Research Report

Setting up a Business in the Netherlands

Who starts, who gives up, who is still trying?

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Zoetermeer, April 2001

ISBN: 90-371-0820-2
Price: NLG 35.-
Order number: H0013

This study forms part of the Programmaonderzoek MKB en Ondernemerschap (Programme Research SMEs & Entrepreneurship) that is financed by the Netherlands Ministry of Economic Affairs.

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Abstract

The explanation of firm performance is a central issue in the field of entrepreneurship. Most research however deals with the success of existing firms. The first success of a firm is that it becomes one. What are the characteristics of the people who actually start a business in comparison to those who give up the effort or who are still busy organizing? The present research report investigates this question using a panel of Dutch nascent entrepreneurs (people currently engaged in setting up a business) over a period of one year. Some intriguing results from our analyses are the following. First, people who wish to start with large start-up capital and third-party loans are more likely to give up. Second, women take a longer time to prepare for eventual start-up. Third, industry experience is a success factor, while work experience, management experience, and experience in setting up a business as well as education are not. Finally, people who are already entrepreneurs manage to get their (new) business started relatively often. Knowledge of predictors of pre-start-up performance has significant benefits for entrepreneurship practice, education and policy measures. We hope the model described in this report will encourage the work yet to be done.

Samenvatting

Succesfactoren van pas gestarte ondernemers worden veelvuldig onderzocht. Echter, het eerste succes van een ondernemer is dat het bedrijf daadwerkelijk van de grond komt. Wat zijn de kenmerken van de mensen die de plannen voor het starten van een onderneming realiseren, vergeleken met de mensen die opgeven of bezig blijven met het opzetten van de onderneming? Dit onderzoek gaat nader in op deze vraag. Er wordt gebruikgemaakt van een panel bestaande uit mensen die bezig zijn een onderneming op te zetten in Nederland. Deze mensen (in het Engels aangeduid met de term 'nascent entrepreneurs') zijn gedurende een jaar gevolgd. De analyse levert enkele interessante resultaten op. Ten eerste geven de mensen die willen starten met hoge hoeveelheden startkapitaal en leningen met grotere waarschijnlijkheid op dan de wat behoudendere mensen. Ten tweede lijken vrouwen meer tijd nodig te hebben om de start te realiseren. Ten derde biedt ervaring in de sector meer kans op succes. Dit geldt niet voor het hebben van werkervaring, ervaring in management of ervaring in het opzetten van een onderneming. Ook hoger opgeleiden hebben niet een grotere kans om de start te realiseren. Als laatste blijkt dat mensen die al ondernemer zijn hun (nieuwe) onderneming relatief vaak kunnen realiseren. Kennis over determinanten van prestaties in de fase voorafgaand aan de start is belangrijk voor ondernemers zelf, voor onderwijs

en voor beleidsvoering. Dit onderzoek kan dienen als aanzet voor het vele werk dat op dit terrein nog uitgevoerd dient te worden.

1 Introduction

Explaining firm performance is an important part of entrepreneurship research (Cooper and Gascon, 1992; Lussier, 1995; Honig, 1998; Boden and Nucci, 2000; van Gelderen, Frese and Thurik, 2001). Most research deals with the success of existing firms. However, the first success of a firm is that it becomes one. Entrepreneurs have frequently been compared with non-entrepreneurs (Baron, 1999; Kaufman, 1999), but not often with persons who wanted to start a business but did not succeed in doing so. Why does one person actually succeed in starting a business, while a second gives up, and a third is still busy organizing? Answers to this question are directly relevant for practitioners who want to evaluate their own prospects, chances and behaviour. For example, in one of the few studies on the subject, Carter, Gartner and Reynolds (1995) report that both individuals who started their business as well as individuals who gave up the start-up effort undertook more activities to make their business real. People who were still trying to set up their business had undertaken fewer activities than the other two groups. Therefore, the authors advise individuals considering a business start-up to pursue opportunities aggressively in the short term, in order not to find themselves perennially still trying. Comparisons of nascent entrepreneurs who start, still try, or give up are also relevant for governmental agencies that deal with nascent entrepreneurs. Research on pre-start-up failure variables gives insight into the factors that hinder aspiring founders from realizing their plans. This knowledge can guide policy measures that improve the general conditions surrounding start-ups, thus enabling a more effective use of the nascent entrepreneurs' potential (Chini, Frank, Korunka and Lueger, 2000). Research by Chini et al. (2000) points to the importance of information use and availability. They found that people who had abandoned their start-up effort frequently indicated that information was unavailable or discouraging. Therefore, governmental agencies are heeded to make stimulating information and guidance available.

