

## Encountered Problems and Outcome Status in Nascent Entrepreneurship

A. Marco van Gelderen, B. Pankaj Patel, and A. Roy Thurik

ERIM REPORT SERIES <i>RESEARCH IN MANAGEMENT</i>	
ERIM Report Series reference number	ERS-2009-008-ORG
Publication	February 2010
Number of pages	20
Persistent paper URL	<a href="http://hdl.handle.net/1765/14913">http://hdl.handle.net/1765/14913</a>
Email address corresponding author	thurik@ese.eur.nl
Address	Erasmus Research Institute of Management (ERIM) RSM Erasmus University / Erasmus School of Economics Erasmus Universiteit Rotterdam P.O.Box 1738 3000 DR Rotterdam, The Netherlands Phone: + 31 10 408 1182 Fax: + 31 10 408 9640 Email: <a href="mailto:info@erim.eur.nl">info@erim.eur.nl</a> Internet: <a href="http://www.erim.eur.nl">www.erim.eur.nl</a>

Bibliographic data and classifications of all the ERIM reports are also available on the ERIM website:  
[www.erim.eur.nl](http://www.erim.eur.nl)

# ERASMUS RESEARCH INSTITUTE OF MANAGEMENT

## REPORT SERIES *RESEARCH IN MANAGEMENT*

ABSTRACT AND KEYWORDS	
Abstract	The relationship is investigated between outcome status and encountered problems in the business start-up process. Contrary to expectations, we find that starters do not substantially differ from quitters in number and type of problems encountered, and that problems encountered generally do not affect outcome status. This Dutch research is based on a sample of 414 nascent entrepreneurs followed over a three year period. Its design is comparable to the U.S. PSED (Panel Study of Entrepreneurial Dynamics).
Free Keywords	nascent-entrepreneurship, outcome-status, encountered-problems
Availability	The ERIM Report Series is distributed through the following platforms:  Academic Repository at Erasmus University (DEAR), <a href="#">DEAR ERIM Series Portal</a>  Social Science Research Network (SSRN), <a href="#">SSRN ERIM Series Webpage</a>  Research Papers in Economics (REPEC), <a href="#">REPEC ERIM Series Webpage</a>
Classifications	The electronic versions of the papers in the ERIM report Series contain bibliographic metadata by the following classification systems:  Library of Congress Classification, (LCC) <a href="#">LCC Webpage</a>  Journal of Economic Literature, (JEL), <a href="#">JEL Webpage</a>  ACM Computing Classification System <a href="#">CCS Webpage</a>  Inspec Classification scheme (ICS), <a href="#">ICS Webpage</a>

# **Encountered Problems and Outcome Status in Nascent Entrepreneurship**

*Marco van Gelderen*

*Roy Thurik*

*Pankaj Patel*

**Abstract:** The relationship is investigated between outcome status and encountered problems in the business start-up process. Contrary to expectations, we find that starters do not substantially differ from quitters in number and type of problems encountered, and that problems encountered generally do not affect outcome status. This Dutch research is based on a sample of 414 nascent entrepreneurs followed over a three year period. Its design is comparable to the U.S. PSED (Panel Study of Entrepreneurial Dynamics).

**Acknowledgement:** Participants of the PSED workshop held in Charleston, October 2007, provided valuable feedback on an earlier version. In this workshop ten research projects, all using PSED data, were discussed in a collective effort to improve the quality of our work. The present paper has been written in cooperation with the research program SCALES, carried out by EIM and financed by the Dutch Ministry of Economic Affairs.

**Keywords:** Nascent entrepreneurship; Outcome status; Encountered problems

This version: February 2010

First version: February 2009

FileName: problems 280110.doc

SaveDate: 28-1-2010 7:29

Marco van Gelderen is Assistant Professor at the Vrije Universiteit Amsterdam and Senior Lecturer at Massey University, Auckland.

Roy Thurik is Professor of Entrepreneurship at the Erasmus School of Economics, Rotterdam and Research Director at EIM Zoetermeer.

Pankaj Patel is Assistant Professor in Management at Ball State University.

Correspondence: Roy Thurik, Erasmus University Rotterdam, Erasmus School of Economics, P.O. Box 1738, 3000DR Rotterdam, the Netherlands, Tel. +31-10-4082232, E-mail: [thurik@ese.eur.nl](mailto:thurik@ese.eur.nl)

# **Encountered Problems and Outcome Status in Nascent Entrepreneurship**

## ***Introduction***

Explaining firm performance is a focal theme in the world of entrepreneurship research. The first success that must be attained in the prospective life of a firm is actually getting it started. This paper focuses on a much neglected element of the explanation of this first success: the experience of problems in the process of getting a firm started. Whether problems are encountered, and if so, the extent to which entrepreneurs are able to resolve, mitigate, or work around such problems, may explain success or disengagement. Such knowledge is of critical importance to aspiring entrepreneurs, as well as to business advisers, educators, and policy makers. After all, it is the quantity, type, and impact of problems that aspiring entrepreneurs want to anticipate, business advisers and educators want to give sage advice about, and that policy makers want to influence by means of policies and programs.

We study the relationship between outcome status and encountered problems in the start-up process by analyzing qualitative as well as quantitative data pertaining to nascent entrepreneurs (people in the process of setting up a business) who were followed over a three year period. The setting is the Netherlands and the research design is in many ways similar to the PSED: a sample of ongoing early-stage business start-ups is obtained by means of randomly calling phone numbers, and followed over a three year period. Contrary to our hypotheses, we find that starters do not differ from quitters in number and type of problems encountered, and that problems encountered generally do not affect outcome status. Our surprising findings lend support to the idea that for many the pre start-up phase is a phase in which the viability of an idea is tested. In many cases perceptions of market demand and risk, rather than problems encountered, predict outcome status.

## ***Problems and Outcomes in Nascent Entrepreneurship***

People setting up a business may face numerous unexpected obstacles and difficulties, and these may take longer to resolve than expected. New ventures can be resource-hungry and sometimes acquiring them may prove more difficult, expensive, or time-consuming than originally planned. Information may be difficult to obtain, prove unreliable, lack in specificity, or turn out to be irrelevant. Governmental regulations may delay the process. A new competitor may capture the targeted customers. Furthermore, one may dislike particular aspects of venturing, for example book-keeping or selling. The market may prove to be less interested in one's product or service than was initially hoped for, which can make it difficult to keep up initial levels of enthusiasm. All these difficulties accrue to uncertainty regarding the market, the business environment, and one's own capabilities. These can be compounded by conflict arising among the business partners. Personal or family problems may intervene making the list of potential setbacks, and obstacles endless. Nascent entrepreneurs (NE) try to solve these issues, mitigate their impact, or work around them.

MacMillan Dictionary defines a problem as something that causes trouble or difficulty, and Wikipedia adds that a problem is an issue or obstacle which makes it difficult to achieve a desired goal, objective or purpose. These definitions imply a negative relationship between problems and outcomes, and in nascent entrepreneurship this may be no different (Stam, Thurik and Van der Zwan 2010). This negative relationship may be explained by the negative impact that problems have on perceptions of feasibility (Theory of Planned Behavior, Ajzen 1988) or on expectations that effort will lead to desired results (Expectancy Theory, Vroom 1964). Some gritty individuals may become energized by obstacles (Duckworth, Peterson, Matthews, and Kelly 2007), but even they still need to cope effectively with encountered obstacles to achieve their ends.

