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What Determines the Growth Ambition of Dutch Early-Stage Entrepreneurs?

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What Determines the Growth Ambition of Dutch Early-Stage Entrepreneurs?

Ingrid Verheul and Linda van Mil

Abstract: This paper investigates the determinants of the ambition to grow among Dutch early-stage entrepreneurs (nascents and young business owners). We use Adult Population Survey data of the Global Entrepreneurship Monitor (GEM) for the Netherlands. Merging cross-sectional data of the years 2002 to 2007, we arrive at a sample of 409 nascents and 336 young business owners. Growth ambition is measured by asking the respondent which statement fits him or her best: (1) I want my company to be as large as possible, or (2) I want a size I can manage myself or with a few key employees. We find that nascent entrepreneurs and young business owners are equally likely to strive after business growth. For nascent entrepreneurs we find that fear of failure and entrepreneurial self-efficacy are important factors explaining growth ambition. Starting a business because of perceiving and exploiting a business opportunity (as opposed to starting a business out of necessity) is an important driver of growth ambition for both nascents and young business owners, although it is more important for nascents.

Keywords: growth ambition, nascent, young business

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Introduction

It is well-known that entrepreneurship is an important driver of economic growth. Nevertheless, only a small group of new entrepreneurs is responsible for the majority of new jobs created; i.e., the high-growth entrepreneurs (Autio, 2005). It is therefore interesting to investigate why some entrepreneurs, and not others, pursue firm growth. The decision to grow depends upon perceived ability, opportunities and the willingness to do so. *Willingness* plays an important role in explaining firm growth (Davidsson, 1989; Wiklund and Shepherd, 2003). Firm growth is no longer seen as a natural phenomenon and just as the act of starting up a company is a choice, so is growing the firm (Kolvereid, 1992; Wiklund and Shepherd, 2003).

This study aims at explaining the willingness to grow among early-stage entrepreneurs. We use a large representative dataset of nascent entrepreneurs and young business owners in the Netherlands[1]. We distinguish between these two groups as it can be expected they differ regarding their growth ambition. Nascent entrepreneurs have been found to display higher growth expectations than young business owners (Bager and Schøtt, 2004; Tominc and Rebernik, 2007). Because we regard firm growth as a goal that is set and pursued by the individual entrepreneur, in this study the emphasis is on the influence of individual-level factors on the willingness to grow the firm. A distinction is made between socio-demographic factors, motivation and personality characteristics.

We use date of the Global Entrepreneurship Monitor (GEM) for the Netherlands to examine the growth ambition of early-stage entrepreneurs. The data of the Adult Population Survey for the years 2002 to 2007 are merged into one data set, resulting in 409 observations for nascent entrepreneurs and 336 for young business owners[2]. The remainder of this study is structured as follows. The next section discusses the concept of growth and growth ambition. Subsequently, attention is paid to the factors that influence the growth ambition of early-stage

[1] GEM defines nascent entrepreneurship as the percentage of the population aged 18-64 who are currently actively involved in setting up a business they will own or co-own. This business has not paid salaries, wages, or any payments to the owners for more than 3 months. Young business ownership refers to the percentage of the population aged 18-64 who own and manage a business that has paid salaries, wages, or any other payments to the owners for more than three, but less than 42 months.

[2] Because every year the sample is representative of the Dutch population, the data give an accurate image of the Dutch entrepreneurship climate.

entrepreneurs, hypotheses are formulated and the data are discussed. The results of the empirical analyses are presented. Finally, the concluding section summarizes the findings and gives recommendations for future research.

Growth Ambition: Theory, Concepts and Measurement

Growth: natural phenomenon or deliberate choice?

In economic theory growth is seen as a natural phenomenon that occurs until profit is maximized. However, in reality not all business owners want to grow their firm to maximize profits. The pursuit of firm growth can be considered a deliberate individual decision (Wiklund and Shepherd, 2003; Liao and Welsch, 2003; Kolvereid, 1992). According to Davidsson (1989) psychological motivation theories help to create insight into the phenomenon of growth ambition. For example, Vroom's (1964) Expectancy Theory assumes that (growth) motivation is the outcome of expected growth and the individual valuation of achieving growth. Fishbein and Ajzen's (1975) Expectancy Value Theory of Attitudes explains entrepreneurs' attitudes towards growth from their beliefs about what will happen if the firm expands (cognitive response) and the value attached to these expected outcomes (affective response). This determines the intention to actually pursue firm growth (behavioral response). Ajzen's (1991) Theory of Planned Behavior distinguishes between the attitude towards growth, the degree to which others consider growth to be important (subjective norm) and whether the individual believes (s)he is able to achieve firm growth (perceived behavioral control). Together they determine an individual's intention to pursue firm growth. Generally, a distinction can be made between what an entrepreneur *wants* and what is *possible* given individual and environmental constraints, i.e., whether an individual possesses the ability and sees the opportunity to grow the firm. Van Praag and Van Ophem (1995) discriminate between willingness and opportunity to start a firm. This distinction can also be applied to explain firm growth as a deliberate choice.