Finally, knowledge of the behaviour of nascent entrepreneurs is important for those involved in creating and maintaining policy measures at a macroeconomic level. The level of entrepreneurship, i.e., the number of business owners per work force, differs considerably across countries and periods (Thurik, 1999; Carree and Thurik, 1999). Both the causes and consequences of variation in the level of entrepreneurship are a matter of extensive scientific debate as well as of great policy importance. A high level of entrepreneurial activity is assumed and shown to contribute to innovative activities, competition, economic growth and job creation (Baumol, 1993; Thurik, 1996; Audretsch and Thurik, 2000 and 2001; Carree, van Stel, Thurik and Wennekers, 2001). For European countries in particular the fragile economic growth, coupled with the persistently high levels of unemployment, has fostered entrepreneurship (OECD, 2000). Many governments now seek to promote entrepreneurship, and high hopes are attached to entrepreneurship as a source of job

creation and economic growth (Thurik, 1996). The exploitation of economies of scale and scope is no longer at the heart of modern economies (Teece, 1993; Wennekers and Thurik, 1999). The reason is that globalization and the ICT revolution imply a need for a knowledge-intensive economy. Such an economy emerges only after significant structural change, requiring a substantial reallocation and reorganization of resources. This induces an intense demand for entrepreneurship (Casson, 1995; Audretsch and Thurik, 2000 and 2001). When it comes to how the mechanisms work, little is known, either on how entrepreneurship can best be promoted or on how entrepreneurship influences economic performance. Promotion of entrepreneurship starts with insight in the motives and behaviour of those seriously playing with the idea of becoming an entrepreneur.

2 A sample of Dutch nascent entrepreneurs and a taxonomy of performance indicators

Research of success and failure in the pre-start-up phase is scarce mainly because of the lack of a representative sample (Reynolds and Miller, 1992; Reynolds, 1997). People walking around with an idea of starting a business are difficult to find. Of course, researchers may collect a sample of starting entrepreneurs and question them about their preparation phase retrospectively. However, in such an approach all people who did not succeed in getting a business started will be overlooked (survivor bias). Moreover, retrospective questioning may lead to biased memories (hindsight bias). To avoid survivor bias and hindsight bias, one has to collect a sample of nascent entrepreneurs, i.e., people who are in the process of setting up a business. For example, the researcher may collect a sample of nascent entrepreneurs from among people who take a course in setting up a business at the local Chamber of Commerce. However, the people who take part in such a course may form a biased sample. For example, ethnic minorities are less likely to participate in the regular information and guidance channels. Therefore, as a third desirable characteristic of a research design on success in the pre-start-up phase, one would not only want to avoid survivor and hindsight bias, but also draw a representative and random sample (Katz and Gartner, 1988). To this purpose, Paul Reynolds of Babson College has set up the Entrepreneurial Research Consortium (ERC). The ERC is an international research effort (joined among others by the United States, Sweden, Norway and the Netherlands) in which nascent entrepreneurs are collected by randomly calling phone numbers. The person who answers the phone is asked: are you currently, alone or with others, setting up a business? If the person answers affirmatively, two exclusions are made. First, it is essential to have an active and manifest desire to set up a business. If he or she is only dreaming about starting up a business, he or she is considered a potential entrepreneur instead of a nascent entrepreneur. Second, someone who has set up a business that is already operational, even though in a start-up phase, must be considered an entrepreneur instead of a nascent entrepreneur. By this design, a relevant, representative and random sample of nascent entrepreneurs is created avoiding the traps of survivor bias and hindsight bias.

In the fall of 1998, 49,936 phone numbers were dialed. An interview was held with 21,393 persons (43%) aged between 18 and 65 years. Eventually, this resulted in a sample of 526 nascent entrepreneurs (2.5% of the sample, which indicates a prevalence rate of 2.5% 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).

In comparison with a control group (N=586) taken from the 21,393 persons who stated not to be currently setting up a business, the sample of nascent

entrepreneurs was relatively male, young, had followed higher education and earned a higher income (van Gelderen, 1999). Of the sample of 526 nascent entrepreneurs, 330 could be contacted one year later (63%) in order to assess the then current status of the start-up effort. Of these 330 persons, 47% started their business, 27% were still organizing, and 26% had abandoned the effort.

To establish the differences in characteristics between these three groups, some independent variables are listed in table 1. They are classified using the extended model of new venture performance of Chrisman, Bauerschmidt and Hofer (1998). They consider new venture performance as a function of the personal characteristics of the entrepreneur (E), industry structure (IS), strategy (S), resources (R) and organizational structure, process and system (OS). They propose the following functional relationship: new venture performance = f (E,IS,S,R,OS). Our independent variables can be classified in a similar fashion: demographics and experience are personal characteristics of the entrepreneur; industry sector and technology are part of industry structure; ambition and approach are part of strategy; and capital and third-party loans can be considered as resources. As the ventures are in the pre-start-up-phase, no variables pertain to organizational structure, process or systems. Table 1 provides also the predicted sign of the influence of the independent variables. Descriptions of the variables are supplied in appendix I. As few previous studies into success factors in the pre-start-up phase have been done, predictions for the independent variables are not based on literature on the pre-start-up phase. They are derived from the literature on post-start-up firm performance.

