

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

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

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## ***Introduction***

Explaining firm performance is a common theme in the world of entrepreneurship research. The first success that must be achieved 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 knowl-

edge is of critical importance to aspiring entrepreneurs as well as to business advisers, educators, and policymakers. After all, it is the quantity, type, and impact of problems that aspiring entrepreneurs want to anticipate, that business advisers and educators want to give sage advice about, and that policymakers 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 (NEs) (people in the process of setting

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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 that of the Panel Study of Entrepreneurial Dynamics (PSED): a sample of ongoing early-stage business start-ups was 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 the 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 prestart-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 these resources may prove more difficult, expensive, or time-consuming than originally planned. Information may be difficult to obtain, prove unreliable, lack 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, bookkeeping 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. NEs 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 that 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 (NE), 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 et al. 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 earlier, 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 yet offered the bank any collateral 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 1999, 1966; Lazarus and Folkman 1984) suggests that the 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 are the focus of the analysis (Folkman et al. 1986). It can also be applied to issues and obstacles that NEs 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 NEs, 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 prestart-up outcomes but provides indirect evidence for a negative relationship. The PSED studies (Davidsson et al. 2008; Gartner et al. 2004; Reynolds and Curtin 2008; Reynolds 2007) and their international counterparts have brought forth large-scale, systematic data on nascent entrepreneurship, and a wealth of information on its prevalence rates, characteristics, processes, and outcome status determinants has entered the public domain (for overviews see Davidsson 2006 and Davidsson and Gordon 2009).

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 becoming operational, reaching milestones (e.g., 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 out-

comes (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 relationship 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 prestart-up phase exists in the literature, and even if it did, it might not fit the typical venture attempt sampled by PSED-type studies. Davidsson and Gordon (2009) concluded that the PSED sampling method results in a high prevalence of “mundane” efforts, and they added that entrepreneurship research seems to be more geared toward “the miniscule minority that occupy the habitat of venture capital (VC) funding and IPOs” (p. 31) (see also Edelman, Manolova, and Brush 2008; Samuelsson and Davidsson 2009). Issues such as not finding the right premises 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. Therefore, letting the respondents decide what they want to list as problematic also aligns with the subjective nature of problems as discussed earlier.

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

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

A second question is whether the “started” and “abandoned” groups differ

not only 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 their 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 problems experienced, but they can also give up their venture for other reasons. As is clear from the previous 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), Norway and the Netherlands. In each country, a sample of NEs was 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 (2007, 2000) and Gartner et al. (2004).

### **Sample**

The data collection method of the PSED was a general public phone survey. In the Netherlands, 49,936 randomly generated phone numbers were dialed. An interview was held with 21,393 persons (43 percent) aged between 18 and 65 years. The remaining 57 percent were roughly composed of refusals (14,000), too young or too old (10,000), and others (for example, not contacted) (4,500). The eligible person who picked 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 was essential to have an active and manifest desire to set up a business. If the respondent was only dreaming about starting up a business, he or she was considered a potential entrepreneur instead of an NE. Persons who indicated that they have 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 actual entrepreneur instead of an NE. The question: "Are you currently starting a business?" turned out to be quite ambiguous as a number of people considered themselves still in a starting phase, even though their business is already operational (Reynolds 2009). The exclusion of started entrepreneurs was not performed in the initial screening but on the basis of data gathered during the follow-up phone interview. Those who in the initial wave stated that they were 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 an 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, is young, has pursued higher education, and earns a higher income.

### **Dependent Variable**

Follow-up interviews were scheduled at six months, one year, two years, and three years (follow-up 1, 2, 3, and 4) after the initial screening. They included an assessment of the current status of the start-up effort. The 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 was established that 191 persons had succeeded in starting their business, and that 114 persons had abandoned their start-up effort. A total of 113 persons were never reached again 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 were available about their eventual start-up status. If we compare the 113 persons for whom no follow-up informa-

tion was available with the 305 persons who either started or quit their effort, we find, contrary to what one would expect, that the people who 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 or 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 will the particular situation of each NE 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). Conversely, 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 noted that the groups “still trying,” “dormant,” and “abandoned” are relatively similar in their scores on the various markers.

### Comparison with International Efforts

The study of nascent entrepreneurship in the Netherlands is similar to the PSED studies in the United States 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. Among others, most questions on start-up activities and their timing are omitted. 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 prestart-up phase (see Table 2 and also Gartner and Carter 2003; Parker and Belghitar 2006). Half a year after the initial measure, 35 percent of the ventures in the sample had already started, and 11 percent had given 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 return to this aspect later when discussing our results.

