

Desai, Sameeksha

**Working Paper**

## Measuring entrepreneurship in developing countries

WIDER Research Paper, No. 2009/10

**Provided in Cooperation with:**

United Nations University (UNU), World Institute for Development Economics Research (WIDER)

*Suggested Citation:* Desai, Sameeksha (2009) : Measuring entrepreneurship in developing countries, WIDER Research Paper, No. 2009/10, ISBN 978-92-9230-179-8, The United Nations University World Institute for Development Economics Research (UNU-WIDER), Helsinki

This Version is available at:

<https://hdl.handle.net/10419/45048>

**Standard-Nutzungsbedingungen:**

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

**Terms of use:**

*Documents in EconStor may be saved and copied for your personal and scholarly purposes.*

*You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.*

*If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.*



UNITED NATIONS  
UNIVERSITY

**UNU-WIDER**

World Institute for Development  
Economics Research

Research Paper No. 2009/10

## **Measuring Entrepreneurship in Developing Countries**

Sameeksha Desai\*

March 2009

### **Abstract**

This paper discusses the difficulties associated with measuring entrepreneurship in developing countries. Three important dichotomies in the research on entrepreneurship are discussed: formal-informal, legal-illegal, and necessity-opportunity. Several common measures of entrepreneurship are outlined along with their relevance to developing countries, including self-employment, Global Entrepreneurship Monitor data, World Bank Group Entrepreneurship Survey data and OECD data. The implications of the current understanding of entrepreneurship are discussed with respect to institutions and economic development.

**Keywords:** entrepreneurship, economic development, data, institutions

**JEL classification:** L26, O17, O20

Copyright © UNU-WIDER 2009

\* University of Missouri Kansas City and Max Planck Institute of Economics, Kansas City, email: [desais@umkc.edu](mailto:desais@umkc.edu)

This study has been prepared within the UNU-WIDER project on Entrepreneurship and Development (Promoting Entrepreneurial Capacity), directed by Wim Naudé.

UNU-WIDER gratefully acknowledges the financial contributions to the project by the Finnish Ministry for Foreign Affairs, and the financial contributions to the research programme by the governments of Denmark (Royal Ministry of Foreign Affairs), Finland (Finnish Ministry for Foreign Affairs), Norway (Royal Ministry of Foreign Affairs), Sweden (Swedish International Development Cooperation Agency—Sida) and the United Kingdom (Department for International Development).

ISSN 1810-2611

ISBN 978-92-9230-179-8

## Acknowledgements

The author thanks Zoltan Acs, David Audretsch, William Baumol, Johan Eklund, Leora Klapper, Wim Naudé, Roger Stough and Terrence Lyons for insight on various topics included in this paper.

## Acronyms

GEM	Global Entrepreneurship Monitor
LLCs	limited liability companies
WBGES	World Bank Group Entrepreneurship Survey

*The World Institute for Development Economics Research (WIDER) was established by the United Nations University (UNU) as its first research and training centre and started work in Helsinki, Finland in 1985. The Institute undertakes applied research and policy analysis on structural changes affecting the developing and transitional economies, provides a forum for the advocacy of policies leading to robust, equitable and environmentally sustainable growth, and promotes capacity strengthening and training in the field of economic and social policy making. Work is carried out by staff researchers and visiting scholars in Helsinki and through networks of collaborating scholars and institutions around the world.*

*[www.wider.unu.edu](http://www.wider.unu.edu)*

*[publications@wider.unu.edu](mailto:publications@wider.unu.edu)*

UNU World Institute for Development Economics Research (UNU-WIDER)  
Katajanokanlaituri 6 B, 00160 Helsinki, Finland

Typescript prepared by Liisa Roponen at UNU-WIDER

The views expressed in this publication are those of the author(s). Publication does not imply endorsement by the Institute or the United Nations University, nor by the programme/project sponsors, of any of the views expressed.

## 1 Introduction

The role of entrepreneurship in economic development is the subject of much interest to academic and policy circles alike. Entrepreneurship is often credited with many positive changes in developing countries. At the very least, it is associated with job creation, wealth creation, innovation and its related welfare effects. A strong small business sector and entrepreneurship are generally linked to a strong economy (Beck, Demirguc-Kunt and Levine 2005). Across developed and developing countries, entrepreneurship has become a critical part of economic development strategies.

The theoretical justifications for the role of entrepreneurship in economic development are relatively well discussed in the economics and management literature. Entrepreneurship achieves important functions related to efficiency, competition, product innovation, pricing and industry survival by acting either to disequilibrate (Schumpeter 1934), to equilibrate (Kirzner 1997) or to do both (Hall 2007) in the market. However, the nuances of entrepreneurship are not easily generalized and complicate policy-focused interpretations related to level and role of economic development.

