



PERSPECTIVE

# A framework for comparing entrepreneurship processes across nations

Ted Baker<sup>1</sup>, Eric Gedajlovic<sup>1</sup>  
and Michael Lubatkin<sup>2,3</sup>

Q1 <sup>1</sup>University of Connecticut, USA; <sup>2</sup>University of Connecticut, USA; <sup>3</sup>EM Lyon, France

Q2 **Correspondence:**  
T Baker, University of Connecticut, USA  
Tel: +1 860 408 1567;  
E-mail: tbaker@business.uconn.edu

## Abstract

Shane and Venkataraman's Discovery, Evaluation and Exploitation entrepreneurship framework ignores issues central to comparative international entrepreneurship (IE) because of unnecessarily under-socialized assumptions regarding entrepreneurial opportunities and the individuals who discover them. To better promote comparative IE research, we develop a *Comparative Discovery, Evaluation and Exploitation* framework (CDEE), which takes as a starting point that individuals motivated by diverse goals enact market opportunities in a variety of social settings. Building on this characterization, the paper explores how and why processes of opportunity discovery, evaluation and exploitation vary across and within nations, as well as the implications of these differences.

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## Introduction

The study of international entrepreneurship (IE) lies at the intersection of the fields of entrepreneurship and international business (IB) (McDougall and Oviatt, 2000). Like entrepreneurship, IE pertains to the discovery, evaluation and exploitation of market opportunities. Like IB, IE comprises two related, but distinct, streams of research: an *internationalization* stream, in which focus is placed on how, why, when and where firms internationalize their operations; and a *comparative* stream that examines how and why business processes differ across national contexts, as well as the implications of these differences. As such, IE's conceptual domain can be defined as the study of processes related to the discovery, evaluation and exploitation of market opportunities that take place across national boundaries, as well as cross-national comparisons of these three entrepreneurial processes.

The emergence of IE as a distinct field of study is relatively recent. An important milestone was Oviatt and McDougall's (1994) paper that questioned whether research in IB was sufficient to understand the internationalization processes of entrepreneurial firms. Their paper, which recently was awarded the 2004 JIBS Decade Award for its influence on IB, pointed the way for others to clarify these processes (e.g., Barkema and Vermeulen, 1998; Autio *et al.*, 2000; Zahra and George, 2002). The comparative IE stream, however, has not developed at a similar pace. Indeed, while research has shown that large cross-national variations exist in the

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amounts and types of entrepreneurial activity (Ageev et al., 1995; Smallbone et al., 1999; Reynolds et al., 2003), the body of comparative IE research provides limited theoretical insights regarding the entrepreneurial processes that underlie these cross-national variations. We try to address this gap by examining *how* and *why* entrepreneurial processes of opportunity discovery, evaluation and exploitation vary across nations, and then we discuss some implications of these cross-national variations.

To do so, we build upon Shane and Venkataraman's (S&V) (2000) Discovery, Evaluation and Exploitation (DEE) framework, which extends the work of Austrian economists such as Schumpeter (1934), Hayek (1945) and Kirzner (2000). S&V's framework has gained prominence in the field of entrepreneurship, largely because it provides a mechanism for integrating various schools of thought in the entrepreneurship literature, while identifying a distinct domain for entrepreneurship research. We will argue that their framework relies on simplifying assumptions that limit its usefulness as a framework for comparative IE research. In its place, we propose a modified version, which we call the *Comparative Discovery, Evaluation and Exploitation* framework, or CDEE (Figure 1), and is designed to be more relevant to scholars of comparative IE. Of great significance to the comparative stream of IE, but notably absent from the DEE portrayal, is a consideration of social-level environmental antecedents of entrepreneurship, as well as the consequences of such activity (Zahra and Dess, 2001). The CDEE's core assumption is that a nation's social context (i.e., its institutional and cultural struc-

tures) strongly influences the character of opportunities and the individuals who discover, evaluate and exploit them.

To better understand cross-national variation in each entrepreneurial process (i.e., discovery, evaluation and exploitation), we develop the CDEE framework in three stages, each of which adopts a different theoretical lens. First, we employ stratification theory from sociology to argue that who discovers what opportunities in a particular nation is neither random nor solely a function of individual differences. Instead, fundamental aspects of the 'who' and 'what' elements associated with 'discovery' are explained by examining how a nation divides and stratifies its labor. Second, we draw on IO economic theory related to rent appropriation and opportunity costs to explain the role played by a nation's institutional and cultural structures in determining how entrepreneurial opportunities are 'evaluated'. Third, we use theory from organizational ecology and economic geography to describe how the amount and specificity of resources and supporting institutional infrastructure influences how and where favorably evaluated opportunities are 'exploited'.

