



# Opportunity-related behaviors in international entrepreneurship research: a multilevel analysis of antecedents, processes, and outcomes

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## Abstract

The opportunity has become a central concept in International Entrepreneurship (IE) literature, and there is now a critical mass of literature focused on entrepreneurial behaviors of pursuing opportunities across national borders. However, scholars claim that research on these opportunity-related behaviors should consider a multilevel analysis where the interaction between the contexts, entrepreneurial action, and the opportunities can be clarified. From a multilevel analysis, the present study aims to understand antecedents, processes, and outcomes of opportunity-driven behaviors in the IE field. By conducting a systematic literature review, we analyze studies over the last 30 years (1989–2019). We found that the IE research around opportunities and related behaviors, far from suffering paucity and a weak conceptual basis, is abundant and is broadening its territory and boundaries. This study makes four contributions. First, we extend opportunity-related research in IE literature by considering a multilevel approach that incorporates individual, firm, and environmental aspects. Second, we offer an integrative model that outlines the antecedents, processes, and outcomes of opportunity-driven behaviors. Third, we suggest a definition of the IE field and the opportunity concept that can enrich the international opportunity debate, as well as its theoretical discussion. Fourth, we present theoretical contributions by identifying past advances and directions for future research.

**Keywords** International entrepreneurship · Entrepreneurial behavior · International opportunities · Opportunity discovery · Opportunity creation · Opportunity enactment · Opportunity evaluation · Opportunity exploitation

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## Introduction

Over recent decades, the International Entrepreneurship (IE) research field has moved on from its early emphasis on international new ventures and their early internationalization process towards studying the international entrepreneurial behaviors (Mainela et al. 2014) of different actors —organizations, groups, or individuals— who discover, enact, evaluate, exploit opportunities to create future goods or services and who cross national borders (Oviatt and McDougall 2005). Hence, the entrepreneurial behaviors related to this international opportunity discovery-enactment-evaluation-exploitation process have been found critical in IE (Mainela et al. 2014) and the concept of opportunity has been referenced as a core construct to develop IE research (Chandra et al. 2012; Dimitratos and Jones 2005; Etemad 2015b; Jones et al. 2011; Mathews and Zander 2007).

However, and despite the growing interest in this international-opportunity-driven research and notable theoretical and methodological contributions, IE scholars have claimed that studies around opportunities (conceptualization) and opportunity-driven behaviors involve limited theoretical discussions (Davidsson 2015; Keupp and Gassmann 2009; Mainela et al. 2014), and their meanings and roles remain underdeveloped in IE research (Reuber et al. 2018). Also, opportunity-focused research lacks studies that follow a multilevel analysis (Chetty et al. 2018; Mainela et al. 2014), which could overcome the individualistic and ahistorical biases of IE theory regarding opportunity-oriented action (Mainela et al. 2018).

Accordingly, different authors posit that international opportunities research should go further and consider the analysis in different levels (Etemad 2004; Jones and Coviello 2005; Mainela et al. 2018; Mainela and Puhakka 2009; Peiris et al. 2012; Reuber et al. 2018; Zahra et al. 2005, 2008) where the interaction between the contexts, entrepreneurial action, and the opportunities must be clarified (Mainela et al. 2014). In line with this, Terjesen et al. (2016) evidence the urgent need for antecedent research at the individual, firm, and environmental/institutional levels that can contribute to the understanding of the entrepreneurial activity, in this case, what antecedents influence opportunity-related behaviors, and what outcomes are the result of those behaviors.

To address the abovementioned gap and clarify the interaction between the contexts, entrepreneurial acting, and opportunities, this study aims to understand antecedents, processes, and outcomes of opportunity-driven behaviors from the individual, firm, and environmental levels. This study makes four contributions. First, we extend opportunity-related research in IE literature by considering a multilevel approach that incorporates individual, firm, and environmental aspects. As such, we contribute by providing a multilevel analysis that overcomes the individualistic and ahistorical biases of IE theory regarding opportunity-oriented action. Second, we offer an integrative model that outlines the antecedents, processes, and outcomes of opportunity-driven behaviors. Hence, our model could provide a broader scope of international opportunities process compared to previous models in IE. Third, we suggest a definition of the IE field and the opportunity concept that can enrich the international opportunity debate, as well as its theoretical discussion. Fourth, we present theoretical contributions by identifying past advances and directions for future research.

The structure of this literature review is as follows. First, we present extant literature on entrepreneurial opportunities within the entrepreneurship and IE fields to anchor the systematic review in conceptual foundations. Second, we show the methodology of the literature review, including its scope and analytical procedures. Third, we outline a results analysis to discuss developments in IE research that are important for understanding international opportunities and related behaviors from a systemic view. Such analysis enables to set objective criteria to go beyond the legal entity of the focal firm and consider multiple actors. Finally, we present conclusions and future research directions.

## Conceptual framework

### Entrepreneurial opportunities

At the end of the 1980s, entrepreneurship research moved from searching for the qualities of entrepreneurs, of small firms to studying entrepreneurship as an opportunity-driven behavior (actions focused on the discovery-evaluation-exploitation of opportunities) for creation of new businesses, new market entries, and launches of new ventures (Gartner 1988; Stevenson and Jarillo 1990). Based on the above notion, Shane and Venkataraman (2000) defined the field of entrepreneurship as the scholarly examination of how, by whom, and with what effects opportunities to create future goods and services are discovered, evaluated, and exploited.

Since entrepreneurship is behavior (Mainela et al. 2014), opportunity research builds on two behavioral ontological views determined by the conditions of the opportunity existence: discovery and creation. The most commonly used discovery view is empiricist (Ramoglou and Tsang 2016) in that it reflects an objective perspective of the world and assumes that opportunities exist out there in the market (Alvarez and Barney 2010; Kirzner 1997; Venkataraman 1997) and that they are discovered either serendipitously or by active search. The creation view is constructivist (Chandra 2017; Ramoglou and Tsang 2016; Wood and McKinley 2010) in that it reflects the world subjectively and asserts that opportunities are created/co-created through relationships and interactions among stakeholders (Alvarez and Barney 2007, 2010; Chiasson and Saunders 2005; Kalinic et al. 2013).

A much-used simple example of the discovery view of opportunities is the case of entrepreneurial arbitrage, where an individual comes across, or searches for disparities and disequilibrium. For instance, when individuals fulfill unmet demands by bringing supplies from elsewhere possibly at lower prices and from excess local supplies (Etemad 2015a), individuals can create more value for buyers and suppliers and thus, contribute to the economic efficiency of the sector, without undue disruptions, displacements, and harms to those concerned. Consequently, the initial partial (or local) disequilibrium moves toward more general equilibria (Etemad 2015a).

The creation view of opportunities is the case of entrepreneurial innovation, where an entrepreneur creates or co-creates in dialogue with others (customers, providers, employees) new means and ends producing market disequilibrium through creative destruction (Alvarez and Barney 2007; Schumpeter and Opie 1934). For example, when the entrepreneur creates/co-creates disrupting products or services, new processes or even new markets bringing entrepreneurial creativity, which builds on the dissatisfaction of the entrepreneurs with the current options (Mainela et al. 2014).

Based on these two ontological views, a proliferation of opportunity labels has emerged, and consequently, scholars have used numerous terms with slightly different meanings, causing confusion and some inconsistencies (George et al. 2016; Hansen et al. 2016; Short et al. 2010) in entrepreneurship, international business, and IE field discussions. In addition to the discovery and creation debate, the process by which opportunities are formed has also been described in terms of the following: recognition (Arenius and De Clercq 2005; Baron 2008; Chandra et al. 2009; Eckhardt and Shane 2003; Ozgen and Baron 2007), identification (Ardichvili et al. 2003; Corbett 2005; Di Gregorio et al. 2008; Gaglio and Katz 2001; Gregoire and Shepherd 2012), enactment (Alvarez and Barney 2007; Harms and Schiele 2012; Sarasvathy 2001) and development (Ardichvili et al. 2003; Johanson and Vahlne 2006).

Referring to the conceptual ambiguity, Short et al. (2010) warn that differences in theoretical perspectives could create a disparity in conceptualizing the opportunity construct and called for research that develops a framework in which the two views could complement each other and help enrich the debate. Some scholars suggest considering this discovery-creation-opportunity-related behavior not as exclusive and contradictory, but complementary and intertwined in entrepreneurial action (Chetty et al. 2018; Mainela et al. 2014; Short et al. 2010; Vaghely and Julien 2010; Venkataraman et al. 2012; Zahra 2008). Edelman and Yli-Renko (2010) show that discovery and creation are intertwined in entrepreneurial action. Furthermore, Venkataraman et al. (2012) propose that opportunities should be discussed as being both found and made.

As Chandra (2017) claims, the world has different layers of reality that form opportunities, and the different actors in the market can oscillate between discovery and creation ways of behaving without making ontological or epistemological differentiation of the concepts (Mainela et al. 2014). In the end, the two ontological views of opportunity reflect the parable of the three blind men and the elephant, where each man depicts an elephant based on feeling just one part of it, a leg, a tusk, an ear. Each insists his description is correct, unable to see that the others' view as valid and unable to see the entire elephant (Gartner et al. 2003).

### **Entrepreneurial opportunities in international entrepreneurship**

IE is an intersectional and cross-disciplinary domain combining international business and entrepreneurship areas of knowledge that emerged in the early 1990s. For years, this emerging field focused mainly on features of international new ventures and their new internationalization process (Coviello 2015; Reuber et al. 2018). Nonetheless, over the last few years, IE research has moved on towards studying a variety of internationalization entrepreneurial behaviors (Fletcher 2004; Mathews and Zander 2007; Peiris et al. 2012; Schweizer et al. 2010; Zahra and George 2002; Zahra et al. 2014), of different actors — organizations, groups, or individuals (Oviatt and McDougall 2005). Therefore, IE studies consider not only the entrepreneurial behaviors of international new ventures and start-ups but also the entrepreneurial behaviors of large and established companies (Ahsan and Fernhaber 2019; Angeli and Grimaldi 2010; Bai and Johanson 2017; Birkinshaw 1997; Blankenburg Holm et al. 2015; Hohenthal et al. 2014; Johanson and Kalinic 2016; Lee and Williams 2007; Mathews and Zander 2007; Santangelo and Meyer 2011; Vahlne and Bhatti 2019; Webb et al. 2010).

Hence, IE has evolved over the years, and it has incorporated progressively new insights that address the field as a behavioral process of pursuing opportunities across national borders. For illustrative purposes, below, it is shown the evolving IE definitions that revolve around common conceptual elements suggesting that the IE field implies a dynamic process or behavior of discovering, evaluation, and exploitation of opportunities across national borders to achieve value creation to different stakeholders (actors). IE is defined as a combination of innovative, proactive, and risk-seeking behavior that crosses national borders and is intended to create value in business organizations (McDougall and Oviatt 2000). IE is defined as the process of creatively discovering and exploiting opportunities that lie outside a firm's domestic markets in the pursuit of competitive advantage (Zahra and George 2002). IE is defined as an organizational-wide process that is embedded in the organizational culture of the firm and which seeks through the exploitation of opportunities in the international marketplace to generate value (Dimitratos and Plakoyiannaki 2003). IE is the discovery, enactment, evaluation, and exploitation of opportunities – across national borders – to create future goods and services (Oviatt and McDougall 2005). IE is the behavioral processes associated with the creation and exchange of value through the identification and exploitation of opportunities that cross-national borders (Styles and Seymour 2006). IE is the discovery, formation, evaluation, and exploitation of opportunities across national borders to create new businesses, models, and solutions for value creation, including financial, social, and environmental. (Zahra et al. 2014).

As it can be seen, all definitions reveal how the IE research has made progress and extended its domain and boundaries by incorporating both the discovery and the creation views (enactment, formation) as two behaviors that are not exclusive and contradictory, but complementary and intertwined in entrepreneurial action (Chetty et al. 2018; Mainela et al. 2014; Oviatt and McDougall 2005; Short et al. 2010; Zahra 2008). Instead of making ontological or epistemological differentiation of the concepts, IE research has paved the way to enrich opportunity research theory by considering discovery and creation of opportunities as interdependent (Mathews and Zander 2007) and mutually enabling (Chetty et al. 2018; Chiasson and Saunders 2005; Vaghely and Julien 2010; Zahra et al. 2008) in a multilayer reality.

However, and despite the clear emphasis of opportunity-focused behaviors, some scholars indicate that IE research—and in turn the IE definition—should incorporate not only the individual and the firm analysis but also the external environment (context) in which different actors are embedded (Baker et al. 2005; Etemad 2004; Fletcher 2004; Jones and Coviello 2005; Mainela et al. 2014, 2018; Peiris et al. 2012; Reuber et al. 2018; Zahra et al. 2005). From a systemic perspective, Jones and Coviello (2005) contend that the external environmental conditions act as a moderator on internationalization behaviors and that these entrepreneurial behaviors are indicative of the entrepreneur's and firm's response to a continuous process of change in the composition of internal and external factors. In the same vein but from a social constructionist perspective, Fletcher (2004) proposes that IE should be expressed as a creative enactment and envisioning of future scenarios and opportunities that are socially constructed and realized through joint cross border coordinations. An analysis, not considering the national context, as well as the social and cultural circumstances in which different actors identify and exploit opportunities, is then inappropriate (Baker et al. 2005).