Terminology and measures of growth ambition

The ambition to grow has been subject of several studies, each choosing their own labels and applying their own measures. Some studies examine the growth *willingness* of entrepreneurs (Davidsson, 1989; Wiklund et al., 2003; Cassar, 2007), whereas others pay attention to both willingness and the extent to which an entrepreneur puts in effort, i.e., *intention* or *aspirations* (Kolvereid, 1992; Cliff, 1998; Dutta and Thornhill, 2008)[3].

Davidsson (1989) measures *growth willingness* as the difference between present and ideal size in five years from now. Wiklund et al. (2003) investigate *attitude towards growth* as the affective response of the entrepreneur to an increase in the number of employees within the next five years[4]. Cassar (2007) uses the term *growth preferences* and measures whether the respondent wants the company to be as large as possible or strives after a firm (s)he can manage with a few key employees[5]. Cliff (1998) and Kolvereid (1992) use the same measure to capture what they refer to as *growth intentions* and *growth aspirations*, respectively. Their measure consists of two parts: whether the entrepreneur wants to grow the firm, and whether (s)he is willing to put in effort to achieve firm growth[6]. Dutta and Thornhill (2008, p. 310) define *growth intention* as: "An entrepreneur's goal or aspiration for the growth trajectory she or he would like the venture to follow." Lau and Busenitz (2001) measure *growth intention* by comparing entrepreneurs who choose expansion with those who choose to downsize or close and those who want the company to stay the same size.

Others investigate the entrepreneur's growth *expectations* (Bager and Schøtt, 2004; Autio, 2005; Terjesen and Szerb, 2007; Tominc and Rebernik, 2007; Cassar, 2006; Liao and Welsch,

[3] Note that, next to growth ambition, firm growth itself can be measured in different ways. See Weinzimmer et al. (1998) for a meta-analysis on the subject. Although entrepreneurs who want to grow the firm in terms of sales do not necessarily want to grow in terms of employees, and vice-versa (Kolvereid, 1992), the present study uses one measure of growth ambition and does not distinguish between different possible ambitions regarding firm growth.

[4] Wiklund et al. (2003) use the following question to capture the attitude towards growth: "Is a 100 percent increase in number of employees in five year mainly positive or mainly negative?" To register the answer a seven-point Likert scale was used.

[5] More specifically, the respondents are asked which description of the future venture size fits them best: (1) I want the company to be as large as possible, or (2) I want a size I can manage myself or with a few key employees. The present study uses a similar measure.

[6] The following questions are used: (1) whether the respondent wants to grow his/her firm in the future and (2) whether the respondent intents to hire additional employees within the next two years.

2003). Growth expectations generally go a step further and combine what the entrepreneur wants with what is possible given the (cap)abilities of the entrepreneur and available opportunities. Bager and Schøtt (2004) ask respondents to indicate how many employees they expect to have in the next five years. The answer to this question consists of two components: do I want to grow, and to I believe that I can do it and that there are opportunities to do so? Similar measures of growth expectations are used by Autio (2005), Terjesen and Szerb (2007), Brown and Galloway (2002), Tominc and Rebernik (2007) and Cassar (2006)[7], though in some cases different terminology (i.e., aspirations or intentions) is used.