The nature of problems is essentially evaluative and therefore subjective. The same condition or issue may be seen as a problem by one person but not by another. The objective characteristics of the difficulties and obstacles such as those listed above are not the sole determinant of whether an issue is experienced as problematic. For instance, being rejected for a bank loan may be problematic for those who have no other financing options but is less of a problem for someone who has not offered the bank any collateral yet, or who has a family member who has expressed willingness to invest. Whether something is experienced as a problem is determined by one's aims and expectations, response options, and response actions as much as by objective features. Inventories of objective occurrences of issues would obscure underlying heterogeneity in whether an objective issue was actually experienced as problematic or not. Therefore, when studying problems the research has to focus on subjective assessments of whether problems were encountered.

This raises the question of *when* people perceive a particular issue or obstacle as problematic. Appraisal theory (Lazarus 1966; 1999; Lazarus and Folkman 1984) suggests that incorporation of a subjective assessment of problems makes it even more likely that problems are related to abandonment. Appraisal theory was originally formulated as a process theory explaining how people deal with stress. The stressful encounter and its outcome is the focus of the analysis (Folkman, Lazarus, Dunkel-Schetter, DeLongis, and Gruen 1986). It can also be applied to issues and obstacles that nascent entrepreneurs encounter. The theory discerns three key concepts: primary appraisal, secondary appraisal, and coping. In primary appraisal, the person evaluates whether the occurrence signifies harm, threat, or challenge. Secondary appraisals are self-judgments about a person's available options and resources to cope with the issue and its possible consequences (Lazarus and Folkman 1984). Coping is defined as the person's efforts to manage specific external or internal demands that are appraised as taxing or exceeding the person's resources (Lazarus and Folkman 1984). Application of the term 'problematic' will depend on the person's judgment of the extent to which an issue was worked around, mitigated, or resolved, and the resources involved, such as time, energy, money, and flexibility. Hence, whether an issue is eventually labeled as problematic is a function of objective as much as subjective elements including the characteristics of the issue or situation, primary appraisal, secondary appraisal, coping responses, and the outcome. Thus, in the context of NE the incorporation of subjectivity into the assessment of what is problematic makes it even more likely that problems result in negative outcomes. The appraisal process serves as a filtering mechanism that makes it more likely that the issues being labeled problematic are those that exceeded or taxed the person's coping abilities.

Previous research on NE has not directly studied the experience of problems in relation to pre-start-up outcomes, but provides indirect evidence for a negative relationship. The PSED (Panel Studies of Entrepreneurial Dynamics) studies (Gartner, Shaver, Carter, and Reynolds 2004; Reynolds 2007; Reynolds and Curtin 2008; Davidsson, Steffens, Gordon and Reynolds 2008) and their international counterparts have brought forth large scale, systematic data on nascent entrepreneurship, and a wealth of information on NE prevalence rates, characteristics, processes and outcome status determinants has entered the public domain (see Davidsson (2006) and Davidsson and Gordon (2009) for overviews).

Indirect evidence for a negative relationship between problems and outcomes in NE can be found in the studies that relate processes and/or initial conditions to outcomes such as getting operational, reaching milestones (for example, first sales), persistence in organizing, and disengagement. Several PSED studies report on this topic (for an overview see Davidsson and Gordon 2009) and significant findings can be taken as an indication of the existence of problems and their negative impact. For example, whereas resource availability appears to explain little of new venture initiation and success, a lack of start-up experience appears to be a risk factor (Delmar and Shane 2006; Rotefoss and Kolvereid 2005). Disengagement has been found to be

more prevalent among ambitious ventures (Brush, Edelman, and Manolova 2008; Diochon, Menzies, and Gasse 2005; Van Gelderen, Thurik, and Bosma 2005). Chandler, Honig and Wiklund (2005) find that team membership change is negatively associated with achieving profitability. A shortage of perceived legitimacy is related to poor outcomes (Delmar and Shane 2004), and not writing a business plan is associated with the venture disbanding (Delmar and Shane 2003). The evidence for a negative problem-outcome that these research results provide is indirect, as all of these factors may or may not have been consciously experienced or evaluated as problematic.

Rather than providing a comprehensive classification of problems based on a theory or on previous research, this research will derive such a classification empirically. To our knowledge, no classification of problems in the pre start-up phase exists in the literature, and even if it did, it may not fit the typical venture attempt sampled by PSED type studies. Davidsson and Gordon (2009) conclude that the PSED sampling method results in a high prevalence of 'mundane' efforts, and they add that entrepreneurship research seems to be more geared towards 'the miniscule minority that occupy the habitat of venture capital funding and IPOs' (p.31) (see also Edelman, Manolova, and Brush 2008; Samuelsson and Davidsson 2009). Issues such as not finding the right premise for a shop, or having to wait for governmental bureaucracies to produce a license do not figure prominently in the literature, but are encountered more often than receiving a rejection from a VC. Letting the respondents decide what they want to list as problematic also aligns with the subjective nature of problems as discussed above.

Our first hypothesis is that nascent entrepreneurs who managed to set up their business will have encountered substantially fewer problems than those who disengaged from the start up process.

*H1: The started NEs encounter substantially fewer problems than the NEs who abandoned the start-up process*

A second question is whether the 'started' and 'abandoned' group not only differs in quantity of problems encountered but also in kind. In other words, did the abandonment group encounter a particular type of problem more often, which therefore contributed to quitting the start-up process? We hypothesize that this is the case, while leaving the actual determination of the type of problem to be the result of an exploratory analysis.

*H2: The started NEs encounter different problems than the abandoning NEs*

Our third question is whether the encountered problems are indeed related to disengagement. Some encountered problems will be resolved, reduced in impact, or worked around, and do not need to be a reason for abandoning the start-up process. Other problems will be lethal. Apparently, the 'started' group manages to overcome encountered problems. It is possible that the quitters disengage because of the experienced problems, but they can also discard their venture for other reasons. As is clear from the above discussion, we expect the experience of problems to play a role.

*H3: The experienced problems contribute to the abandonment group giving up*

## **Method**

### **Design**

The design of this study is developed by the Entrepreneurial Research Consortium (ERC), initiated and directed by Paul Reynolds. The ERC is an international research effort that includes as participants among others the United States and Sweden (where this study is called the PSED (Panel Study of Entrepreneurial Dynamics), Norway and the Netherlands. In each country a sample of NEs is studied during the start-up process. The key idea is to randomly obtain a statistically representative sample of ongoing nascent ventures and to follow these efforts over

time in order to gain insights into process issues and determinants of outcomes (Davidsson, 2006). The research design is explained in Reynolds (2000; 2007) and Gartner et al. (2004).

### **Sample**

The data collection method of the PSED is a general public phone survey. In the Netherlands, a random sample of 49,936 phone numbers was dialed. An interview was held with 21,393 persons (43%) aged between 18 and 65 years. The remaining 57 percent roughly consisted of refusals (14,000), too young/too old (10,000), and other (for example, not contacted) (4,500). The eligible person picking up the phone was asked: 'Are you, alone or with others, currently setting up a business?'