In concluding the paper, we note that by accounting for national differences in each of the three entrepreneurial processes, the CDEE framework offers a foundation for theory-based explanations as to why entrepreneurial processes in different nations evolve differently and generate different outcomes for entrepreneurs and the economies in which they are embedded. Our paper opens with the argument that DEE's characteriza-

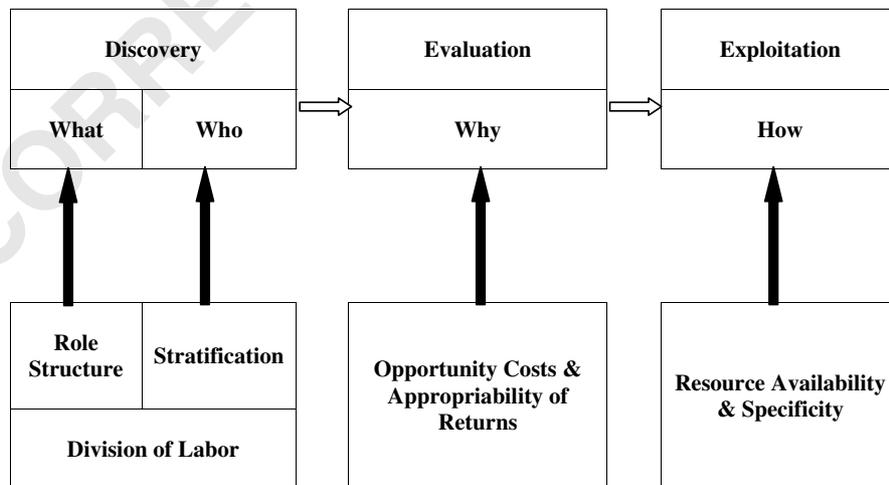


Figure 1 Cross-national context and the entrepreneurial process.



tions of entrepreneurial opportunities, and the individuals who discover them, are based on simplifying assumptions that hold constant meaningful variation that is central to the study of comparative entrepreneurship.

### **IE and the conceptualization of individuals and opportunities**

The focus of each of the three stages of S&V's (2000) DEE framework is on opportunities, and entrepreneurship is portrayed as the nexus of enterprising individuals and valuable opportunities (Venkataraman, 1997; Eckhardt and Shane, 2003). This focus begs two questions: what exactly are these opportunities, and who are the individuals that discover them? According to S&V, opportunities are objective phenomena that exist whether or not anyone discovers them. Following Kirzner (1973), S&V portray the discovery of entrepreneurial opportunities as a form of arbitrage, and define them as 'those situations in which new goods, services, raw materials and organizing methods can be introduced and sold at greater than their cost of production (Kirzner 2000, 220)'. Following Kirzner (1997), the DEE framework accounts only for those profit opportunities related to new means–end relationships, while excluding opportunities related to optimizing existing means–end frameworks. Finally, S&V constrain the concept of opportunities to include only those pursued for the purpose of financial profit. In this section, we argue that the DEE characterizations of the individuals who discover opportunities, and the opportunities themselves, are both too restrictive and under-socialized to account for the range of entrepreneurial activities found within and across nations.

Like many other microeconomic-based theories (e.g., agency theory and transaction cost economics), the DEE framework is based on very narrow '*Homo economicus*' assumptions about rationality. That is, it assumes that all individuals are driven by the single-minded desire to maximize very narrowly defined self-interests, and thus are only minimally influenced by social relationships and context. We reason that the DEE's characterization of the individuals who discover entrepreneurial opportunities falls short of advancing comparative IE scholarship because it does not accommodate fundamental differences in tastes and preferences of the individuals who discover opportunities. It is ironic, and unnecessarily limiting, that the DEE framework, which places such a strong emphasis on

'individual differences', leaves so little room for the expression of those differences in what motivates people.

Psychologists and behavioral economists such as Kahneman and Tversky (1979) note that human motives may be economic as well as non-economic (e.g., to improve the quality of life in a community): some for instant gratification and others for delayed gratification; some other-regarding and others self-regarding. As Cyert and March (1963, 9) put it: 'Entrepreneurs, like anyone else, have a host of personal motives'. Such differences in what motivates entrepreneurial activity have been found within and across nations. Scheinberg and MacMillan (1988) found 38 distinct motives for entrepreneurship that reduced to six distinct dimensions, only one of which was related to financial results or wealth. Similarly, research about entrepreneurs of family enterprises find that some are driven by 'parental altruism' geared to providing family members with secure employment, perquisites and privileges that they would otherwise not receive (Schulze *et al.*, 2003), whereas others may be driven by the need to preserve familial wealth (Carney and Gedajlovic, 2002b). Overall, the DEE, by virtue of its stark behavioral assumptions, holds constant the range of individual motivations central to the comparative study of entrepreneurship.