As many economic development interventions failed through the 1980s, policymakers and researchers began to search for other answers. Although entrepreneurship was not a new approach, it was also not a popular approach during the age of structural adjustment and macroeconomic change. However, entrepreneurship offered many things that other economic development interventions did not. First, most other strategies were top-down but did not, in fact, reach all the way down. Entrepreneurship is a local and regional level activity, and new firms can immediately begin to create benefits for their host locations. For this reason, the idea of entrepreneurship was a perfect complement to an increasing focus on community-based economic development. Second, economic development interventions focused on building hard infrastructure—bridges, roads, transportation networks—and often neglected to consider how the infrastructures would be used. Entrepreneurship can work without a perfect system of hard infrastructure (or, at least, can begin to work) and often with minimal other resources. In many countries, entrepreneurship has gained popularity because it can be a low-cost, high-impact approach to economic development. Third, although economic development interventions were able to create macroeconomic changes and build infrastructure, they were still unable to address immediate and short-term problems. Entrepreneurship can address individual-level needs related to income and employment. At the very least, entrepreneurship creates one job for the entrepreneur as well as income. At best, it generates additional jobs and (financial or nonfinancial) incomes for other people.

The explosion of interest in entrepreneurship has been sudden, and has demanded significant investigation to uncover its true relationship with economic development. This is urgent for developing countries, where entrepreneurship has become a cornerstone of economic development policies, and where its dynamics are perhaps the most unclear. The relationship between entrepreneurship and economic development appears to be at least bi-directional. In fact, many empirical studies have provided contradictory findings, leaving many of the larger public policy questions unanswered.

Documenting, measuring and therefore *understanding* entrepreneurship is a difficult task because of the characteristics and dynamics involved (see Bygrave and Hofer

1991). One important contributor to this difficulty is that ‘available indicators relating to entrepreneurship measure everything from personal attributes of the entrepreneurs like gender to outcome of the entrepreneurial process like start-up rates’ (Hoffmann, Larsen and Oxholin 2006: 10). For this reason, the context of entrepreneurship is important. The purpose of this paper is to address the current understanding of ‘entrepreneurship’ in developing countries as it relates to context, and its associated challenges.

## **2 Types of entrepreneurship**

*Entrepreneurship* is a complex subject of study and its characteristics, dynamics, determinants and manifestations differ across countries. The overall level of economic development is an important contextual distinction for the research on entrepreneurship, as it can take very different forms. Much of the research on entrepreneurship in developing countries indirectly or directly categorizes activities. Several dichotomies commonly used to describe entrepreneurship in developing countries are worth discussing:

- Formal/informal;
- Legal/illegal; and
- Necessity/opportunity.

### **2.1 Formal/informal**

The distinction between formal and informal entrepreneurship is determined by registration status. If a firm has been registered with the appropriate government agency, then it is a formal entity that is authorized to do business. In most countries, this also includes obtaining the appropriate licenses for business activities. The classification of a firm as ‘formal’ or ‘informal’ does not therefore relate to the nature of its activities or their externalities, but rather to its presence within the formal (taxable) sector or the informal sector.

Firms are defined as formal because they operate in the formal economy. This does not provide any indication of the legality (or not) of their business activities. For example, entrepreneurs that operate within the black market can broadly be categorized as informal. The size of the informal labourforce can vary, but can reach more than fifty per cent in some countries (ILO 2007). In many developing countries, there are few incentives for entrepreneurs to participate in the formal sector, particularly if they operate on a small scale. Entering the formal sector can be a deliberate decision based on the tradeoff between regulatory disadvantages such as taxes and formalization advantages, such as better access to export markets (see Schneider and Enste 2000).

### **2.2 Legal/illegal**

A source of confusion in the research on entrepreneurship arises from the specific study—and separation—of activities that are legal and illegal. This dichotomy is often used interchangeably with the formal/informal dichotomy, though they are not the same. Legal firms are engaged in legal activities. Entrepreneurs engaged in illegal activities

(for example, mining in prohibited areas) are illegal entrepreneurs. In fact, the nature of informal entrepreneurship in developing countries necessitates that informal and illegal are not equivalent. *Illegal* applies to the nature of the selected activity, and depends on the explicit legal code and regulatory frameworks in the country. *Legal* entrepreneurship applies to activities that are permitted by law.