Table 1 Independent variables

demographics (personal characteristics)	**ambition (strategy)**
gender (male)	ambition number of employees (+)
age (-)	ambition becoming rich (+)
education (+)	ambition becoming large (+)
income (+)	ending up full- or part-time (full-time)
daily activity (entrepreneur)	
experience (personal characteristics)	**approach (strategy)**
work experience (+)	wrote a business plan (+)
management experience (+)	asked for information/advice (+)
industry experience (+)	starting full- or part-time (full-time)
experience in starting a firm (+)	team (+)
environment (industry structure)	**finance (resources)**
techno (-)	amount of start-up capital (+)
sector (services)	third-party financing (+)

Table 2 lists a review of articles modelling new venture performance. They are published between 1996 and the fall of 2000, in what is generally considered to be the top four journals in entrepreneurship research (JBV, ET&P, JSBM and SBE). Daily activity is excluded from the review, as this variable is not relevant in the post-start-up-phase. Ambition was taken as one variable in this review.

The results of two earlier reviews by Lussier (1995) and by Cooper and Gascon (1992) are also given in the table. One has to bear in mind that this review gives only an impressionistic overview of success factors, given the differences in samples, research designs, performance measures and methods of analysis used by the different studies (Cooper, 1993).

In most cases our hypotheses follow from the review, but some variables need further explanation. We hypothesize age to be positively related to performance, given the positive relations of the different types of experience with performance. The number of reports on the age of the founder is quite low. Probably, most studies did not directly investigate the age of the founder as they already included experience. The hypothesized sign for services is not derived from the performance literature but rather from the assumption that a business in services can be started very easily, needing fewer resources than a business in manufacturing or in retail. Therefore, services should be associated with nascent entrepreneurs who start a business. Ambition is sometimes studied as a dependent variable (e.g. Cliff, 1998) but not often as an independent variable in performance modelling. We hypothesize ambition to be positively related to performance as we expect ambitious entrepreneurs to be highly motivated. Finally, the use of a business plan is sometimes negatively associated with small business performance. However, in the same studies (Frese, van Gelderen and Ombach, 2000; Reid and Smith, 2000; van Gelderen, Frese and Thurik, 2001) planning (not in the form of a business plan) is positively associated with performance. Therefore, we make no hypothesis regarding the use of business plans.

Table 2 Literature review on relations with performance of the independent variables (SBE, JSBM, ET&P, JBV 1996 - (Fall) 2000)

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13. + : N :	14.	15.	16.
gender female – male				N	N	+			+			+	3 - 2 - 0		+	+
age young – old					N	N	N						0 - 3 - 0	+	+/-	+
education low – high	N	N	+	+	N	N	+	+	+		N		5 - 5 - 0	+	+	+
personal income													0 - 0 - 0			+
work experience			N	+		+		+			+		4 - 1 - 0			+
management experience			N	N				N					0 - 3 - 0	+	+	+
industry experience			N	+	N		N			N	+	+	3 - 4 - 1	+	+	+
experience in setting up				N							N	+	1 - 2 - 0		+/-	+
techno nascent					N				+				1 - 1 - 3			
dummy manufacturing			N	+	N								1 - 2 - 1		+/-	N
dummy trade				N	N								0 - 2 - 1		+/-	N
dummy business services				N	N			N					0 - 3 - 0			+
dummy consumer services				N	N								0 - 2 - 0			+
ambition	N	N											0 - 2 - 0			+
business plan		N					N						0 - 2 - 2	+	+/-	N
information and guidance			N	+			N			N	+		2 - 3 - 0	+	+	+
start full-time – part-time	N	N											0 - 2 - 4			
solo – team		N					N					+	1 - 2 - 0	+	+	+
start-up capital	+	N	N	+	N		+	+	+				5 - 3 - 0	+	+	+
third-party loan	N								+	N	+		2 - 2 - 1		+/-	+

+ = factor significantly contributing to performance
N = factor is neither decreasing nor increasing performance
- = factor significantly decreases performance

1 = Reid and Smith (2000)
2 = Reid (1999)
3 = Basu and Goswami (1999)
4 = Bruderl and Preissendorfer (1998) (effects on survival)
5 = Frese, van Gelderen and Ombach (2000) (partly unpublished results)
6 = Fasci and Valdez (1998)
7 = Sapienza and Grimm (1997)
8 = Boden and Nucci (2000)
9 = Honig (1998)
10 = Gartner, Starr and Bhat (1998)
11 = Lerner, Brush and Hisrich (1997)
12 = Carter, Williams and Reynolds (1997) (direct effects)
13 = summary of 1 through 12
14 = review by Lussier (1995)
15 = review by Cooper and Gascon (1992)
16 = hypothesis used in this study

In the follow-ups held among the sample of nascent entrepreneurs, the current status of the start-up effort was assessed. The actual question used is: How would you classify your firm? Is it (1) operational and running; (2) are you still setting up the business; (3) have you temporarily delayed your start-up effort; (4) have you completely abandoned your start-up effort? Groups (2) and (3) are taken together and classified as the group 'still organizing' because of the reasons people gave for classifying themselves as pausing their start-up efforts (like waiting for a licence). In our design it is the entrepreneur himself who defines whether his business is actually started or still in the start-up phase. This implies that entrepreneurs can use different criteria to judge whether they consider themselves started or not. In fact, the question why a nascent entrepreneur considered himself started gave rise to a plethora of answers. In table 3 these answers are classified using the properties of emerging organizations given by Katz and Gartner (1988). So when interpreting the results, one has to bear in mind that there is an underlying heterogeneity in the performance measure. In fact, in a different study using this data set, the application of theory-driven measures of whether a business actually started resulted in different explanatory success factors (van Gelderen, 2001).