If the person answered affirmatively, two possible exclusions were made. First, it is essential to have an active and manifest desire to set up a business. If the respondent is only dreaming about starting up a business, he or she is considered a potential entrepreneur instead of a nascent entrepreneur. Persons indicating that they had not yet undertaken activities in pursuing their start-up, were thus not included in the sample. Second, someone who has set up a business that was already operational was considered an entrepreneur instead of a nascent entrepreneur. The question 'Are you currently starting a business?' turned out to be quite ambiguous as a number of people consider themselves still in a starting phase even though their business is already operational (Reynolds 2009). Exclusion of started entrepreneurs was not done in the initial screening but on the basis of data gathered in the follow-up phone interview. Those who in the initial wave stated that they are setting up a business, and who in the follow-up call stated that their business was operational and running, were asked to provide the start-up date. If the date was prior to the initial interview, they were excluded from the sample (148 persons).

This set of protocols resulted in a sample of 527 NEs. This translates to 2.5 percent of the interviewed sample, which indicates a NE prevalence rate of 2.5 percent within the Dutch population between 18 and 65 years old. This prevalence rate is comparable with Scandinavian countries but much lower than that in the United States (Delmar and Davidsson 2000; Grilo and Thurik 2008). In comparison with a control group (N=586) taken from the 21,393 persons who stated that they were not currently setting up a business, the typical Dutch NE is male, young, has pursued higher education and earns a higher income.

### **Dependent Variable**

Follow-up interviews were scheduled at a six month, one year, two year and three year interval (follow-up 1, 2, 3 and 4) after initial screening. They included an assessment of the current status of the start-up effort. Respondents were asked: 'How would you classify your firm? Is it (1) operational and running; (2) are you still setting up the business; (3) is the start-up effort temporarily inactive; or (4) have you completely abandoned your start-up effort?' After three years, it could be established that 191 persons had succeeded in starting their business, and that 114 persons had abandoned their start-up effort. 113 persons were never reached after the initial phone interview. The remaining 109 NEs were still trying to set up their business the last time they were contacted (follow-up 1, 2, 3 and/or 4). Thus, a minimum of 36 percent of the sample started and a minimum of 22 percent disengaged from the start-up effort during the three-year period under study. Of the remaining 42 percent no data are available about their eventual start-up status. If we compare the 113 persons of whom no follow up information is available with the 305 persons who either started or quit their effort, we find, contrary to what one would expect, that the people that dropped out of the study were higher educated and lower in push motivation than those who took part in one or more follow ups.

In our design it is the entrepreneur who defines whether his/her business is actually started or still in the start-up phase. Entrepreneurs used different criteria to judge whether they consider themselves started or not. This heterogeneity is an argument to take the judgment of the NE as the

key criterion for start-up. Only in this way the particular situation of each NE will be reflected. For example, first sales might be taken as an indicator of being started, but many people start a business based on an activity for which they previously informally received money (for example, bookkeeping or repairing computers) (Bhave 1994). In an opposite fashion, some firms start out with investing, and it may take months or years before a positive cash flow is achieved. Still, subjective judgments of being started coincide well with objective success markers (Table 1). It should also be noticed that the groups ‘still trying’, ‘dormant’, and ‘abandoned’ are relatively similar in their scores on the various markers.

-----  
Insert Table 1 about here  
-----

### **Comparison with International Efforts**

The study of nascent entrepreneurship in the Netherlands is similar to the PSED studies in the U.S. and Sweden in terms of basic design, and in sample size. However, for budgetary reasons the Dutch research uses only a sample of the PSED phone and interview questions. Amongst others, most questions on start-up activities and their timing are left out. On the other hand, the ‘Dutch PSED’ includes a range of policy relevant questions not covered by other PSED research, as the Dutch study is directly commissioned by the Ministry of Economic Affairs and conducted by a private research firm (EIM). An important difference between the Dutch and the U.S. and Swedish data is that Dutch NEs are, by comparison, very quick in reaching a conclusion to the pre start-up phase (see Table 2 and also Parker and Belgithar 2006; Gartner and Carter 2003). Half a year after the initial measure already 35 percent of the ventures in the sample had started, and 11 percent gave up. In the fourth follow up, after three years, not a single contacted venture was found to be still trying or dormant (temporarily inactive). We will get back to this when discussing our results.

-----  
Insert Table 2 about here  
-----

### **Independent Variables**

In each wave of the study an inquiry was made whether the respondent had encountered any problems while setting up the business. If the NE answered affirmatively, the respondent was invited by an open question to list those problems. It should be noted that the initial sample was collected at one point in time. This means that the sample contains people who were about to open up shop, as well as people who were very early in the start-up process. Still, the problem questions were put to all respondents at least twice (in the initial measure and in one or more follow ups).

Problem categories were empirically derived based on frequency of occurrence. Several problem categories involve the acquisition of resources. One is *finance*, where the NE has problems obtaining the desired amount of finance, or when funding can only be obtained under unfavorable conditions. Another category refers to the *premises* of the venture, when the NE has problems finding or obtaining a suitable location. Yet another class contains *information* problems, where the NE needs to find out about something but encounters a lack of information, difficulty finding or accessing information, a lack of guidance in finding information, contradictory information, or information overload. *Product/service problems* relate to problems in developing the product or service. Finally, *time* is an important resource. Setting up a business takes considerable amounts of time which becomes problematic when there is too little time to



work on the business. Sometimes people find that various start-up activities turn out to be far more time consuming than initially expected.

Another category consists of *regulatory* problems: governmental laws and regulations that are experienced as problematic by the NE as they prevent the organization from being established. Examples are diplomas that are required before a particular trade can be practiced, licenses that are needed, zoning regulations, requirements of social welfare organizations, consents, laws, bylaws, import-export rules, slowness of governmental organizations, and various delays because of dealings with government. These all refer to the legal and regulatory context in which the venture will operate.

In contrast, the category of *organizational* problems refers to ‘internal’ difficulties in getting the organization established. This is somewhat of a container category with examples such as: finding partners, partner delaying making (financial) commitments, partners not following up on commitments, partners who give up, putting administration systems in place, finding out the right legal form, and obtaining required insurances.

*Market* problems are there when expected demand for the product or service seems to be insufficient, or very uncertain, so that the perceived risk of the venture increases. Here it is the exchange with the market which proves to be problematic, like getting customers, reaching the market, risk of the market, or the emergence of competition.

Still other problems occurred. For example *personal problems* are not related to the nascent venture but spring forth from someone’s person or life situation. Someone can become ill, physically or psychologically, or the personal environment of the NE changes requiring urgent attention at the expense of the nascent start-up.

Categorization of problems encountered is admittedly a subtle process. For instance, problems with taxation can have four aspects: if it is about unfair tax rules or bureaucracy then it is classified under *regulatory* problems; if it means that taxation causes problems in obtaining finance then it falls under *finance* problems; if it means having difficulty setting up an appropriate administration it is grouped under *organizational* problems; and if there is difficulty obtaining information about taxes than it is coded under *information* problems. Apart from problems there are a range of other independent variables in the dataset. See Van Gelderen, Thurik and Bosma (2005) for their descriptive characteristics.