We also reason that the DEE's conceptualization of entrepreneurial opportunities as a purely objective phenomenon is under-socialized and, as a consequence, inappropriate as a basis for comparative IE scholarship. Such a conceptualization obscures the fact that differences in an individual's tastes and preferences are themselves embedded in, and influenced by, the national context in which people perceive opportunities (Lubatkin *et al.*, forthcoming). These contexts can vary by important institutional (Whitley, 1999; Khanna and Palepu, 2000) and cultural dimensions (Busenitz *et al.*, 2000). They also vary by resource endowments, norms (Hamilton and Biggart, 1988; Porter, 1990) and path-dependent trajectories (Carney and Gedajlovic, 2002a). In addition, while the DEE framework considers only opportunities related to new means–end relationships to be entrepreneurial, wide-ranging cross-national differences and significant imperfections in factor and product markets (Vernon, 1966; Hymer, 1976) mean that what is 'new' in one context is often well established in another. In other words, distinctions between existing and new means–end relationships

must take cross-national social context into account.

To conclude, we argue that to advance the comparative stream of IE research, a cross-nationally valid conceptualization of individuals and entrepreneurial opportunities is required. From the perspective of comparative entrepreneurship, opportunities are not simply arbitrage opportunities seized upon by utility maximizers with a singular focus on economic profit. Rather, individuals are influenced by social circumstance and express a broad range of idiosyncratic motives as they enact entrepreneurial opportunities. By drawing attention to – rather than holding constant – differences in human motivations and national contexts, we base the CDEE framework on the view that entrepreneurial opportunities – and not just their discovery – are inescapably subjective and context dependent.

#### **Who discovers what opportunities: the role of the division of labor**

Given the broader view of entrepreneurial opportunities outlined above, the question still remains: ‘Why do some people, and not others, discover them?’ S&V (2000) answer this question by drawing on the work of Hayek (1945) and Kirzner (1973) and identify information asymmetries and individual cognitive differences as two broad categories of factors influencing the probability that a particular opportunity will be discovered by a particular subset of the population. But why do some people belong to that privileged subset, and how do they get there? Absent from S&V’s (2000) explanation is a consideration of the social causes and consequences of the information asymmetries and cognitive differences they describe. This gap is especially significant in the field of comparative entrepreneurship, because its focus is how and why entrepreneurial activity differs across national contexts. In this section, we address this gap using insights from the sociological theory of stratification to identify and describe national social processes that affect *who* discovers *what* opportunities.

Both economists (Smith, 1776) and sociologists (Durkheim, 1949; Weber, 1978) have long used the phrase ‘division of labor’ to refer to the manner in which the specialized productive roles of individuals are distributed in a national marketplace, as well as the processes by which individuals are prepared and selected for their roles. How a nation’s labor is divided and stratified depends on the

nation’s institutional heritage and the overall state and development of its economy (Kuznets, 1955; Nielsen and Alderson, 1995). At the broadest level, nations differ in the percentage of their workforce employed in agricultural, extraction, manufacturing and service sectors. They also differ in terms of how global forces of competition affect the degree to which their workforce is specialized within a particular sector (Wallerstein, 1974; Scott, 1996). Nations vary in how they sort individuals into roles, including the provision of education to prepare individuals for specific roles; the formalization of occupational closure through informal mechanisms and through licensing, apprenticeship and union requirements; the intersection of economic and kinship roles; the relative importance of ascription and achievement in filling particular roles; and the ease with which people move from one role to another (Lenski, 1966; Kalleberg and Berg, 1987; Grusky, 1994). Another important aspect of social stratification is the differential access to particular occupations provided to members of different social groups. Such unequal access or ‘occupational segregation’ is very common and varies considerably between nations (Smith, 2002).

Each of these differences may have important implications for a nation’s economic development and the individuals who discover opportunities. Broadly, as a consequence of social stratification, individuals are embedded in the division of labor through systematic processes that result in members of different social categories having unequal access to the roles that shape entrepreneurial discovery. We reason that differential placement and experience within a nation’s division of labor may account for much of the variance in opportunity discovery. Such a division of labor embeds individuals in different roles and experiences, and shapes what Shane (2000) terms ‘knowledge corridors’ – processes that direct an individual’s attention and funnel information to them. In this manner, stratification processes increase the likelihood that structurally advantaged individuals will discover entrepreneurial opportunities, sometimes through searching for them, and sometimes without engaging in active search, but rather by virtue of being in the right place at the right time with the right stock of knowledge and network contacts (Kirzner, 2000; Baker *et al.*, 2003).

Research in cognition and problem-solving offer additional evidence, suggesting that stratification processes influence the likelihood that a particular individual will discover a particular opportunity. In



this regard, an individual's placement in a division of labor functions like the task settings that stimulate the development of expertise and what Dearborn and Simon (1958) call 'selective perceptions'. With repeated exposure to the complementary flows of information within a division of labor, individuals develop specialized expertise related to their role, which they tend to impose on any new information that is funneled their way. Moreover, their social networks promote sensemaking, including the processes through which individuals learn and develop a sense of identity, and the mental frameworks that they use to guide their future actions and interpretations (Weick, 1995). This allows them to become more adept at processing new information (Chase and Simon, 1973), asking perceptive questions and knowing what information is relevant and how to interpret it (Newell and Simon, 1972).

