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# **TRACKING BUSINESS CREATION: UNDERSTANDING ORGANIZATIONAL EMERGENCE**

*Report*



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There is substantial scholarly and practical interest in business organizations, understanding why they emerge and exploring entrepreneurship. The current conceptualizations contribute little to understanding how new firms emerge. The Panel Study of Entrepreneurial Dynamics (PSED) research protocol was developed to provide reliable empirical descriptions of the process, with particular attention to the activities involved in business creation and how they are related to the creation of profitable new firms. The results indicate that substantial activity precedes profitability, that this may take many years and it achieved by a minority of start-up ventures. Successfully applied to the vast majority of the world's population, the PSED protocol illuminates the wide variation in entry into business creation. The empirical patterns illuminate the shortcomings of existing conceptual schemes. The disparity amount countries in the prevalence of business creation activity suggest that public policies might be different for countries with different levels of business creation activity; it is unlikely there are any universal best practices. There is, in addition, substantial work to be done to provide a more complete understanding of business creation and its effect on the firm life course.

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# Introduction

All nations are nations of organizations — government organizations, religious and charitable organizations, and productive organizations that provide the goods and services. Organizations are so pervasive that their presence is often taken for granted; they are there when we are born, educated, marry, produce families, and as we need medical care, decline, and complete the human life course with an “organizational ceremony.”

But how and why do organizations exist? The reasons seem to reflect their societal role. Government organizations, for example, are developed to administer the affairs of the nation — from providing education, administering justice, managing infrastructure, and ensuring national security. They are created, so to speak, from the top down. A purpose is adopted and an organization designed and supported, usually with public resources, to achieve the purpose. Religious and charitable organizations often provide members with an opportunity to benefit from companionship, sharing belief systems, and a mechanism for improving the world. They often emerge from those with shared values and beliefs, albeit with assistance from a charismatic leader.

The majority of organizations are businesses, which provide the majority of goods and services in most countries. There may be over 500 million businesses in the world,<sup>1</sup> of which the majority involve more than one person and would be considered organizations. There is considerable interest in new business organizations, as they have been found to be a major source of new jobs (providing one third of 2.2 billion jobs),<sup>2</sup> innovation, economic adaptation, improved productivity, as well as new career options for many.

But explaining the existence of productive, or business, organizations is more challenging. Attempting to explain the emergence of business organizations involves a number of intellectual issues:

- How to define a “business organization?”
- Why do business organizations exist?
- What is “entrepreneurship,” a major source of business organizations?

A review of some of these conceptual approaches is followed by a discussion of a research program that has provided empirical descriptions of firm emergence.

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<sup>1</sup> [Reynolds, 2012, Table 6.1].

<sup>2</sup> [Ibid., p. 61].

**What is a business organization?** There are two approaches to this issue. One is to consider a business organization as a productive machine developed to create a good or service. The best known effort to define such purposeful organizations was that of Weber [1947], who was concerned with improving the efficiency of government organizations, or bureaus, staffed by bureaucrats. His bureaucracy was designed with clear decision structures and rules for action that would maximize the focus and efficiency of the organization to produce a good or service (such as supervising distribution of welfare or providing public safety); the ideal design would lead to improved performance without distractions from political processes. This is still a problem for many government agencies.

This conceptualization has been elaborated regarding emerging organizations with an emphasis on explicit intentionality (or objectives), resource (money, people, assets) allocation, definition of organizational boundaries (people or roles inside the organization), and exchanges across these boundaries.<sup>3</sup> This assessment includes proposals for measures of these four characteristics, implying that unless all four are present, the business organization has “not emerged.” The final conception is that of a social system recognized as a distinct entity with a formalized set of work roles (or positions) and procedures designed to produce goods or services.

The alternative perspective is to emphasize a focus of activity with various individuals (or roles) that make different degrees of contribution to the overall objective.<sup>4</sup> Reflecting the experience of one with the task of coordinating and integrating the contributions of diverse organizational stakeholders — owners, employees, customers, suppliers, financiers, community members — to achieve a shifting set of objectives, the image is one of a locus of activity. The participants are constantly making decisions about the nature and extent of their involvement, reflecting their perception of benefits for their contributions. The major challenge of those responsible for integrating and coordinating the contribution — the function of the executive — is to ensure that the contributions to the organization are greater than the benefits provided to the participants. Otherwise the organization will gradually dissipate all assets and disappear. The image, then, is not of a machine staffed with human agents pursuing a narrow goal, but of a shifting coalition with vague goals that may be maintained if the organizational output has value for all stakeholders.

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<sup>3</sup> [Katz, Gartner, 1988].

<sup>4</sup> [Barnard, 1938].

**Why have business organizations?** There are at least two approaches to this issue. The most obvious is that there are many things that one person cannot do. This has led to the creation of productive or task oriented organizations since humans began to live in groups. They would create an organization to build structures or irrigation systems, improve hunting or farming efficiency, or provide for common defense as military organizations.<sup>5</sup> While this seems like an obvious issue, it has not prevented major efforts to provide more fundamental explanations.

Substantial effort has been devoted to this issue by those developing the “new institutional economics,” to differentiate it from a focus on societal institutions that may affect economic behavior.<sup>6</sup> The conceptualization assumes that productive organizations are unnatural, artificial mechanisms that emerge from inadequacies of markets to coordinate all productive processes.<sup>7</sup> Market coordination assumes that each person is producing a unique good or service. They are combined to produce a final output and the contributions of each person are subject to ongoing negotiations regarding their rewards. All participants in the social system, therefore, are simultaneously participating in a variety of market transactions, continuously adjusting their output and purchases as the demand and supply for various commodities changes. The continuous, ongoing negotiations regarding each individual deal is considered the transaction cost.

The contribution of “new industrial economics” is to suggest that the costs of continual, ongoing, complex transactions may become so onerous that a different mechanism will develop to coordinate the productive output of the participants. They will agree to develop a coordination mechanism, a hierarchy that develops formal rules regarding individual contributions and the distribution of rewards. Negotiations over the rewards and benefits to individuals in exchange for their productive contributions will be conducted periodically, rather than continuously, reducing the costs of continuously negotiating transactions. This is considered, somehow, a natural progression.<sup>8</sup>

**What is “entrepreneurship?”**<sup>9</sup> Few concepts reflect more scope and ambiguity than “entrepreneurship.” The origin of the French word “en-

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<sup>5</sup> [Udy, 1970].

<sup>6</sup> [North, 1981].

<sup>7</sup> [Hodgson, 1998].

<sup>8</sup> [Williamson, 2000; 2009].