There are two ways to approach this dichotomy. First, entrepreneurship itself may be illegal, such as in pre-transition Lithuania (see Aidis and van Praag 2004). If this is the case, then all entrepreneurial activities regardless of effect can be classified as illegal. This is becoming less common as more developing countries have undergone transition in recent decades. Second, entrepreneurship may be legal and carried out by registered firms, but the activities are illegal. For example, firms authorized to operate in certain sectors in developing countries may be engaged in illegal activities. Anecdotal evidence suggests this to be the case in the timber industry in the Philippines and Indonesia in the 1990s.

The classification of entrepreneurship as formal/informal and legal/illegal is not mutually exclusive, which can lead to confusion.<sup>1</sup> Firms operating in the ‘black market’ are by nature informal, but they can only be deemed illegal if their activities are illegal. For example, Aidis and van Praag (2004) examine *illegal entrepreneurship experience* (IEE) in pre-transition Lithuania. Although it may initially appear that their study treats illegal entrepreneurship experience simply as informal entrepreneurship experience, it is consistent with the separation of illegal as *not legal*, given the political regime of the country. Prior to transition, Lithuania hosted ‘an environment in which the very act of private entrepreneurship is illegal regardless of business activity’ (2004: 285). Examples are provided in Table 1 to demonstrate the overlap between formal/informal and legal/illegal entrepreneurship.

Table 1  
Formal, informal, legal and illegal entrepreneurship

	Formal	Informal
Legal	Registered firm that is engaged in legal activities.  Example: Registered manufacturing firm producing plastic packaging for medical supplies, in compliance with national health, safety, environmental and factory regulations.	Unregistered firm that is engaged in legal activities.  Example: Unregistered private cars in Bangkok, operating as corporate drivers and tourist taxis.
Illegal	Registered firm that is engaged in illegal activities.  Example: Registered foreign law firms in China, operating outside authorized areas of expertise as explicitly defined by Chinese government legal code.*	Unregistered firm that is engaged in illegal activities.  Example: Loan sharking that occurs in many slum areas in Mumbai; unregistered entrepreneur lending money at above-market interest rates to borrowers without access to the formal, official banking system.

Note: \* See Lin (2006) and Shanghai Bar Association (2006).

<sup>1</sup> I.e., all informal firms are not necessarily illegal; all formal firms are not necessarily legal.

## **2.3 Necessity/opportunity**

The distinction between necessity and opportunity entrepreneurship is largely reliant upon the motivation for activity. Necessity entrepreneurs engage in entrepreneurship to avoid unemployment, whereas opportunity entrepreneurs pursue a recognized opportunity for profit (Reynolds et al. 2002).<sup>2</sup> Necessity entrepreneurs make up an important part of the total set of entrepreneurs in developing countries, and are relatively less common in developed countries. For example, rates of necessity entrepreneurship for Brazil, Argentina, India and Chile ranged between 6.5 per cent and 7.5 per cent in 2002, compared to 0.33 per cent and 0.43 per cent in Denmark and Finland, respectively (see Cowling and Bygrave 2002).

The dynamics of necessity/opportunity entrepreneurship are closely connected to formal/informal status. One reason for high rates of necessity entrepreneurship in developing countries is the size of the informal sector. Workers that become entrepreneurs to avoid unemployment will likely be starting low-skill, small-scale, subsistence activities. For this reason, there may simply be no incentives to formalize (Chaudhuri, Schneider and Chattopadhyay 2006).

Opportunity entrepreneurs in developing countries can be both formal and informal. Rapidly developing countries often experience significant shifts in domestic markets, creating opportunities for new entrants. The political and regulatory systems in these countries can lag behind economic expansion, and this lag can possibly lead to (at least temporarily) a larger informal sector. Many opportunity entrepreneurs will begin informally, and formalize once they perceive significant benefits from doing so.

## **3 Measures of entrepreneurship**

The policy relevance of entrepreneurship places a great deal of importance on the validity of measurement and interpretation. Given the range of dichotomies discussed in the previous section, it is clear that different kinds of activities exist. Further, they exist across different sectors and industries, and can be carried out by different groups within the economically active population. Each kind of entrepreneurship calls for different policies, depending on purpose. For example, there are policies aimed at formalizing existing informal sector business as well as policies aimed at creating new business. In order to design effective policies that are relevant to the nature and context of entrepreneurship in given developing countries, it is important first to examine its entrepreneurial activities.

This requires a deliberate degree of segmentation because one measure does not capture all entrepreneurs in any country, let alone for comparison consistently across countries, and because only some types of entrepreneurship are of interest for study (Davis 2006). This is especially important for developing countries.

Multiple measures of ‘entrepreneurship’ exist and reflect different types of activities. Self-employment is often used as to measure entrepreneurship (Storey 1991). However, it may not adequately capture the nuances of entrepreneurship in developing countries.