Drawing on Adner (2017), Reuber et al. (2018) provide a platform for future research in IE by proposing the notion of a distributed, global ecosystem of opportunities and opportunity seekers. In this framework, they conceive the market as an ecosystem in which a set of market actors interact in the assessment, construction, and shaping of opportunities. Broadly, the individual, organizational, and institutional level aspects interact in the market to enable or constrain the pursuit of new opportunities. In this way, opportunities are assessed by an individual-level cognitive activity, constructed by a firm-level innovative activity and shaped by an institutional-level structuring activity (Reuber et al. 2018). In this context, the factors constraining or enabling the pursuit of new opportunities at the individual, organizational, and institutional levels become more numerous and more heterogeneous (Reuber et al. 2018).

Recently, Mainela et al. (2018) assert that social, cultural and institutional contexts influence and shape the way different actors pursue international opportunities and that the opportunity-focused research should contemplate the analysis in different levels where the interaction between the contexts, entrepreneurial acting, and the opportunities must be clarified. In line with this, Terjesen et al. (2016) evidence the urgent need for antecedent research at the individual, firm, and environmental/institutional levels that can contribute to the understanding of the entrepreneurial activity, in this case, what antecedents influence opportunity-related behaviors, and what outcomes are the result of those behaviors.

## Methodology

To understand antecedents, processes, and outcomes of opportunity-driven behaviors from a multilevel analysis, we conducted a systematic literature review following a similar stepwise process to Mainela et al.'s (2014) study. Accordingly, we selected the Web of Science database and emerging sources such as the *Journal of International Entrepreneurship* and the *European Management Journal* to capture all the discussion about the opportunities and related behaviors. Since the paper by McDougall (1989) distinguishes the inception of IE literature, the scope of the review was 1989 to 2019 (including articles in press in December 2019). The search was purposefully restricted to business, management, and economics fields, and it was conducted to cover only articles published in academic peer-reviewed journals. Books, book chapters, reports, and conference papers were excluded.

The article search involved three rounds. The first round was intentionally broad in scope to include all possible articles about the *entrepreneurial opportunity* and the *internationaliz(s)ation*. Hence, the search equation is conducted according to the following words in the title, abstract, and keywords of the articles: “opportunit\*”; “entrepreneurial process\*”; “entrepreneurial behavi\*” in combination with the following terms, “international entrepreneur\*”; “international new ventur\*”; “born global\*”; “early international\*”; “rapid international\*”; “micro-multinational\*”; “multinational\*”; “internationaliz(s)ation”; “international business”; “foreign market”; “export\*”. To identify any missed relevant study, it was reviewed citations to Oviatt and McDougall (2005) as a leading study in the field and examined references of further IE reviews with cross-disciplinary emphasis (Jones et al. 2011; Mainela et al. 2014). After this first selection process, the search displayed 350 articles.



In the second round, these 350 articles were then carefully analyzed by four researchers. Then, the articles were carefully read on their titles, abstracts, and keywords searching for notions of opportunities or related behaviors in international contexts. At this point, we (the four authors) excluded articles that explicitly did not use the *opportunity* or not covered behaviors across national borders as a theoretical or empirical concept. This second selection process finally displayed 168 articles that were analyzed in an Excel workbook. As such, the articles were arranged in chronological order from the years 1989 to 2019. Then, they were classified based on the different levels of analysis (individual, firm, or environmental), research objectives, theoretical frameworks, type of study (conceptual or empirical), method approach (qualitative and/or quantitative), and method strategy.

In the third round, these 168 articles were examined through extensive reading of theoretical frameworks and methodology sections. We assessed whether the articles incorporated the concept of international opportunity and/or opportunity-related behaviors (discovery, identification, recognition, search, scouting, creation, enactment, evaluation, assessment, exploitation). In this way, the research aimed to find those articles that used the concept with a specific meaning linked to entrepreneurial behaviors of pursuing opportunities across national borders. The articles that used the opportunity concept as a common expression or in single sentences were excluded. Similarly, we excluded articles that referred to international comparisons of entrepreneurship with data collected from different countries and not deal with international opportunity or related behaviors at all. At this point, we also excluded general-level reviews, editorials, and commentaries providing overviews of the field. It is worthy to say that the rejected articles were double-checked, and uncertain cases reviewed jointly by the four researchers. After this third selection process, the review article pool was reduced to 123 articles from 30 journals.

## Analysis

In the analysis, we followed an interpretive synthesizing approach through a theoretical thematic analysis that provides a flexible and useful research tool to analyze qualitative data (Braun and Clarke 2006) and it helps to improve the quality of the review process (Tranfield et al. 2003). Specifically, this analytic procedure is a deductive approach that follows a concept-driven coding (a theory-led coding) based on the IE emergent stream that is focused on entrepreneurial behaviors of pursuing opportunities across national borders (Jones et al. 2011; Mainela et al. 2014; Oviatt and McDougall 2005). Thus, we carefully examined each 123-empirical and-conceptual article using an elaborate coding scheme (see Table 1) that helped extract key information and themes from each paper and, then, categorize our findings and look for commonalities and areas of difference (Tranfield et al. 2003). Also, this coding procedure enabled us to organize and analyze data in a structured way to enhance systematization, logic, transparency, speed, and rigor in the analysis process (Thorpe et al. 2005).

This theoretical thematic analysis process was based on a three-step coding procedure: open, axial, and selective coding. In the open coding, we first defined central categories that could underpin the research, particularly around opportunity-related behaviors, their antecedents, processes, and outcomes. Then, we established different

**Table 1** Coding scheme procedure

Opportunity-related Elements	Analysis Level	First-order Theme	Second-order Theme	Third-order Theme
Antecedents	Individual-level analysis	Cognition	Mental schemas, mental models, simplified models, bounded rationality, heuristics, perception, intention	Self-efficacy, desirability, motivation, creativity, imagination, personal commitment, risk-taking, proactiveness, global mindset, personal willingness and flexibility
		Human capital	Knowledge, learning, personal abilities, managerial competencies	Education, experiential knowledge (market, internationalization, cultural and entrepreneurial), cross-cultural competencies, personal alertness
		Social capital	Relationships, networks, networking, ties, alliances, interactions	Business, governmental, informal, social, family ties, casual ties, personal ties, private ties, social ties
Firm-level analysis	Firm-level analysis	Firm's culture	International entrepreneurial culture, entrepreneurial orientation, network orientation, collective cognition, articulated heuristics	Innovativeness, proactiveness, risk-taking, learning, values, beliefs, norms, assumptions, entrepreneurial mindset, continuous learning, creativity and innovation, collaboration and sharing, and customer-centricity, shared values
		Firm's knowledge-based resource	Resource-based theory, knowledge-based theory, critical resources, knowledge-based assets	Collective knowledge, market knowledge, internationalization knowledge, tangible resources, intangible resources, training
		Firm's networks	Stage theory, network theory, bonding networks, bridging networks, relational capability	Guanxi, strong ties, weak ties, open ties, close ties, trust, accidental orders, business networks, trade intermediaries, formal agents, informal agents
Environmental-level analysis	Context	Firm's strategy	Capabilities, strategic orientation, strategy formulation, multinationals, international ventures	Dynamic capabilities, networking capability, improvisation, collective processes, resource reconfiguration
		Context	Technological advance, business integration, industry conditions	Internet, information-and communication technologies, digital revolutions, digital environment, business ecosystems, globalization
		Formal institutions	Formal institutions	Norms, rules, avoids, laws, regulations, contracts, legal protection, labor conditions, economic liberalization,
		Informal institutions	Informal institutions	Culture, socio-cultural rules, traditions, habits, moral boundaries, social values



**Table 1** (continued)

Opportunity-related Elements	Analysis Level	First-order Theme	Second-order Theme	Third-order Theme
Opportunity Process	Discovery, recognition, identification	Serendipity	Unplanned and unexpected encounters, inbound inquiries	Effectuation, causation
	Creation, enactment	Active search Creation, co-creation, formation, construction	Alertness, planned strategy, systematic search Innovation, creative thinking, stakeholders' collaboration	Causation, effectuation Novelty, invention, disruption,
Outcomes	Evaluation	Assessment, judgment	Reasoning, decision-making, problem-solving, decision rules, logics	Causal decision-making, effectual decision-making, non-predictive analysis, simple, elaborated, and complex rule-based reasoning
	Exploitation	Realization, actualization	Deliberate decision, thoughtful reasoning, rational thinking, unplanned strategies	Resource leverage, refined opportunities, opportunity capture, decisiveness, venture capital
Non-financial	Financial	Performance	Sales, profitability	Wealth, productivity, success, growth, entry modes, market choice, country scope, acquisitions, new business, investments, joint-ventures
		Finer managerial capabilities, competitive advantage, value creation	Better cognitive capabilities, strategic networks, higher human capabilities, early and rapid internationalization, organizational performance	Risk-taking propensity, self-efficacy, commitment, access to information, new knowledge, strategic alliances, bridging ties, tech learning, reputation, organizational learning, superior opportunity development

levels through which such categories should be analyzed. About antecedents, we defined a multiple level analysis (individual, firm, and environment). Regarding opportunity-related processes, we established four entrepreneurial behaviors and their equivalences (discovery/recognition/identification, creation/enactment, evaluation, and exploitation). Concerning outcomes, we defined financial and non-financial effects of mentioned opportunity-related behaviors. At this point, each of us read the first 25 papers, and then we compared findings and resolve discrepancies. In a collective agreement, we generated super-thematic names (first-order codes) to each set of antecedents, opportunity-related processes, and outcomes. Then, we discussed and compared new and emerging thematic names generated in the analysis. (Corbin and Strauss 2015). Consequently, we offered new themes within or out of the main categories so that we could define sub-thematic names (second and third-order codes). Finally, we read all the articles and coded pertinent information under every single defined category, whether it was a first, second, or third-order theme.

In the axial coding, we extended the analytic work from open coding to strategically reassemble data that were split or fractured. As such, we first determined the dominant codes, and we reorganized the data set. At this point, redundant codes were removed, and the best representative codes were selected. Then, we checked super and sub-thematic codes one another for internal coherence, consistency, and distinctiveness. After, we integrated the codes to establish interrelationships between them and find unifying ideas of groups of research (Corbin and Strauss 2015). In the selective coding, we reviewed the concepts within the categories to organize information around a central explanatory notion (Corbin and Strauss 2015). In this case, the antecedents influencing opportunity-related behaviors and the outcomes result of that process. Thus, we synthesized the categories derived from coding to present a more in-depth discussion of opportunity-driven behaviors, their antecedents, processes, and outcomes.

## Results of the review

With the aim of understanding and identifying the antecedents, processes, and outcomes of opportunity-driven behaviors, we conduct an analysis in three phases. In the first phase, we depict the antecedents at three levels of analysis (individual, firm, environmental) as driving factors that influence the behavioral processes related to the discovery, enactment, evaluation, and exploitation of international opportunities. The levels of analysis and the reviewed studies are presented in Table 2. In the second phase, we describe the processes of the international entrepreneurial opportunity-related behavior in which a continuum behavior/act between discovery and enactment of international opportunities is followed by a refinement process of evaluation and exploitation. In the third phase, we outline the different outcomes and effects that resulted from that international opportunities process.

### First phase: Antecedents influencing the international opportunities process

As specified above, in this phase, we depict antecedents at three levels (individual, firm, environmental) as a lens to understand the driving aspects that lead to the discovery, enactment, evaluation, and exploitation of international opportunities. The systematic

review found that 61 articles (50%) conducted an individual-level analysis, 104 articles (86%) conducted a firm-level analysis, and 22 articles (18%) conducted an environmental-level analysis.

### Individual-level analysis

The 61 articles analyzed at this level shed light on the existence and traits of various types of entrepreneurial individuals (entrepreneurs, managers, directors). Although conceptual and empirical articles depicted diverse drivers from different approaches, three significant variables were identified in the process of discovering, enacting, evaluating, and exploiting international opportunities. They were related to cognition, human capital, and social capital features that determine why some individuals, and not others, pursue specific international opportunities and behave differently toward these opportunities.

### Cognition

Overall, our systematic literature review shows that triggering factors necessary for entrepreneurial behaviors of pursuing opportunities involve a set of psychological attributes of the individuals. One of these traits is the entrepreneurial intention that is explained by the individual's motivation, desire, and passion — also called perceived desirability — (Kauppinen and Juho 2012; Muzychenko and Liesch 2015; Nowiński and Rialp 2016; Zahra et al. 2005), and the individual's perceived ability — also called self-efficacy — to discover and exploit international opportunities. Other key cognitive aspects that have an active link to the opportunity-related behaviors deal with personal commitment (Jones and Coviello 2005; Lehto 2015; Nowiński and Rialp 2016), alertness (Andersson and Evers 2015; Di Gregorio et al. 2008; Kauppinen and Juho 2012; McDougall et al. 1994), and personal willingness and flexibility (Jones and Coviello 2005; Lehto 2015).

Another fundamental cognition characteristic is the imagination/creativity to sense and exploit opportunities (Butler et al. 2010; Oyson and Whittaker 2015; Schweizer et al. 2010). For instance, creativity is evident in the way individuals are capable of combining resources (Butler et al. 2010) for the development of new products and services (Karra et al. 2008). Other psychological traits driving to opportunity-driven behaviors are also related to individual proactive and risk-seeking behavior (Acedo and Jones 2007; Jones and Coviello 2005; Zahra et al. 2005). Different studies evidence that proactive individuals usually scan the environment for opportunities that enable them to persevere to change things and take advantage of such change (Acedo and Jones 2007; Eriksson et al. 2014). Finally, another critical aspect of this cognitive dimension is the global mindset (Eriksson et al. 2014; Glavas et al. 2017; Karra et al. 2008), which leads individuals to international performance through the pursuit of international opportunities. Individuals that own the strategic ability to manage complex aspects of cultures and perceive differences and commonalities have a global mindset that enables and motivates them to consider the world as one market-place, source of endless opportunities (Eriksson et al. 2014; Muzychenko and Liesch 2015).