<sup>9</sup> Borrowed, with editing, from [Reynolds, Curtin, 2009, Introduction, Chap. I, p. 1–18].

trepreneur” was meant to describe an individual “who unites all means of production and who finds in the value of the products ... the reestablishment of the entire capital he employs, and the value of the wages, the interest, and rent which he pays, as well as profits belonging to himself.”<sup>10</sup> In other words, the entrepreneur establishes a business venture. Early English writers did not know whether to use the term “undertaker” or “adventurer” to translate the word “entrepreneur”. The entrepreneurial concept reflects the idea of opportunity recognition and success as a coordinator and administrator but does not necessarily imply creating something new or innovative. It does imply that the entrepreneur bear some risk or uncertainty.<sup>11</sup>

This ambiguity has led some scholars to emphasize specific aspects of the entrepreneurial process. For example, the idea that entrepreneurship was a positive contribution to economic adaptation and change was conveyed by the idea of “creative destruction.”<sup>12</sup> It was suggested that the creation of new productive activities lead to the beneficial replacement of existing firms, displacing them by firms that provided new goods and services or using new procedures to provide established commodities more efficiently. Some now consider “innovative entrepreneurship” as the only form worthy of serious attention;<sup>13</sup> others have suggested that only those few new firms receiving venture capital support, about 200 each year in the US, make significant contributions.<sup>14</sup> The challenge of identifying the level of the required “innovation” or the required impact on markets, however, has not been resolved conceptually or operationally.

Others have focused on “opportunity recognition,” or how markets are identified for goods and services.<sup>15</sup> Some have even suggested that opportunity recognition should be the central feature of entrepreneurial research.<sup>16</sup> Opportunities, however, are difficult to define in the absence of an organized effort to take advantage of them. After the fact, it is possible to define a new venture that grows quickly as having exploited a “major opportunity,” leading to a tendency to reserve the label “entrepreneurial” for only those new businesses that rapidly expand. Nevertheless, a focus on recognizing and exploiting opportunities allows the concept of

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<sup>10</sup> [Say, 1816].

<sup>11</sup> [Cantillon, 1730; Knight, 1921].

<sup>12</sup> [Schumpeter, 1934].

<sup>13</sup> [Baumol, Litan, Schramm, 2007].

<sup>14</sup> [Shane, 2008, p. 162].

<sup>15</sup> [Penrose, 1959; Kirzner, 1979].

<sup>16</sup> [Shane, Venkataranam, 2001].

entrepreneurship to be applied to any active participant in any market,<sup>17</sup> such as managers in existing firms, now referred to as “intrapreneurs,” or even administrators or officials in government agencies or not-for-profit organizations, often referred to as “social entrepreneurs.”

Entrepreneurs not only play a special role in the creation of new firms, many scholars have also viewed them as having special personality characteristics. Since entrepreneurs may seem very focused and driven, compared to normal wage and salary employees, the idea that entrepreneurs would have unique dispositions or personalities has received substantial attention.<sup>18</sup> Perhaps most widely known have been the propositions that they have a need for achievement<sup>19</sup> or a preference for risk.<sup>20</sup> Despite the substantial research effort to characterize an “entrepreneurial personality” few stable empirical relationships have been established.<sup>21</sup> The situational demands of creating new organizations may cause individuals to be focused and driven, perhaps even compulsive for a time, but not all focused and driven individuals will create new businesses.

If entrepreneurship is considered a structural feature of societies, similar to socialization processes or marriage or religion — it is possible to consider it as a type of market, with attention to factors affecting the demand and supply of entrepreneurial activity. It is possible to discuss this at some length without actually defining “entrepreneurship.”<sup>22</sup> As the creation of a new firm is generally done in a network of social relationships, entrepreneurship may also be viewed as a social phenomenon.<sup>23</sup> In this sense entrepreneurship is much more than an individual career choice, it reflects a group effort.

## **How do new firms come into being?**

One of the striking features of modern life is the constant appearance of new businesses. While intellectual work on these three issues — the definition of a business organization, why business organizations exist, or the conception of entrepreneurship — are worthy of attention, their

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<sup>17</sup> [Pozen, 2008].

<sup>18</sup> [Kets de Vries, 1985].

<sup>19</sup> [McClelland, 1961].

<sup>20</sup> [Knight, 1921].

<sup>21</sup> [Gartner, 1988].

<sup>22</sup> [Thornton, 1999].

<sup>23</sup> [Aldrich, 2005; Reynolds, 1991; Thornton, 1999].



solutions are not much help in providing a response to the central issue: ***What processes lead to the presence of a new firm?***

In fact, these orientations do not even provide much guidance on how to develop a research program to develop a description of the firm creation process.

The solution to this issue requires attention to several issues. Most important, what is the critical causal element in the business creation process? One might argue that it is some objective that a single person cannot achieve, or a concern for excessive transaction costs, or the presence or opportunities, a capacity for innovation, an unmet social need, or an individual desire for autonomy, risk, or personal achievement. None of these are of much help as description of the process.

The reality is: ***Individuals, alone or in teams, create new business organizations.***

Without a description of how they proceed, it is difficult to develop an accurate description of the firm creation process. Without an accurate empirical description, it is hard to determine the value of the various conceptual frameworks. This led directly to the development of a research protocol for identifying individuals in the business creation process and, in turn, tracking their progress as they moved forward.

But one other component was critical. There is a wealth of data on the contribution of new firms to job growth, economic productivity, innovation and adaptation, as well as a route for the personal career development for many, particularly women, minorities, immigrants, and the disadvantaged. The desire to measure the societal or economic importance of the amount and type of business creation led directly to strategies for gathering representative samples of those involved in business creation. Samples that could be used to extrapolate to the entire population to determine the scope of activity were considered critical to maximizing the value of the research.

The result, representing several decades of development, has been the Panel Study of Entrepreneurial Dynamics (PSED) protocol.<sup>24</sup> The following reviews the current status of this procedure and some of the more prominent patterns.

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<sup>24</sup> Initial development in the US is summarized in [Reynolds, 2000; Gartner et al., 2004]. Subsequent developments in the US is discussed in [Reynolds, Curtin, 2009] and in nine other countries in [Reynolds, Curtin, 2010]. Full details, documentation, and all US data sets are available at <[www.psed.isr.umich.edu](http://www.psed.isr.umich.edu)>.