In general, a social stratification perspective suggests that the more excluded the members of a group are from a nation's most attractive economic roles, the less likely they are to discover the kind of entrepreneurial opportunities that contribute to that nation's economic growth and vitality. Paradoxically, however, such exclusion may actually promote discovery by compelling individuals from marginal or disadvantaged groups to search for alternatives not considered by more structurally privileged individuals. Such search can lead to the discovery of new means–end relationships. As a consequence, the very groups that are denied access to a nation's privileged schools, networks, occupations and knowledge corridors may turn out to be an important discovery force in that nation. Examples of such groups include the ethnic Chinese in Indonesia and Malaysia, the Lebanese in Jamaica and Trinidad, and ethnic Indians in Fiji and Guyana (McVey, 1992; Davis *et al.*, 2001).

In summary, we reason that complex social stratification processes related to a nation's division of labor shape the matching of enterprising individuals with the stocks of information and knowledge through which they might discover and make sense of opportunities. From the perspective of market efficiency, these processes create substantial labor market imperfections (Melkas and Anker, 1997; Kunovich and Hodson, 2002) and affect *who* discovers *what* entrepreneurial opportunities. At a more general level, we posit that theories of social stratification can provide a grounded explanation of currently unexplained variation in entre-

preneurial behaviors both within and between nations.

### **The why's of evaluation: appropriability and opportunity cost**

Why do people view some discovered opportunities favorably and reject others? How do individuals decide whether or not to pursue the entrepreneurial opportunities they discover? S&V (2000) contend that characteristics of the opportunity and individual differences jointly determine how favorably a particular discovery is evaluated. Absent from their discussion is a consideration of the social processes underlying how individuals evaluate opportunities. For example, an important 'individual difference' cited by S&V (2000) is the potential entrepreneur's opportunity cost assessment – the weighing of the value of the opportunity against the value of alternatives that would be forgone to pursue that opportunity. In developing the evaluation section of the CDEE framework, we argue that opportunity costs are invariably context dependent, and that national structures shape both the range of options available to an entrepreneur and the types of costs and benefits considered by them. Similarly, building on research from IO economics regarding appropriability, we describe how a nation's infrastructure and institutions strongly influence the potential value from an opportunity that may be captured by an individual.

### **Opportunity costs and national context**

Although research in entrepreneurship indicates that individuals are more likely to evaluate an opportunity positively if they face low opportunity costs (Amit *et al.*, 1995; Shane and Venkataraman, 2000), the comparative IE literature has not yet focused much attention on how institutional and cultural factors influence how potential entrepreneurs evaluate these costs. In our view, a consideration of such processes should play a central role in the study of comparative entrepreneurship because opportunity costs represent key reference points that entrepreneurs consider in evaluating whether to pursue entrepreneurial opportunities, and because they are likely to vary significantly across nations. We argue that national culture and institutions influence a potential entrepreneur's opportunity cost estimations in two broad ways.

First, as described above in the opportunity discovery section, nations differ in the range and distribution of opportunities available to potential entrepreneurs. This occurs because of stratification



processes, and also because nations vary widely in their capacity to support different types of economic activity (Porter, 1990), as well as in the varieties of market and institutional voids (Khanna and Palepu, 1997) that may present (or limit) opportunities to potential entrepreneurs. A broad variety of national institutional and cultural factors may influence an entrepreneur's range of alternatives. For example, the recent increased availability of wage employment in some areas of China has corresponded to decreasing relative returns to entrepreneurship (Walder, 2002). In some national settings, potential entrepreneurs may be able to choose from several attractive options. In other countries, due, for instance, to the absence of opportunities for paid employment and a limited (or nonexistent) social safety net, pursuing an entrepreneurial venture will be the only viable option. In its survey, GEM (2000) (Reynolds *et al.*, 2003) found that such 'necessity' entrepreneurship accounts for 27% of new business creation across all countries studied, but is much more common in poorer countries. For instance, rates of necessity entrepreneurship in China, Brazil, Argentina and Uganda were found to be at least five times higher than that observed in Belgium, France, The Netherlands, Sweden and Denmark (Reynolds *et al.*, 2003, 39). These statistics point to the importance of national context in shaping the opportunity set, and consequently the opportunity cost evaluations of potential entrepreneurs.

Second, institutional and cultural factors also affect the discoverers' evaluation of the cost of abandoning their current situation in favor of an alternative one. In national contexts such as the US, where health insurance is tied to employment, the costs associated with losing such coverage may be high relative to the value of the discovered opportunity (Baker and Aldrich, 1996). In national contexts such as Japan, where loyalty and long employment tenure to a single organization are highly valued, the personal cost may be high to those individuals who exit their place of employment in order to pursue an entrepreneurial opportunity, particularly if their new venture fails. For example, researchers have found that enterprising Japanese individuals who tried and failed at an entrepreneurial venture faced diminished career prospects, diminished social status and personal shame (Okano, 1994; Begley and Tan, 2001). In other social contexts such as Silicon Valley, some forms of failure can add luster to an entrepreneur's status (Lewis, 1998; Bronson, 1999), and thus lessen

the opportunity cost of abandoning one's current work.