Table 3 Different definitions of start-up moments

intention	*boundary*	*resources*	*exchange*
wish or desire	registration ch.comm.	arranged finance	first customer
idea	sign at magistracy	hired personnel	first cash flow
resolution	official address	arranged housing	acceptation in market
ambition	business cards	production of goods	a certain scale
gave up job	official opening	bought inventory	to derive income
searched information	bank account	got licence	to buy stock

3 Characteristics of the sample

The descriptive statistics of the independent variables are given in appendix II together with the correlation matrix. Their frequencies and numbers are given in table 4. Five continuous variables (personal income, work experience, management experience, industry experience, and desired start-up capital) were recoded into categories to mitigate the effects of very large numbers. Also, the categories become larger as the average value of the categories increases in order to reflect diminishing marginal returns. Age was recoded into categories to obtain insight into the relations of the different age categories with the other variables.

As can be seen in appendix II, most independent variables had some missing data, most notably personal income and desired number of personnel in five years. For the multivariate analyses, which were done using a multinomial logistic regression technique, an expected maximization procedure was executed to replace missing data based on underlying data patterns, while keeping means and standard deviations constant. Industry sector (manufacturing, trade, business services, consumer services) and daily activity status (employee, entrepreneur, social welfare, student) were recoded into dummy variables.

Table 4 Frequencies and univariate analyses of the relationships of the explanatory variables with the performance categories

variable	% N	categories	def. stop **26%**	still busy **27%**	start **47%**	chi-sq. + sign.	variable	% N	categories	def. stop **26%**	still busy **27%**	start **47%**	chi-sq. + sign.
gender	30%	female	25%	39%	37%	**10.09 ****	education	53%	low/middle edu.	25%	28%	47%	0.14
(n=330)	70%	male	26%	22%	52%		(n=321)	47%	high education	25%	26%	49%	
age	7%	age 18-24	17%	25%	58%	4.97	daily activity	65%	employee	29%	29%	42%	5.51
(n=327)	42%	age 25-34	25%	30%	45%		(n=309)	22%	entrepreneur	13%	16%	71%	**18.74****
	31%	age 35-44	25%	24%	51%		(dummy variables)	9%	social welfare	29%	43%	29%	5.11
	17%	age 45-54	32%	28%	41%			4%	student	33%	25%	42%	0.41
	3%	age 55-64	18%	18%	64%								
personal income	32%	$ 0 – 1,200 p.m.	23%	32%	45%	5.82	end up full- or part-	84%	full-time	25%	27%	48%	0.14
(n=253)	40%	$ 1,201-2,000 p.m.	30%	31%	40%		time (n=317)	16%	part-time	27%	29%	45%	
	28%	$ > 2,000 p.m.	21%	21%	57%								
ambition become	85%	to earn a living	26%	28%	47%	0.16	ambition to grow	82%	to stay small	22%	28%	50%	5.09
rich (n=320)	15%	to become rich	23%	30%	47%		large (n=321)	18%	to grow large	36%	26%	38%	
ambition amount	28%	0 employees	23%	28%	49%	5.96	work experience	6%	0-3 years	22%	28%	50%	0.27
of employees with-	25%	1-2 employees	22%	28%	51%		(n=328)	33%	4-10 years	25%	28%	47%	
in five years	22%	3-6 employees	19%	33%	47%			38%	11-20 years	24%	27%	48%	
(n=261)	19%	7-25 employees	31%	25%	45%			24%	>20 years	27%	27%	47%	
	6%	>25 employees	44%	19%	38%								
management	27%	0-1 year	29%	30%	41%	2.81	industry experience	27%	0-1 year	37%	30%	33%	**18.86 ****
experience (n=327)	33%	2-5 years	24%	28%	49%		(n=328)	21%	2-5 years	24%	30%	46%	
	20%	6-10 years	20%	28%	52%			24%	6-10 years	12%	26%	63%	
	20%	>10 years	27%	24%	49%			28%	>10 years	26%	25%	50%	
experience in firm	79%	no	26%	28%	46%	0.66	techno nascent	40%	no	25%	28%	46%	0.36
founding (n=330)	21%	yes	24%	24%	51%		(n=330)	60%	yes	26%	26%	49%	
industry type	14%	manufacturing	11%	17%	71%	**9.33 ****	start-up capital	31%	0-10.000	23%	25%	52%	**13.40 ***
(n=245)	23%	trade	32%	27%	41%	1.74	(n=311)	34%	10.001-50.000	16%	28%	56%	
(dummy variables)	39%	business services	23%	26%	51%	0.62		16%	50.001-200.000	33%	20%	47%	
	24%	consumer services	27%	34%	39%	2.28		18%	> 200.001	35%	32%	33%	
third-party money	57%	only own money	18%	24%	58%	**14.87 ****	business plan	43%	no business plan	25%	26%	49%	0.23
(n=307)	43%	arrange a loan	32%	31%	37%		(n=330)	57%	business plan	26%	28%	46%	
information and	25%	makes no use of it	32%	30%	38%	3.99	start full-time or	47%	full-time start	26%	19%	55%	**9.02 ***
guidance (n=328)	75%	receives inf. & sup.	23%	27%	50%		part-time (n=317)	53%	part-time start	23%	34%	43%	
team (n=318)	62%	solo	23%	26%	52%	2.90							
	38%	team	30%	28%	43%								

Note: ** p < .01 and * p < .05.