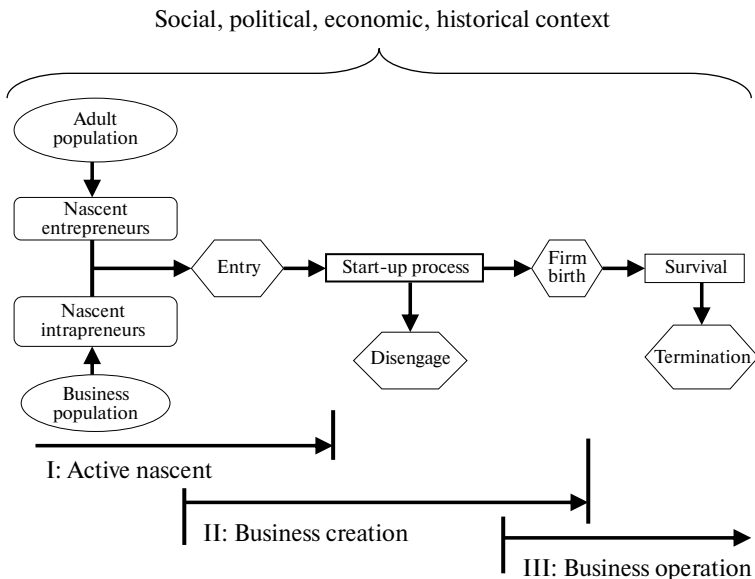
# PSED protocol

The PSED protocol reflects a conception of how new firms are implemented. After this is presented, there is a brief overview of the procedures employed to locate a representative sample of those in the start-up phase of business creation and how the status of the venture, in terms of the firm life course, is determined.

## Conceptual scheme

The conceptual scheme is presented in Fig. 1. It assumes, as indicated on the left of the diagram, that individuals enter the start-up process on their own accord or because it is part of their employment responsibilities, considered nascent entrepreneurs or nascent intrapreneurs. In both cases, they may be part of a team working to implement the new business. Once they enter the process, they may continue until the venture makes the transition to a new firm or they disengage and the start-up is, in a sense, still born.

The new firm may, in turn, may continue to operate until, at some point, it terminates operation. While most firms eventually terminate,



**Fig. 1.** Business creation conceptual scheme

the focus in this effort is on tracking progress until there is an outcome of the start-up process, a new firm or disengagement.

### **Locating nascent entrepreneurs/ventures**

The most critical feature of the research design is developing a cost-effective method for locating a representative sample of those in the start-up phase. If the costs are not within reason, then it is not possible to obtain support for the research. The procedure that has been developed has several critical features. It begins with using standard sampling procedures to identify a representative sample of adults, operationally defined as those 18 to 64 years of age that are not in situations where implementing a firm would be prohibited, such as a prison, mental institution, or the military.<sup>25</sup>

Once a representative adult is identified, they are then asked three questions about participation in business creation (which are paraphrased as follows):<sup>26</sup>

- Are you starting a business on your own, perhaps with a team?
- Are you starting a business for your employer, perhaps with a team?
- Are you the owner-manager of an existing business, perhaps with a team?

If they provide a negative response to all three, they are of no further interest and are dropped from the screening.

If they provide a positive response to any of the three items, they are then asked additional questions to determine if:

- They have taken any action in the previous year to implement the firm?
- Do they expect to share ownership in the new firm?
- Has the start-up reported initial profits?

If they answer “Yes” to the first two items and “No” to the third, they are retained as nascent entrepreneurs for additional data collection.

While this procedure may seem simplistic, it is the consequence of considerable effort to minimize the screening costs, as the majority of the sample can be set aside after the first three questions, which generally take less than a minute to implement. This dramatically reduces the

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<sup>25</sup> There are a number of ways to identify a representative sample of adults, selecting household at random and then members at random, randomly identified cell phone numbers, from lists of all citizens, and all have been utilized in various surveys utilizing this screening protocol.

<sup>26</sup> The screening interview is provided at <[www.psed.isr.umich.edu](http://www.psed.isr.umich.edu)>.

screening costs and provides a procedure for locating representative samples of nascent entrepreneurs that is affordable.

Those identified as nascent entrepreneurs that agree to continue, and generally over 80% are willing to be involved. These volunteers then receive a detailed interview covering a variety of aspects of business creation; such phone interviews have ranged from 30 to 60 minutes long.

### Gathering information: initial and follow-up interviews

Two procedures have been employed to gather detailed information from those identified as nascent entrepreneurs. In the US effort the respondent details were transferred to an academic survey center where the initial and follow-up phone interviews were completed. In other projects, with shorter initial interviews, the respondent was provided with the detailed modules as the last part of the initial screening interview.<sup>27</sup> Table 1 provides an overview of the modules included in the second US project (US-PSED II). Note that the coverage in the follow-up interviews varied depending on the status of the initiative, profitable new firm, disengaged, or continuing start-up.

**Table 1.** Overview of US-PSED II phone interview schedule modules

Topic modules	Screening	Wave A	Wave B <sup>*,**</sup>	Wave C <sup>*,**</sup>
Screening questions	All			
Assessment of criteria for nascent entrepreneur	All			
Socio-demographic	All			
A.1: Why involved, business opportunity (open ended)		All		
A.2: Confirm same business activity			All	All
A.3: Determine status: new firm, quit, continue			All	All
B: Type of business, location		All	NE, SU	NE, SU
C: Legal form		All	All	All
D: Start-up activities		All	All	All
E.1: Start-up finances, entry into firm registries		All	All	All
E.2: Confirm quit, exit interview			Quits <sup>***</sup>	Quits

<sup>27</sup> [Davidsson, Gordon, 2011].

Topic modules	Screening	Wave A	Wave B <sup>*,**</sup>	Wave C <sup>*,**</sup>
F: Orientations toward competition		All	NF	NF
G: Owners, key non-owners, and helpers inventory		All	NF, SU	NF, SU
H: Owner demographics		All	NF, SU	NF, SU
J: Relationships among owners		All	NF, SU	NF, SU
K: Juristic (legal entity) owners		All	NF, SU	NF, SU
M: Key non-owner demographics		All	NF, SU	NF, SU
N: Helper demographics		All	NF, SU	NF, SU
P: Community resources, support for new firms		All	NF	NF
Q: Informal start-up financial support		All	NF, SU	NF, SU
R: Legal entity start-up investments, debts, net worth		All	NF, SU	NF, SU
S: Competitive strategy and target markets		All	NF	NF
T: Growth expectations		All	NF	NF
U.1: Respondent's motivation		All		
U.2: Employment structure			NF	NF
V.1: Expense structure: summary			NF	
V.2: Expense structure: detailed				NF
X: Respondent's career background		All	SU	SU
Y: Respondent's self-descriptions		All		
Z: Respondent and household socio-demographics		All	NF, SU	NF, SU

*Notes:* \* After wave A, modules are provided to all respondents, only those that quit, or those with a new firm (NF), or still active in the start-up process (SU).