### Appropriability and national context

Teece (1986) used the term 'appropriability regime' to refer to aspects of a commercial environment that govern the ability of a party to profit from an activity. The IO literature suggests that appropriability does not itself affect the expected value of an opportunity (Milgrom and Roberts, 1992), but instead determines the portion of the expected benefit from the opportunity that can be captured by the individual who discovered it.

In this subsection, we argue that it is not the value of the opportunity, *per se*, that is most relevant to an individual's opportunity evaluation, but rather the appropriable benefits – the portion of the value of an opportunity that a potential entrepreneur expects to be able to capture for their own purposes. From the perspective of comparative entrepreneurship, nations differ markedly in aspects of their commercial environments that determine appropriable benefits. For example, the efficiency of basic supporting infrastructures, such as a country's transportation and telecommunication networks and available sources of energy, are factors that matter when evaluating whether the benefits from an entrepreneurial opportunity are appropriable, because inefficiencies in these areas dissipate the potential value that can be appropriated by an entrepreneur.

In addition, a country's legal, financial, fiscal and education systems, which Khanna and Palepu (1997) term 'soft infrastructure', also strongly influence how much value from an opportunity is appropriable. In terms of legal systems, matters such as degree of protection for property rights, patent protection and the legal rights afforded labor, creditors and customers are factors that vary widely across nations (La Porta *et al.*, 1998) and which play an important role in evaluating the attractiveness of an opportunity to an entrepreneur. Financial systems influence the evaluation process most directly through the cost and availability of capital. In contexts where market inefficiencies raise the cost of acquiring financing, benefits appropriable by entrepreneurs are diminished (Claessens *et al.*, 1999). In national contexts where capital is unavailable, the benefits from a good business opportunity may not be appropriable at all (Carney and Gedajlovic, 2002a).

Tax and fiscal policies also vary widely across nations and affect appropriable benefits in various

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ways. Taxes on profits diminish appropriate benefits directly. Many fiscal policies such as government subsidies, tax breaks and depreciation rules influence the effective cost of the basic factors of production (i.e., land, labor, capital). A country's education system may, in effect, subsidize training costs by influencing the availability and supply of some skilled workers. More subtly, through the role it plays in socializing a nation's population, the education system influences attitudes and beliefs regarding work and consumption (Whitley, 1999), as well as social norms pertaining to the role played by governments in directing the economy and how the value-added from economic activity should be divided (DeJong, 1995).

In summary, we have proposed a theory-based answer to questions about why some discovered opportunities are viewed favorably in some nations while others are not. We did so by drawing on concepts from IO economics about opportunity costs and appropriability. We have argued that opportunity costs and appropriability are subjective reference points that entrepreneurs rely on when evaluating opportunities. Further, we have described how the institutional and cultural features of a nation influence these reference points by affecting the amounts and type of benefits that an entrepreneur can expect to appropriate from a discovered opportunity, the range of options available to individuals and the costs of abandoning current circumstances to pursue opportunities. These factors are central to comparative entrepreneurship and to our CDEE framework, because they influence how vigorously an entrepreneurial opportunity will be pursued in a given national context, or even whether it will be pursued at all.

### **How and where of opportunity exploitation: resource availability and specificity**

What happens after someone has discovered an opportunity and decided it is worth pursuing? How and where are resources acquired and mobilized in pursuit of that opportunity? From a comparative entrepreneurship perspective, we describe how the amount and types of resources available to an entrepreneur are important factors influencing *how* and from *where* favorably evaluated opportunities are pursued by entrepreneurs. Using ecological theory and drawing on research from the field of economic geography, we develop this basic idea to build insights regarding the exploitation element of the CDEE framework.

A basic tenet of theories of organizational ecology (Aldrich and Pfeffer, 1976; Hannan and Freeman, 1977), widely accepted in the organizational sciences (Stinchcombe, 1965; Aldrich, 1999), is that organizations strongly reflect the environmental conditions that support them. Within- and between-nation differences in institutional support and available resources create very different founding conditions for entrepreneurial ventures (Porter, 1990; Whitley, 1999). These differences influence the types of organization that are developed to exploit favorable opportunities, as well as their location.

Regarding location, economic geographers suggest that nations contain multiple local ecologies that differ in variety and amount of resources that may be mobilized in pursuit of entrepreneurial opportunities (Scott, 1996). In the remainder of this section, we describe how such local differences shape modes of entrepreneurial opportunity exploitation. We focus on three representative types of ecology: regional agglomerations, broadly developed niches (BDNs) and less developed niches (LDNs).