4 Results: explaining pre-start-up performance

Very few non-biased samples of entrepreneurs in the pre-start-up phase exist. Table 4 provides detailed descriptive statistics on what was until now unknown territory. It is striking that while in comparison to a control group the nascent entrepreneurs are relatively highly educated and earn a high income, only a minority of them prefers to grow large, to become rich, to start full-time, and to use a third-party loan. These findings point to a tendency of people of higher social strata to start a business besides their former activities. This is also reflected by the dimensions generated by a non-linear principal component analysis (Bijleveld and van der Kamp, 1998). Table 5 shows three dimensions consisting of variables with a component loading higher than .35. The first dimension clusters a number of variables connected with ambition, the second one a number of variables connected with age, while the third dimension groups the variables as described above: higher income, higher educated people who strive for a part-time business in the business services.

Table 5 Non-linear principal component analysis*

dimension 1: ambition	*dimension 2: age*	*dimension 3: yuppie*
amount of employees (.72)	work experience (-.82)	education (.62)
start-up capital (.61)	young (.77)	business services (.61)
start full-time (.52)	management exp. (-.67)	income (.56)
male (.51)	industry experience (-.51)	end part-time (.39)
becoming rich (.38)	student (.45)	
wrote business plan (.38)	team (.39)	
entrepreneur (.37)		
techno nascent (.37)		
third-party loan (.36)		

* Component loadings between parentheses.

The relationships of the independent variables with performance (started, still organizing, abandoned effort) are analyzed both in a univariate framework and a multivariate one. Univariate analyses are done using simple chi-square analyses, as the dependent variable consists of three categories. Table 5 gives the results of the chi-square statistics as well as the frequencies per success category. We find significantly more females and people with the intention to start part-time who are still busy organizing. These two groups are highly correlated, as can be seen in table 3. Moreover, the two dummy variables 'manufacturing' and 'regarding oneself as an entrepreneur' are highly discriminative between the categories of 'actually started' and 'abandoned'. Industry experience is a success factor, as opposed to other types of experience, but only up to a certain amount of years. Starting out without arranging a loan is a highly

significant success factor, as opposed to wishing to start out with a large start-up capital.

Most of these results emerge also in a multinomial logistic model presented in table 6. This type of regression is similar to logistic regression but more general because the dependent variable is not restricted to two categories. The vector coefficients do not represent an absolute effect but the marginal effect of an explanatory variable on the probability of 'abandoned' and 'still organizing' relative to the probability of 'actually started' (Cooper, Gimeno-Gascon and Woo, 1994; Long, 1997). In table 6 the nascent entrepreneurs who actually started serve as a benchmark group for the persons who gave up (first column) and for the persons who were still setting up their business (column 2). A comparison between the nascent entrepreneurs who abandoned their start-up effort and entrepreneurs still organizing is not presented, as no significant differences are found. Employee status was left out of the model because it took up 65% of the variable 'daily activity' (see table 5), leaving identification problems for the other dummies representing daily activity. When distinguishing between nascents that actually started and nascents still organizing, we again find females and part-timers still setting up, and entrepreneurs being less likely to be still organizing. As a success factor of nascent entrepreneurs who finally started, again only the following factors emerge: manufacturing, regarding oneself as an entrepreneur, industry experience and using own money. Start-up capital loses its significance due to the non-linearity of its relationship with performance, as can be seen in table 5.

Goodness-of-fit is measured in a manner similar to Cooper, Gimeno-Gascon and Woo (1994). For logistic regression models, a straight R^2 statistic is not available. Some alternatives pseudo R^2 measures have been calculated. The Nagelkerke R^2 equals 0.306, whereas the McFadden equals 0.148. A common measure for determining the fit of the model in these kinds of applications is the Hosmer and Lemeshow test (Hosmer and Lemeshow, 1989), where the probability of an outcome is specified rather than the actual occurrence of an outcome. For all three categories the test did not point at rejection of the hypothesis that the model fits well (the cases were divided into 10 subgroups of 33 observations each). The p-values associated with the chi-square test were 0.58, 0.24 and 0.22 for respectively abandoned, still trying and started. Given that the nascent entrepreneurs who are still trying are placed in a temporary category (every person in this category should ultimately belong to the category 'abandoned' or 'started' and the timing for transfers into one of these two categories may therefore be important), we conclude that our model fits the data reasonably well.