\*\* After initial interview, modules are repeated to capture changes or new information about the activity or details on the current status.

\*\*\* Those considered “quits” do not receive additional follow-up interviews.

## Start-up activities

As can be seen from Table 1, a great deal of material can be covered in the interview schedules, including details of the nature of the business, the size, character and background of the start-up team, legal status, competitive strategy, technological emphasis, export orientation,

perspectives on the context, motivations and firm growth expectations, employment structure, a basic profit and loss statement, and so on. But one of the unique features is identification of the steps taken to implement the firm.

A summary of the start-up activities accessed in a recent pilot study completed in the UK is provided in Table 2.<sup>28</sup>

**Table 2.** Reports of start-up activities and relation to entry into the process: UK pretest

Activity	Proportion reporting, %	Months since entered process
Serious thought	99.4	-6.8
First 100 hours of effort	88.7	3.6
Talk to customers initiated	85.5	3.7
Defining markets initiated	73.6	1.3
Work on business plan	66.7	6.4
First £ 1,000 invested	59.8	6.1
Phone, internet listing	59.8	9.4
Acquired, leased equipment	54.7	5.6
Marketing, promotion	53.5	11.5
Venture bank account obtained	47.2	7.4
Development of model, prototype	43.4	1.4
Initial sales, income	34.6	10.0
<i>R</i> now devoting full time to the venture	37.7	10.9
Helping program initial contact	29.6	1.1
Helping program most recent contact	29.6	2.7
Obtained space for the venture	20.8	13.5
Asked for formal funding	18.2	13.6
First employee hired	15.7	22.5
Patent, trademark, copyright (IPR) registration	13.6	4.7
Positive monthly cash flow covers expenses	14.5	14.9

<sup>28</sup> This represents responses from 159 UK nascent entrepreneurs identified in national screenings completed in the summer of 2012 and 2013 [Reynolds, Hart, Mickiewicz, 2014].

Activity	Proportion reporting, %	Months since entered process
Formal financial support acquired	10.1	21.0
<b>Formal registration</b>		
Legal form registered	52.8	5.0
Venture registered with HMRC	30.2	11.3
Ventured registered for VAT payments	22.6	8.5
<b>Team member participation</b>		
Team member 2 got involved	29.0	-4.6
Team member 3 got involved	8.8	5.6
Team member 4 got involved	3.8	9.3
Team member 5 got involved	0.6	11.0
Team member 2 invested in venture	17.6	0.9
Team member 3 invested in venture	3.1	10.8
Team member 4 invested in venture	0.6	13.0
Team member 5 invested in venture	None	
<b>Outcomes</b>		
Initial monthly profits (expenses, salaries covered)	3.8	16.7
R quit the start-up venture	23.3	24.4

*Note:* Includes 159 active nascent entrepreneurs from both 2012 and 2013 cohorts.

It provides a list of the activities included in the interview. If, in the interview, they reported an activity had been initiated, they were asked the month and year this occurred. This information is used to determine the order as well as the time lags between different activities. The right column reports the lag, in months, between entering into the process and the dates of the first reports of each activity. Entry into the process is defined as the earlier of the first two activities that occur within a 12 month period, excluding serious thought (which is reported by everybody).

These activities are presented in four categories: (1) those directly related to the development of a new business; (2) three activities that would result in the inclusion in a formal registry; (3) those related to the development of a start-up team; and (4) related to the outcomes of the start-up process, reporting profitability or disengagement from the start-up effort. In Fig. 2 activities are rank ordered by the time lag after entry

into the start-up process, it also presents the proportion reporting each activity.

The most obvious feature of this presentation is the great variation in the proportion reporting different activities. This reflects completing the interview at different stages of the start-up process as well as the diversity of types of new firms. Not all firms are required to pursue all activities. For example, only a minority would benefit from acquiring intellectual property rights and only 14% report working on this activity.

Figure 2 illustrates two activities that precede the entry into the start-up process. Serious thought is reported by almost every nascent entrepreneur (99.4%) and it occurs on average 7 months before the date of entry into the start-up process. The only other “pre-entry” activity, reported by 29%, is getting another person involved, which occurs on average 5 months before entry into the process.

The creation of the start-up team, where it occurs, seems to happen within the first year, as the third and fourth team members are added, on average, six and nine months after entering the process. In the one case where a fifth person was included this occurred 11 months after entry. Those few start-up team members that provided informal financial support also did so in the first year.

Formal registration, when reported, also appeared to have happened in the first year. The 53% that had legally registered the firm did so early in the process, on or about the fifth month. A smaller proportion, 30%, report registering with Her Majesty’s Revenue and Customs (HMRC) but did so within 11 months. Even fewer, 23%, registered for Value Added Tax (VAT) payments, but did so after 8 months. It is to be expected that a much larger proportion of profitable start-ups will file for inclusion in the HMRC and VAT registries; they would be identified in additional follow-up interviews.

As this data involves only one interview, it is no surprise that only 4% have reported monthly profits;<sup>29</sup> this is reported 17 months after entry into the process. With additional follow-ups the proportion reporting initial profits and a longer lag following entry is to be expected. A longer time to initial profits could reflect a less intense commitment to the start-up venture, but it could also reflect a more complex or ambitious start-up plan that takes longer to initiate. The 23% that report they have disengaged from the start-up took an average of two years to quit the initiative. This would suggest it was not a hasty decision.

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<sup>29</sup> This is defined as monthly revenue that is greater than monthly expenses including salary payments for the owner-managers.