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

	Started (Percent)	Still Trying (Percent)	Dormant (Percent)	Quit (Percent)
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
	<i>N</i> = 162	<i>N</i> = 46	<i>N</i> = 44	<i>N</i> = 79

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

<b>Status After</b>	<b>Started</b>	<b>Still Trying (Cumulative Attrition)</b>	<b>Dormant (Cumulative Attrition)</b>	<b>Quit</b>	<b>Total</b>
Half Year	129	145	57	42	373
One Year	162	46 (33) 79	44 (12) 56	79	376
1.5 Years	176	32 (42) 74	37 (25) 62	89	401
Three Years	191	0 (61) 61	0 (47) 47	115	414
	<i>N</i> = 191	<i>N</i> = 61	<i>N</i> = 47	<i>N</i> = 115	<i>N</i> = 414

**Independent Variables**

In each wave of the study, an inquiry was made concerning whether the respondent had encountered any problems while setting up his or her 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 questions on problems were put to all the 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 involved 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 was composed 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 a somewhat broad category with examples such as finding partners, partner delaying making (financial) commitments, partners not follow-

ing up on commitments, partners who give up, putting administration systems in place, finding out the right legal form, and obtaining required insurances.

Market problems occur 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 that proves to be problematic, such as getting customers, reaching the market, risk of the market, or the emergence of competition.

There are yet problems occurring. For example, personal problems are unrelated to the nascent venture but spring forth from someone's personal 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, then it is coded under information problems. Apart from problems, there is a range of other independent variables in the data set. 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 opted 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 "dormant," 54 percent and 25 percent, respectively, have never been contacted after the first follow-up. Third, even if those with indeterminate status are included, the question was 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 the results (Davidsson 2006). Finally, in the Dutch sample, a large proportion of nascent ventures reach final status in a short amount of time (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 had definitely abandoned their venture project, 40 percent had not mentioned any encountered problems.

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,  $p < .10$ ), and hypothesis 1 must be

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

	<b>Started (Percent)</b>	<b>Still Trying (Percent)</b>	<b>Dormant (Percent)</b>	<b>Disengaged (Percent)</b>	<b>Total (Percent)</b>
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

rejected. However, given the power issues involved, it makes sense to discuss this result in real terms: 48 percent of those who started encountered problems, whereas 40 percent of those who abandoned reported 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.

Interestingly, the encountered problems for the groups “started” and “abandoned” do not differ in frequency, 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 are 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 (Bosma et al. 2004). The alternative hypothesis is that encountered problems usually do not lead to disengagement and that yet, 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 the means of the responses of the abandonment group to the question why they gave up and to compare the prevalence rates with 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.

Table 6 provides several insights. First, a comparison of the first two

**Table 4**  
**Differences in Prevalence of Problems Encountered Between the “Started” and “Definitely Abandoned” Groups**

	Problems Encountered of Def. Abandoned ( <i>N</i> = 68)		Problems Encountered of Started ( <i>N</i> = 91)		Chi-Square	<i>p</i>
	No Problem (Percent)	Problem (Percent)	No Problem (Percent)	Problem (Percent)		
Regulation	40 (59)	28 (41)	53 (58)	38 (42)	0.005	0.941
Finance	44 (68)	22 (32)	66 (72)	25 (28)	0.445	0.505
Organizational	45 (66)	23 (34)	60 (66)	31 (34)	0.001	0.975
Market	59 (87)	9 (13)	73 (80)	18 (20)	1.183	0.277
Information	55 (81)	13 (19)	75 (82)	16 (18)	0.062	0.804
Premise	59 (87)	9 (13)	80 (88)	11 (12)	0.047	0.829
Product/Service	64 (94)	4 (6)	87 (96)	4 (4)	0.180	0.671
Time Shortage	64 (94)	4 (6)	90 (99)	1 (1)	2.92	0.087
Other	59 (87)	9 (13)	80 (88)	11 (12)	0.047	0.829

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

	<b>No Reason for Disengagement Given (Percent)</b>	<b>Reason for Disengagement Given (Percent)</b>	<b>Total (Percent)</b>
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)**

	<b>Problems Encountered (Percent)</b>	<b>Reasons (<i>N</i> and Percent of Problems Encountered) (Percent)</b>	<b>Reasons (<i>N</i> and Percent of Total Reasons) (Percent)</b>
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)

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

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 NEs are

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 for abandonment. 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 cautiously. However, the suggestion is that many problems are overcome or worked around and that only in a minority of cases did 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 though 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 start a venture. The results suggest that the "abandonment" group does not encounter problems of a different kind 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 H3 all suggest that it must be rejected: Encountered problems are often not lethal.