---

<sup>2</sup> See also Storey (1994) for a similar discussion of push/pull factors of entrepreneurship.

Self-employment may be measured from official self-reported employment data and would likely leave out unreported (informal) respondents (see Storey 1991).

Although self-employment data can be used across countries when collected from standardized sources, it is arguably not an appropriate measure of (actual) formal entrepreneurship. The overlap between self-employment and necessity entrepreneurship in developing countries leads to a very different mean of self-employment than in developed countries. Rather, it is a good proxy for entrepreneurial activity (see Thurik et al. 2009) and can be interpreted to some extent as a measure of *entrepreneurial potential*.

The Global Entrepreneurship Monitor (GEM) project is an effort to produce data that can be comparable across countries.<sup>3</sup> GEM collects data on *early-stage entrepreneurship*, which comprises two separate measures. Start-up activity is measured as *nascent entrepreneurship*, and is counted as the proportion of the adult population<sup>4</sup> that is currently engaged in the process of creating a business. New firm activity is measured as *baby entrepreneurship*, and is counted as the proportion of the adult population that is currently involved in operating a business of less than 42 months.

Although definition and the data collection process are consistent for the GEM data, it is likely to overestimate early-stage entrepreneurship activities because current nascency does not immediately translate into actual firm formation. For example, respondents may be considered nascent entrepreneurs if they have taken steps to form a business, but this may not materialize for several years—or it may never do so. Unlike the GEM data, measures of entrepreneurship derived from official sources can underestimate actual entrepreneurship activities.

The World Bank Group Entrepreneurship Survey (WBGES) is also designed to be comparable across countries, and measures formal sector entrepreneurship as the number of new officially registered limited liability corporations (LLCs). By definition, WBGES does not include the informal sector, counting only *economic units of the formal sector incorporated as a legal entity and registered in a public registry, which is capable, in its own right, of incurring liabilities and of engaging in economic activities and transactions with other entities*.<sup>5</sup>

This approach also explicitly seeks to provide data that can be compared across countries, and counting LLCs maintains a high level of comparability across countries with different political systems and legal origins. Although the WBGES certainly offers a high level of cross-country comparability, it cannot be applied to two cases. First, the informal sector is an important and often large component of economic activity in many developing countries. Second, LLCs are not the only kind of ‘economic unit’ operated by entrepreneurs.

Other approaches to measuring entrepreneurship focus on assessing its dynamics. For example, until a single (stand-alone) measure of entrepreneurship can be developed, the

---

<sup>3</sup> For more on GEM data, see Reynolds et al. (2005).

<sup>4</sup> Defined as between 18-64 years of age.

<sup>5</sup> For more on WBGES data, see Klapper et al. (2007).

approach of OECD has been to identify key indicators that ‘paint part of the overall picture’ (Davis 2006) while being standardized enough to allow for cross-country research. This approach is substantially broader than self-employment, the GEM approach and the WBGES approach. To support this goal, a core list of indicators reflects different types of entrepreneurs, as measured by individual variables for number of business owners (including self-employment), firm formation in general and for specific types of firms (e.g., gazelles and high-growth firms).<sup>6</sup> This core list allows researchers to isolate specific types of entrepreneurship for study. This approach includes the development of a framework with entrepreneurial performance conditions and larger institutional measures. Entrepreneurs are taken as (business owners) ‘who seek to generate value, through the creation or expansion of economic activity, by identifying and exploiting new products, processes or markets’ (Ahmad and Seymour 2008: 14). The OECD Entrepreneurship Indicators Project presents a framework with determinants, outputs and manifestations of entrepreneurship (ibid.: 14). Although this broader approach offers a comprehensive view of entrepreneurship, it may lose some of the refinement in analysis that the other datasets can provide. On the one hand, this approach may be strong in its synthesis of institutions and the relationship with entrepreneurship; on the other hand, this approach may not be able to separate the effects.

These commonly used measures of entrepreneurship tend to reflect specific types of entrepreneurship, or even parts of the process. For example, a nascent entrepreneur may not be reflected in the formal data for a given year, but may be counted in the formal data five years later, after incorporation and registration.

#### **4 Implications: entrepreneurship and institutions**

The challenges of understanding and measuring entrepreneurship in developing countries are further complicated by institutional environment. With respect to analysis, it is important to maintain clarity about the quality of measurement—and what exactly is being examined. For example, a formal measure of business registration represents entrepreneurship in the formal sector only, and would not be an accurate reflection of actual entrepreneurial activity in a developing country hosting a significant informal labourforce.