Table 6 Multinomial logistic model of success in the pre-start-up phase

	vector of coefficients associated with		
independent variables	*'abandoned'*	*'still organizing'*	*'actually started'*
intercept	1.25	2.63	0
1. gender female - male	-.44	**-1.06****	0
2. age young - old	.38	-.07	0
3. education low - high	-.33	-.22	0
4. personal income	-.07	-.25	0
5. dummy entrepreneur	**-1.80****	**-1.18***	0
6. dummy social welfare	.20	.80	0
7. dummy student	.61	-.20	0
8. amount of employees	.25	.22	0
9. ambition becoming rich	-.59	-.16	0
10. ambition becoming large	.74	.26	0
11. end up part-time	-.24	-.57	0
12. work experience	.32	.46	0
13. management experience	-.19	-.15	0
14. industry experience	**-.36***	-.17	0
15. experience in setting up	.37	.24	0
16. techno nascent	.07	-.05	0
17. dummy manufacturing	**-1.66***	-1.11	0
18. dummy trade	.03	-.29	0
19. dummy business services	-.08	-.08	0
20. dummy consumer services	-.24	-.08	0
21. business plan	-.03	.32	0
22. information and guidance	-.72	-.59	0
23. start full-time – part-time	.44	**1.16****	0
24. solo – team	.50	.36	0
25. start-up capital	.25	.30	0
26. third-party loan	**.93***	.60	0

Note: ** p < .01 and * p < .05

The variables connected with 'giving up' or 'abandoned' respectively 'still organizing' do not necessarily coincide with the reasons given by the respondents when asked why they had given up their business respectively what remained to be done before they would get started (table 7). The main reason given for abandoning the start-up effort was the opportunity offered by a job. Of course, the choice for another job might be influenced by difficulties in the start-up process. Obtaining appropriate finance seems to be the major bottleneck of the people still busy organizing.

Table 7 Reasons cited for 'giving up' and 'still busy organizing'

reasons for giving up	*N*	*%*	*reasons for still organizing*	*N*	*%*
1. other/better job	21	25	1. finance	24	27
2. market/risks	15	18	2. juridical	16	18
3. finance	14	17	3. market/risks	12	13
4. private reasons	11	13	4. location	12	13
5. other	23	27	5. lack of time	7	8
			6. private reasons	5	6
			7. other	14	16
total	84		total	90	

5 Discussion

Characteristics of nascents, i.e., people who are in the process of setting up a business, are hardly dealt with in the area of entrepreneurship research. Our results must be seen as an empirical step that needs to be followed up by a more in-depth theoretical approach that investigates the entire underlying process. Apart from generating a large number of descriptive statistics, the present study sheds light on the impact and relative importance of some explanatory variables connected with the pre-start-up phase. Our results lead to some intriguing questions. We give three examples. First, women need more time to actually start a business. Is this a question of difficulties in obtaining access to resources or of differing values (Brush, 1992; Fischer, Reuber and Dyke, 1993; Verheul and Thurik, 2001)? The strong correlations between being male and management and industry experience, respectively point to the first position, while the strong correlations between being female and part-time business ownership point to the second position.

Second, we find that a third-party loan and a higher start-up capital are variables connected with failure in the nascent phase. This indicates a difference between the pre-start-up phase and the post-start-up phase, as it has repeatedly been shown that capitalization is an important success factor in the post-start-up phase (table 2). The question is whether the selection process that takes place in the pre-start-up phase is healthy or unhealthy. Does the group of nascents that want to start out large consist of relatively many dreamers, who are rightfully rejected by banks and other financiers? Or do these people calculate their prospects carefully and then either start or back off (Carter, Gartner and Reynolds, 1995)? Or do the financial markets in the Netherlands lack opportunities for nascent entrepreneurs? In any case, for many nascent entrepreneurs it is beneficial to start out modestly.

Third, a striking dissimilarity between pre-start-up and post-start-up has to do with experience. It is puzzling that industry experience is a success factor, while work experience, management experience, and experience in setting up a business as well as education are not. Particularly management experience has been repeatedly shown to affect post-start-up performance (Lussier, 1995). Can the result that having knowledge of the industry and a network in the market is decisive be replicated, and why would this result emerge? Perhaps knowledge of an industry and a network in a market are crucial for actually starting a business, while after start-up management experience takes over in importance. As industry experience is significantly correlated with age, it might be that industry experience opens a strategic window for older people to set up a business (Harvey and Evans, 1995).

The present study has a number of weaknesses and limitations that serve as suggestions for further research. First, in survey research one is limited to vari-

ables that are easily accessible. This does not mean that these variables are necessarily the most important variables (Cooper, 1993). The skills, knowledge and motives of nascents are not directly accessed. Also the so-called 'how' variables (VanderWerf, 1989) are not taken into account, for example how resources are developed, how relationships are maintained, and how information is gained (Cooper, 1993). Second, as table 7 indicates, there is only a partial connection between the success and failure factors in our model on the one hand and reasons actually given by people themselves as to why they have abandoned or why they were still busy organizing on the other. Of the four reasons that are usually given for why people abandon their start-up effort, three are not measured in our model. A good job offer, unfavourable outcomes of market research, and private reasons could be taken into account in further modelling of pre-start-up performance. The same reasoning applies to the actual reasons given by people why they were still busy organizing. Third, our analyses of success and failure factors provide a general picture only. This limits the practical relevance, as it is well known that there is a large variety in types of ventures and types of entrepreneurs. So when analyzing specific types of entrepreneurs, more detailed pictures of factors connected with success and failure emerge that might very well deviate from the general picture. Of course, analyses of the success factors for specific types of entrepreneurs would require a larger or more specific sample. Fourth, the dependent variable is not based on a uniform criterion. This means that people in the same situation but with different norms might consider themselves as 'started' or 'still organizing', respectively. Although the subjective viewpoint of the nascent entrepreneur is important, validity of our dependent variable would increase if objective measures were added.