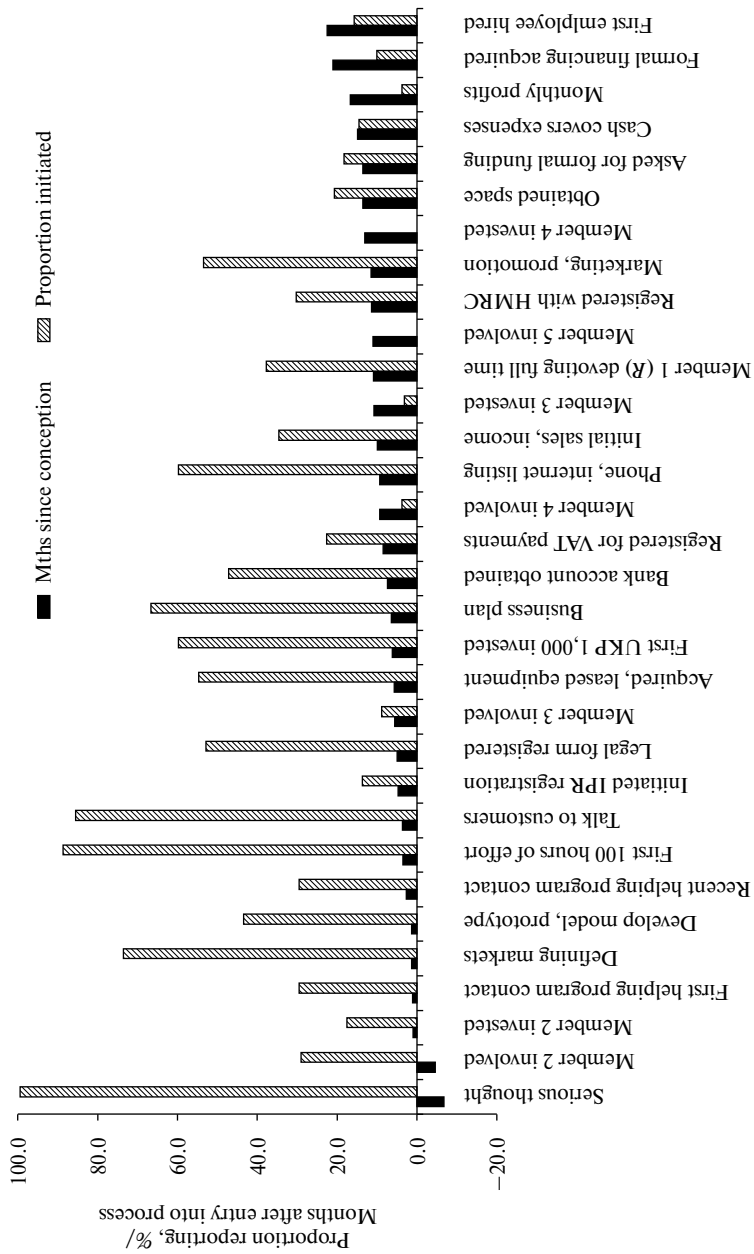


Fig. 2. Start-up activities: proportion reporting and months after entry into the start-up process

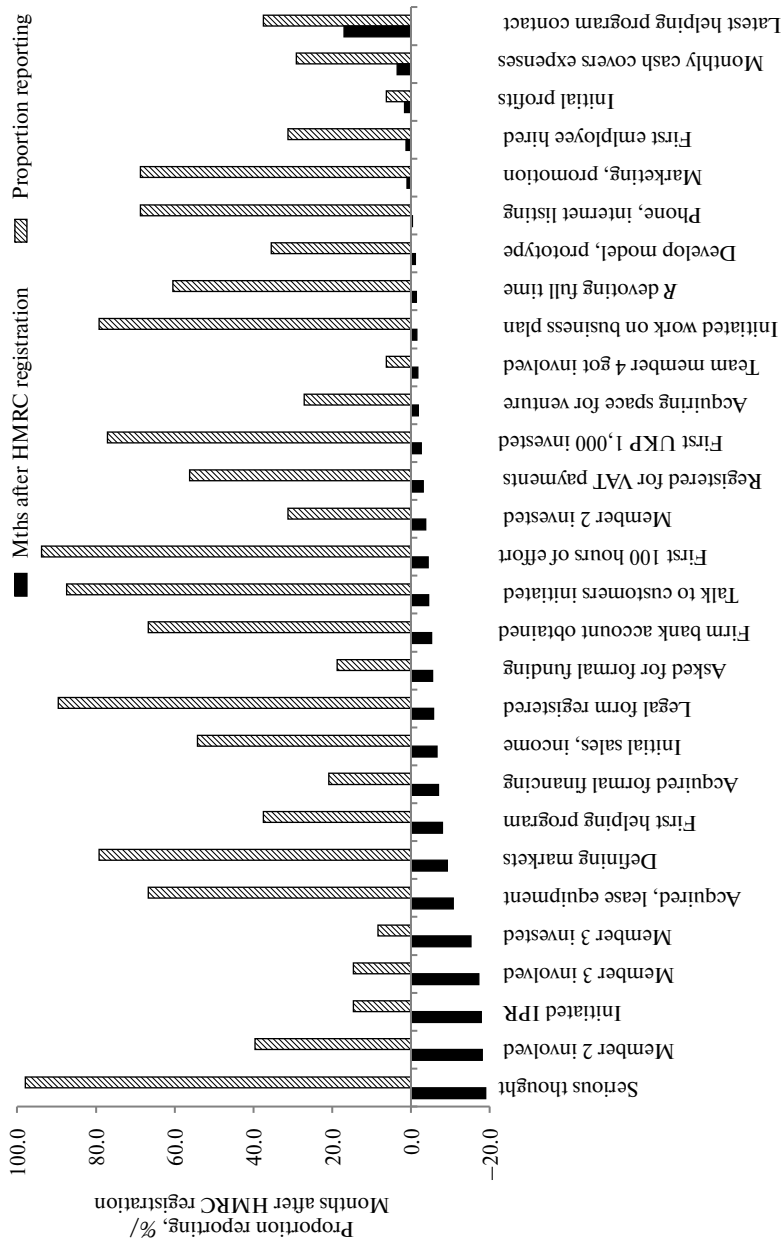


Fig. 3. Start-up activities: proportion reporting and months after HMRC registration

The presentation in Fig. 2 illustrates that some activities that are reported by a minority of start-ups occur early in the process. This is quite clear regarding contact with helping programs; while reported by only 30% they do so within several months of entering the process.

Despite the substantial policy focus on formal financial support, only 18% report requesting financial support and this occurs 14 months after entry into the process. This is 8 months after they begin working on the business plan. The 10% that report receiving formal financing indicate this occurred 21 months after entry into the process — and 7 months after the initial request.

Much attention is given to formal registration as an indicator of firm birth. The amount of activity that may precede registration is not well recognized. These “pre-registration activities” are illustrated in Fig. 3, which presents the proportion of activities reported and the time lag after a start-up has completed a HMRC registration.

Figure 3 is based on 48 cases or 30% of those in these two cohorts.<sup>30</sup> But most of the “time lags,” 24 of 29, are negative, indicating that the majority of the activity was implemented *before* the venture initiated the HMRC registration. This includes registering the legal form and initial VAT registration. The only major events that occurred, on average, after HMRC registration were hiring employees and initial profits. And only a small proportion in this sample, 2%, is reporting initial profits 6 months after HMRC registration. This proportion may increase, however, as the start-ups continue to develop. This growth in the proportion that achieves initial profits would be captured in additional follow-up interviews.