**Table 2** The Reviewed Studies Classified Based on Level of Analysis

Level of Analysis	Authors
Individual Level	(Acedo and Jones 2007; Amorós et al. 2016; Andersson and Evers 2015; Angeli and Grimaldi 2010; Baker et al. 2005; Bhatti et al. 2016; Bingham et al. 2007; Bolzani and Boari 2018; Butler et al. 2010; Calabrò et al. 2016; Chandra and Coviello 2010; Chandra et al. 2009, 2012, 2015; Chandra 2017; Chetty et al. 2015, 2018; Crick et al. 2001; Dana et al. 2009; Di Gregorio et al. 2008; Domurath and Patzelt 2016; Ellis 2000, 2011; Eriksson et al. 2014; Evers and O’Gorman 2011; Glavas et al. 2017; Haaja 2019; Hannibal et al. 2016; Hurmerinta et al. 2015; Johanson and Vahlne 2009; Jones and Coviello 2005; Kalinic et al. 2014; Karra et al. 2008; Kauppinen and Juho 2012; Kontinen and Ojala 2011a; Laperrière and Spence 2015; Lehto 2015; Lorenz et al. 2018; Lundberg and Rehnfors 2018; Mainela et al. 2018; McDougall et al. 1994; McGaughey 2007; Morgan et al. 2018; Mostafiz et al. 2019; Muzychenko and Liesch 2015; Muzychenko 2008; Nordman et al. 2008; Nowiński and Rialp 2016; Oviatt and McDougall 2005; Oyson and Whittaker 2015; Perks and Hughes 2008; Robson et al. 2012; Santos-Álvarez and García-Merino 2010; Sarasvathy et al. 2014; Schweizer et al. 2010; Sommer and Haug 2011; Spence and Crick 2006; Vinogradov and Jørgensen 2017; Weerawardena et al. 2019; Williams and Wood 2015; Zahra et al. 2005; Zolfaghari Ejlal Manesh and Rialp-Criado 2019).
Firm Level	(Ahsan and Fernhaber 2019; Åkerman 2015; Alimadadi et al. 2018; Amorós et al. 2016; Angeli and Grimaldi 2010; Autio et al. 2000; Bai and Johanson 2017; Bai et al. 2019; Baker et al. 2005; Bingham et al. 2007; Bingham 2009; Birkinshaw 1997; Blankenburg Holm et al. 2015; Boojihawon et al. 2007; Calabrò et al. 2016; Chandra et al. 2009, 2012; Chetty et al. 2015, 2018; Ciravegna et al. 2014; Crick et al. 2001; Crick and Spence 2005; De Clercq et al. 2005; Di Gregorio et al. 2008; Dimitratos et al. 2010, 2012, 2014, 2016; Ellis 2000; Fang et al. 2018; Fletcher 2004; Gabriellson and Gabriellson 2013; Galkina and Chetty 2015; Glavas et al. 2017; Hilmersson and Papaioannou 2015; Hohenthal et al. 2003, 2014; Jantunen et al. 2005, 2008; Johanson and Vahlne 2006, 2009; Johanson and Kalinic 2016; Jones and Coviello 2005; Karra et al. 2008; Kauppinen and Juho 2012; Kocak and Abimbola 2009; Kontinen and Ojala 2011a, b; Kumar and Sharma 2018; Kumar 2012; Mzid et al. 2019; Laperrière and Spence 2015; Lee and Williams 2007; Leite et al. 2016; Lin and Si 2019; Lindstrand and Hänel 2017; Lundberg and Rehnfors 2018; Mainela and Puhakka 2009; Mainela et al. 2018; Mathews and Zander 2007; McGaughey 2007; Mejri and Umemoto 2010; Miocevic and Morgan 2018; Mort and Weerawardena 2006; Muzychenko 2008; Mzid et al. 2019; Naldi et al. 2015; Nordman et al. 2008; Oparaocha 2015; Oviatt and McDougall 2005; Oviatt and McDougall 1994; Oyson and Whittaker 2015; Perks and Hughes 2008; Prashantham 2008; Schweizer et al. 2010; Spence and Crick 2006; Styles and Genua 2008; Tian et al. 2018; Vahlne and Bhatti 2019; Vasilchenko and Morrish 2011; Williams and Wood 2015; Yu et al. 2011; Zaefarian et al. 2016; Zahra et al. 2005, 2008, 2014; Zhou et al. 2007, 2010; Zhou 2007).
Environmental Level	(Amorós et al. 2016; Baker et al. 2005; Chen et al. 2016; Fletcher 2004; Glavas et al. 2017; Jones and Coviello 2005; Lundberg and Rehnfors 2018; Mainela and Puhakka 2009; Mainela et al. 2018; Muzychenko 2008; Oparaocha 2015; Oyson and Whittaker 2015; Oviatt and McDougall 2005; Perks and Hughes 2008; Mainela and Puhakka 2009; Spence and Crick 2006; Webb et al. 2010; Williams and Wood 2015; Young et al. 2018; Zahra et al. 2005, 2008, 2014).

## Human capital

In general, this study reveals that the opportunity-seeking behaviors are, in part, shaped by the individual’s human capital. As such, idiosyncratic human capital in the form of learning skills and prior experiential knowledge serve to comprehend and leverage new

information (Evers and O’Gorman 2011) in ways that individuals can make new connections among pre-existing ideas, as well as with new ideas, hence allowing them to pursue international opportunities (Chandra et al. 2009). In our review, different studies assert that the constant investment in training, education, or other types of learning of individuals (Andersson and Evers 2015; Evers and O’Gorman 2011), are determinant factors in opportunity recognition — discovery and enactment — and international business development — evaluation and exploitation (Acedo and Jones 2007; Karra et al. 2008; Laperrière and Spence 2015; Nordman et al. 2008; Zahra et al. 2005; Zolfaghari Ejlal Manesh and Rialp-Criado 2019). Our systematic review also shows that more educated individuals are more likely to pursue opportunities (Eriksson et al. 2014; Evers and O’Gorman 2011) in part because of their high expectations, superior problem-solving skills, and awareness of business opportunities in foreign markets (Vinogradov and Jørgensen 2017). Another individuals’ human capital aspect deals with linguistic knowledge (e.g., speaking the English language or being multi-lingual). This human capital trait encourages individuals to be competent in foreign markets and pursue international opportunities (Hurmerinta et al. 2015; Jones and Coviello 2005; Spence and Crick 2006; Vinogradov and Jørgensen 2017).

Our findings suggest that individuals’ prior experiential knowledge — entrepreneurial, market, internationalization, and cross-cultural — is also associated with behaviors of pursuing opportunities across national borders. Thus, different studies evidence that entrepreneurial knowledge (start up a venture) enables individuals to pursue and exploit international opportunities. For instance, there is an indication that portfolio entrepreneurs (people who have already started up two or more international ventures) are likely to pursue international opportunities (Chandra et al. 2015) in part because they are familiar with challenges and problems derived from new business opportunities in this case in foreign markets. Likewise, serial entrepreneurs are likely to pursue and exploit international opportunities because they have gained experience in a variety of settings by striving alliances, introducing new products or services; using more information from customers and suppliers; and perceiving unmet needs of customers (Andersson and Evers 2015; Chandra et al. 2015; Karra et al. 2008).

Regarding international market knowledge, our analysis illustrates that individuals with experience in specific industries or sectors tend to recognize market’s characteristics, structure, business climate, and cultural patterns that in turn encourage them to pursue international opportunities (Johanson and Vahlne 2009; Oviatt and McDougall 2005; Oyson and Whittaker 2015). Such international market knowledge can be gained from previous experiences and close relationships with specific customers, suppliers, competitors, or shareholders in local and in international markets (Bhatti et al. 2016; Evers and O’Gorman 2011; Karra et al. 2008; Lehto 2015; Oviatt and McDougall 2005; Weerawardena et al. 2007). About internationalization knowledge, our findings suggest that individuals’ human capital derived from previous experience in international operations (e.g., export, foreign market entry, joint-ventures, and acquisitions) is fundamental (Johanson and Vahlne 2009) for pursuing more refined opportunities at foreign markets (Chandra et al. 2009).

Relating to cultural knowledge, our study reveals that individuals need to have institutional knowledge about the norms and practices that underpin commercial transactions, as well as legal and regulatory conditions, both formal and informal (Angeli and Grimaldi 2010; Karra et al. 2008; Morgan et al. 2018; Schweizer et al.

2010; Vinogradov and Jørgensen 2017). In this vein, various scholars indicate that cross-cultural competencies help individuals to obtain detailed social and cultural information about the markets they wish to enter and more specific information about potential customers and their buying behavior leading to the discovery, enactment, evaluation, and exploitation of international opportunities (Eriksson et al. 2014; Karra et al. 2008; Lehto 2015; Muzychenko 2008; Schweizer et al. 2010; Zahra et al. 2005)

## Social capital

Our systematic literature review indicates that individuals' social capital allows them to discover, enact, evaluate, and exploit international opportunities. An individual's social capital in the form of personal and social ties confer sources of learning and provide information on risks, consumers, suppliers, politics, economics, and competitive resources that enable individuals to pursue international opportunities (Leite et al. 2016). In our analysis, different studies underscore that individuals' relationships and networks equip managers and entrepreneurs with knowledge on providers, clients, and institutions in foreign countries (Domurath and Patzelt 2016; Sharma and Blomstermo 2003) sometimes without any cost (Ellis 2011). Furthermore, this social capital enables individuals to gain financial resources and learn where to find them for continued internationalization (Johanson and Vahlne 2009; Lindstrand et al. 2011).

Our findings also suggest that specific ties, namely with international trade intermediaries (Schweizer et al. 2010; Zolfaghari Ejlal Manesh and Rialp-Criado 2019), export promoting agencies and distributors (Chandra et al. 2012; Ellis 2011; Karra et al. 2008), trade exhibitions and conferences (Ellis 2011; Kontinen and Ojala 2011b), as well as family contacts (Calabrò et al. 2016; Hurmerinta et al. 2015; Kontinen and Ojala 2011b; Vinogradov and Jørgensen 2017), are associated to the international opportunity discovery-enactment-evaluation-exploitation process. As such, individuals' social capital can leverage all available resources, including those networks controlled by their family, social, and business ties (Muzychenko and Liesch 2015; Vinogradov and Jørgensen 2017; Zolfaghari Ejlal Manesh and Rialp-Criado 2019). For instance, different studies assert that individuals can exploit the linguistic skills of family members or firm employees (Hurmerinta et al. 2015) to pursue opportunities across national borders.

About this social capital leverage, individuals benefit when they possess managerial ties and trust with business networks that assist them in pursuing and exploiting international opportunities (Calabrò et al. 2016; Nowiński and Rialp 2016; Vasilchenko and Morrish 2011). Some scholars argue that connections with an array of professionals from different fields and locations not only help them to pursue and exploit opportunities but also to establish an active and continuous learning process (Chandra et al. 2009; Karra et al. 2008). Hence, individuals pursue international opportunities through business and private networks, which give them access to critical resources, including knowledge (Domurath and Patzelt 2016; Ellis 2011; Oviatt and McDougall 2005; Oyson and Whittaker 2015).

Research evidence attests that accidental orders (Chandra et al. 2009; Ellis 2000, 2011), unexpected meetings with overseas distributors and customers, and word of mouth are also triggers of international opportunities (Crick et al. 2001; Ellis 2011; Perks and Hughes 2008). Related to this breed of casual ties, some researchers posit

that individuals usually establish personal relationships as a part of an effectual strategy in which they establish networks wherever an opportunity may emerge instead of carefully selecting international partners according to predefined network goals (Ellis 2011; Galkina and Chetty 2015). It means that individuals create networks giving room for contingencies, and they think in terms of co-creation with consumers (Chandra and Coviello 2010) to increase their means and share affordable loss (Galkina and Chetty 2015). Thus, interaction with others can create privileged knowledge and learn about each other's needs, technology, relationships, and necessary to realize (evaluate and exploit) international opportunities (Mainela et al. 2014).

### **Model of individual factors influencing international opportunities process**

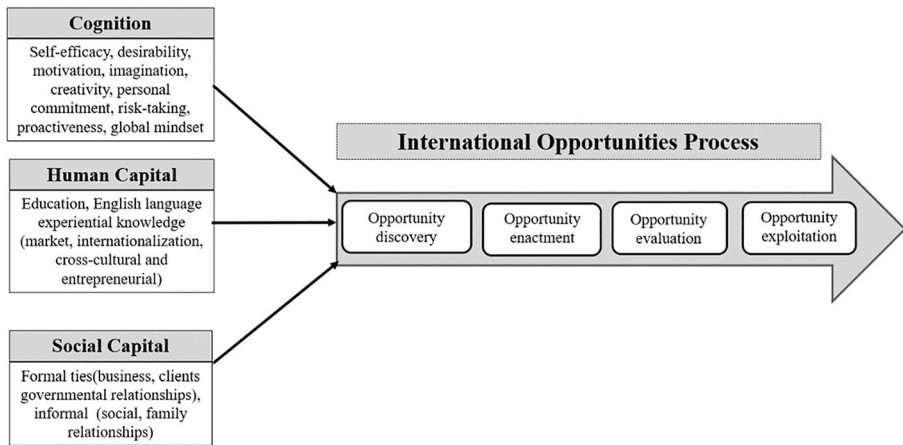
Based on the systematic analysis and synthesis of the 61 studies conducting an individual-level analysis, we propose a first model showing how individuals discover, enact, evaluate, and exploit international opportunities through cognition, human capital, and social capital factors. The underlying model is depicted in Fig. 1.