### **Regional agglomerations**

Regional agglomerations (e.g., Marshall, 1920; Scott, 1996) exist when complementary businesses, labor markets and resource providers cluster geographically. Examples include Silicon Valley and the 'Third Italy' (Bianchi, 1992). Agglomerations provide easy access to specialized sources of risk capital, physical infrastructure and skilled labor (Harrison, 1994; Saxenian, 1994). They encourage the creation of new firms by providing easier access to resources, and also by providing a context where start-ups more easily acquire legitimacy as a taken-for-granted solution to problems of collective action (Suchman, 1995).

Consequently, we reason that being located in an agglomeration improves the likelihood that individuals who discover good entrepreneurial opportunities will achieve success through *de novo* start-ups. For example, the proximity of firms with complementary resources and robust specialized strategic factor markets present firms within agglomerations with viable governance alternatives to vertical integration by allowing them to gain access to required resources without the costs of direct ownership (Miles and Snow, 1986; Saxenian, 1994). Such an ability to control important resources can influence organizational scale and scope requirements, reduce growth constraints and



facilitate the early internationalization of entrepreneurial ventures (McDougall and Oviatt, 2003).

As Poudier and St John (1996) note, however, agglomerations can also represent an institutional 'blind spot' owing to their highly specialized nature. Good opportunities that do not fit the specialization will find resources to be relatively scarce. For instance, an entrepreneur seeking to finance a motion picture is likely to meet with more success in Southern California than in Silicon Valley, whereas the reverse is likely to be true of an entrepreneur wishing to exploit an opportunity related to computer software or telephony. In addition, the specialized terms on which resources are made available within agglomerations (Humphrey and Schmidt, 1996) may affect not only which opportunities are pursued but also the form of organization created to exploit them. For instance, in high technology agglomerations such as Silicon Valley, relatively plentiful venture capital facilitates the exploitation of high-risk/return opportunities. However, such venture capital financing requires the construction of organizations oriented toward generating large returns quickly (Gompers, 1995; Pollock *et al.*, 2004) and founding entrepreneurs ceding significant control to investors favoring a quick sale either through an IPO or to an established firm (Lerner, 1995; Hellmann, 1998). Entrepreneurs whose goals include building a business remaining under family control may find little fit between their goals and the terms under which such capital is available (Sahlman, 1988).

### **Broadly developed niches**

What we call BDNs describe ecologies that lack the specialized and complementary resources and institutions of agglomerations, but nonetheless provide entrepreneurs with good generic infrastructure, such as transportation and telecommunication networks and reliable energy supplies. BDNs also offer effective supporting institutions such as banks, universities and legal systems that provide enforcement mechanisms for commercial transactions. Entrepreneurs may find it easier to exploit a broader range of entrepreneurial opportunities in BDNs than in more specialized agglomerations.

However, because entrepreneurs operating in BDNs cannot rely on the presence of specialized and complementary infrastructure, we reason that they may need to develop specialized assets internally. For instance, the absence of specialized local labor markets requires firms to hire and train workers for many complex professional and tech-

nical tasks. Similarly, the absence of reliable distribution networks may require that firms integrate vertically and develop such a capacity internally. The upshot of such challenges is that firms designed to exploit opportunities from BDNs will often need to be of greater scale and complexity than agglomeration-based firms. Consequently, BDN firms may take longer to gain commercial success and be slower to internationalize. On the other hand, such requirements may eventually reward entrepreneurial patience. Although time-consuming and expensive, the need to develop specialized systems and processes internally can create valuable social capital (Nahapiet and Ghoshal, 1998) that is central to theories of resource-based competitive advantage (Dierickx and Cool, 1989; Barney, 1991; Peteraf, 1993).

### **Less developed niches**

Many entrepreneurs in developing and emerging economies face ecologies that provide neither specialized resources and institutional support nor good general-purpose financial, educational, political or legal infrastructure (George and Prabhu, 2000). In these LDNs, entrepreneurs may play a vital role in addressing basic social needs (e.g., clean water, new farming techniques, jobs), but are burdened by a lack of environmental munificence. As a consequence, many entrepreneurial firms in LDNs are quite local in scale and scope (Carney, 1998).

One indigenous entrepreneurial response to problems associated with inadequate local resources and infrastructure has been the formation of family business groups (FBGs). FBGs are networks of many (usually small-scale) businesses that are linked together through kinship ties (Redding, 1990). Such networks have emerged and become a dominant form of business enterprise in many developing and emerging markets in Asia and Latin America (Claessens *et al.*, 1999). Research suggests that the form and function of FBGs owe much to the ecological niche in which they are founded (Carney and Gedajlovic, 2002a). In a series of papers, Khanna and his colleagues (e.g., Khanna and Palepu, 1997; Ghemawat and Khanna, 1998; Khanna and Rivkin, 2001) provide evidence suggesting that FBGs represent a common entrepreneurial response to 'institutional voids'. In this regard, FBGs provide an interstitial or gap-filling function that supports economic activity that would not otherwise be possible. For example, FBGs have been described as 'havens' where property rights are

respected (Khanna and Palepu, 1997, 47) because of their ability to surmount deficiencies in legal and political systems by developing the ability to make extensive use of relational contracts (Fukuyama, 1995). Similarly, the absence of reliable suppliers and distribution networks in LDNs has led FBGs to pursue aggressive vertical integration strategies (Khanna and Palepu, 1999).