## Outcomes: New firms or quits

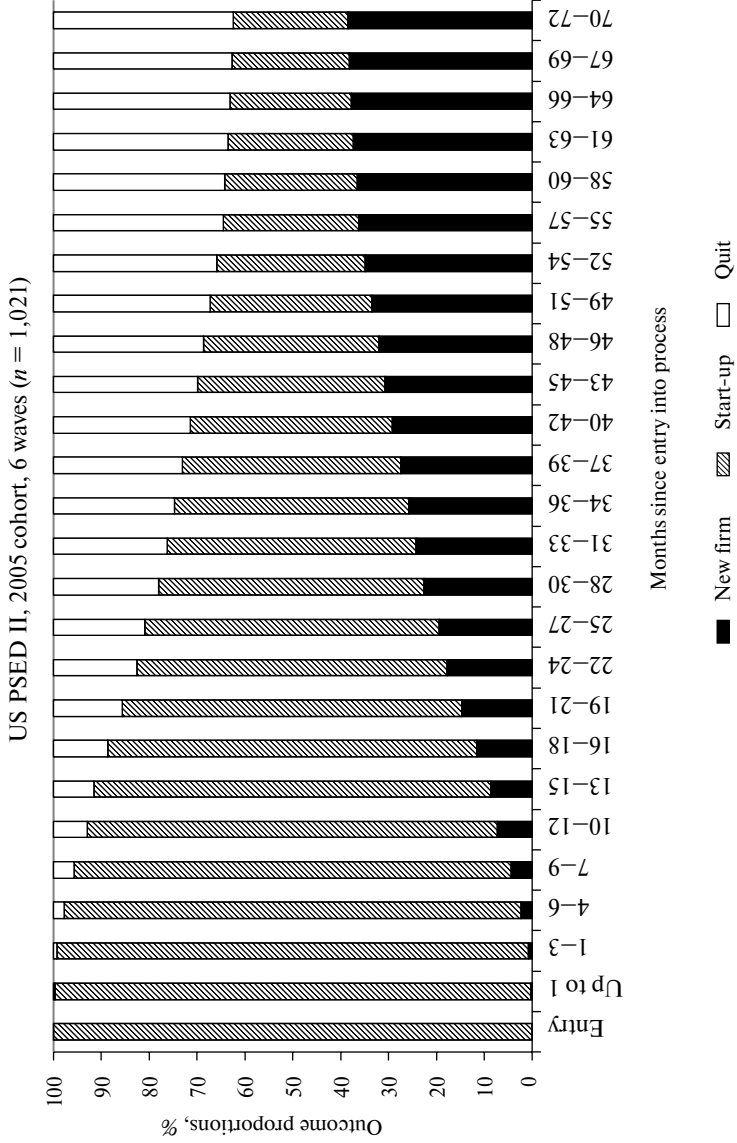
What is the outcome from pursuing firm creation and how long does it take? One answer to this question is provided for the US in Fig. 4.

It is based on an initial cohort of 1,021 nascent entrepreneurs that completed an initial detailed interview and five annual follow-ups.<sup>31</sup> As

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<sup>30</sup> Among the 303 nascent ventures identified in the 2012 GEM screening, 53.3% of the weighted sample reported they had registered with HMRC or for VAT, compared to 40.1% in the UK PSED combine cohort that could report a date at which registration occurred. This difference may reflect the comparison of weighted and un-weighted samples, differences in the wording and placement of the items.

<sup>31</sup> The procedures to create this presentation are relatively complex; they are presented in detail in [Reynolds, Curtin, 2011].



**Fig. 4.** Start-up outcomes over time: US 2005 cohort, initial plus five follow-ups

can be seen in Fig. 4, six years after entering the start-up process about one-third have reported a profitable new firm, about two in five have disengaged, and about one in four are still actively involved in the start-up process. Both the long time required to achieve a clear outcome and the low proportion of profitable new firms are somewhat unexpected.

The development of Fig. 4 requires procedures to deal with a number of conceptual ambiguities. Notable identifying those that can be considered active nascent entrepreneurs, determining a date of entry into the start-up process, establishing the outcomes and a date which they occurred, and creating a start-up time line that is independent of the date at which the interviews are completed.

## **Factors affecting outcomes**

One of the most important goals of the PSED program is to enhance understanding of how start-up ventures become profitable. The length of time required to reach an outcome has hampered attention to this issue, as many scholars were concerned about timely publication and waiting five-six years for the processes to be completed was a complication. Some work has been completed regarding specific factors, particularly the impact of business planning<sup>32</sup> and at least one considered all possible factors included in the US PSED I project.<sup>33</sup>

Of considerable interest is the lack of impact of business planning, which has not been found to facilitate or detract from outcome success.<sup>34</sup> Other personal factors such as gender, age, and level of education also seem to have minimal impact. This may reflect the nature of the sample, capturing all business creation includes a substantial proportion of small scale, modest efforts that are single self-employed individuals. Those with substantial work experience may become successful on their own if the enterprise is not complex, such as home repair or a small beauty shop. They may reach profitability without an elaborate, formalized business plan.

The major personal factor with a positive influence is business or work experience. In addition, there is some evidence that firms with greater

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<sup>32</sup> [Davidsson, Gordon, 2011].

<sup>33</sup> [Reynolds, 2007].

<sup>34</sup> Not all scholars have used initial profits as a measure of outcome success [Davidsson, Gordon, 2011].

financial investments may be more likely to reach profitability.<sup>35</sup> But the overwhelming impact appears to be the level and intensity of completing start-up activities. Particularly those related to the actual delivery of a good or service, marketing or promoting the new firm, as well as creating a financial and administrative structure to manage firm resources.<sup>36</sup>

This finding, that more intense efforts leads to more profitable firms, may reflect the experiences of the start-up team as they work through the process. Those working with ventures that look more promising are encouraged to devote more time and money to the effort to complete more activities. This, in turn, increases the likelihood that the start-up will achieve profitability. This “virtuous cycle” reflects both the quality of the business idea and the capacity to implement a venture that can maximize its value.

## **Entry into the start-up process: Global patterns**

The procedure developed for the PSED protocol has been utilized in cross national comparisons of participation in firm creation, the Global Entrepreneurship Monitor (GEM) program.<sup>37</sup> A presentation of the prevalence of those entering the process, reflect the average across 2000 to 2011, is provided in Fig. 5.<sup>38</sup>

As can be seen in Fig. 5, the range is enormous, from less than 2 per 100 in Sweden, Japan, Netherlands, Belgium, and Russia to over 15 per 100 in Bolivia, Angola, Peru and Nigeria. (The US is at an intermediate level, at about 6 per 100.) While some countries are represented by data for only one or two years, some are included for the entire 12 years; there is considerable year to year stability in most countries.<sup>39</sup>

Consolidating these harmonized data sets across all periods provides the opportunity to explore factors that affect entry into the business creation process.<sup>40</sup> The major national factors that seem to increase participation are growth in GDP and population, but not details regarding the

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<sup>35</sup> [Reynolds, 2011].