Government policy in the old, managed economy was largely about control. High certainty dictated that it was known what to produce, how it should be produced, and who would produce it. The role of government was to constrain the power of large corporations, which were needed for efficiency under mass-production, but posed a threat to democracy through their concentration of power (Chandler, 1977 and 1990). Under the old, managed economy the policy debate centred on competition policies (antitrust), regulation and public ownership of business (Teece, 1993). In the new, entrepreneurial economy these constraining policies have become increasingly irrelevant. The central role of government policy in the new, entrepreneurial economy is enabling in nature. The focus is to foster the production and commercialization of knowledge. Rather than focus on limiting the freedom of firms to contract through antitrust, regulation and public ownership, government policy in the new, entrepreneurial economy targets education, increasing the skills and human capital of workers, and facilitating the mobility of workers and their ability to start new firms (Audretsch and Thurik, 2001). Knowledge of their motives and behaviour in the pre-start-up phase is essential for creating a portfolio of new enabling policies. Therefore, we believe that efforts to un-

derstand predictors of pre-start-up performance will become an important part of entrepreneurship research. The present study is one of the first to contribute to this new area. We hope the simple model described here will encourage the work yet to be done.

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Appendix I: Description of the performance indicators

Table I Descriptions and definitions of variables used in the analyses

Variable	Description/definition
1. gender female – male	equals 1 if the nascent entrepreneur is female, equals 2 if the nascent entrepreneur is male
2. age young – old	age of the nascent entrepreneur, in five categories
3. education low – high	equals 2 if the nascent entrepreneur is high-educated, equals 1 otherwise
4. personal income	actual household income, in three categories
5. dummy employee	equals 2 if the nascent entrepreneur's current daily activity is being an employee, equals 1 otherwise
6. dummy entrepreneur	equals 2 if the nascent entrepreneur's current daily activity is being a business owner, equals 1 otherwise
7. dummy social welfare	equals 2 if the nascent entrepreneur currently benefits from social security, equals 1 otherwise
8. dummy student	equals 2 if the nascent entrepreneur's current daily activity is being a student, equals 1 otherwise
9. amount of employees	desired number of employees five years from now (i.e. moment of first questionnaire), in five categories
10. ambition becoming rich	equals 2 if the nascent entrepreneur indicates to have an ambition becoming rich, as opposed to the alternative of just earning a living
11. ambition becoming large	equals 2 if the nascent entrepreneur indicates to have an ambition establishing growth, as opposed to the alternative of staying small
12. end up part-time	equals 2 if the nascent entrepreneur expects to be a part-time entrepreneur eventually, equals 1 otherwise
13. work experience	amount of working experience, classified in four categories
14. management experience	amount of experience in management, classified in four categories
15. industry experience	experience in the industry, classified in four categories
16. experience in setting up	equals 2 if the nascent entrepreneur has experience in setting up a business, equals 1 otherwise
17. techno nascent	equals 2 if the nascent entrepreneur expects to carry out technological R&D, equals 1 otherwise
18. dummy manufacturing	equals 2 if the nascent entrepreneur expects to set up the business in manufacturing, equals 1 otherwise
19. dummy trade	equals 2 if the nascent entrepreneur expects to set up the business in trade, equals 1 otherwise

20. dummy business services	equals 2 if the nascent entrepreneur expects to set up the business in business services, equals 1 otherwise
21. dummy consumer services	equals 2 if the nascent entrepreneur expects to set up the business in consumer services, equals 1 otherwise
22. business plan	equals 2 if the nascent entrepreneur wrote a business plan, equals 1 otherwise
23. information and guidance	equals 2 if the nascent entrepreneur makes use of available information and guidance, equals 1 otherwise
24. start full-time - part-time	equals 2 if the nascent entrepreneur will start part-time, equals 1 otherwise
25. solo – team	equals 2 if the nascent entrepreneur sets up the business with others, equals 1 otherwise
26. start-up capital	start-up capital required, perceived by the nascent entrepreneur, in four categories
27. third-party loan	equals 2 if the nascent entrepreneur expects to acquire some finance from a third party, equals 1 otherwise

Appendix II: Descriptive statistics and correlations of the performance indicators