From an economic development standpoint, the emergence of FBGs as a means of exploiting favorable opportunities in LDNs can promote growth and wealth that helps create niches more closely resembling BDNs. For example, the remarkable success of the Hong Kong, Taiwan and Singapore economies over the past 30 years is largely attributable to FBGs (Weidenbaum and Hughes, 1996). On the other hand, research suggests that the unwieldy conglomerate form adopted by FBGs often under-performs more focused businesses in competitive markets (Rumelt, 1982; Jensen, 1989). Additionally, other research suggests that kinship-based businesses, such as FBGs, may suffer from financial and human resource constraints relative to public companies (Gedajlovic *et al.*, 2004; Zahra and Filatotchev, 2004). While their strong kinship-based governance may facilitate new business formation, they can inhibit later growth, which may depend on moving away from what Hite and Hesterly (2001) called 'identity-based' networks and toward more instrumental transactions and ties (Rowley *et al.*, 2000).

### Summary

We describe how entrepreneurs face ecologies that differ widely in terms of the amounts and types of resources and institutional support available. We argue that the characteristics of organizations (i.e., scale, scope, capabilities) constructed by entrepreneurs to exploit opportunities are strongly influenced by such differences. To simplify our discussion, we focus on three common and representative types of ecology – agglomerations, BDNs and LDNs – but other types and hybrids undoubtedly exist.

### Discussion and conclusions

At the outset of the paper, we noted that IE's conceptual domain can be defined as the study of processes related to the discovery, evaluation and exploitation of market opportunities that take place across national boundaries, as well as cross-national comparisons of these three entrepreneurial processes. To advance the comparative IE stream, we

propose and develop a CDEE framework that builds on S&V's (2000) Austrian-economic-inspired DEE framework. We argue that the DEE framework offers an unsuitable basis for promoting comparative IE research because it strongly de-emphasizes the role of social processes in creating and shaping the nexus of opportunities and individuals, while also ignoring, or holding constant, social and cultural phenomena that are central to comparative entrepreneurship research.

In contrast to the DEE assumption that individual entrepreneurs have singular goals and are minimally affected by their social circumstances, we propose that entrepreneurial behavior is motivated by a diverse set of motives and is strongly influenced by the social context in which that behavior is embedded. Our characterization of entrepreneurial opportunities also differs substantially from DEE assumptions. Whereas S&V (2000) portray entrepreneurial opportunities as fundamentally objective phenomena, the CDEE takes as a starting point the notion that opportunities have an irreducible subjective aspect because individuals enact opportunities in a manner that is strongly influenced by their social circumstances and express a broad range of goals. We believe that our assumptions are more realistic, and form a better basis for exploring how and why the entrepreneurial processes of opportunity discovery, evaluation and exploitation vary across and within nations, as well as the implications of these differences.

Building on these assumptions regarding individuals and opportunities, we describe how the CDEE can promote theory-based answers to a number of interesting comparative entrepreneurship research questions: What are the social processes in a nation affecting 'who' discovers 'what' opportunities? Why are some discovered opportunities viewed favorably while others are not? What happens after someone has discovered an opportunity and evaluated it as being worth pursuing? How do nations differ in the ways that they permit entrepreneurs to acquire and mobilize resources in pursuit of an opportunity? Although discovery, evaluation and exploitation are not entirely independent, they represent distinct processes. We therefore draw on different theoretical perspectives for each, using research in social stratification to explore cross-national variations in how individuals are matched with the opportunities they discover; I/O economics to frame cross-national differences in opportunity evaluation; and organizational ecology and

economic geography to explain how and from where opportunities are exploited.

Entrepreneurship begins with opportunity discovery. One implication of our analysis is that patterned social circumstances play an important role in determining the resources an entrepreneur brings to bear on opportunity discovery. We reason that a framework for comparative IE research that pivots entirely on the notion of opportunities begs the fundamental question, 'What are the patterns of inequality of opportunity within and between nations that shape the nature and extent of entrepreneurial activity?' Aside from a few notable exceptions focusing on ethnic and gender differences (e.g., Aldrich and Waldinger, 1990; Brush, 1992), and some work on post-Soviet transition economies (e.g., Smallbone and Welter, 2001), the entrepreneurship literature is largely silent on this question. We hope that the development of the CDEE framework will provide the impetus for more research examining how these patterned cross-national variations affect entrepreneurial processes and outcomes. Indeed, given the increasing salience of differences between the 'haves' and the 'have-nots', both within and between societies, such research appears especially salient for IE theory and practice in general, and specifically for the comparative IE stream.