## **Statistical Strategy**

Although techniques such as event history analysis have the advantage of using the complete sample, we opt for logistic regression in our multivariate analyses, comparing just those who disengaged with those who started. The first reason is that we see becoming operational and disengagement as clear cut outcome markers. In contrast, persistence variables such as ‘continuing to organize’ or ‘not yet disbanded’ combine those who started with those still trying and those whose ventures are dormant. Second, after three years, none of those contacted were found to be still trying or inactive (see Table 2). Of those whose last known status is still trying or inactive, 54 percent respectively 25 percent have never been contacted after the first follow up. Thirdly, even if those with indeterminate status are to be included, the question is how to group them. Table 1 suggests that the still trying and temporarily inactive groups are more similar to the definitely abandoned group in terms of success markers than the starters. Grouping all those together who have not yet definitely abandoned may confound results (Davidsson 2006). Finally, in the Dutch sample a large proportion of nascent ventures reached their final status in a short time frame (see Table 2).

## **Results**

The first research question concerns whether those who abandon the start-up process encounter more problems than those who actually start. Table 3 shows the numbers and percentages of problems encountered classified by outcome status. The totals show that about half of the sample did not state any problems in response to the open question, asked by phone, in each wave: have you encountered any problems while setting up the business? Even among the group of people who have definitely abandoned their venture project, 40 percent had not mentioned any encountered problems.

-----

Insert Table 3 about here

-----

Table 3 shows that the quitters do have a higher incidence of problems encountered. Comparing the started and abandoned group, a chi-square test shows no difference at the 5 percent significance level (chi square = 3.794,  $p < 0.10$ ) and hypothesis 1 must be rejected. However, given the power issues involved it makes sense to discuss this result in real terms: 48 percent of those who start encountered problems, whereas 40 percent of those who abandon report no problems. In other words, those who quit had 25 percent more problems than those who started. Admittedly a matter of judgment, a 25 percent difference in the number of encountered problems between starters and quitters seems modest.

The second research question is whether the started and the abandonment group differ in the prevalence of the type of problems encountered. Table 4 compares the two groups and shows that they do not differ in the problems that they encounter, neither in frequency, nor in rank ordering. For both groups regulatory issues have the highest frequency, followed by organizational problems, followed by finance tribulations. Nearly all problems have comparable prevalence rates for the two groups, as also indicated by the chi-square statistics. The only exception is time pressure or time shortage, but since this concerns only five cases, this result should not be given much importance. Hypothesis 2 must also be rejected.

-----

Insert Table 4 about here

-----

Interestingly, the encountered problems for the groups 'started' and 'abandoned' do not differ in frequency, nor in kind, or in ranking. The third question is about the impact of encountered problems on abandonment. Impact of encountered problems on disengagement can be expected if, although the quantity and type of problems encountered is similar, the severity of the problems differs. For example, the abandonment group may have more difficult regulatory problems than the started group. Alternatively, the starters may have a better ability to deal with problems than the quitters, for example, because of differences in human or social capital. The alternative hypothesis is that encountered problems usually do not lead to disengagement, and that still other reasons cause the abandonment group to give up the nascent venture.

The impact of the problems encountered on abandonment will be analyzed in various ways. One method is to study means of the responses of the abandonment group to the question why they gave up, and to compare the prevalence rates to those of problems encountered. Table 6 provides that information. Before we turn to the analyses, Table 5 shows that the data are limited. Unfortunately for a sizeable group of 33 percent of the abandonment group we do not have data concerning the reason for abandoning.

-----

Insert Tables 5 and 6 about here

-----  
Table 6 provides several insights. First, a comparison of the first two columns shows that the reasons for abandonment differ greatly from the problems encountered. The highest frequency for encountered problems to be also a reason for abandonment is 36 percent (organizational problems). Regulatory, finance, and information problems are regularly listed when asked about problems encountered, but are hardly mentioned as reasons for abandonment. For example, of the 15 people who encountered finance problems only three mentioned finance problems as a reason to abandon. Columns one and two concern only those 45 respondents who have listed both problems encountered and reasons for abandonment, so the data need to be interpreted with caution. However, the suggestion is that many problems are overcome or worked around, and that only in a minority of cases the encountered problems turn out to be lethal.

The third column lists the frequencies of reasons given for abandonment. Comparison with the first column shows a difference between market risk and other problems. Few people mention market or risk as problems encountered, and only one of them states that market risk was a reason to quit. Conversely, many people voice market issues as the reason to quit, but have not listed market issues as a problem encountered. Organizational problems are also not often lethal for those people who mentioned these as problems encountered, however an additional seven persons quit for organizational reasons while they do not list any of those as organizational problems. Worth noting is the high incidence of the 'other' category for reasons to abandon. This includes a category of finding a job, which is for 15 percent of this subsample a reason to stop the venture start-up process, and an additional two persons decided to take up a study rather than to start a venture. The results suggest that the 'abandonment' group does not encounter problems of a different quality, because that would have shown up in the responses for reasons to abandon. Encountered problems seem to play only a small role in the explanation of abandonment. This is confirmed by a logistic regression explaining 'starting' versus 'abandoning' by means of problems encountered as well as a range of covariates (see Van Gelderen, Thurik and Bosma (2005) for a description of the data). None of the problems encountered contributes to explaining the difference in outcome status. The various ways of analyzing Hypothesis 3 all suggest that it must be rejected: Encountered problems are often not lethal.

-----  
Insert Table 7 about here  
-----

In sum, our results indicate that starting and abandoning NEs do not differ in the quantity, type and impact of encountered problems. All three hypotheses must be rejected. The question then becomes why one group gets started and the other group gives up. Both groups seem to be capable of preventing the problems encountered from becoming reasons to give up. For some NEs (15 out of 77), encountered problems are directly lethal. It is possible that encountered problems have an additional indirect negative effect, for example resulting in an increased perception of market risk, or influencing the decision to take up a job. But apparently the started group is able to prevent the reasons for abandonment from occurring, while the abandonment group is not able to do so.

One way to analyze this issue is by looking at how reasons to abandon vary with other characteristics. Unfortunately, the number of observations is very small for most reasons for abandonment. However, organizational problems as a reason to give up correlate with being higher educated ( $p < .01$ ), a team effort ( $p < .01$ ), and wishing to use a higher amount of capital ( $p < .05$ ). Market or risk as a reason for abandonment is correlated with work experience ( $p < .05$ ).

Still other mechanisms can be at play. Table 7 reveals that starting out in manufacturing, starting the business full-time, wishing to start out with a small amount of capital, and perceiving

a low degree of market risk are factors associated with setting up the business. Vice versa, setting up a part-time business, wishing to start out with a high amount of capital, and perceiving a high amount of market risk are factors associated with abandonment. We will come back to these success and risk factors in the discussion.

Finally, given the relative similarity between the starting and abandoning group in terms of problems encountered and their impact, we conduct an exploratory analysis of the differences between the respondents that reported encountering problems versus those who reported having had no problems. In a logistic regression including the same covariates as listed in Table 7, we find that for the sample as a whole, being higher educated is negatively related to encountering problems, whereas having a business plan is positively related. Repeating the same analysis within the group of abandoned ventures, we find that management experience is correlated with reporting no problems. None of the reasons to abandon is associated with reporting no problems. In the discussion we will come back to all of these findings.