Our systematic review analysis illustrates the importance of cognitive features and mental models in the discovery, enactment, evaluation, and exploitation of international opportunities. Specifically, individuals with high entrepreneurial intention — perceived-desirability and self-efficacy — are psychologically equipped to pursue international opportunities successfully. Similarly, individuals with high levels of commitment, alertness, imagination, willingness, and flexibility can sense and exploit opportunities more efficiently. Other cognitive schemas driving to opportunity-related behaviors are also related to higher levels of proactiveness, risk-taking propensity, and global mindset that enable individuals to pursue specific international opportunities. Accordingly, the mentioned cognitive schemas serve individuals to make decisions involving international opportunity capture and growth in foreign markets. Such mental schemas serve to acquire and process information to resolve problems and respond to dynamic and changing market conditions.

Regarding individuals' human capital, our findings suggest that the constant investment of individuals in training, education, and other types of learning, namely the English language acquisition, are determinant factors in the pursuit of international opportunities. Similarly, our study indicates that prior experiential knowledge of individuals in the form entrepreneurial experience (start up a venture), market experience (business with clients, market, and competitors), internationalization experience (resources, capabilities, strategies), and cross-cultural experience (institutional rules, norms, and cultural values) enables individuals to identify a broader range of opportunity types and hence pursue better international opportunities.

About individuals' social capital, we observe that this social capital offers sources of learning and provides information that enables individuals to obtain strategic knowledge on providers, clients, and institutions in foreign countries and then pursues international opportunities. Furthermore, this social capital enables individuals to gain financial resources and learn where to find them for continued internationalization. Our study illustrates that personal ties with international trade intermediaries, export promoting agencies, local and international distributors, and trade exhibitions are fundamental to discover, enact, evaluate and exploit international opportunities. Similarly, other ties related to family, social, and business contexts benefit individuals to get





**Fig. 1** First model of individual-level factors influencing the international opportunities process

access to critical resources, including knowledge that assists them in pursuing and exploiting international opportunities. Interestingly, casual ties with overseas distributors and customers through word of mouth are also triggers of international opportunities.

## Firm-level analysis

The previous analysis asserted that the person's traits are vital factors to pursue international opportunities. However, these features alone cannot be considered as sufficient to handle the complexities and challenges of discovering, enacting, evaluating, and exploiting international opportunities. Influenced by the individual's unique characteristics, the firm must be able to embed the entrepreneurial vision and orientation of the founders into the company and build up an organizational structure that can facilitate the pursuit of international opportunities and thus achieve a competitive advantage. The 104 articles analyzed at this firm-level indicate that the firm's culture, the firm's knowledge-based resources, the firm's networks, and the firm's strategy are four significant variables in the process of discovering, enacting, evaluating and exploiting international opportunities.

### Firm's culture

In general, the systematic literature review indicates that the firm can develop a collective culture that facilitates and accommodates entrepreneurial activities in the international marketplace (Dimitratos and Plakoyiannaki 2003). For example, Dimitratos and Plakoyiannaki (2003) suggest that the firm leverages an international entrepreneurial culture through five orientations. They are international market orientation (customer-oriented posture), international learning orientation (firm propensity to obtain and use information), international networking orientation, and international motivation dimension (incentives and rewards). Accordingly, the authors contend that the international entrepreneurial culture favors the empowerment of middle- and low-

level managers and employees in the firm with entrepreneurial opportunity-seeking behavior. Regarding the firm's opportunity-oriented culture, our review shows evidence of how multinational enterprises foster opportunity-seeking actions in their employees and staff through motivation and empowerment (Birkinshaw 1997; Boojihawon et al. 2007; Lee and Williams 2007). For instance, multinational enterprises confer their subsidiaries' actors with initiatives entailing proactive, autonomous, and risk-taking activities that originate the discovery and exploitation of international opportunities outside the home country (Ahsan and Fernhaber 2019; Birkinshaw 1997).

About this firm's culture, other studies stress that a collective entrepreneurial orientation is characterized by innovativeness (Styles and Genua 2008), proactiveness (Ciravegna et al. 2014; Dimitratos et al. 2010; Karra et al. 2008) and risk-taking propensities (Johanson and Vahlne 2006; McGaughey 2007; Schweizer et al. 2010) that all together enable the firm to pursue and exploit international opportunities (Chandra et al. 2009, 2012, Dimitratos et al. 2010, 2012, 2016; Faroque 2015; Schweizer et al. 2010; Tuomisalo 2019; Zhou et al. 2010). Complementarily, other studies confirm that, when the firm's entrepreneurial orientation is combined with a strategic interaction with customers and partners, the firm is likely to pursue opportunities in foreign markets at an early phase (Dimitratos et al. 2010; Kocak and Abimbola 2009; Mainela et al. 2014).

A crucial contribution to the firm's culture discussion is the development and validation of a new opportunity-based instrument to measure IE (Dimitratos et al. 2012). As such, the instrument is made to measure various facets of the firm's culture at pursuing international. The instrument consists of six interrelated organizational culture dimensions: international market orientation, international learning orientation, international innovation propensity, international risk attitude, international networking orientation, and international motivation. Likewise, another study argues that three culture characteristics, namely, risk attitude, market orientation, and networking propensity, influence opportunity-driven behaviors in three dimensions regarding their time to internationalization, country market presence, and international entry mode (Dimitratos et al. 2016).

Arguably, and based on previous international entrepreneurial cultural dimensions developed by Dimitratos et al. (2010, 2016), a scholarly study extends the discussion on the firm's culture by looking into cognitive aspects (values, beliefs, norms, and assumptions) of the firm's employees (Kumar and Sharma 2018). They claim that it is fundamental to align the firm's culture, values, and beliefs with the employee's aspirations and learning goals to nurture and support an international entrepreneurial mindset, predisposing members to continuously search for opportunities in international markets and pursue them by creating innovative solutions (Kumar and Sharma 2018). Consequently, the firm's culture is also understood as a set of collective cognition (entrepreneurial mindset, continuous learning, creativity and innovation, collaboration and sharing, and customer-centricity) that influences the way the firm's pursuit of international opportunities (Kumar and Sharma 2018).

### **Firm's knowledge-based resources**

In this literature review, we observe that the firm's knowledge-based resources and its strategic combination are fundamental to discover, enact, evaluate, and exploit

international opportunities. In our review, different studies reveal that access and control of unique resources, in particular, knowledge, enable the firms to gain competitive advantage by pursuing opportunities in international markets (Åkerman 2015; Chandra et al. 2009; Jantunen et al. 2005; Jantunen et al. 2008; Oviatt and McDougall 1994). Like the human capital aspects of individuals, the firm also leverages its capacity to discover, enact, evaluate, and exploit international opportunities through prior organizational knowledge acquired through experiences in international contexts. For example, we observe that some studies contend that the firm's experiential knowledge within networks allows firms to obtain a robust learning platform (Bai and Johanson 2017; Kauppinen and Juho 2012; Oyson and Whittaker 2015; Vahlne and Bhatti 2019) where it can see, compare, reflect on and develop other new or refined business opportunities (Hohenthal et al. 2014). Part of this network experiential knowledge deals with success and failure (learn by experimentation) so that firms can improve their ability to develop (evaluate and exploit) international opportunities (Johanson and Vahlne 2006, 2009) and adapt to changes in the marketplace (Bai et al. 2019; Bhatti et al. 2016).

For the case of multinational enterprises, some studies emphasize the role of subsidiaries in developing a high performing organizational process namely face-to-face interaction with customers, suppliers, and direct competitors, as well as intra-organizational open discussions, group decision support systems, and brainstorming sessions (Dimitratos et al. 2014). Hence, multinational enterprises learn in host country networks but internalize the knowledge (Bingham et al. 2007), paving the way for the pursuit of international opportunities (Bhatti et al. 2016). Specifically, multinational subsidiaries are best positioned in foreign markets to gradually and sequentially increase recognition (Birkinshaw 1997; Dimitratos et al. 2014) and exploitation (commitment) of an opportunity through building local trust and relationships (Johanson and Vahlne 2009; Santangelo and Meyer 2011).

Other studies suggest that specific knowledge about market actors, size, competitors, laws, regulations, and culture influences the firm's behavior of pursuing and exploiting international opportunities (Lindstrand and Hånell 2017; Mejri and Umemoto 2010; Nordman et al. 2008). In this regard, the ability of firms to design business plans (e.g., identification of key partners, resources, relationships, and key channels) enables them to identify and develop opportunities (Schweizer et al. 2010). Relating to this foreign market knowledge, some studies conjuncture that firms focused on working closely with clients (Chandra and Coviello 2010; Vahlne and Bhatti 2019) and other social networks, especially those that contain international industry and market-specific knowledge (Zaefarian et al. 2016) lead them to pursue international opportunities.

Our study also shows that internationalization knowledge about how to set up foreign operations; how to deal with international competitors; how to adapt its products and services to the needs of international customers; and how to market its products and services abroad enhance a firm's ability to pursue new opportunities and expand abroad (Ellis 2011; Hilmersson and Papaioannou 2015; Johanson and Vahlne 2009; Lindstrand and Hånell 2017). Furthermore, the combination of this internationalization knowledge with an international entrepreneurial previous knowledge leads the firm to pursue international opportunities and obtain performance (De Clercq et al. 2005; Glavas et al. 2017).

Regarding the technological knowledge (understood as experiential knowledge about the technology upon which a firm's products are built and commercialized), research highlights the importance of technical, industrial knowledge, intellectual property, and information-and-communication-technology knowledge (Chandra et al. 2009; Glavas et al. 2017; Nordman et al. 2008) and innovation capabilities supporting international opportunity-driven behavior (Miocevic and Morgan 2018). For instance, general knowledge of market imperfections across various product categories combined with their understanding of how the online market works help the firm to exploit opportunities (Chandra et al. 2009). Moreover, effective deployment of technological resources across the borders cannot be easily copied and thus become a valuable knowledge-based resource (Bhatti et al. 2016; Kumar 2012). Furthermore, our findings reveal that firms with high institutional knowledge about language, laws, and rules across countries can pursue better international opportunities (Angeli and Grimaldi 2010; Faroque 2015; Johanson and Vahlne 2006, 2009; Karra et al. 2008; Schweizer et al. 2010).

### Firm's networks

Overall, the systematic literature review indicates that the firm's networks provide better access to international opportunities (Ellis 2000, 2011; Oviatt and McDougall 2005; McDougall et al. 1994) and abilities to overcome the liabilities of newness and foreignness (Kocak and Abimbola 2009). Besides, they become another valuable, rare, and inimitable external resource capable of connecting external resources embedded in networks to firm-level resources (Peiris et al. 2012), as well as gaining credibility, local market knowledge, and overcoming resource limitations (Hohenthal et al. 2014; Mort and Weerawardena 2006). Hence, the firm's networks are sources of learning that offer information on risks, consumers, suppliers, politics, economics, and competitive resources that promote opportunities (Leite et al. 2016).

Based on the idea that opportunities are mainly pursued and exploited in a network context, Johanson and Vahlne (2006) conclude that the interaction of firms in a network of relationships concerns learning about each other, leading to subsequent knowledge and incremental commitment that in turn lead to the pursuit of international opportunities. In further studies that refine previous findings, different authors assert that opportunities are developed (discovered, enacted, evaluated and exploited) as a reflection of earlier experiences gained from participating in international networks which offer the potential for learning, trust, and commitment (Johanson and Vahlne 2009; Schweizer et al. 2010). Thus, the firm transitions from the position of being an outsider (a firm not having well-established ties) to become an insider (a firm having well-established ties) in relevant international networks (Blankenburg Holm et al. 2015; Johanson and Vahlne 2009). Notably, different studies introduce the role of individuals into the experience-commitment-opportunity relationship (Schweizer et al. 2010) not only occurring through a systematic search process, but also through a more emergent effectuation process (Sarasvathy et al. 2014).

In our review, we observe that there are two specific forms of networks, namely bonding and bridging, that enable firms to discover, enact, evaluate, and exploit international opportunities (Hohenthal et al. 2014; Tian et al. 2018). The bonding networks refer to the quality and the cohesion of close ties that create trust and security

between actors (Tian et al. 2018). In contrast, the bridging networks refer to the inherent value of open and weak ties that transfer any novel information, new ideas, and opportunities, but with less reliability (Tian et al. 2018). Regarding bonding networks, different studies show evidence that the presence of the incoming generation in family firms help create an organizational culture that encourages the exploitation and exploration of international growth opportunities (Calabrò et al. 2016; Fang et al. 2018; Kontinen and Ojala 2011b; Zaefarian et al. 2016). Other studies reveal that business relationships not only offer firms an opportunity to learn but also to build trust and commitment, essential prerequisites for reducing uncertainty (Chetty et al. 2018; Domurath and Patzelt 2016) and pursuing international opportunities (Hilmersson and Papaioannou 2015; Nordman et al. 2008; Santangelo and Meyer 2011; Schweizer et al. 2010).