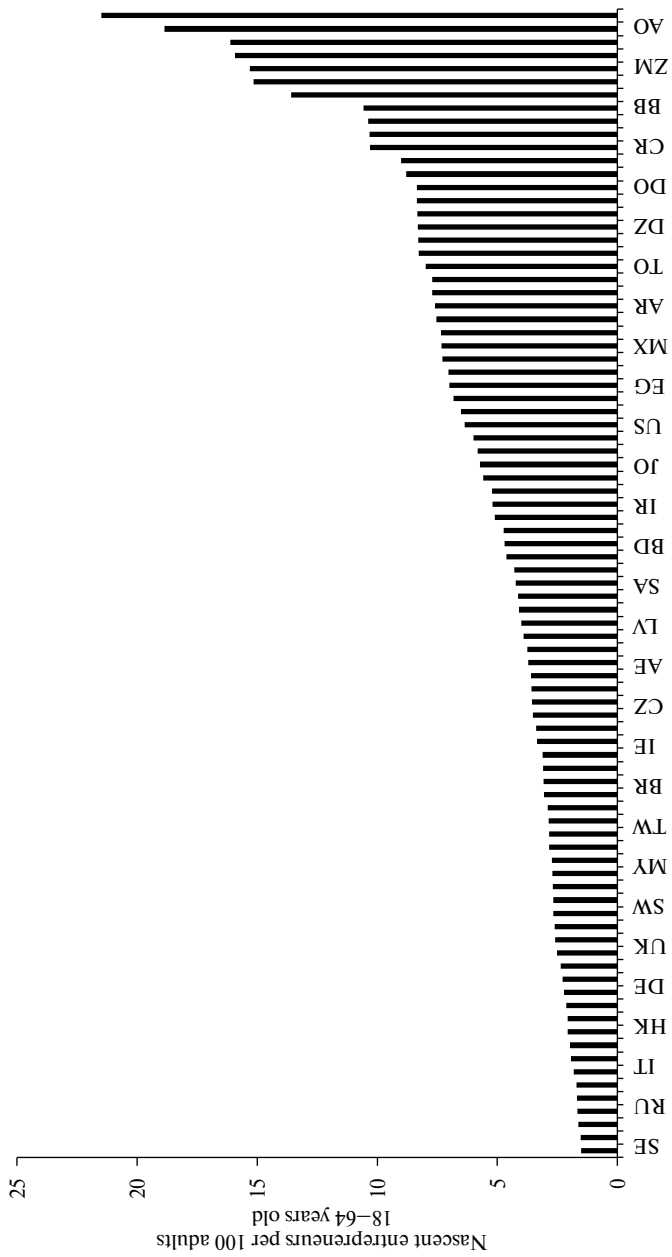
<sup>36</sup> [Reynolds, 2007, Table 6.1].

<sup>37</sup> [Reynolds et al., 2005]; Ramos-Rodriguez et al. [2013] review, more less accurately, the complementary nature of the two research programs.

<sup>38</sup> Based on the author’s harmonized dataset of 1.5 million GEM cases from 87 countries for 1998 to 2011.

<sup>39</sup> [Reynolds, 2014].

<sup>40</sup> [Reynolds, 2012].



**Fig. 5.** Prevalence of nascent entrepreneurs, 87 countries

regulatory or administrative context, such as the difficulty of registering a firm. Greater national emphasis on self-expressive values and a reduced emphasis on secular rational values appear to be associated with more participation in business creation.

The critical individual factors that lead to greater participation are gender, age, and work experience, all of which seem to increase entrepreneurial readiness. Entrepreneurial readiness, in turn, reflects several personal judgments, including the perception of opportunities, confidence in one's skill in starting a business, and knowing others involved in business creation. Education has a mixed effect, more education leads to more participation in high, for that country, income households; less education leads to more participation in low, for that country, income households.

The absolute level of daily income has little impact. The bottom billion, that one third of the world population living on a few dollars a day, is very active in firm creation. Worldwide, they are responsible for almost half of all new firms. Firm creation is clearly a more attractive option than many alternatives for the economically desperate — dangerous migration, a criminal career, terrorism or, the ultimate escape, suicide.

## **Research overview**

The PSED protocol provides an efficient, reliable procedure for identifying those active in the firm creation process. It has been used to locate nascent entrepreneurs and track their progress in a number of countries. It has been used in a hundred countries by the GEM program to estimate the prevalence of individuals active in the firm life course, nascent entrepreneurs as well as owner-managers of new and established firms. The most important patterns from these two research programs are:

- The research protocol works to provide reliable, harmonized data in all national contexts using a wide range of languages.
- The national variation in participation in firm creation is enormous, from 1.5 per 100 to 20 per 100 adults; a thirteen fold difference.
- Entry into the start-up process is universally affected by an individual's age, gender, work experience, and readiness for entrepreneurship — reflecting the perception of opportunities, confidence in start-up skills, and knowing other entrepreneurs.
- A wide range of activities are pursued by those individuals and teams implementing new firms; almost every start-up pursues a unique set in a distinctive order.



- Formal registration of a start-up venture occurs as part of the process, after a number of other activities have been initiated and the investment of substantial financial and human resources.
- It may take from several months to over five years for a start-up to achieve a clear outcome, profitability or abandonment; more complex initiatives may take longer.
- Less than half of nascent ventures will eventually be profitable; a small proportion of start-ups appear to go on forever.
- Once individuals have entered the start-up process, the most important factors affecting the implementation of a profitable new firm are prior work experience and the number and density of start-up activities. There is little impact from age, gender, education, ethnic status, or a wide range of personal traits or perspectives on the situation, i.e. entrepreneurial climate.

## **Implications for conceptual schemes**

The PSED protocol, which has led to detailed descriptions of the business creation process, has implications for the conceptual schemes currently related to the emergence of business organizations.

**Definitions of organizations.** The PSED procedure identifies new productive ventures, new sources of goods and services. While there is no question they are new actors in economic markets, a significant minority are one person efforts without employees. While they may be new businesses, they are not organizations, as it takes at least two people to constitute an organization.