At the level of interpretation, there are two general implications. First, it is important to emphasize the relationship between the selected measure and the economic development context of the country. This requires interpretation of the relationship between *institutions*, *entrepreneurial activity* and *economic development* as it relates to the country (and time) of study. Countries can target the type of entrepreneurship they wish to encourage, depending on current economic context. Some countries undergoing or planning reforms may be best served by focusing on policies of formalization, where they seek to redirect existing entrepreneurial activity into the formal sector. Other countries may be better served by policies to boost economic participation of certain demographics, which often equates to necessity entrepreneurship. Still other countries can pursue policies that focus on firm creation or on high-growth entrepreneurship

---

<sup>6</sup> For more on the development of this approach, see Davis (2006).

(Davis 2006). The appropriate policies to serve these purposes can be vastly different, i.e., microfinance versus venture capital.

The effect of institutions on entrepreneurship is currently the subject of much study. The findings of research, particularly cross-country studies, are often different for the same variables, depending on the measures being used. For example, van Stel, Storey and Thurik (2007) and Klapper et al. (2007) report contradictory results on the relationship between entrepreneurship and administrative barriers to starting a business. Van Stel, Storey and Thurik (2007) use GEM data whereas Klapper et al. (2007) use WBGES data. A possible explanation for this discrepancy is that nascent entrepreneurs (GEM) do not necessarily face administrative barriers, since there is no formalization condition. However, the WBGES dataset measures registered LLC businesses, so all respondents will have faced administrative barriers. In other words, the entrepreneurs in the GEM dataset may not be reporting on administrative barriers simply because they have not encountered them, not because they are not a problem.

Klapper, Laeven and Rajan (2006) find a significant relationship between business registration in 35 European countries (including developing countries) and barriers to entry. Similarly, Djankov et al. (2002) find the higher (more costly) regulations can hinder the establishment of new firms. Licensing procedures and permit requirements were reported as the greatest barriers to operations by Polish business owners in 1997 (Balcerowicz, Balcerowicz and Hashi 1999; World Bank 2000). Barriers to entry include the cost of registration and regulation, as well as access to credit. However, Acs, Desai and Klapper (2008) use many of the same institutional variables in an analysis of GEM and WBGES data and find that access to credit does not have an important effect on entrepreneurship. Such differences can be explained, at least in part, by the differences in the data. The GEM data used by Acs, Desai and Klapper (2008) include informal entrepreneurs, who may rely on channels for credit outside the formal banking. Figures for nascent entrepreneurship, baby entrepreneurship and corporate entrepreneurship are reported in Table 2 as averages for 2003, 2004 and 2005. Nascent and baby entrepreneurship are reported in the GEM data and corporate entrepreneurship is measured as new LLC registrations in the WBGES data. In general, developing countries report higher levels for the GEM data and developed countries report higher levels for the WBGES data. This is consistent with larger proportions of the informal sector in the developing countries.

The spread between nascent-corporate and baby-corporate entrepreneurship is also reported in Table 2 (again as averages for 2003, 2004 and 2005). The spread between measures exists because they capture some fundamentally different manifestation of entrepreneurship. In other words, ‘firm formation does not necessarily mean firm registration’ (Acs, Desai and Klapper 2008: 266). The GEM data reflect entrepreneurial intent whereas the WBGES data reflects formal entry of LLC entities. An interesting interpretation<sup>7</sup> of the spread between nascent-corporate entrepreneurship is to treat it as *entrepreneurship potential*. There are two important implications of this interpretation. First, this reflects the spread between potential formal sector entrepreneurs and existing formal sector entrepreneurs. Second, this does not indicate accurately what proportion

---

<sup>7</sup> For more on interpreting this spread, see Acs, Desai and Klapper (2008) and Ardagna and Lusardi (2008).

of these potential formal sector entrepreneurs are working as informal entrepreneurs versus formal or informal wage workers.

The second implication related to interpretation is the relevance of multiple types of entrepreneurship in developing countries. Countries can host many, even all, of the types discussed previously—legal and illegal, formal and informal, necessity and

Table 2  
Nascent entrepreneurship (GEM), baby entrepreneurship (GEM), corporate entrepreneurship (World Bank), nascent-corporate spread, baby-corporate spread