Concerning bridging networks, different studies argue that it is not the strength of the tie that matters but the quality of information leading to the pursuit of international opportunities (Blankenburg Holm et al. 2015; Chandra et al. 2009). External sources of knowledge, particularly professional networks and organizations, business partners, and clients, are also relevant in the pursuit of international opportunities (Chandra and Coviello 2010; Dimitratos et al. 2010; Laperrière and Spence 2015; Vahlne and Bhatti 2019). Moreover, cultural networks (ethnic enclave) provide ethnic markets and/or ethnic sources of finance and institutional support to exploit opportunities (Crick et al. 2001; Vasilchenko and Morrish 2011). Regarding government ties, institutional networks also enhance the core capabilities of the firm to be in a better position to explore and exploit entrepreneurial opportunities across national boundaries (Oparaocha 2015). Some studies argue that networks in an Internet-based environment may facilitate the establishment of strong networks leading to pursue and exploit international opportunities (Gabrielsson and Gabrielsson 2013; Glavas et al. 2017).

### **Firm's strategy**

In our systematic literature review, we observe that the discussion of the firm's strategy has three central streams of analysis. One stream has focused on the firm's posture and orientation to discover, enact, evaluate, and exploit international opportunities in dynamic and changing environments. The second stream has focused on the decision-making rules that the firm executes and deploys in that opportunity-related process. The third stream has focused on organizational capabilities that the firm reconfigures to respond to changing environments and then pursue and exploit opportunities across national markets. On the first stream, some studies show that a firm's orientation to take risks, be proactive, and innovative lead the firm to pursue and exploit international opportunities (Chandra et al. 2009; De Clercq et al. 2005; Dimitratos et al. 2010, 2012; Faroque 2015; Gabrielsson and Gabrielsson 2013; Jantunen et al. 2005, 2008). In terms of this entrepreneurial orientation, other studies reveal that a firm's strategy centered on learning and international growth also enables the firm to pursue opportunities across national markets (Autio et al. 2000; Bingham et al. 2007; Chetty et al. 2015; Hilmersson and Papaioannou 2015; Jantunen et al. 2005, 2008).

On the other stream, various studies assert that some firms formulate their strategies through a conscious and planned process — strategy formulation within a causal logic — before they make specific decisions (Calabrò et al. 2016; Hilmersson and

Papaioannou 2015; Johanson and Vahlne 2006, 2009). Other studies contend that some other firms form their strategy gradually — strategy formation within an effectual logic — as they make decisions (Chandra et al. 2009, 2015; Crick and Spence 2005; Mainela and Puhakka 2009; Sarasvathy et al. 2014; Schweizer et al. 2010). In the first case, the strategy determines subsequent decisions (Chandra et al. 2009; Crick and Spence 2005). In the second, decisions, improvisation, and exploiting contingencies converge into a strategy (Bingham 2009; Sarasvathy et al. 2014; Schweizer et al. 2010).

Regarding the causal logic of decision-making, different studies show that traditional firms, namely multinational enterprises, and small and medium-sized firms, follow a planned and deliberate plan to pursue and exploit international opportunities: For instance, Calabrò et al. (2016) states that the long-term orientation of family firms lead to the exploration and exploitation of international opportunities. At the multinational and corporate level, some studies posit that planned offshoring activities — delocalization of repetitive, low knowledge-intensive activities of software development — (Angeli and Grimaldi 2010) as well as deliberately and autonomous subsidiaries' strategies focused on pursuing international opportunities lead the firms to competitiveness (Ahsan and Fernhaber 2019; Birkinshaw 1997; Boojhawon et al. 2007).

Concerning the effectual logic of decision-making, several authors argue that firms, namely international new ventures and young, small and medium-sized firms, follow non-deliberate strategies to pursue and exploit international opportunities (Laperrière and Spence 2015; Mainela and Puhakka 2009; Sarasvathy et al. 2014). For example, (Crick and Spence 2005) claim that firms effectively adopt emergent strategies because they might not have the time or the resources to engage in careful information gathering and rational planning, particularly in dynamic markets. Likewise, Chetty et al. (2015) and Sarasvathy et al. (2014) conjecture that resource-constrained firms usually begin to enact opportunities by leveraging unplanned alliances and pre-commitments from stakeholders to reduce and/or eliminate uncertainty and erect entry barriers. Recent studies suggest that, beyond the firm's size or age, the firm's decision-making oscillates from non-strategic planning to deliberate and rational planning depending on the level of foreign market uncertainty and the kind of opportunity (Gabrielsson and Gabrielsson 2013; Galkina and Chetty 2015; Laperrière and Spence 2015). Several studies also confirm that international entrepreneurs behave differently in different circumstances, depending on experience or type of business environment (Chandra et al. 2009; Mainela et al. 2014; Nordman et al. 2008).

The third stream of research regarding the opportunity-oriented strategy of the firm is related to organizational capabilities. Several studies give evidence that firms possessing collective processes to respond to changing environments and then combine, reconfigure and deploy efficiently existing and new asset base are likely to pursue and exploit opportunities across national markets (Bingham et al. 2007; Jantunen et al. 2005, 2008; Karra et al. 2008; Miocevic and Morgan 2018; Mort and Weerawardena 2006). Therefore, the firm requires establishing an organizational learning process that enables it to recognize the value of new, external information, assimilate it, and apply it (a firm's absorptive capacity) to pursue opportunities (Autio et al. 2000; De Clercq et al. 2005; Dimitratos et al. 2012; Johanson and Vahlne 2009; Kocak and Abimbola 2009). For instance, different authors reveal that the firm's networking capabilities, based on the reconfiguration and exploitation of international networks, lead the firm to be more exposed to opportunities and in consequence help evaluate and exploit them (Bai and



Johanson 2017; Mort and Weerawardena 2006). Other authors contend that the firm needs an adaptability-oriented strategy that permits to react to fast-moving environments and pursue international opportunities (Bai and Johanson 2017; Bingham 2009; Di Gregorio et al. 2008; Mort and Weerawardena 2006).

## **Model of firm factors influencing international opportunities process**

Based on the systematic analysis and synthesis of the 104 articles, we propose a second model showing how firms discover, enact, evaluate, and exploit international opportunities through four variables, namely the firm's culture, the firm's knowledge-based resources, the firm's networks, and the firm's strategy. The underlying model is depicted in Fig. 2.

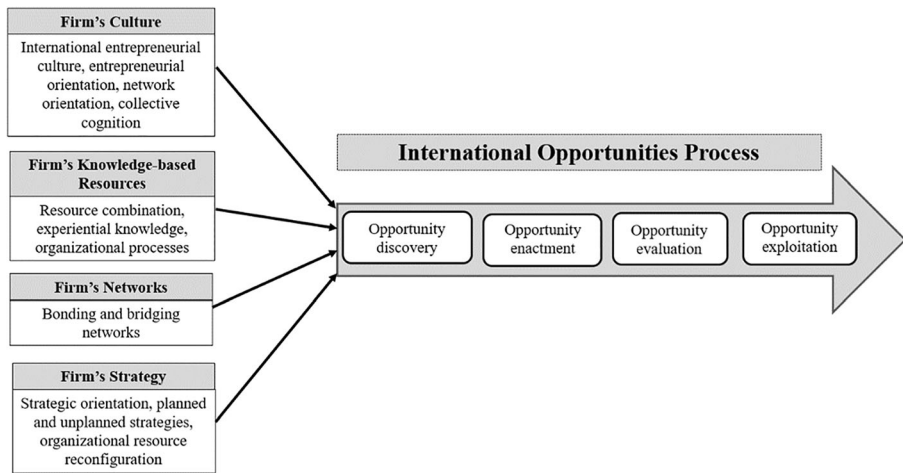
Our systematic review analysis evidences the relevance of the firm's culture as a set of shared values and beliefs (a collective cognition) that help firms' members to understand organizational performance and thus provide norms for their behavior and actions in the organization. Such collective cognition (collective knowledge structures or articulated heuristics) serves the firm to pursue international opportunities and respond to external events they face. Thus, the firm's culture becomes a source of sustainable competitive advantage, and, most importantly, it enables the employees to pursue and exploit foreign market opportunities.

Regarding the firm's knowledge-based resources, our findings suggest that access and control of unique resources, in particular, knowledge, enable the firm to gain competitive advantage by pursuing opportunities in international markets. Although these knowledge-based resources are grounded on the individual's human capital capabilities, they are integrated into the firm through collective routines and processes by which the firm combines and reconfigures new and existing resources to pursue international opportunities and achieve competitive advantage. Furthermore, the firm leverages its capacity to discover, enact, evaluate, and exploit international opportunities through prior organizational knowledge acquired through experiential knowledge within international networks, international industry and market-specific knowledge, internationalization knowledge, technological knowledge, and institutional knowledge.

About the firm's networks, we observe that the firm's alliances and relationships provide better access to international opportunities and abilities to overcome the liabilities of newness and foreignness. Our study indicates that the firm's networks are sources of learning that offer information on risks, consumers, suppliers, politics, economics, and competitive resources leading to superior knowledge and incremental commitment that, in turn, enable the firm to pursue international opportunities successfully. Interestingly, our findings reveal that bonding (close ties offering trust and security) and bridging networks (open and weak ties offering new information) enable firms to discover, enact, evaluate, and exploit international opportunities.

Our analysis underscores that the firm's strategy is essential because it defines a roadmap to deal with the uncertain events which constitute the dynamic and changing business environment. We observe that the firm's strategy has three dimensions: an entrepreneurial posture-oriented strategy, a decision-making rule-oriented strategy, and organization capabilities reconfiguration-oriented strategy. Through the firm's entrepreneurial orientation (understood as the posture to be risky, proactive, and innovative),





**Fig. 2** Second model of firm-level factors influencing the international opportunities process

the firm is alert and prepared to discover and enact international opportunities. Through the firm's decision-making rules (causal logic or effectual logic), the firm evaluates and exploits international opportunities. Through the firm's capabilities reconfiguration, the firm responds to changing environments and then combines, modifies, and deploys efficiently existing and new asset base are likely to pursue and exploit other opportunities across national markets.

## Environmental-level analysis

The 22 articles analyzed at this level show that opportunity behaviors of different actors (individuals and firms) are embedded in the external environment and are socially constructed across national and cultural settings. Thus, the external environmental conditions act as a moderator force that influences and shapes the way different individuals and firms pursue international opportunities. Although conceptual and empirical articles indicate diverse moderating forces from different approaches, we identify three main environmental factors that shape the way different actors discover, enact, evaluate, and exploit international opportunities. The first factor spins around a technological advancement context that comprises the Internet and other information-and-communication-technologies. The other two factors gravitate around a national and international context that includes legal, political, economic, social, and cultural features. Specifically, these environmental factors are classified into formal institutions (laws, regulations, and government apparatuses enforcing social acceptability) and informal institutions (socio-cultural values and beliefs defining behavior legitimacy) that enable or constrain the way different actors pursue international opportunities.

### Technological advancement context

Overall, our systematic literature review evidences that technological revolutions, such as the development of the Internet and other information-and-

communication-technologies have created a new competitive scenario allowing international entrepreneurial firms to innovate and extend their reach far beyond the domestic market (Glavas et al. 2017). Facilitated by globalization, the information-and-communication-technologies have created an environment where there are no longer complex barriers to the international expansion of entrepreneurial firms (Muzychenko 2008; Oyson and Whittaker 2015; Spence and Crick 2006). In our review, different studies assert that these key technological advancements have progressively reduced the obstacles for international entrepreneurs and have allowed many small and medium-sized firms to achieve internationalization and related performance outcomes (Glavas et al. 2017; Oviatt and McDougall 1994). Consequently, these technological revolutions provide firms with new ways to conduct international business, acquire information and knowledge, communicate ideas, and exchange information, as well as an essential mechanism for the creation of international opportunities (Glavas et al. 2017; Reuber and Fischer 2011). Thus, globalization, the presence of increasing numbers of people with international business experience, recent digital innovation, and easy use of low-cost communication technology and transportation means have established new foundations for firms and individuals to discover and take advantage of business opportunities in multiple countries (Oviatt and McDougall 2005; Oviatt and McDougall 1994; Zahra et al. 2008). With advancements in information-and-communication technologies, such as the Internet, there has been a profound impact on the way in which international business is conducted, for instance, enabling entrepreneurial firms (Glavas et al. 2017) and individuals to capitalize on the economic opportunities of a digital environment (Oyson and Whittaker 2015).

In this research, we find that technological advancement enables individuals and firms to co-produce, co-design, co-innovate, co-distribute, and co-consume with others facilitating the pursuit of international opportunities quicker and more successfully (Chandra and Coviello 2010; Glavas et al. 2017; Zahra et al. 2008). For example, Chandra and Coviello (2010) contend that global e-Commerce (Skype, GTalk, PayPal, Paymate, Linux, eBay) has contributed to consumers acting as entrepreneurs across national borders and pursue international opportunities. Similarly, the new worldwide business ecosystems and information-and-communication technologies, which have become the norm, are the hotbeds of global opportunities that companies of all sizes and ages seek to exploit (Zahra et al. 2008).