But more than half involve coordinating the work of two or more people, either because there are multiple owner-managers or there are employees contributing to the firm objectives. Most of these are both of modest scale and just beginning to achieve profitability. As a result, they are very focused on becoming an effective organization and would be consistent with the formal, bureaucratic conception of a business organization. While there may be informal stakeholders contributing to the firm (such as spouses or colleagues of the start-up team), they would not reflect the characteristics of massive, multi-faceted agglomerations envisioned as a locus of attention of multiple stakeholders that are governed by political, social, and economic processes.

On the other hand, there is a lack of agreement among scholars assessing new firms on how they should be defined. Four perspectives are currently employed: labor input, new market participant, new registra-

tion, and initial profits.<sup>41</sup> When carefully assessed with empirical measures of start-up activities with the US PSED II cohort, it was found that 40% of new ventures would meet the criteria of initial labor input, but only 18% were reporting profits. Among 66% that reported any economic transactions, indicating activity in a market, 18% reported initial profits. Among the 68% that reported an initial registration, only 15% had become profitable at that time. This suggests that much of the empirical confusion about the nature of the start-up process and initial firm survival may reflect the use of diverse indicators of a firm birth.

**Why organizations?** The reason for new organizations is, in some ways, more basic. As discussed above, a substantial proportion of new business ventures are not organizations, as they are one person operations.

But among those that involve more than one person, it is useful to distinguish between the development of ownership teams and the retention of non-owners as employees. But, why an ownership team? This generally reflects the need to assemble diverse expertise and greater financial resources. The ownership agreements generally reflect the relative contributions of the owners on these two dimensions. The owners will typically engage in some discussion about allocating responsibilities and sharing rewards, one that leads to a stable agreement to avoid the cost of a continuous negotiation — avoiding transaction costs. These agreements may be modified as contribution change, but the presence of a stable agreement is consistent with the notion that participants wish to minimize transition costs.

Adding employees is more straightforward. In most cases the owner, or owners, make a judgment that the firm will be more profitable if they hire someone to contribute to the output. Virtually all societies have the concept of “a job” and that a standards set of conditions will accompany employment. Work responsibilities, salary and benefits, hours of work, and the like. Many of these conditions are included in legal codes defining work relationships. The owner(s) are constrained, to some extent, in how they can add human resources to the firm.

**Defining entrepreneurship.** Perhaps the major source of controversy is the relationship to conceptions of entrepreneurship. As the PSED procedure captures all forms and types of business creation, many initiatives are not particularly dramatic or innovative or a major source of “creative destruction.” Efforts to identify entrepreneurship based on motivation, such as the need for achievement or a desire to exploit opportunities,

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<sup>41</sup> [Schoonhoven, Burton, Reynolds, 2009].

pose major challenges. To separate two identical efforts at business creation based on whether the start-up team had a “need for achievement” or were driven by an interest in exploiting opportunities would be, at best, complicated.

Almost as complicated would be efforts to measure the extent to which the initiative was “innovative.” Innovative is clearly in the eye of the beholder and almost all those involved in a start-up consider their effort to have some elements of innovation, if only they are providing a new choice of products. Clearly, no empirical progress is possible if the definition of entrepreneurship is based on concepts without precise abstract or operational definitions

As an aside, it is possible to utilize the PSED and GEM data sets to explore patterns related to that subset of cases considered to have high growth or innovative potential or emphasizing high technology; many have done so.

## **Implications for policy**

The benefits of new firms occur only after individuals or teams enter the start-up process and implement a venture that achieves profitability. Public policy may, therefore, focus on different aspects of the process. It could emphasize increasing the number of individuals or teams entering the process or helping those that have made a commitment and are actively involved in the start-up phase; in some cases there may be an emphasis on both.

The choice may depend on the national situation. Clearly many countries have a low amount of activity, for them encouraging more individuals to consider firm creation as a career option may be justified. As confidence in one’s ability to implement a new firm is a major factor associated with entry into the process, implementing entrepreneurship and small business training modules in all educational programs, particularly post-secondary, may facilitate more firm creation. Not only does it make clear that firm creation is considered a legitimate career option, but it would provide the students with the skills and confidence to begin the start-up process once they identify a promising business opportunity. Such opportunity identification often occurs to those working for others.

Countries with a high level of activity do not need to encourage more active nascent entrepreneurs, but may wish to assist those that have entered the process and are attempting to assemble the resources, get or-

ganized to produce goods or services, and promote their new venture to potential customers. In the case, the major challenge is often making the potential clients — the individuals or teams working on a start-up — aware of the services. Even in countries with a large number of helping programs, such as the UK or the US, only about half of the start-up teams are aware that such programs exist. This reflects, in part, the constant churning among the mass of start-up efforts. Every day new start-ups enter the pool and active start-ups quit or achieve profitability; program promotion needs to be continuous to capture those currently involved. Those that take advantage of helping programs, however, find them useful and would recommend them to others.

## Research opportunities

The disparity among countries in the level of business creation activity, related to both all firm creation and the development of high potential new firms, is now well documented with harmonized cross national data sets developed with the GEM research program.<sup>42</sup> However, the majority of panel studies, following the PSED protocol, have been completed in developed countries, with one assessment utilizing a cohort from Chinese cities being the major exception.<sup>43</sup> The implementation of the PSED protocol in countries with a wider range of development would do much to improve understanding on a number of issues:

- Variation in the proportion that complete the process with profitable firms.
- Variation in the nature and potential of start-up teams for achieving a successful outcome.
- Variation in the number and density of start-up activities undertaken in different contexts.
- The impact of initial informal and later formal financing on outcome success.
- The extent to which those in the start-up process are aware of and seek assistance from helping programs.
- Identification of critical issues preventing outcome success would guide the development of helping programs and entrepreneurial modules for national educational systems.

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<sup>42</sup> The project website <[www.gemconsortium.org](http://www.gemconsortium.org)> provides substantial details, the research design is discussed in [Reynolds et al., 2005].

<sup>43</sup> [Zhang et al., 2011].

- Estimating the financial and human resources devoted to the start-up process for both ventures that become profitable and those abandoned with no benefits to the start-up team and early investors.
- If new ventures are tracked for several years after achieving profitability, it will be possible to compare the start-up patterns of those with high growth with the typical new firm.

One of the critical issues is developing an understanding of the proportion of start-ups that achieve profitability. The example provided in Fig. 4 was based on a single US cohort identified in 2005. There is some evidence that those entering the process in other countries may be older, more experienced, and better prepared to implement a new firm.<sup>44</sup> If that is the case, then the proportion of successful outcomes may be higher in these other countries. Only additional research with a wider range of countries can resolve this issue.

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<sup>44</sup> [Davidsson, Reynolds, 2009].

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