The process of evaluating an opportunity may range from a successful technology entrepreneur's musings about which project will be most satisfying (financially or otherwise) to an impoverished farmer's anxious decision about what course of action will provide more reliable support for her family. Indeed, studies such as the GEM surveys suggest that high levels of entrepreneurship can be integral to a healthy social and economic context or, alternatively, a sign that people will exploit even the tiniest opportunity if it is the only chance they see. It is also not clear that opportunity evaluation typically takes the form of a coldly rational, and thorough, weighing and evaluation of alternatives. We argue, nonetheless, that opportunity costs and appropriability are typically important subjective reference points for entrepreneurs, and that they exhibit important cross-national differences. Our arguments are consistent with existing research findings, but very little research has investigated entrepreneurial opportunity evaluation. The CDEE highlights the importance of additional and comparative research on entrepreneurial opportunity evaluation.

Would-be entrepreneurs face extreme cross-national differences in exploitation environments, and we provide only an outline of how these differences are likely to matter. In some national settings a single ecology prevails, whereas in other countries multiple ecologies are present. For instance, Bangalore represents a robust agglomeration, whereas most of India resembles an archetypal LDN. Similarly, in China, pockets of BDNs, such as the Shenzhen and Xiamen Special Enterprise Zones, exist alongside the LDNs that still dominate the economic landscape. Such differences suggest that comparative IE research must account for both within- and across-nation variance in order to account for how and where enterprising individuals exploit entrepreneurial opportunities. Such a comparative approach may be especially useful in developing and testing context-sensitive, contingency-based theories regarding issues central to IE, such as why particular organizational forms are selected over others, why some opportunities are exploited by the creation of new firms while others are sold to existing firms, and why some entrepreneurial ventures are born global while others remain local. Such comparative research can also address important questions about the contingent strengths and weaknesses of different modes of organizing entrepreneurial ventures, both cross-nationally and over time.

In this paper, we focus on the influence of social context on the ability of individuals to discover, evaluate and exploit entrepreneurial opportunities, and on what they perceive to be these opportunities. In doing so, we downplay the role that entrepreneurial human agents can have on their environments. Said differently, we limit the scope of our discussion about the CDEE to that of a one-way direction of influence, going from a nation's social context to each of the entrepreneurial processes. Clearly, the system is more dynamic, open and reciprocal: that is, just as a nation's social context influences an entrepreneur's behaviors, so too its behaviors influence the social contexts by filling institutional gaps and by addressing unmet needs (Pfeffer and Salancik, 1978; Carney and Gedajlovic, 2002a).

In conclusion, we note that the study of comparative entrepreneurship requires that researchers bring social context into the foreground. The 'nexus' of enterprising individuals and entrepreneurial opportunities is strongly shaped, and sometimes dominated, by social structures and processes. In developing the CDEE framework, we



limit our focus to a few salient cross-national contextual factors that exemplify the importance of social differences. We acknowledge, however, that other institutional factors will also have systematic effects on the shape and extent of entrepreneurship. Comparative cross-national scholarship (e.g., the GEM surveys) provides a preliminary, but strong, indication that broad arrays of formal and informal institutions differentially influence entrepreneurial processes and outcomes.

A number of scholars (McDougall and Oviatt, 2000; Zahra and George, 2002) have suggested that entrepreneurship belongs closer to the core of the IB research agenda. Through developing the CDEE framework, we try to pave the way towards that

objective. Of course, frameworks are by nature difficult to falsify because of the many context-dependent processes embedded within them. It remains for future work to generate and test a wide variety of specific theory-based hypotheses. We believe that the CDEE framework can accommodate and help integrate the multiplicity of perspectives and empirical contexts that should characterize work in comparative entrepreneurship.

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### About the authors

**Ted Baker** teaches Management and Entrepreneurship at the University of Connecticut. His current research focuses on entrepreneurship in resource-constrained environments and on improvisation and bricolage as forms of entrepreneurial behavior, especially in technology-intensive start-ups. Recent and forthcoming papers appear in *Administrative Science Quarterly*, *Journal of Business Venturing* and *Research Policy*.

**Eric Gedajlovic** is an Associate Professor in the Management Department at the University of Connecticut. His research pertaining to the influence of corporate governance on venture creation, capability development and organizational performance has appeared in the *Academy of Management Journal*, *Strategic Management Journal*, *Journal of Management Studies* and *Organization Studies*.

**Michael Lubatkin** is the Wolff Family Chaired Professor of Strategic Entrepreneurship at the University of Connecticut. He specializes in corporate diversification issues as they pertain to problems of core competence transfer and risk management between divisions and across national borders, and in corporate governance issues as they pertain to family and entrepreneurial firms. One of 34 management professors inducted into the Academy of Management's Journals' 'Hall of Fame', and past elected Chair President of the BPS Division of AOM (1997), his research has been honored with three international awards (1983, 1992, 2001) and three US-based awards (1990, 1990, 1997). He regularly teaches in the MBA programs at EM Lyon (France) and Ben Gurion University (Israel).

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