## ***Discussion***

This research establishes that the quantity, type and impact of encountered problems do not differ between starting and abandoning nascent entrepreneurs (NEs). All three hypotheses we formulated are rejected. For the part of the sample that reports problems, abandoning NEs appear rather similar to started entrepreneurs with regard to the role of problems encountered, just like Carter, Gartner, and Reynolds (1996) find that abandoning and starting NEs resemble each other in terms of the number of start-up activities performed. In their research, both groups perform significantly more start-up activities than the 'still trying' group.

The implication is that something other than problems causes the decision to disengage. The most often cited reason for abandonment in this study is uncertain or insufficient demand, and the logistic regression analysis shows perceived market risk to be the main determinant of outcome status. When nascent entrepreneurship is seen as an 'experiment' (Davidsson 2006, p. 25) to find out whether a particular business idea is viable, market-related considerations are the 'best' reason to abandon. A decision to stop the nascent venture based on market expectations suggests that the pre-start-up phase can be seen as an extended period of opportunity shaping, enactment, and evaluation (Gartner, Carter, and Hills 2003). Before deciding to enter the nascent entrepreneurship phase, an opportunity is identified at least at a rudimentary level and in the process there is re-evaluation and adjustment taking place based on information gained and external developments. For the U.S. PSED, Hills and Singh (2004) report that 67 percent of the sample state that the opportunity discovery process involves learning over time rather than being a onetime event. By means of trial and error one arrives at the point of 'go' or 'no go', and for some, it is a no go. The nascent entrepreneurship phase serves as a reality check.

The view of NE as a period of finding out whether a particular opportunity is worth pursuing is reminiscent of McGrath's (1999) real options reasoning. Although originally conceived for bundles of opportunities pursued by existing corporations, the basic idea is that new business ideas can be seen as options that may be 'purchased' if it becomes clear that they will meet or exceed expectations. The NE period is one in which assumptions are converted into knowledge. McGrath (1999) proposes that there are benefits to be gained from the pursuit of high-variance opportunities, even if that pursuit increases the potential for failure. If investments are staged so that expenditures end under poor conditions, losses can be contained. The cost of failure, in other words, is limited to the cost of creating the real option, less any remaining value. Similar notions have been proposed by Sitkin (1996) in his discussion of intelligent failure and by Sarasvathy (Sarasvathy 2001; 2004) in her discussions of affordable loss in the context of effectuation. That a sizeable group of abandoners in our sample reports no problems also points to this interpretation.

McGrath's objective for presenting her ideas is "to help redirect the theoretical focus in entrepreneurship from a preoccupation with achieving success and avoiding failure to a more integrated view of how the two phenomena are related." (1999, p. 13). When the nascent venture is seen as an experiment that for some is terminated because of insufficient market potential, abandoning cannot be equated with failure, especially in comparison with those who do start but perhaps not should have started. In decision theory a distinction is made between right rejects and false acceptances. If the goal is to test the viability of an idea (rather than to start the business per se), any conclusive test is a success. There may still be type I errors (businesses not started that could perform well), just as there will be Type II errors (business that start but subsequently underperform). From an experiment perspective the worst outcome is not reaching an outcome, whether as a result of problems that prevent reaching a conclusion about viability, or because of a lack of effort resulting in a never-ending status of 'still trying' NEs (Gartner and Carter 2003). The 'value of waiting' advocated by Parker and Belgithar (2006) and by Brush, Manolova, and Edelman (2008), who found that the chance of disbanding decreases when NEs move slowly through the pre start-up phase, is questionable if one's aim is to reach a swift conclusion about the viability of an opportunity. In order to arrive at sound conclusions regarding outcome status in NE one has to take the particular reason to abandon into account. One cannot simply equate abandonment to failure. A similar conclusion has been drawn for research on survival of existing ventures (Bates 2005).

The second most often cited reason to abandon is that the respondent started to work as an employee. In a Swedish study using PSED data (Delmar and Shane 2002), this reason was classified as a 'voluntary' reason to disengage. It should be noted that in the Swedish study the labels voluntary and involuntary are imposed by the researchers rather than voiced by the respondents. Together with other reasons such as losing interest and having no time, the category 'voluntarily giving up' made up 43 percent of abandonments. This figure is similar to the 40 percent of quitters in the present study who report not having experienced any problems. A sizeable 16 percent lists a job as the reason to abandon. A third of those had declared themselves necessity entrepreneurs in the initial wave. It is possible that some who quit the venture to take up a job did so because of problems in the start-up process. However, a logistic regression does not show problems encountered to impact on outcome status. Neither is taking up a job correlated with reporting no problems.

The present study also sheds light on the mixed role of human capital in explaining NE outcome status found in previous research (Davidsson 2006). A logistic regression shows that for the sample as a whole, a higher level of education is associated with reporting no problems. Education may have helped to prevent issues from becoming problematic, or to change the perception of when issues are to be seen as problematic. Within the group of abandoning NEs, we find the same result for management experience. Even though the venture is eventually abandoned, a higher level of management experience is associated with not encountering problems, which may ultimately be associated with abandoning for other reasons than problems encountered. Similarly, we find work experience to be associated with market risk as a reason for abandonment. Thus, higher levels of education and experience seem to have a mixed effect on outcome status, as found in other studies using PSED type designs (Davidsson 2006). Human capital prevents problems from occurring, or helps to solve them. On the other hand, those high in human capital may have more attractive alternatives, or higher expectations and standards for their venture. This may explain why human capital is negatively associated with encountering problems, while encountering problems is not associated with outcome status.

The results of this study are encouraging for practitioners, relevant for educators, and reassuring for policy makers. For prospective NEs, the results indicate that in many cases no problems will be encountered, and if they are encountered, they tend to be overcome. Market research proves to be very important, as in many cases market potential and risk are the reason to

get started or to give up. This conclusion can also be conveyed by entrepreneurship educators, who can stress that nascent entrepreneurship is not a game of succeeding or failure, but rather of making efficient and effective ongoing assessments of the viability of an opportunity.

For policy makers the results are encouraging because, although policy relevant problem areas such as regulation and finance do regularly make the lives of NEs difficult, their eventual impact is often small (Audretsch, Grilo and Thurik, 2007). Problems with regulation are often encountered, and may delay the process, but do not affect outcome status nor do they show up often in exit interviews. Our present Dutch results are in line with the conclusions of Van Stel, Storey, and Thurik (2007) who also find little impact of regulations on nascent firm formation across 39 countries. Similarly, problems with the acquisition of finance are regularly experienced, but not very problematic in the end, neither for starters nor for abandoners. This result is also found in nascent entrepreneurship studies in other countries (Davidsson and Gordon 2009; Grilo and Irigoyen 2006; Grilo and Thurik 2008; Stam, Thurik and Van der Zwan 2010). One interpretation is that NEs make do with whatever they can obtain (Sarasvathy 2001; Baker and Nelson 2005). Undercapitalization may result in difficulties later on, functioning as a barrier to survival rather than a barrier to entry (Davidsson 2006; Geroski 1995).