Country	Nascent	Baby	Corporate	Nascent-corporate spread	Baby-corporate spread
Argentina	9.17	5.65	1.67	7.50	3.98
Australia	7.32	5.58	6.70	0.61	-1.12
Austria	3.02	2.37	3.10	-0.08	-0.73
Belgium	2.64	1.25	4.83	-2.19	-3.58
Canada	5.88	3.66	6.35	-0.47	-2.69
Chile	8.49	6.23	1.58	6.91	4.65
Croatia	2.84	1.49	3.60	-0.76	-2.11
Czech Republic	6.41	1.98	3.77	2.64	-1.79
Denmark	2.68	2.86	6.04	-3.36	-3.18
Finland	3.29	2.26	3.24	0.05	-0.98
France	3.47	1.02	3.00	0.47	-1.98
Germany	3.16	2.31	0.84	2.34	1.27
Greece	3.92	2.54	0.43	3.49	2.10
Hong Kong	1.61	1.58	10.29	-8.68	-8.71
Hungary	2.96	2.28	3.35	-0.40	-1.07
Iceland	7.83	4.46	11.64	-3.81	-7.18
India	5.42	5.31	0.10	5.32	5.21
Indonesia	9.63	11.51	0.18	9.45	11.33
Ireland	5.05	4.03	5.56	-0.51	-1.53
Israel	4.32	2.53	8.59	-4.27	-6.06
Italy	2.49	1.90	4.37	-1.87	-2.47
Japan	0.96	1.21	3.02	-2.06	-1.81
Jordan	10.38	8.26	2.94	7.44	5.32
Latvia	4.17	2.77	12.33	-8.16	-9.56
Mexico	4.59	1.36	6.54	-1.95	-5.18
Netherlands	2.43	2.01	8.96	-6.53	-6.94
New Zealand	9.02	7.82	12.73	-3.71	-4.92
Norway	4.14	4.11	9.69	-5.55	-5.58
Peru	31.36	12.93	3.05	16.00	9.88
Poland	3.92	5.20	1.85	2.07	3.35
Russia	3.46	1.71	4.69	-1.23	-2.98
Singapore	3.33	2.98	3.03	0.02	-0.39
Slovenia	2.62	1.08	2.64	-0.02	-1.56
South Africa	3.40	1.79	1.86	1.54	-0.07
Spain	2.95	2.97	6.90	-3.95	-3.93
Sweden	1.81	2.37	5.02	-3.21	-2.64
Switzerland	3.49	3.71	2.71	0.78	1.00
Turkey	2.20	4.01	1.25	0.95	2.76
Uganda	16.01	18.02	0.66	15.35	13.00
United Kingdom	3.41	3.07	5.01	-1.60	-1.94
United States	8.12	4.98	2.55	5.57	2.43

Note: Numbers provided are the averages for 2003, 2004 and 2005.

Source: Acs, Desai and Klapper (2008).

opportunity. The biotechnology sector in Bangalore is host to many high-growth new firms, while the manufacturing sector in Mumbai is host to many informal new firms. The range and extent of these types of entrepreneurship are related, of course, to the level of economic development and institutions in the country.

For example, domestic economic development policies in Peru in the 1990s included an initiative to increase formal sector participation by decreasing repeated registrations across several different government agencies. These efforts led to the formalization of more than 671,000 businesses between 1991 and 1997 (see Zuin 2004). However, these policies were enacted after decades of growth of the informal sector, driven largely by increased taxation and regulation in the 1960s (de Soto 1989). Although formal entry has been on the rise since policy reforms in the 1990s, the scope of entrepreneurship in Peru is still overwhelmingly informal. This is connected at least in part to the lack of formal sector employment, and is evidenced by the high number of necessity entrepreneurs in the country (Serida, Borda and Nakamatsu 2006).

An important consideration arises from the allocation of entrepreneurship among productive, unproductive and destructive forms (see Baumol 1990). This perspective differs from the dichotomies discussed earlier because the dichotomies are defined based on the person, process or activity selected. However, the impact or outcome of the activity is more relevant to the allocation of entrepreneurship and its associated tradeoffs.

In different papers that end with similar implications, Baumol (1990) and Murphy, Shleifer and Vishny (1991) argue that the allocation of entrepreneurship is driven by the overall structure of institutions or rewards. Entrepreneurs are not driven by the possible effects of their activities on society—rather, they act in ingenious and creative ways to increase wealth, power and prestige (Baumol 1990). Activities are chosen based on perceived profit and can include activities of questionable value to society (Baumol 1990), arguably because entrepreneurial talent ‘goes into activities with the highest private returns, which need not have the highest social returns’ (Murphy, Shleifer and Vishny 1991: 506). The allocation of entrepreneurship represents a tradeoff between several possible choices and is reflective of the state and quality of incentives and institutions in the society. Increasing the relative size of productive entrepreneurship is a goal for economic development because it translates into higher GDP growth. However, it is not the first or only step for many developing countries, given the role played by necessity entrepreneurship and informal entrepreneurship.