### **Formal institutions**

Parallel to the technological advancement context, our review identifies legal and regulatory factors (formal institutions) that enable or constrain how individuals and firms discover, enact, evaluate, and exploit international opportunities (Lundberg and Rehnfors 2018; Young et al. 2018). For instance, our systematic review shows that a nation's commercial regulations and internationalization policies determine the way individuals and firms pursue international opportunities (Åkerman 2015; Baker et al. 2005). In this vein, we find that a country's legal, financial, and fiscal systems become factors that foster or hamper opportunity-related behaviors across national borders. In our study, we observe that economic liberalization opens frontiers and allows firms to

pursue international opportunities in an accelerated way (Oyson and Whittaker 2015). Similarly, property rights protection and more transparent taxation policies promote institutional stability leading to more imitative opportunities (replication of an existing product or service), while flexible labor choices, access to efficient capital markets, and more permissive business regulations promote flexibility leading to more innovative opportunities (Young et al. 2018).

In our analysis, different studies also pinpoint that national institutional networks help different actors to pursue international opportunities by reducing risks and uncertainty in foreign markets (Chandra et al. 2009; Johanson and Vahlne 2009; Oparaocha 2015; Zahra et al. 2008). Interestingly, our review reveals that institutional agencies guide the firm's acquisition of financial, knowledge (Oparaocha 2015), and other network resources necessary to be in a better position and exploit entrepreneurial opportunities across national boundaries (Johanson and Vahlne 2009; Oparaocha 2015). Similarly, the roles of industry networks are variously described as providing information, acting as regulatory agents, and providing members with opportunities to interact and collectively represent themselves (Amorós et al. 2016).

Our findings reveal that institutional voids, namely inefficient and unregulated markets (especially in emerging economies), can constrain different actors to pursue international opportunities. For instance, institutional voids can increase rigidities in markets and organizations and thus, reduce the likelihood of opportunity initiatives since individuals and firms need to devote more resources (Webb et al. 2010) to pursue international opportunities and exploit them (Santangelo and Meyer 2011). Likewise, a country's infrastructure conditions (Zolfaghari Ejlal Manesh and Rialp-Criado 2019) such as transportation and telecommunication networks, become key factors that constrain opportunity-related behaviors (Baker et al. 2005).

Nonetheless, institutional voids can trigger entrepreneurial opportunities across national borders. For example, Webb et al. (2010) argue that multinational enterprises overcome specific institutional barriers in the base of the pyramids markets with the help of Nongovernmental Organizations that serve a vital role in connecting them with local individuals and entities to transform ideas into opportunities through an iterative process of feedback and learning. In the same line, Santangelo and Meyer (2011) assert that institutional uncertainty can induce investors to design strategies for flexible responses to new opportunity-related behaviors.

Regarding international institutional aspects, a host country's political, legal, social, and economic development influences the opportunity-related behaviors of different actors and the way they operate in international markets (Lundberg and Rehnfors 2018). As such, better legal systems and more developed capital markets (countries) have substantially political environments to pursue and exploit international opportunities. Specifically, simplified business laws, reduced bureaucratic requirements, fewer entry procedures, and modernized business registration are seen as supportive for international opportunity realization (Lundberg and Rehnfors 2018). On the other hand, a host country's political, legal, social, and economic voids hinder opportunity-related behaviors of different actors and the way they operate in international markets (Webb et al. 2010). Therefore, formal institutional voids (political risk, political constraints, terrorist activity, exchange-rate, volatility) (Young et al. 2018) hinder firms' ability to engage in opportunity-related behaviors.

## Informal institutions

Different from formal institutions, our systematic literature review identifies that social and cultural values and beliefs (informal institutions) strongly influences how different actors (individuals and firms) pursue international opportunities (Baker et al. 2005; Fletcher 2004; Mainela et al. 2018; Perks and Hughes 2008; Zahra et al. 2005). For instance, cultural values around the formation of social communities such as joint ventures or agglomerations influence individuals and firms in their opportunity development (Baker et al. 2005; Haaja 2019; Mainela and Puhakka 2009). Thus, these kinds of nongovernmental communities encourage individuals and firms to leverage other partners' cognitive and cross-cultural competencies to understand better multicultural environments (Muzychenko 2008) and then respond to international opportunities. Notably, other studies also indicate that collective beliefs carrying with them societal and cultural expectations shape the way different actors discover, enact, evaluate, and exploit international opportunities (Mainela et al. 2018). Broadly, individuals' and firms' draw from their social network (Santos-Álvarez and García-Merino 2010) and cultural beliefs to pursue the types of international opportunities (Mainela et al. 2018) that are perceived as favorable (Williams and Wood 2015).

Regarding social values, a country's education system has a direct effect on the attitudes and beliefs of different actors regarding social norms and how they perceive international opportunities (Perks and Hughes 2008) and the costs of abandoning current circumstances to pursue them (Baker et al. 2005). In this manner, social and structural stratification processes increase the likelihood that individuals and firms can discover and enact international opportunities. Specifically, the way a nation's labor is divided and stratified influences the types of opportunities and the actors who discover, enact, evaluate, and exploit them (Baker et al. 2005). Furthermore, our analysis reveals that the nation's socio-cultural structures shape the way individuals and firms assess and evaluate the types of costs and benefits (Zahra et al. 2005) many times based on the approval of their socio-cultural context (Baker et al. 2005). In this socio-cultural analysis, our findings also highlight that global wealth disparity and corporate social responsibility movements encourage individuals and firms to pursue international opportunities (Zahra et al. 2008, 2014), specially oriented to solve social problems originated from institutional voids in inactive governments (Chen et al. 2016).

Regarding cross-cultural aspects, different studies contend that differences between societies and cultures foster or hampers individuals and firms to discover, enact, evaluate, and exploit international opportunities due to the knowledge gap between the cultures (Ellis 2011; Lorenz et al. 2018). Specifically, a cross-cultural environment influences on the cognition of opportunities (Muzychenko 2008; Zahra et al. 2005) and the resources leveraged during the opportunity exploitation process (Mainela et al. 2014). Accordingly, national, historical, cultural, and other social settings influence opportunity-related behaviors in international markets (Crick et al. 2001).

## Model of environmental factors influencing international opportunities process

Based on the systematic analysis and synthesis of the 22 articles, we propose a third model showing three environmental factors that shape the way different actors discover,

enact, evaluate, and exploit international opportunities. These environmental factors deal with a technological advancement context and a national context that formal and informal institutions. The underlying model is depicted in Fig. 3.

Our analysis highlights the moderating role of the technological advancement context that provides individuals and firms with new ways to pursue international opportunities. The rapid pace of technological change has opened vast opportunities not only to big and established firms but also to smaller and younger-entrepreneurially oriented-competitive firms that efficiently exploit emerging opportunities facilitated by the liberalization of barriers to internationalization. In general, these technological revolutions provide firms with new ways to conduct international business, acquire information and knowledge, communicate ideas, and co-create with others facilitating the pursuit of international opportunities quicker and more successfully.

Regarding national and international contexts, our systematic review analysis underscores the moderating role of formal institutions that enable or constrain different actor-specific behaviors, particularly how they discover, enact, evaluate, and exploit international opportunities. Specifically, economic liberalization opens frontiers and allows firms to pursue international opportunities in an accelerated way. Likewise, nations’ property rights protection and transparent laws and regulations promote institutional stability leading to more opportunity-related behaviors. Likewise, the lack of laws, regulations, and government agencies or inefficient and unregulated markets constrain different actors to pursue international opportunities. According to our analysis, institutional voids or weak formal institutions may eventually trigger opportunity-related behaviors oriented to solve social problems worldwide.

Regarding informal institutions, our findings suggest that socio-cultural values and beliefs strongly influence how different individuals and firms pursue international opportunities. Such informal institutions promote or hamper opportunity-related behaviors across national borders. Specifically, socio-cultural structures and collective beliefs moderate the way different actors discover, enact, evaluate, and exploit international opportunities. Thus, attitudes and beliefs regarding social and cultural norms

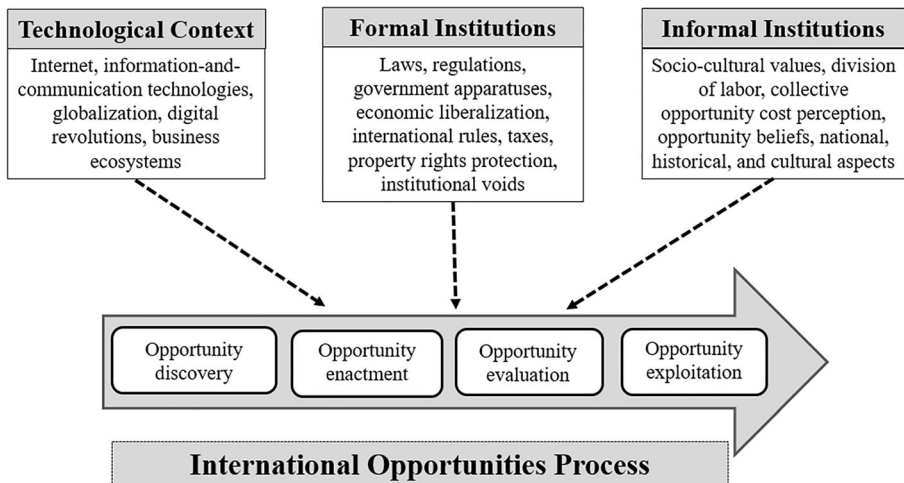


Fig. 3 Third model of environmental-level factors influencing the international opportunities process

determine the types of opportunities and the actors who pursue international opportunities. In general, our analysis reveals that national, historical, and cultural influence international opportunity-related behaviors specially oriented to solve social problems of wealth disparity and social responsibility.

## **Second phase: Entrepreneurial international opportunities process**

In this phase, we analyze the opportunity-related behavioral process — discovery, enactment, evaluation, and exploitation. Different from the first phase, we do not consider a multi-level analysis. Instead, we assume that individuals and firms follow a very similar process in the act of pursuing international opportunities and that the environmental factors moderate and shape this international opportunity discovery-enactment-evaluation-exploitation process.

### **International opportunity discovery**

Regarding the discovery process, our findings highlight that international opportunities can be the result of serendipitous (accidental) encounters (Blankenburg Holm et al. 2015; Chandra et al. 2015; Chandra 2017; Chetty et al. 2018; Crick et al. 2001; Crick and Spence 2005; Ellis 2000; Hilmersson and Papaioannou 2015; Johanson and Vahlne 2006; Nordman et al. 2008; Spence and Crick 2006; Zaefarian et al. 2016) with bridging networks — weak ties via new and open networks — or bonding ties— strong social ties via network closure. About bridging networks, unplanned encounters initiated by inbound inquiries or others who find the focal firm enable individuals and firms to pursue international opportunities (Alimadadi et al. 2018; Chandra et al. 2009; Evers and O’Gorman 2011). Unexpected meetings with friends and colleagues at events such as holiday parties, business seminars, and international trade fairs (Kontinen and Ojala 2011b; Nowiński and Rialp 2016; Zaefarian et al. 2016) could become valuable knowledge sources that permit the discovery of new opportunities. As for the bonding networks, different studies show that opportunity discovery can be a critical function of social ties based on trust and commitment with consultants or government agencies that provide a platform for learning and resource leverage (Bai and Johanson 2017; Nowiński and Rialp 2016).

On the other hand, international opportunities can also be the result of an active search (Chetty et al. 2018) where individuals and firms discover international opportunities through a purposeful, rational, systematic, and deliberate exploration process and use trusted information sources and channels, prior knowledge, and networks to limit the length of the search (Bingham et al. 2007; Chandra et al. 2009; Ciravegna et al. 2014; Hilmersson and Papaioannou 2015; Karra et al. 2008; Mainela and Puhakka 2009). Hence, individuals and firms strategically direct efforts to sense opportunities via local institutional networks, international trade fairs, and international networks in specific markets (Chandra et al. 2012; Crick and Spence 2005; Kontinen and Ojala 2011a; Oparaocha 2015). According to our findings, performing a targeted systematic search for new customers becomes another vehicle for international opportunity discovery (Ciravegna et al. 2014; Dimitratos et al. 2016) and increases the rate of exploited international opportunities (Miocevic and Morgan 2018).



Arguably in our analysis, we observe that different authors state that international opportunities are not only discovered, but they can also be created and co-created through an enactment process with interacting parties (Fletcher 2004; Johanson and Vahlne 2006; Mainela et al. 2018). Specifically, some scholars suggest considering the discovery-opportunity-related behavior not as exclusive, but complementary and interwoven with the enactment-opportunity-related behavior (Åkerman 2015; Chetty et al. 2018; Oviatt and McDougall 2005). As such, both opportunity discovery and enactment are path-dependent and connected processes (Chandra et al. 2015), and they may be enriched each other in a virtuous circle, in which discovered opportunities provide a platform for creating other opportunities or vice versa, leading to further discoveries (Zahra 2008).

### **International opportunity enactment**

Concerning the opportunity enactment process, several studies contend that opportunities can be created via a proactive process of opportunity-oriented strategies (Autio et al. 2000; Bingham et al. 2007; Hilmersson and Papaioannou 2015), as well as by pure imagination and creative thinking (Chandra et al. 2009; Hannibal et al. 2016; Kalinic et al. 2014; Mainela et al. 2014; Oyson and Whittaker 2015) whereby individuals and firms combine available resources, including their networks, to realize opportunities (Chetty et al. 2018; Galkina and Chetty 2015; Laperrière and Spence 2015). In this manner, international opportunities are created when individuals and firms recombine dispersed bits of incomplete and frequently contradictory knowledge in novel and productive ways that can offer higher value to the markets than the existing options (Chandra and Coviello 2010; Chandra et al. 2012). Some scholars argue that international opportunity creation often requires knowledge and experience in networks and adaptation of resources (Johanson and Vahlne 2009; Oyson and Whittaker 2015; Schweizer et al. 2010).