Organizational problems are regularly encountered and named as a reason for abandonment (although in the majority of cases not by the same respondents). Often these problems are team-related, including finding partners, partners who initially commit but then bail out, partners who do not live up to promises, and disagreements among partners. Setting up a business with a team does not affect outcome status for the whole sample in the regression analysis. This may reflect two counteracting influences. On the one hand, starting a team venture can cause problems as mentioned above; on the other hand, the team can provide complementary human, social and financial capital, as well as motivation.

Apart from perceived market risk, a number of other variables explain outcome status. These can now be interpreted in the light of the findings regarding the encountered problems and the exit interviews. Wishing to start out full time rather than part time is a success factor. Perhaps those who want to start out full time also more often work full time on the new venture, and therefore have more time to solve problems or to prevent them from occurring. Part-timers may have conducted the toe-dipping necessary to establish whether the venture is viable, and in some cases they decide that it would not be. Testing the waters in a part-time setting is in line with the arguments presented above suggesting that for many abandoners NE seems to be a learning experiment.

Another finding is that a higher desired amount of start-up capital is a risk factor. Higher capital points to a more ambitious venture, implying a wider range of difficulties that can be encountered. However, we cannot establish an empirical link between higher start-up capital and the encountering of problems. Higher capital does increase the risk of the venture, and it is risk perception, rather than problems encountered, that is the primary reason for deciding to pursue the venture further or not.

As any research, this study is subject to limitations. First, our results are reported for the entire sample. It is possible that for particular subsamples a different picture emerges and one or more of the hypotheses will hold. Second, for some analyses the number of observations is small and power issues may have rendered certain relationships insignificant. This is why we have discussed some results not only in terms of significance, but also of substance. Third, it is possible that some abandoning entrepreneurs do not report the complete picture when they provide their reasons for giving up. This can be the case with those people who cite 'finding a job' or 'taking up a study' – the choice for a job or study may have been influenced by problems in the start-up process. However, a logistic regression does not show problems encountered to impact on outcome status. In addition, NEs are possibly susceptible to attribution biases such as

the self serving bias (Baron 1998) when being asked about reasons to abandon, although one would then perhaps expect more rather than fewer attributions of problems to external others such as governmental agencies, financiers and team mates (Rogoff, Lee, and Suh 2004), thus reinforcing the negative link between problems and outcomes. Diochon, Menzies, and Gasse (2007) failed to find evidence of this bias in a sample of Canadian NEs.

Our results may also be contested on the grounds that the assessment of problems is subjective. Appraisal theory suggests that issues that severely tax or exceed the NEs resources and abilities will be labeled as problematic. This makes the research findings more conservative. If there is a significant threshold before labeling an issue as problematic, one would expect problems to have an impact on outcome status. A subjective approach is necessary as an objective approach, employed to limit underlying heterogeneity, would in fact itself suffer from unobserved heterogeneity in that appraisals, coping, and outcome evaluations are all subjectively determined. Yet another measurement issue lies in the fact that people are asked about problems on a (half) yearly basis. Momentary accounts address the problem of bias due to recall, but they may result in the overrepresentation of current concrete, discrete events, and in the underrepresentation of more abstract, ongoing problems. Retrospective accounts address the problems of complexity, but may be prone to hindsight bias (Folkman and Moskowitz 2004), and respondents in the PSED are not free from hindsight bias (Cassar and Craig 2009). Unfortunately, there is no gold standard for the measurement of encountered problems.

The external validity of our results remains an open question. There is no evidence that Dutch nascent entrepreneurship is less ambitious than its U.S. counterpart in terms of goals and ambitions (Davidsson 2006; Reynolds 2007; Van Gelderen, Thurik and Bosma 2005). However, Dutch NEs are much faster than their international counterparts in bringing the NE phase to completion (Parker and Belgithar 2006), whether as an up and running venture, or as a discarded project. The prevalence rate of NE in the Netherlands is much lower than in the U.S., but the 'conversion rate' much higher (Parker and Belgithar 2006; Van Gelderen, Thurik and Bosma 2005). One possible explanation is that, unlike in the U.S., there is no status or identity to be found in 'being busy to set up a business' (Gartner and Carter 2003). In the Netherlands one does not say lightly that one is setting up a business: once the word is out, one's friends and acquaintances will keep inquiring how your venture is progressing. Replication of this study using U.S. PSED data is highly welcome.

The PSED and their international counterparts are a unique research effort that has thrown light on areas of entrepreneurship research that were previously left in the dark. By studying a sizeable representative sample, and by following this sample over an extended time period, many insights and understandings into the process of emergence have been gained. The present study contributes to the field of entrepreneurship research by analyzing the role of problems encountered and reasons for abandonment in nascent entrepreneurship. Contrary to what is expected, encountered problems do not seem to differentiate started and abandoned ventures, not in quantity of problems, in quality, or in their effects on outcomes. The results challenge the conventional view that problems lead to abandonment. Instead, the view is proposed that the pre start-up period serves as a phase of venture viability testing and development. This is a provoking result that, at the same time, is encouraging for nascent entrepreneurs as well as for those who aim to stimulate and develop nascent entrepreneurship.