Entrepreneurship can manifest in different ways—even in the same country under different economic systems. This is a key problem for developing countries, which may host productive, unproductive and destructive manifestations of entrepreneurship *under the same policy regime*. The relationship between changes in the structure of entrepreneurship over time, especially within one developing country, is not straightforward and is a promising area for further research. For example, Earle and Sakova (1999, 2000) examine six transition countries<sup>8</sup> and find that owning a side business before transition increases the probability of owning a private business later. This supports an understudied connection between the informal sector and future private sector participation, an important question given the size and strength of the unofficial

---

<sup>8</sup> Bulgaria, Czech Republic, Hungary, Poland, Russia, Slovakia.

sector in transition economies (for more on this subject, see Johnson et al. 1997). Aidis and van Praag (2004) find limited support for the role of illegal entrepreneurship experience in future private enterprise, only among younger and highly educated entrepreneurs. In general, however, prior illegal entrepreneurship experience did not enhance future business ownership. This suggests that skills and knowledge acquired in one system are not easily transferred to another system (Aidis and van Praag 2004), and bringing informal or illegal entrepreneurs into the formal or legal sectors is a difficult task.

## 5 Conclusion

Improving our understanding of entrepreneurship in developing countries is an important prerequisite to appropriate public policy planning. Although multiple measures of entrepreneurship exist, they should be applied and interpreted with caution—and specifically for the types of activities being undertaken. Generalizing research findings can lead to potentially costly mistakes, particularly when they are derived from different country context. For example, findings from cross-country research on OECD are not generalizable for developing countries in Asia.

The current research on entrepreneurship is driven by two goals related to measurement. First, there is a push to develop and validate a measure of entrepreneurship that can be used reliably and consistently across countries. Second, there is increasing interest in segmenting and differentiating the type of entrepreneurship being measured. Third, the relationship between economic development, institutions and entrepreneurship necessitates a comprehensive research approach.

## References

- Acs, Z., S. Desai, and L. Klapper (2008). 'What Does Entrepreneurship Data Really Show?'. *Small Business Economics*, 31 (3): 265-81.
- Ahmad, N., and R. G. Seymour (2008). 'Defining Entrepreneurial Activity: Definitions Supporting Frameworks for Data Collection'. OECD Statistics Working Paper, January. Paris: OECD.
- Aidis, R., and M. van Praag (2004). 'Illegal Entrepreneurship Experience'. *Journal of Business Venturing*, 22 (2): 283-310.
- Ardagna, S., and A. Lusardi (2008). 'Explaining International Differences in Entrepreneurship: The Role of Individual Characteristics and Regulatory Constraints'. NBER Working Paper W14012. Cambridge, MA: National Bureau of Economic Research.
- Balcerowicz, E., J. Balcerowicz, and I. Hashi (1999). 'Barriers to Entry and Growth of Private Companies in Poland, the Czech Republic, Hungary, Albania and Lithuania'. CASE Report No 14. Warsaw: Center for Social and Economic Research.
- Baumol, W. J. (1990). 'Entrepreneurship: Productive, Unproductive, and Destructive'. *Journal of Political Economy*, 98 (5): 893-921.

- Beck, T., A. Demirguc-Kunt, and R. Levine (2005). 'SMEs, Growth, and Poverty: Cross-Country Evidence'. *Journal of Economic Growth*, 10 (3): 199-229.
- Bygrave, W. D., and C. W. Hofer (1991). 'Theorizing about Entrepreneurship'. *Entrepreneurship Theory and Practice*, 16 (2): 13-22.
- Chaudhuri, K., F. Schneider, and S. Chattopadhyay (2006). 'The Size and Development of the Shadow Economy: An Empirical Investigation from States of India'. *Journal of Development Economics*, 80 (2): 428-43.
- Cowling, M., and W. Bygrave (2002). 'Entrepreneurship and Unemployment: Relationships between Unemployment and Entrepreneurship in 37 Nations Participating in the Global Entrepreneurship Monitor'. GEM Consortium Working Paper. Available at: [www.babson.edu/entrep/fer/babson2003/xxii/xxii-p1/xxii-p1.html](http://www.babson.edu/entrep/fer/babson2003/xxii/xxii-p1/xxii-p1.html).
- Davis, T. (2006). 'Understanding Entrepreneurship: Developing Indicators for International Comparisons and Assessments'. Report on the OECD's Entrepreneurship Indicators Project and Action Plan. Paris: OECD.
- Desai, S. (2008). 'Essays on Entrepreneurship and Postconflict Reconstruction'. Fairfax, VA: George Mason University. Mimeo.
- De Soto, H. (1989). *The Other Path – The Invisible Revolution in the Third World*. New York: Harper and Row.
- Djankov, S., R. La Porta, F. de-Silanes, and A. Shleifer (2002). 'The Regulation of Entry'. *Quarterly Journal of Economics*, 117 (1): 1-35.
- Earle, J. S., and Z. Sakova (1999). 'Entrepreneurship from Scratch: Lessons on the Entry Decision into Self-Employment from Transition Economies'. IZA Discussion Paper 79. Bonn: Institute for the Study of Labour.
- Earle, J. S., and Z. Sakova (2000). 'Business Start-ups or Disguised Unemployment? Evidence on the Character of Self-Employment from Transition Economies'. *Labour Economics*, 7: 575-601.
- Hall, J. C. (2007). 'Randall G. Holcombe, Entrepreneurship and Economic Progress'. *Review of Austrian Economics*, 21 (2-3): 219-22.
- Hoffmann, A., M. Larsen, and A. S. Oxholin (2006). 'Quality Manual of Entrepreneurship Indicators', version 2. Copenhagen: FORA.
- ILO (International Labour Organization) (2007). 'In Asia, Informal Work Shifts but Remains Massive'. Available: [www.ilo.org](http://www.ilo.org).
- Johnson, S., D. Kaufman, A. Shleifer, M. I. Goldman, and M. L. Weitzman (1997). 'The Unofficial Economy in Transition'. *Brookings Papers on Economic Activity*, 2: 159-239.
- Kirzner, I. M. (1997). 'Entrepreneurial Discovery and the Competitive Market Process: An Austrian Approach'. *Journal of Economic Literature*, 35: 60-85.
- Klapper, L., L. Laeven, and R. Rajan (2006). 'Entry Regulation as a Barrier to Entrepreneurship'. *Journal of Financial Economics*, 82 (3): 591-629.