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 another 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. However, apparently, the started group is able to prevent the reasons for abandonment from occurring, whereas 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 for most reasons for abandonment is very small. 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 degree 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 explor-

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

	B	SE
Gender Female–Male	0.13	0.35
Age Young–Old	–0.31	0.21
Push Motivation	–0.35	0.37
Education Low–High	0.39	0.31
Work Experience	0.02	0.24
Management Experience	0.12	0.17
Experience in Setting Up	0.20	0.36
Business Plan	0.29	0.30
Inf. and Guidance	0.49	0.35
Start Part-Time/Full-Time	0.66*	0.32
Industry Experience	0.26	0.14
Startup Capital	–0.51*	0.17
Third-Party Loan	0.11	0.35
Risk of the Market	–0.65**	0.17
Dummy Manufacturing	1.58*	0.65
Constant	0.94	1.55
Chi-Square Model Test	66.41**	
Nagelkerke $R^2$	0.27	
Dummy Trade	–0.08	0.43
Dummy Business Services	0.58	0.42
Dummy Consumer Services	0.11	0.46
Ambition Becoming Rich	–0.29	0.44
Ambition Becoming Large	–0.21	0.40
Techno Nascent	–0.29	0.43
Solo–Team	–0.41	0.30
Regulation Problems Encountered	0.03	0.36
Finance Problems Encountered	–0.27	0.41
Organizational Problems Encountered	0.23	0.36
Market Problems Encountered	0.17	0.50
Information Problems Encountered	0.00	0.49
Location Problems Encountered	–0.01	0.58
Product Problems Encountered	–0.31	0.77
Time Problems Encountered	–0.85	0.96
Other Problems Encountered	–0.42	0.47

\* $p < .05$

\*\* $p < .01$

B, beta; SE, standard error.

atory analysis of the differences between the respondents who 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 NEs. All three hypotheses we formulated are rejected. Abandoning NEs appear rather similar to started entrepreneurs with regard to the role of problems encountered similar to how 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

prestart-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 reevaluation and adjustment taking place based on information gained and external developments. For the U.S. PSED, Hills and Singh (2004) reported that 67 percent of the sample stated 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) proposed 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 at various points in time, 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 (2004, 2001) 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 can not be equated with failure, especially in comparison with those NEs 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 (businesses 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 Belghitar (2006) and by Brush, Manolova, and Edelman (2008), who found that the chance of disbanding decreases when NEs move slowly through the prestart-up phase, is questionable if the NE'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 can not simply equate abandonment with failure. A similar conclusion has been drawn for research on the 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" amounted to 43 percent of abandonments. This figure is similar to the 40 percent of quitters in the present study who reported not having experienced any problems. A sizeable 16 percent listed 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 (Bosma et al. 2004; 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 reasons other 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 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, whereas encountering problems is not associated with outcome status.

The results of this study are encouraging for practitioners, relevant for educators, and reassuring for policymakers. For prospective NEs, the results indicate that in many cases, no problems will be encountered, and, even if they are encountered, they tend to be overcome. Market research appears 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 policymakers, 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, and 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 ultimately turn out to be not very problematic, 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 (Baker and Nelson 2005; Sarasvathy 2001). 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 a minority of cases, these problems are mentioned as the reason for abandonment). Often, these problems are team-related, including finding partners, partners who initially commit but then bail out, partners who do not live up to expectations, 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 earlier; 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 will also more often work full-time on the new venture and therefore, have more time to solve problems or to prevent them from occurring (Verheul, Carree, and Thurik 2009). 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 earlier, 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 can not 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 actual problems encountered, that is the primary reason for deciding to pursue the venture further or not.

Like 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 would emerge and one or more of the hypotheses would 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 in terms of not only 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 for 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 have 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 teammates (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 NE’s 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. Real-time 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; Hessels, Van Gelderen, and Thurik 2008; 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 Belghitar 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 United States, but the “conversion rate” is much higher (Parker

and Belghitar 2006; Van Gelderen, Thurik, and Bosma 2005). One possible explanation is that in contrast to the United States, there is no status or identity to be found in “being busy setting 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. See Grilo and Thurik (2008) and Stam, Thurik, and van der Zwan (2010) for a comparison of entrepreneurial engagement levels across European countries.

The PSED and its international counterparts are a unique research effort that sheds light on areas of entrepreneurship research that were previously a black box. 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 type, or in their effects on outcomes. The results challenge the conventional view that problems lead to abandonment. Instead, the view is proposed that the prestart-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 NEs as well as for those who aim to stimulate and develop nascent entrepreneurship.

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