## References

- Ajzen, I. (1988). *Attitudes, Personality, and Behavior*. Chicago: Dorsey Press.
- Audretsch, D.B., I. Grilo, and A.R. Thurik (eds) (2007). *The Handbook of Research on Entrepreneurship Policy*, Edward Elgar Publishing Limited, Cheltenham, UK and Northampton, MA, US.
- Baker, T., and R.E. Nelson (2005). 'Creating Something from Nothing: Resource Construction Through Entrepreneurial Bricolage,' *Administrative Science Quarterly*, 50(3), 329-366.
- Baron, R.A. (1998). 'Cognitive Mechanisms in Entrepreneurship: Why and When Entrepreneurs Think Differently Than Other People,' *Journal of Business Venturing*, 13(4), 275-294.
- Bates, T. (2005). 'Analysis of Young, Small Firms That Have Closed: Delineating Successful From Unsuccessful Closures,' *Journal of Business Venturing*, 20(3), 343-358.
- Bhave, P.B. (1994). 'A Process Model of Entrepreneurial Venture Creation,' *Journal of Business Venturing*, 9(3), 223-242.
- Brush, C.G., L.F. Edelman, and T.S. Manolova (2008). 'The Effects of Initial Location, Aspirations, and Resources on Likelihood of First Sale in Nascent Firms,' *Journal of Small Business Management*, 46(2), 159-182.
- Brush, C.G., T.S. Manolova, and L.F. Edelman (2008). 'Properties of Emerging Organizations: An Empirical Test,' *Journal of Business Venturing*, 23(5), 547-566.
- Carter, N.M., W.B. Gartner, and P.D. Reynolds (1996). 'Exploring Start-Up Event Sequences,' *Journal of Business Venturing*, 11(3), 151-166.
- Cassar, G., and J. Craig (2009). 'An Investigation of Hindsight Bias in Nascent Venture Activity,' *Journal of Business Venturing*, 24(2), 149-164.
- Chandler, G.N., B. Honig, and J. Wiklund (2005). 'Antecedents, Moderators, and Performance Consequences of Membership Change in New Venture Teams,' *Journal of Business Venturing*, 20(5), 705-725.
- Davidsson, P. (2006). 'Nascent Entrepreneurship: Empirical Studies and Developments,' *Foundations and Trends in Entrepreneurship*, 2(1), 1-76.
- Davidsson, P., and S.R. Gordon (2009). *Nascent Entrepreneur(ship) Research: A Review*. Submitted for publication.
- Davidsson, P., P.R. Steffens, S.R. Gordon, and P.D. Reynolds, (2008). *Anatomy of New Business Activity in Australia: Some Early Observations from the CAUSEE Project*. Technical report, School of Management, Faculty of Business, QUT.
- Delmar, F., and P. Davidsson (2000). 'Where Do They Come From? Prevalence and Characteristics of Nascent Entrepreneurs,' *Entrepreneurship & Regional Development*, 12(1), 1-23.
- Delmar, F., and S. Shane (2002). 'What Firm Founders Do: A Longitudinal Study of the Start-Up Process,' in *Frontiers of Entrepreneurship Research*. Eds. W.D. Bygrave et al. Wellesley, MA: Babson College, 632-645.
- Delmar, F., and S. Shane (2003). 'Does Business Planning Facilitate the Development of New Ventures?' *Strategic Management Journal*, 24(12), 1165-1185.
- Delmar, F., and S. Shane, (2004). 'Legitimizing First: Organizing Activities and the Survival of New Ventures,' *Journal of Business Venturing*, 19(3), 385-410.
- Delmar, F., and S. Shane, (2006). 'Does Experience Matter? The Effect of Founding Team Experience on the Survival and Sales of Newly Founded Ventures,' *Strategic Organization*, 4(3), 215-247.
- Diochon, M., T. V. Menzies, and Y. Gasse, (2005). 'Canadian Nascent Entrepreneurs' Start-Up Efforts: Outcomes and Individual Influences on Sustainability,' *Journal of Small Business and Entrepreneurship*, 18(1), 53-74.
- Diochon, M., T. V. Menzies, and Y. Gasse, (2007). 'Attributions and Success in New Venture Creation among Canadian Nascent Entrepreneurs,' *Journal of Small Business and*



*Entrepreneurship*, 20(4), 165-187.

- Duckworth, A.L., C. Peterson, M.D. Matthews, and D.R. Kelly (2007). 'Grit: Perseverance and Passion for Long-Term Goals,' *Journal of Personality and Social Psychology*, 92(6), 1087-1101.
- Edelman, L.F., T.S. Manolova, and C.G. Brush (2008). 'Entrepreneurship Education: Correspondence between Practices of Nascent Entrepreneurs and Textbook Prescriptions for Success,' *Academy of Management Learning and Education*, 7(1), 56-70.
- Folkman, S., R.S. Lazarus, C. Dunkel-Schetter, A. DeLongis, and R.J. Gruen (1986). 'Dynamics of a Stressful Encounter: Cognitive Appraisal, Coping, and Encounter Outcomes,' *Journal of Personality and Social Psychology*, 50(5), 992-1003.
- Folkman, S., and J.T. Moskowitz (2004). 'Coping: Pitfalls and Promise,' *Annual Review of Psychology*, 55(1), 745-774.
- Gartner, W.B., and N.M. Carter, (2003). 'Still Trying After All These Years: Nascent Entrepreneur 'Semi-Survivor' Bias in the PSED,' paper presented at the Annual Meeting of the Academy of Management, Seattle, August.
- Gartner, W.B., N.M. Carter, and G.J. Hills (2003). 'The Language of Opportunity,' in *New movements in entrepreneurship*. Eds. C. Steyaert and D. Hjorth. Edward Elgar Publishing Limited: Cheltenham, UK and Northampton, MA, US, 103-124.
- Gartner, W. B., K. G. Shaver, N. M. Carter, and P. D. Reynolds, (2004). *Handbook of Entrepreneurial Dynamics: The Process of Business Creation*. Thousand Oaks, CA: Sage.
- Geroski, P.A. (1995). 'What Do We Know About Entry?' *International Journal of Industrial Organization*, 13(4), 421-440.
- Grilo, I. and J.M. Irigoyen (2006). 'Entrepreneurship in the EU: To Wish And Not To Be,' *Small Business Economics*, 26(4), 305-318.
- Grilo, I. and A.R. Thurik (2008). 'Determinants of Entrepreneurial Engagement Levels in Europe and the US,' *Industrial and Corporate Change*, 17(6), 1113-1145.
- Hills, G.E., and R.P. Singh (2004). 'Opportunity recognition,' in *Handbook of entrepreneurial dynamics: The process of business creation*. Eds. W.B. Gartner, K.G. Shaver, K.G., and P.D. Reynolds. Thousand Oaks: Sage, 259-272.
- Lazarus, R.S. (1966). *Psychological Stress and the Coping Process*. New York: McGraw-Hill.
- Lazarus, R.S. (1999). *Stress and Emotion*. New York: Springer.
- Lazarus, R.S., and S. Folkman (1984). *Stress, Appraisal and Coping*. New York: Springer.
- McGrath, R.G. (1999). 'Failing Forward: Real Options Reasoning and Entrepreneurial Failure,' *Academy of Management Review*, 24(1), 13-30.
- Parker, S.C., and Y. Belghitar (2006). 'What Happens to Nascent Entrepreneurs? An Econometric Analysis of the PSED,' *Small Business Economics*, 27(1), 81-101.
- Reynolds, P.D. (2000). 'National Panel Study of U.S. Business Startups: Background and Methodology,' in *Advances in Entrepreneurship, Firm Emergence and Growth* vol. 4, Databases for the Study of Entrepreneurship. Ed. J. Katz. Amsterdam: Elsevier Science.
- Reynolds, P.D. (2007). 'New Firm Creation in the U.S.: A PSED I Overview,' *Foundations and Trends in Entrepreneurship*, 3(1), 1-149.
- Reynolds, P.D. (2009). 'Screening Item Effects in Studying the Prevalence of Nascent Entrepreneurs,' *Small Business Economics*, 33(2), 151-163.
- Reynolds, P.D., and R.T. Curtin (2008). 'Business Creation in the United States: Panel Study of Entrepreneurial Dynamics II Initial Assessment,' *Foundations and Trends in Entrepreneurship*, 4(3), 155-307.
- Rogoff, E.G., M-S. Lee, and D-C. Suh, (2004). 'Who Done It? Attributions by Entrepreneurs and Experts of the Factors that Cause and Impede Small Business Success,' *Journal of Small Business Management*, 42(4), 364-376.
- Rotefoss, B., and L. Kolvereid (2005). 'Aspiring, Nascent and Fledgling Entrepreneurs: An Investigation of the Business Start-Up Process,' *Entrepreneurship & Regional*

*Development*, 17(2), 109-127.