Our analysis also shows that international opportunities can also be co-created by interactions with other market partners, namely via network (Bai and Johanson 2017; Blankenburg Holm et al. 2015; Chandra et al. 2015; Hannibal et al. 2016; Johanson and Vahlne 2009; Mainela et al. 2011; Mainela and Puhakka 2009, 2011), with multinational subsidiary employees (Ahsan and Fernhaber 2019; Lee and Williams 2007), with business partners (Bai and Johanson 2017; Baker et al. 2005) with clients (Chandra and Coviello 2010; Fletcher 2004; Gabrielsson and Gabrielsson 2013; Lehto 2015; Mainela et al. 2011; Oyson and Whittaker 2015), government agency officials (Lehto 2015; Webb et al. 2010; Zahra et al. 2014), and through “grafting” via the recruitment of experienced staff and managers (Laperrière and Spence 2015; Lehto 2015) rather than by acting alone (Schweizer et al. 2010). Accordingly, international opportunities are socially enacted in a variety of social settings (Fletcher 2004; Karra et al. 2008; Kauppinen and Juho 2012; Mainela and Puhakka 2009; Mainela et al. 2014) and through constant interaction with different actors (Chandra and Coviello 2010; Chetty et al. 2018; Fletcher 2004; Laperrière and Spence 2015) in local and international partnerships as well as customer-supplier institutional relationships (Mainela et al. 2014).

In our review, our findings reveal that opportunity enactment (both creation and co-creation) is connected with uncertainty in international markets where neither supply



nor demand exists, and the future is unknowable (Mainela et al. 2014). In this manner, international opportunity enactment implies an iterative and incremental decision-making process in which the opportunity is actualized and constructed through social interaction with others and in which individuals and firms are continually evaluating information to weigh up the risks, gains, and losses (Fletcher 2004). In other words, uncertainties can become opportunities based on the means available at the moment and without trying to predict the future via an effectuation logic (Mainela et al. 2014).

In this vein, other studies argue that in uncertain situations, such as crossing national borders, new opportunities are co-created by proactive agents transforming accessible means into new goals (Karami et al. 2019; Sarasvathy 2001). Conversely, our analysis gives evidence that opportunity enactment is also connected with causal predictive approaches under risk conditions (Karami et al. 2019; Sarasvathy et al. 2014). For instance, (Chetty et al. 2015) shows how some firms enact international opportunities in interaction with strategic networks by planning in advance the market selection and the adequate entry mode.

Interestingly, different studies reveal that international opportunity enactment implies the applicability of both effectual and causal decision-making depending on different conditions (Karami et al. 2019; Sarasvathy et al. 2014). Individuals and firms enact opportunities across national borders through effectual logic in uncertain situations and via causal logic in lower uncertainty or risk conditions (Chetty et al. 2015; Karami et al. 2019). Our systematic literature review shows that the intensity of both types of decision-making logic varies along the studied period in accordance with changing perceptions of institutional uncertainty.

### **International opportunity evaluation**

Once an international opportunity is discovered (serendipitously or via an active search) or once an opportunity is enacted (created or co-created), then, individuals and firms move to a development stage where the opportunity is evaluated to determine if the opportunity is valid and substantial enough to be exploited. According to the present literature review, the nature of decision-making or mode of reasoning involved in the opportunity evaluation is not absolute but varies among individuals and firms (Chandra 2017; Williams and Wood 2015). For instance, some studies argue that these decision rules to evaluate opportunities can be the result of causal decision-making logics (based on rational planning) where the opportunity is assessed with more precise criteria and cost analysis seeking to select the more attractive opportunities (Chandra 2017; Ciravegna et al. 2014; Karra et al. 2008; Santos-Álvarez and García-Merino 2010; Williams and Wood 2015). Otherwise, other studies reveal that these decision rules can be the result of effectual decision-making logics (based non-predictive approaches) (Chandra 2017; Fiedler et al. 2017; Hannibal et al. 2016; Mainela and Puhakka 2009; Zaefarian et al. 2016).

Arguably, some authors posit that the decision rules of individuals and firms fluctuate between causal logic and effectual logic depending on a set of contingency factors such as experience (Bingham et al. 2007; Hohenthal et al. 2014), resource availability (e.g., knowledge-networks), time availability, type of stakeholders (Chandra 2017), or type of business conditions (Chetty et al. 2018; Kalinic et al. 2014; Laperrière and Spence 2015). What is evident is that whether the opportunity

is discovered or enacted, the opportunity requires a continual development process in which individuals and firms gain more knowledge and experience about international opportunities and can then assess them more objectively (Chandra 2017; Reuber et al. 2018). Chandra (2017) evidences that individuals (firms) evaluate opportunities as a result of the interaction of time and experience where they deploy simple (unstructured, minimalist simple rule-based reasoning), revised (elaborated rule-based reasoning oriented to choose the best opportunities), and complex rules (finer rule-based reasoning oriented to maximize expected returns). Consequently, not all the opportunity ideas survive in this evaluation process (Oyson and Whittaker 2015), and only some of them are likely to be exploited, while others are likely to be abandoned due to insufficient resource support (Bingham et al. 2007).

Concerning the environment in which individuals and firms are embedded, some studies claim that institutional and cultural factors also affect how different actors evaluate opportunities and if they are valuable to exploit (Baker et al. 2005; Mainela et al. 2018; Williams and Wood 2015). For instance, financial systems can influence the evaluation process most directly through the cost and availability of capital (Baker et al. 2005). Furthermore, the historical setting, company-level, and individual-level experiences (Zahra et al. 2005), and entrepreneurs' life stages can influence international opportunity evaluation and decision-making (Bolzani and Boari 2018).

### **International opportunity exploitation**

Regarding the international opportunity exploitation, our findings suggest that the realization and exploitation of opportunities implies deliberate decisions and carefully thought out decision-making (Ahsan and Fernhaber 2019; Angeli and Grimaldi 2010; Birkinshaw 1997; Calabrò et al. 2016; Hilmersson and Papaioannou 2015; Johanson and Vahlne 2006, 2009). However, other studies report that individuals and firms follow unplanned strategies to pursue and exploit international opportunities (Crick and Spence 2005; Galkina and Chetty 2015; Laperrière and Spence 2015; Mainela and Puhakka 2009; Oyson and Whittaker 2015; Sarasvathy et al. 2014). Arguably, recent studies indicate that opportunities exploitation can be the result of the actor's strategic behavior that oscillates from non-strategic planning to deliberate and rational planning depending on the level of foreign market uncertainty, and the kind of opportunity (Chetty et al. 2015; Gabrielsson and Gabrielsson 2013; Kalinic et al. 2014; Laperrière and Spence 2015).

In general, the opportunity exploitation stage requires various individuals' abilities cognitive heuristics (Bingham et al. 2007), proactive and risk-taking behaviors (Chandra et al. 2009, 2012; Dimitratos et al. 2010; Faroque 2015; Zahra et al. 2005), and self-efficacy and decisiveness (Hannibal et al. 2016). Moreover, it implies various firms' capabilities namely international market knowledge, international experience, information-and-communication-technology competencies, as well as linguistic, cultural and experiential knowledge (Chandra et al. 2009, 2012; Dimitratos et al. 2012; Faroque 2015; Glavas et al. 2017; Hurmerinta et al. 2015; Miocevic and Morgan 2018). Another fundamental firm's capability for the exploitation of international opportunities comprises active participation in international networks (Bai and Johanson 2017; Blankenburg Holm et al. 2015; Ellis 2000, 2011; Johanson and Vahlne 2006; Kontinen and Ojala 2011b; Leite et al. 2016; Lindstrand and Hånell 2017; Mort and Weerawardena 2006; Schweizer et al. 2010; Vasilchenko and Morrish 2011).

Broadly, international opportunities can be exploited through specific and specialized knowledge-based resources leveraged with other market partners, namely via joint-ventures (Crick and Spence 2005), multinational subsidiary stakeholders (Angeli and Grimaldi 2010), business partners (Bai and Johanson 2017; Blankenburg Holm et al. 2015; Vasilchenko and Morrish 2011), clients (Chandra and Coviello 2010; Gabrielsson and Gabrielsson 2013; Lehto 2015; Oyson and Whittaker 2015), industry agglomerations (Baker et al. 2005), government agency officials (Lehto 2015; Webb et al. 2010; Zahra et al. 2014), and via financial resources in the form of venture capital (Nordman et al. 2008; Spence and Crick 2006). According to our findings, exploitation of international opportunities can also be done in new start-ups when the opportunity is sold to existing firms or is exploited within existing organizations (Åkerman 2015).

Our analysis reveals that the exploitation of international opportunities can lead to further opportunities, either related or unrelated to the first opportunity (Chandra et al. 2009). As such, developing an international opportunity can lead to knowledge about domestic opportunities as well as new types of international opportunities. Overall, what and how individual and firms exploit international opportunities affects what they can see in the future and the types of resources they may leverage or combine (Chandra et al. 2015)

## Model of the international opportunities process

Based on the literature review analysis and synthesis of the international opportunities process, we develop a fourth model of how opportunities are discovered, enacted, evaluated, and exploited by individuals and firms. The underlying model is depicted in Fig. 4.

Our literature review analysis indicates that the international opportunities process can begin with an opportunity discovery — by serendipity or by active search — or with an opportunity enactment — by creation or co-creation. In a serendipitous discovery, individuals and firms are usually receptive to international opportunities, but they do not necessarily carry out a systematic search. Thus, individuals and firms discover international opportunities through unplanned encounters initiated by inbound inquiries or others who find the focal firm. In an active search, individuals and firms discover international opportunities through a purposeful and deliberate exploration process and use trusted information sources and channels, prior knowledge, and networks to limit the length of the search. Hence, individuals and firms strategically direct efforts via a formal planning process. This indicates that opportunity discoveries fluctuate between effectual and causal decision-making depending on different circumstances and entrepreneurial intentions.

Regarding opportunity enactment, international opportunities can be created through proactive and imaginative thinking where individuals and firms combine available resources in novel and productive ways. Thus, opportunities are created as a result of an iterative process of action and reaction, where individuals and firms learn by doing under conditions of high uncertainty, flexibility, and adaptability. Similarly, international opportunities can be co-created through constant interaction with different actors in experimental and mutual learning. Therefore, opportunity enactment implies an iterative and incremental decision-making process in which the opportunity is actualized and constructed through social



literature review analysis indicates that different from two common proxies capturing outcomes (e.g., international growth and performance), there is a broader set of outcomes that we classified into financial and non-financial performances. Regarding financial performances, our analysis reveals that prevalent indicators of international profitability (Angeli and Grimaldi 2010; Chandra et al. 2015; Domurath and Patzelt 2016; Ellis 2000; Glavas et al. 2017; Jones and Coviello 2005; Zhou et al. 2007), sales growth and sales volume (Åkerman 2015; Gabrielsson and Gabrielsson 2013; Lindstrand and Hånell 2017; Mejri and Umemoto 2010; Prashantham 2008; Webb et al. 2010), operational efficiency (Bhatti et al. 2016; Birkinshaw 1997), opportunity selling (Åkerman 2015; Angeli and Grimaldi 2010; Lehto 2015), venture capital (Chandra et al. 2009; Domurath and Patzelt 2016), licensing (Ahsan and Fernhaber 2019; Dimitratos et al. 2014), tax incentives and grants (Lundberg and Rehnfors 2018; Young et al. 2018), new ventures (Chandra et al. 2015; McGaughey 2007).

Regarding non-financial performances, we found intangible and immaterial benefits at the individual level and at the firm level. At the individual level, the international opportunities process generally enables individuals to expand their cognitive schemas and enhance heuristic decisions to face uncertainty (Acedo and Jones 2007; Mostafiz et al. 2019). As such, individuals address international market uncertainties with better perceptions of self-efficacy and perceived-desirability (Muzychenko and Liesch 2015; Nowiński and Rialp 2016), and they are equipped with a greater entrepreneurial behavior (Autio et al. 2000) characterized by high-risk propensity (Muzychenko 2008), personal proactiveness and commitment (Nowiński and Rialp 2016) that elevates motivation and willingness to face and tolerate uncertainty (Acedo and Jones 2007; Chandra et al. 2012). Furthermore, individuals improved their evaluation reasoning (Chandra 2017) through trial-and-error learning (Muzychenko 2008; Zahra et al. 2005). International opportunities also improve individuals' human capital and social capital traits. Specifically, individuals enhance social capital in foreign market networks, which results in new opportunities in the form of new business, access to information, new knowledge (Blankenburg Holm et al. 2015; Lindstrand and Hånell 2017), and superior opportunity development (Chandra et al. 2015).

