraging the firm's entrepreneurial orientation for establishing new subsidiaries in foreign countries, via corporate entrepreneurship and springboard strategies

6. Concluding remarks and future research directions

This introduction to the Special Issue emphasizes the potential role of asymmetric information in international entrepreneurship and the important role of new technologies in mitigating the costs of asymmetric information, thereby fostering international entrepreneurship. The papers in this issue extend international entrepreneurship research in novel ways. Particularly, they highlight the importance of social media—and other digital tools—and related capabilities associated with cutting-edge technologies (namely, informational capabilities), the complementary role of experience and other knowledge-based capabilities, the strength of internal and external organizational networks, and the enduring importance of legal institutions and protections in mitigating new and unique risks of international entrepreneurship and facilitating success in an ever-evolving technology-driven landscape. Likewise, some of the papers offer a complementary perspective on international entrepreneurial orientation shifting the focus from entrepreneurial ventures to more established firms to analyze their entrepreneurial behavior as a potential international strategic lever. We hope that the papers in this special issue serve as a beacon of inspiration for new research on these, and related, topics.

6.1. International entrepreneurship: what's next

The papers in the issue use theories and tools from different literatures, ranging from international business and entrepreneurship to strategy and innovation, while encompassing finance and law. Interestingly, many of these papers can be further reimagined and extended within the asymmetric information rubric thereby producing potentially deeper insights into the underlying questions. For instance, [Bahl et al. \(2020\)](#) establish that internationalization and innovation present two significant avenues for the growth of entrepreneurial firms. Their study examines the relationship between the two in transition economies where adverse selection problems are likely to be high accompanied by limited possibilities for credibly communicating a venture's quality to potential lenders. While the authors argue that internationalization is negatively associated with the likelihood of innovation, it would be interesting to see whether internationalization and innovation represent two strategies to signal quality that substitute for each other, and whether this possible substitution effect is contingent to the quality of institutions. Plus, it would be also interesting to test whether this alleged substitution effect holds only in transition economies and in countries characterized by similar institutional quality.

Another example is [Fraccastoro et al. \(2020\)](#), who examine how firms might identify new opportunities and overcome relationship voids with partners through social media (and similar digital technologies). For example, some entrepreneurs might use social media to create the illusion of localness and create a community that spans countries and even continents. Does such social media interaction create the perception of quality through cheap talk? There is an extensive literature on cheap talk ([Farrell & Rabin, 1996](#), is a good starting point) and it would be interesting to extend the current study, and similar studies, into the

cheap talk domain and study its impact on international entrepreneurship.

Additionally, even if only some of the papers in the Special Issue directly address the pervasive role of digital technologies in the internationalization process, many of them offer insights that can be read within this broader context. The evidence by [Fraccastoro et al. \(2020\)](#) suggests that more research should also be conducted to understand how the use of social media and other digital tools can change the decision-making process associated to international strategies. The development of informational capabilities may shape the advice network and the ventures' social structures ([Leonardi, 2007](#)), thus offering new insights and perspectives about foreign markets, since information may be more easily collected and processed even at distance. Bringing these considerations to a more general level, core international business and international entrepreneurship issues would benefit from the novel perspectives offered by the digital international business transition, which encourages the literature to rethink about the sources and implications of asymmetrical information in the global context. Some examples of possible extensions are the following: traditional establishment modes can be coupled with (or substituted by) their digital versions ([Tolstoy et al., 2020](#)); locational strategies ([Maksimov & Luo, 2020](#)), investment and entrepreneurial opportunities ([De Cock et al., 2020](#); [Vanacker et al., 2020](#)) can be identified and assessed via big data analytics and other digital tools, which can also offer new directions to policy makers aiming at shaping institutional contexts conducive to international entrepreneurship and economic growth ([Aparicio et al., 2020](#)).

In recent years, financial technologies have been changing rapidly. Every year seems to introduce many new and innovative ways of raising capital internationally and facilitating access to key information that is necessary for ventures before executing their international strategies. These changes, in turn, reduce the liabilities/constraints associated with foreignness, and create new channels for taking advantage of international entrepreneurial opportunities—quickly and at lower cost. It behooves international entrepreneurship research to closely examine these evolving technologies through a multidisciplinary lens. Related to this, no discussion about emerging technologies, playing a role in international entrepreneurship, is complete without introducing cryptocurrencies as a possible currency of choice in international transactions in the not-too-distant future. As a recent article in [wallstreet.com](#) underscores, the rise of cryptocurrencies in recent months has fast-tracked the development of blockchains to develop a safe and reliable (i.e., hacker-proof) vehicle for bitcoin transactions. [Benoist \(2018\)](#) argues that bitcoin supports new start-ups globally, creates applications, services and allows anyone to buy and sell products as well as to raise funds for entrepreneurial activities without regard for geographic borders. However, cryptocurrencies remain risky bets currently. Plus, their halo of opaqueness may represent an additional burden for the internationalization of ventures. We look forward to watching the emergence of new research exploring the relationship between the use of cryptocurrencies and global growth in entrepreneurship activities and how informational capabilities can play a role in shaping this process.

6.2. COVID-19 and informational asymmetry in international entrepreneurship

There is little doubt that COVID-19 has disrupted our lives in a way we have not known in our lifetime. We are just beginning to realize that the true impact and the long-term effects of this virus will be felt fully in the current decade and beyond. Needless to say, researchers will be busy investigating the economic impact of the virus in every research area including international entrepreneurship ([Zahra, 2021](#)).

The global onslaught unleashed by COVID-19 will be far reaching accompanied by significant structural shifts in institutional structures, the nature of contracts between parties, and the architecture of global supply chains, among others—all determinants of international

entrepreneurship. Being COVID-19 a temporary supply shock with long-term implications for business models and international relations, theoretical models will have to incorporate the impact of COVID-19, and empirical analyses can use it as a source of exogenous variation for the identification of econometric models.

It is conceivable that informational asymmetry in two-party interactions—be it in contracts, supply chains, operations, etc.—may increase sharply, especially when one party is located in a developed country and the other party is in a relatively less developed location. Clearly, COVID related behavioral dynamic shift and its impact on international entrepreneurship is an emerging story (see, again, Zahra, 2021 for an excellent discussion), and whether or not such behavioral shift serves to sever trust and the desire to cooperate remains an open question.

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