- Samuelsson, M., and P. Davidsson (2009). 'Does Venture Opportunity Variation Matter? Investigating Systematic Process Differences between Innovative and Imitative New Ventures,' *Small Business Economics*, 33(2), 229-255.
- Sarasvathy, S.D. (2001). 'Causation and Effectuation: Toward a Theoretical Shift from Economic Inevitability to Entrepreneurial Contingency,' *Academy of Management Review*, 26(2), 243-263.
- Sarasvathy, S.D. (2004). 'Making It Happen: Beyond Theories of the Firm to Theories of Firm Design,' *Entrepreneurship Theory & Practice*, 28(6), 519-531.
- Sitkin, S.B. (1996). 'Learning Through Failure: The Strategy of Small Losses,' in *Organizational learning*. Eds. M.D. Cohen and L.S. Sproull. Thousand Oaks, CA: Sage, 541-578.
- Stam, E., A.R. Thurik, and P. van der Zwan (2010). 'Entrepreneurial Exit in Real and Imagined Markets,' *Industrial and Corporate Change*, forthcoming.
- Van Gelderen, M.W., A.R. Thurik, and N. Bosma (2005). 'Success and Risk Factors in the Pre Start-Up Phase,' *Small Business Economics*, 24(4), 365-380.
- 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), 171-186.
- Vroom, V. H. (1964). *Work and Motivation*. New York: Wiley.

**Table 1**  
**Success Markers after 1 Year for Those Contacted after 1 Year**

	started	still trying	dormant	quit
product ready	91 %	63 %	61 %	57 %
register with chamber	84 %	30 %	30 %	24 %
obtained income	84 %	26 %	14 %	15 %
hired employees	24 %	2 %	0 %	4 %
	N=162	N=46	N=44	N=79

**Table 2**  
**Self-Described Outcome Status in The Dutch PSED**

status after:	started	still trying (cumulative attrition)	dormant (cumulative attrition)	quit	total
half year	129	145	57	42	373
one year	162	46 (33) 79	44 (12) 56	79	376
1,5 year	176	32 (42) 74	37 (25) 62	89	401
3 years	191	0 (61) 61	0 (47) 47	115	414
	N=191	N=61	N=47	N=115	N=414

**Table 3**  
**Prevalence of Problems Encountered by Outcome Status**

	started	still trying	dormant	disengaged	total
no problem encountered	100 (52%)	31 (51%)	25 (53%)	47 (41%)	203 (49%)
did encounter problems	91 (48%)	30 (49%)	22 (47%)	68 (59%)	211 (51%)
	191	61	48	115	414

**Table 4****Differences in Prevalence of Problems Encountered Between the ‘Started’ and ‘Definitely Abandoned’ Groups.**

	problems encountered of def. abandoned (N=68)		problems encountered of started (N=91)		chi-square	p
	no problem	problem	no problem	problem		
regulation	40 (59%)	28 (41%)	53 (58%)	38 (42%)	.005	.941
finance	44 (68%)	22 (32%)	66 (72%)	25 (28%)	.445	.505
organizational	45 (66%)	23 (34%)	60 (66%)	31 (34%)	.001	.975
market	59 (87%)	9 (13%)	73 (80%)	18 (20%)	1.183	.277
information	55 (81%)	13 (19%)	75 (82%)	16 (18%)	.062	.804
premise	59 (87%)	9 (13%)	80 (88%)	11 (12%)	.047	.829
product/service	64 (94%)	4 (6%)	87 (96%)	4 (4%)	.180	.671
time shortage	64 (94%)	4 (6%)	90 (99%)	1 (1%)	2.92	.087
other	59 (87%)	9 (13%)	80 (88%)	11 (12%)	.047	.829

**Table 5****Prevalence of Encountering Problems and Giving Reasons for Disengagement**

	no reason for disengagement given	reason for disengagement given	total
no problem encountered	15 (13%)	32 (28%)	47 (41%)
did encounter problems	23 (20%)	45 (39%)	68 (59%)
total	38 (33%)	77 (67%)	115 (100%)

**Table 6**  
**Frequencies of Problems Encountered and Reasons to Disengage for the Disengagement**  
**Group (N=77)**

	problems encountered	reasons (N and % of problems encountered)	reasons (N and % of total reasons)
regulation	16 (21%)	3 (19%)	3 (4%)
finance	15 (20%)	3 (20%)	4 (5%)
organizational	11 (14%)	4 (36%)	11 (14%)
market	5 (7%)	1 (20%)	21(27%)
information	8 (10%)	2 (25%)	2 (3%)
location	4 (5%)	0 (0%)	2 (3%)
product/service	4 (5%)	1 (25%)	2 (3%)
time shortage	3 (4%)	0 (0%)	4 (5%)
other:			32 (42%)
- other	8 (10%)	1 (13%)	18 (23%)
- job	-	-	12 (15%)
- study	-	-	2 (3%)

Note: Analysis limited to the 77 cases that provided one or more reasons for abandoning their start-up effort.

**Table 7****Logistic Regression Explaining Outcome Status ('Abandoning' versus 'Starting') by Means of Problems Encountered as well as a Range of Covariates**

	B	S.E.		B	S.E.
gender female - male	.13	.35	dummy trade	-.08	.43
age young - old	-.31	.21	dummy business services	.58	.42
push motivation	-.35	.37	dummy consumer services	.11	.46
education low - high	.39	.31	ambition becoming rich	-.29	.44
work experience	.02	.24	ambition becoming large	-.21	.40
management experience	.12	.17	techno nascent	-.29	.43
experience in setting up	.20	.36	solo – team	-.41	.30
business plan	.29	.30	regulation problems enc.	.03	.36
inf. and guidance	.49	.35	finance problems encountered	-.27	.41
start part-time/full-time	.66*	.32	organizational problems enc.	.23	.36
industry experience	.26	.14	market problems encountered	.17	.50
startup capital	-.51*	.17	information problems enc.	.00	.49
third party loan	.11	.35	location problems enc.	-.01	.58
risk of the market	-.65**	.17	product problems encountered	-.31	.77
dummy manufacturing	1.58*	.65	time problems encountered	-.85	.96
constant	.94	1.55	other problems encountered	-.42	.47
Chi-square Model Test	66.41**				
Nagelkerke R <sup>2</sup>	.27				

\*\* p<.01 \* p<.05

## Publications in the ERIM Report Series Research\* in Management

### ERIM Research Program: "Organizing for Performance"

2009

*On the Specification of the Gravity Model of Trade: Zeros, Excess Zeros and Zero-Inflated Estimation*

Martijn J. Burger, Frank G. van Oort, and Gert-Jan M. Linders

ERS-2009-003-ORG

<http://hdl.handle.net/1765/14614>

*The Current State of Research on Networks in China's Business System*

Johannes Meuer and Barbara Krug

ERS-2009-007-ORG

<http://hdl.handle.net/1765/14842>

*Encountered Problems and Outcome Status in Nascent Entrepreneurship*

A. Marco van Gelderen, B. Pankaj Patel, and A. Roy Thurik

ERS-2009-008-ORG

<http://hdl.handle.net/1765/14913>

---

\* A complete overview of the ERIM Report Series Research in Management:

<https://ep.eur.nl/handle/1765/1>

ERIM Research Programs:

LIS Business Processes, Logistics and Information Systems

ORG Organizing for Performance

MKT Marketing

F&A Finance and Accounting

STR Strategy and Entrepreneurship