At the firm level, opportunity-driven behaviors lead the firm to achieve better and sophisticated organization capabilities and routines (Ahsan and Fernhaber 2019; Bingham et al. 2007; Glavas et al. 2017; Jantunen et al. 2005; Karra et al. 2008; Mort and Weerawardena 2006; Weerawardena et al. 2019), stronger organizational culture (Lindstrand and Hånell 2017), more innovative strategies (Miocevic and Morgan 2018; Prashantham 2008), novelty (Chandra et al. 2015), and new products and services (Vahlne and Bhatti 2019), early internationalization (Karra et al. 2008; Zhou et al. 2007), firm's growth and market diversity (Autio et al. 2000; Ellis 2011; Jantunen et al. 2005; Lindstrand and Hånell 2017; Mejri and Umemoto 2010; Webb et al. 2010), success (Chandra et al. 2015; Jones and Coviello 2005; Karra et al. 2008; Mejri and Umemoto 2010), competitive advantage (Ahsan and Fernhaber 2019; Karra et al. 2008), survival (Gabrielsson and Gabrielsson 2013), more efficient entry modes (Chandra 2017; Ellis 2000; Schwens and Kabst 2011; Styles and Genua 2008), and international expansion (Hohenthal et al. 2003; Laperrière and Spence 2015; Lindstrand and Hånell 2017; Prashantham 2008). Overall, individuals and firms obtain sophisticated learning (Chandra et al. 2012; Jones and Coviello 2005), international experience (Chandra et al. 2015; Nordman et al. 2008), better firm's network position

(Blankenburg Holm et al. 2015; Johanson and Kalinic 2016), accumulation of market knowledge (Chandra et al. 2012; Jones and Coviello 2005; Nordman et al. 2008), and other opportunities (Chandra and Coviello 2010; Jantunen et al. 2005).

### **A general model of international opportunities process**

Based on the previous models, the study proposes an integrative model that outlines the antecedents, processes, and outcomes of opportunity-driven behaviors from a multi-level framework that incorporates the individual, the firm, and the environmental-level analysis. The underlying model is depicted in Fig. 5.

The general model posits that the person's (the manager's) cognition, human capital, and social capital traits at the individual level, and the culture, knowledge-based resources, networks, and strategies at the firm level influence a dynamic process of opportunity discovery, enactment, evaluation, and exploitation. Influenced by cognition, human capital, and social capital of the individual, the firm is able to build up an organizational structure that can facilitate the pursuit of international opportunities and thus achieve a competitive advantage. Conversely, three environmental factors shape and moderate the way individuals and firms discover, enact, evaluate, and exploit opportunities across national borders. The first environmental aspect spins around a technological advancement context, and the other two factors gravitate around a national context that includes formal and informal institutions.

Broadly, the international opportunities process is an iterative entrepreneurial action moving between discovery and enactment as a continuum of behaviors of decision logics where it is involved not only individuals' and firms' activities but also collaboration with other business and market firms, entrepreneurs, partners, customers, competitors, and institutions. Once the international opportunity is discovered or enacted, individuals and firms move to the opportunity development phase where the opportunity is evaluated and, if it seems viable, it is then exploited. Overall, the way individuals and firms evaluate opportunities is not absolute. Instead, the actors' decision rules fluctuate between causal logic and effectual logic depending on a set of contingency factors such as experience, resource availability, type of stakeholders, and type of business conditions. Hence, opportunity evaluation requires a continual development process in which individuals and firms gain more knowledge and experience about international opportunities and can then assess them more objectively through simple, revised, and complex rules of decision-making to determine if there is a real and substantial chance to exploit it. On the other hand, international opportunities exploitation requires various individuals' abilities and firms' capabilities where actions and behaviors oscillate from non-strategic planning to deliberate and rational planning, depending on the level of foreign market uncertainty and the kind of opportunity. International opportunities can be exploited through specific and specialized knowledge-based resources leveraged with other market partners.

As a result of this international opportunities process, there is a broader set of outcomes that can be classified into financial and non-financial performances. Regarding financial performances, international profitability, sales growth, sales volume, opportunity selling, venture capital, licensing, tax incentives, and the possibility to start up new businesses abroad are among the outcomes and effects of opportunity-driven behaviors. Concerning non-financial performances, first, individuals achieve better



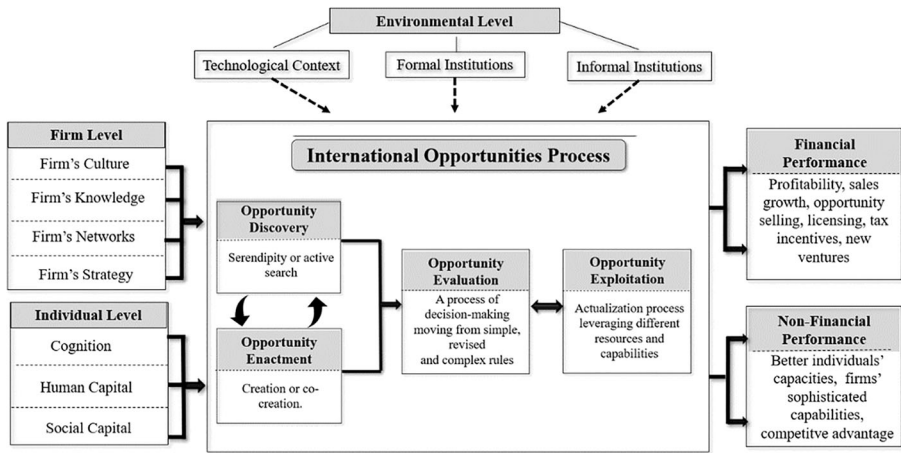


Fig. 5 Proposed general model of international opportunities process

cognitive schemas with better perceptions of self-efficacy and perceived-desirability, better social capital in foreign market networks. Second, firms obtain more innovative strategies, better and sophisticated organization capabilities, stronger organizational culture, firm growth, early internationalization, international growth, better firm’s network position, accumulation of market knowledge, and the perception of other opportunities.

**Conclusions**

The opportunity has become a central concept in the IE literature, and there is now a critical mass of literature focused on entrepreneurial behaviors of pursuing opportunities across national borders. However, scholars claim that research on these opportunity-related behaviors should consider a multilevel analysis where the interaction between the contexts, entrepreneurial action, and the opportunities can be clarified. Thus, the study aims to understand antecedents, processes, and outcomes of opportunity-driven behaviors from a multilevel analysis. The findings show that the IE research around opportunities and related behaviors, far from suffering paucity and a weak conceptual basis, is abundant and is broadening its territory and boundaries. However, there is a need to update its field definition as well as its central construct to establish better analyses and discussions. Based on these observations, first, it is proposed a definition of the opportunity concept and then a definition of the IE field that incorporates the social context in which different (economic) actors pursue opportunities.

An opportunity is understood “as a discovered, created, or co-created situation in which action and interaction of individuals, organizations, and environment transform the manifestations of economic activity for value creation, including financial, social, and environmental.” With this definition, it is acknowledged previous opportunity conceptualizations in IE (Mainela et al. 2014; Oyson and



Whittaker 2015), and it is extended the definition by incorporating the social context the different actors are involved in, and the outcomes resulted from that process.

International entrepreneurship is defined as “*the socially constructed behavioral processes associated with the discovery, enactment, evaluation, and exploitation of opportunities across national borders to create new businesses, models, and solutions for value creation, including financial, social, and environmental.*” With this definition, it is acknowledged previous IE definitions (Oviatt and McDougall 2005; Zahra et al. 2014).

The authors believe these definitions are appropriate for two reasons. First, they incorporate a notion of social context that influences and shapes the way individuals, firms, organizations discover, enact, evaluate, and exploit any international transaction (e.g., expanding overseas; opening new markets; recombining existing resources in a novel way; creating new or improved products; creating new production methods-processes; exploiting new sources of inputs). Second, they make the IE domain independent of firm size and age analysis and enable us to set the objective criteria around opportunities that could encourage researchers to go beyond the legal entity of the focal firm and consider multiple actors, and resources, processes, history, and context (social circumstances), giving a 360-degree view of opportunity related behaviors (Styles and Gray 2006).

Additionally, this study makes three contributions. First, we extend opportunity-related research in IE literature by considering a multilevel approach that incorporates individual, firm, and environmental aspects. Second, we offer an integrative model that outlines the antecedents, processes, and outcomes of opportunity-driven behaviors. Third, we present theoretical contributions by identifying past advances and directions for future research.

## Limitations and suggestions for future research

As with any other study, this study has certain limitations. First, the reviewed articles were selected based on particular criteria, which can lead to selection bias, although other authors were involved and followed a careful protocol to avoid such bias. Second, all the factors identified and classified within each proposed level do not represent either a fixed or complete list. However, these study limitations open critical directions for future research.

One direction is to test the proposed model and confirm the findings with quantitative designs. Similarly, an empirical study could employ this theoretical design in a case study research strategy and could help refine the model. Concerning driving factors for international opportunities process, future research can examine in greater detail the effect of the three individuals’ aspects (managerial capabilities)—cognition, human capital, social capital—and their corresponding performance patterns under a dynamic managerial capability perspective and/or use a broader interdisciplinary approach. As such, further research is needed to develop a deeper theoretical understanding of the cognitive approach and expand the scope of the analysis on risk-taking, proactiveness, and innovativeness aspects of their international entrepreneurial

orientation and their actions within the different phases of the international opportunities process and their ultimate performance. It is worth noting that other factors, namely global mindset, perceived desirability, and self-efficacy, could also be more deeply analyzed than this paper did.

Whilst much research has been conducted on social capital aspects, it is crucial to focus on how individuals (managers) develop weak and strong ties with strategic networks and what impact these ties have on the international opportunities process. Future research might also focus on the precise ways in which trust and commitment are developed in these types of ties. One of the most fertile areas for future analysis is to clarify the sectors, markets, and circumstances in which networks generate superior performance. Furthermore, future researchers could also explore the role of political network actors and institutional settings in this process. About this institutional networking, one interesting avenue is to analyze how the institutional actors vary across countries and how they contribute or constrain their discovery, evaluation, and exploitation of international opportunities. In line with this, another avenue is to examine why some individuals do not gain access to institutional networks or gain other network resources in the same way others do.

In respect to human capital, future studies could better examine the impact of information-and-communication-technology capabilities on the international opportunities process, which in turn drives firms' international market performance. Given that language skills seem to play a specific role in the international opportunities process and firm performance, research in this stream is needed to develop a deeper theoretical understanding of this managerial capability. Forthcoming research could also explore how managers assess and reconfigure their learning capabilities and how they affect learning at the firm level, and how this affects firm performance. Other research areas where scholarship could advance in human capital capability include international market orientation, branding decisions, marketing communication, pricing, product design, and customer equity.

As regards environmental factors identified in the study, further research is required to understand how individuals (managers) respond to external forces, as well as how the three managerial capabilities — cognition, human capital, social capital — are reconfigured based on those forces. For this, an institutional and/or a dynamic capability theoretical framework is recommended. Finally, about these cognitive, social, and human capital capabilities, as well as environmental factors, future studies could develop more sophisticated measures and extend quantitative research or identify important research overlooked in the field.

As for future research in the international opportunities process, one fruitful line would be to analyze the international entrepreneurial process on different types of individuals (one-shot, drop-out, nascent, novice, serial, and portfolio entrepreneurs) or firms and understand their opportunity-related behaviors and their decision-making rule process through the evaluation and exploitation of international opportunities. Specifically, further research is needed to understand the best type of reasoning that entrepreneurial decision-makers should use to deal with different types of uncertainty and how managers respond to serendipitous encounters or unexpected discoveries. As for the development phase of the international opportunities process, further research is required to understand how individuals and firms evaluate opportunities and their decisions to exploit opportunities.

Specifically, a promising line would be to explore decision-making models — effectuation or causation — individuals and firms utilize to evaluate international opportunities. Future research could examine the international opportunities process under the effectuation theory and understand the transition from effectual reasoning to causal reasoning to provide a connection between entrepreneurship and strategy through a decision-making rule process. Different from current research studies on failed international attempts and their evaluation process would also provide rich insights. Also, there is a need to understand why international opportunities that are discovered are not successfully exploited. Along with this line, researchers could explore how individuals and firms can exploit new international business opportunities through different entry modes. It is worth noting that the operationalization of the international opportunities process — discovery, enactment, evaluation, and exploitation — is at an embryonic stage and needs further operationalization.

As for methodology, further research is needed to explore the contexts, dynamics, and types of international entrepreneurial firms. Specifically, a diverse sample of firms, including ranges in age, size, sector, internationalization pace, and scope, are promising and needed research lines. We also suggest future research lines that could explore how micro-multinationals and multinationals pursue international opportunities and what entrepreneurial behaviors they deploy in that process. They behave in different ways facing diverse challenges. Also, future studies from agriculture-based and low-value-adding commodity-based industries, as well as from emerging economies, would enrich the debate and deepen our understanding of international entrepreneurial behavior and its antecedents and outcomes. The field would also benefit from additional tools and techniques based on simulation methods (e.g., agent-based modeling, ethnographic and system dynamics), as well as contingency models (structural equation modeling). Future quantitative and qualitative data analyses can be used to capture development over time. Along with this line, further qualitative studies with longitudinal approaches could follow up with international performance and depict a more holistic picture of the effects of international opportunities.

Additionally, knowledge in this stream needs to be extended to other antecedents for international opportunities; for instance, studies could investigate the moderator and/or mediator roles of the different driving factors (e.g., managerial capabilities and environmental aspects as examined in this study) with international performance. Future research could investigate the various indicators analyzed here regarding international performance as an outcome of the international opportunities process. Moreover, further studies are needed to explore the links between financial and non-financial performance, as well as the relationship between exporting performance and other dimensions of business performance. Lastly, another potentially fruitful area could be to amply the variety of subjective and objective indicators and contrast them for reliability purposes.

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