Table II Descriptive statistics and correlation matrix

	M	SD	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1. gender female – male	1.70	.46	-											
2. age young – old	2.67	.95	-.04	-										
3. education low – high	1.47	.50	-.04	**.18** **	-									
4. personal income	1.96	.71	.01	**.26** **	**.36****	-								
5. dummy employee	0.61	.49	.10	-.10	-.02	.07	-							
6. dummy entrepreneur	0.21	.41	.09	**.12** *	.06	**.12** *	**-.64****	-						
7. dummy social welfare	0.08	.28	-.09	**.15** **	-.02	**-.18** *	**-.38****	**-.16****	-					
8. dummy student	0.04	.19	.02	**-.27** **	.08	-.09	**-.24****	-.10	-.06	-				
9. amount of employees	2.49	1.16	**.22** **	-.05	**.16****	**.17** **	.01	**.20****	**-.18****	.01	-			
10. ambition becoming rich	1.15	.35	.10	**-.12** *	.10	.05	-.07	.04	-.01	**.19****	**.17** **	-		
11. ambition becoming large	1.18	.38	**.12** *	**-.12** *	**.12***	.02	.03	.02	-.06	.09	**.34** **	**.27** **	-	
12. end up part-time	1.16	.36	**-.28** **	.08	**.12***	.03	**-.18****	-.03	.00	**.26****	**-.16** **	-.01	-.07	-
13. work experience	2.80	.87	.05	**.56** **	-.08	**.20** **	-.02	.10	-.02	**-.23****	-.08	-.09	.06	.00
14. management experience	2.33	1.08	**.13** *	**.38** **	.06	**.28** **	.04	.11	-.04	**-.15****	**.15** **	.01	-.04	.03
15. industry experience	2.54	1.16	**.21** **	**.18** **	.00	**.16** **	.03	**.11***	-.05	-.10	.07	-.09	.02	**.12***
16. experience in setting up	1.21	.41	.09	**.15** **	.07	.10	**-.27****	**.34****	.05	-.02	.10	.03	.03	-.03
17. techno nascent	1.40	.49	**.16** **	-.08	.08	.04	-.06	**.12***	.02	.04	**.26** **	.07	**-.12** *	**.12***
18. dummy manufacturing	0.11	.31	.07	.04	-.05	.10	.05	-.01	-.07	-.01	.10	-.09	.04	.04
19. dummy trade	0.17	.38	**-.11** *	-.04	**-.14***	-.06	-.07	.03	.04	-.04	.04	-.03	.00	.00
20. dummy business services	0.29	.45	.05 **	-.01	**.26****	**.21** **	.03	.07	-.05	.02	.09	**.22** **	-.02	.00
21. dummy consumer services	0.18	.38	**-.22**	**.17** **	.07	.04	-.10	-.06	**.14****	-.01	**-.15****	-.04	-.03	**-.13***
22. business plan	1.57	.50	.06	-.01	.11	**.17** **	-.06	.05	-.04	**.17****	**.29****	**.18** **	**-.19** **	.01
23. information and guidance	1.75	.43	.03	**-.13** *	.02	.08	.05	-.07	.07	.07	**-.12***	.04	-.02	-.03
24. start full-time – part-time	1.53	.49	**-.25****	.02	**.12***	.05	**.12***	**-.24****	.03	.09	**-.29****	-.02	**.14***	**-.38****
25. solo – team	1.38	.48	.12	**-.20****	.07	.00	-.02	.06	-.10	**.18****	**.36****	**.11***	**-.20****	-.02
26. start-up capital	2.21	1.05	**.22****	-.03	.03	.04	-.05	.11	-.01	-.01	**.31****	.06	**-.14****	**.23****
27. third-party loan	1.43	.48	.13	-.04	.02	-.08	-.03	.00	.08	.01	**.20****	.05	**-.12***	.09

Note: ** p < .01 and * p < .05

Table II Descriptive statistics and correlation matrix (continued)

	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.	27.
1. gender female – male															
2. age															
3. education low – high															
4. dummy employee															
5. dummy entrepreneur															
6. dummy social welfare															
7. dummy student															
8. personal income															
9. amount of employees															
10. ambition becoming rich															
11. ambition becoming large															
12. end up part-time															
13. work experience	-														
14. management experience	**.59** **	-													
15. industry experience	**.29** **	**.34** **	-												
16. experience in setting up	.03	**.12** *	**.14** *	-											
17. techno nascent	**-.15** **	-.08	.01	.06	-										
18. dummy manufacturing	.02	.01	.10	-.01	**.26** **	-									
19. dummy trade	-.03	-.02	**-.17** **	.04	-.04	**-.16** **	-								
20. dummy business services	**-.14** *	-.05	.02	.03	.05	**-.22** *	**-.29** **	-							
21. dummy consumer services	.08	.03	**-.11** *	-.01	**-.11** *	**-.16** **	**-.21** **	**-.30** **	-						
22. business plan	-.03	.02	-.03	-.04	**.15** **	.10	.03	-.04	-.07	-					
23. information and guidance	-.08	**-.12** *	-.03	**-.19** **	.08	.04	.03	.07	-.05	.10	-				
24. start full-time – part-time	-.10	-.08	-.10	-.02	-.03	-.05	-.03	**.16** **	**.11** *	**-.14** *	.10	-			
25. solo – team	**-.26** **	-.03	-.01	.08	**.18** **	.02	-.01	.07	-.05	.06	.01	-.02	-		
26. start-up capital	.05	.11	**.14** **	.10	**.16** **	.01	.01	**-.12** *	.00	**.17** **	.00	**.34** **	**.24** **	-	
27. third-party loan	-.07	-.08	.00	-.06	.07	-.05	.08	**-.17** **	.00	**.13** *	.00	**.14** *	.09	**.47** **	-

Note: ** p < .01 and * p < .05

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