- Klapper, L., R. Amit, F. G. Mauro, and M. J. Q. Delgado (2007). 'Entrepreneurship and Firm Formation across Countries'. WB Working Paper. Washington, DC: World Bank.
- Lin, A. (2006). 'Shanghai Bar Association Goes After Foreign Firms'. *New York Law Journal*. 18 May. Available at [www.law.com/jsp/llf/PubArticleLLF.jsp?\\_r=1147856732635](http://www.law.com/jsp/llf/PubArticleLLF.jsp?_r=1147856732635).
- Murphy, K. M., A. Shleifer, and R. W. Vishny (1991). 'The Allocation of Talent: Implications for Growth'. *Quarterly Journal of Economics*, 106 (2): 502-30.
- Reynolds, P., W. Bygrave, E. Autio, L. Cox, and M. Hay (2002). 'Global Entrepreneurship Monitor Executive Report'. Babson Park: Babson College; London: London Business School; Kansas City: Kauffman Foundation.
- Reynolds, P., Bosma, N., E. Autio, S. Hunt, N. De Bono, and I. Servais (2005). 'Global Entrepreneurship Monitor: Data Collection Design and Implementation, 1998-2003'. *Small Business Economics*, 24 (3): 205-31.
- Schneider, F., and D. H. Enste (2000). 'Shadow Economies: Size, Causes and Consequences'. *Journal of Economic Literature*, 38 (1): 77-114.
- Schumpeter, J. A. (1934). *The Theory of Economic Development*. Cambridge, MA.
- Serida, J., A. Borda, and K. Nakamatsu (2006). 'Global Entrepreneurship Monitor: Peru 2006'. Lima: Universidad Esan
- Shanghai Bar Association (2006). 'The Situation of Illegal Business Activities Practised By the Foreign Law Firms in Shanghai is Severe'. Memorandum, April 17.
- Storey, D. (1991). 'The Birth of New Firms: Does Unemployment Matter? A Review of the Evidence'. *Small Business Economics*, 3 (3): 167-78.
- Storey, D. (1994). *Understanding the Small Business Sector*. London: Routledge.
- Thurik, R. A., M. A. Carree, A. van Stel, and D. B. Audretsch (2009). 'Does Self-Employment Reduce Unemployment?'. *Journal of Business Venturing*, forthcoming.
- van Stel, A., D. J. Storey, and A. R. Thurik (2007). 'The Effect of Business Regulations on Nascent and Young Business Entrepreneurship'. *Small Business Economics*, 28 (2-3): 171-86.
- World Bank (2000). 'Anticorruption in Transition: A Contribution to the Policy Debate'. Washington, DC: World Bank. Available at: [www.worldbank.org/wbi/governance/pdf/contribution.pdf](http://www.worldbank.org/wbi/governance/pdf/contribution.pdf)
- Zuin, V. (2004). 'Business Strategies of Informal Micro-Entrepreneurs in Lima, Peru'. ILO Discussion Paper 150/2004. Geneva: ILO.