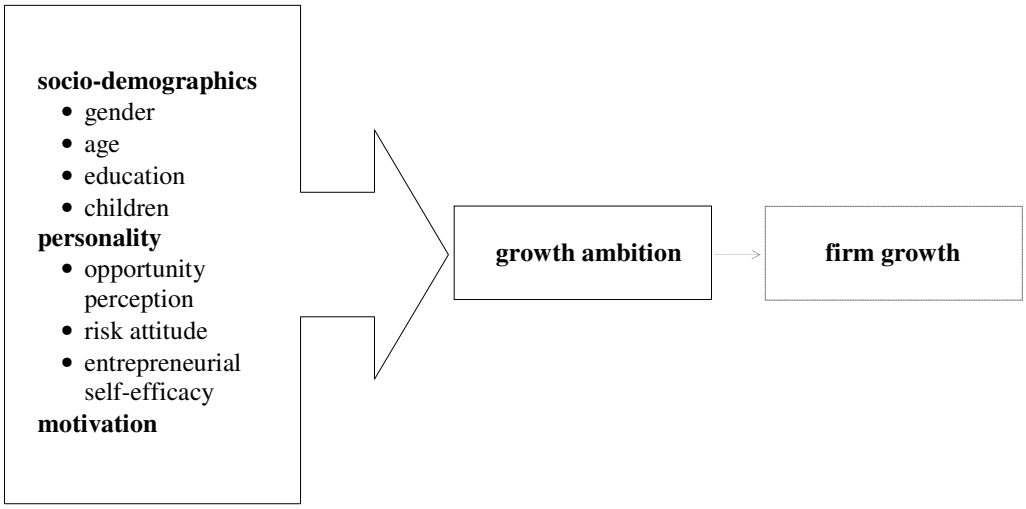
In the present study the focus is on explaining the willingness of an entrepreneur to grow the firm (growth ambition), without considering an individual's abilities, available opportunities or commitment to achieving growth. Following Cassar (2007), growth ambition is measured by which situation fits the respondent best: (1) I want my company to be as large as possible, or (2) I want a size I can manage myself or with a few key employees. Nevertheless, in the empirical analyses we include a measure of expected growth (incorporating the opportunity and ability element) to test for the robustness of the results.

Determinants of Growth Ambition

Although the willingness to grow and growth expectations can be considered two distinct constructs, in this section we will use both literatures to identify possible determinants of growth ambition. The focus is on individual-level determinants as we consider the pursuit of firm growth as a deliberate decision of the entrepreneur. A distinction is made between socio-demographic factors, personality characteristics and start-up motivation. We also explore the difference in growth ambition between nascents and the owners of young firms. The relationships tested in this study are graphically presented in Figure 1. The relationship between growth ambition and firm growth, though displayed in Figure 1 and investigated in several studies (Davidsson, 1989; Wiklund and Shepherd, 2003), is outside the scope of the present paper. The aim is to explain growth ambition as an important driver of firm growth.

[7] In addition to employee expectations, Cassar (2006) also investigates expectations regarding sales. Liao and

Figure 1: Individual-level determinants of growth ambition



Firm stage: nascent versus young business

Do nascents and owners of young firms differ with respect to their growth ambition? Tominc and Rebernik (2007) find that nascents have a higher growth ambition than young business owners. Bager and Schøtt (2004) suggest that a difference in expected firm size between nascents and owners of young firms may be expected due to a survival bias where nascent entrepreneurs usually have a less realistic (overoptimistic) image of the future. For older established firms Wiklund et al. (2003) find that firms older than ten years have less ambition to grow. Although Dutta and Thornhill (2008) argue that growth intentions are revised during the first five years, they fail to find empirical evidence for differences in growth intentions between nascents and owners of young firms. Not only do we investigate whether the growth ambition differs for nascents and young business owners, we also investigate whether the growth ambition of entrepreneurs in these two different stages is influenced by different factors. The following hypothesis is tested in a general model, including all early-stage entrepreneurs:

H1: Nascent entrepreneurs are more likely to have an ambition to grow than owners of young firms.

Welsch (2003) also measure expectations with respect to revenues.

Socio-demographic characteristics

Gender

Several studies indicate that female-owned businesses are less likely to exhibit firm growth than male-owned firms (Carter et al., 1997; Cooper et al., 1994). The question is whether it is ability or willingness that underlies this gender difference. Indeed, it has been found that female entrepreneurs are less likely to have the ambition to grow their firm than men, whether it is measured in terms of financial indicators or number of employees (Wiklund et al., 2003; Bager and Schøtt, 2004; Autio, 2005; Terjesen and Szerb, 2007). This gender difference tends to remain intact even after controlling for relevant other factors[8]. In terms of growth expectations Autio (2005) finds that for both nascents and owners of young firms men have higher expectations than women. Nevertheless, other studies do not find evidence for a gender difference with respect to growth ambition (Kolvereid, 1992; Cliff, 1998; Lau and Busenitz, 2001; Brown and Galloway, 2002) [9]. Cliff (1998) did however find that women grow their firm in a more controlled way than men. Generally, it is expected that female entrepreneurs are less likely than male entrepreneurs to pursue growth and the following hypothesis is tested:

H2: Male early-stage entrepreneurs are more likely to have an ambition to grow than female early-stage entrepreneurs.

Age

Age of the entrepreneur is found to have a negative effect on the ambition to grow the firm or expected firm size (Lau and Busenitz, 2001; Bager and Schøtt, 2004; Autio, 2005; Terjesen and Szerb, 2007)[10]. Thus, younger entrepreneurs are more likely have a growth ambition than older entrepreneurs. According to Terjesen and Szerb (2007) this may be attributed to the fact that older entrepreneurs are less innovative, are more likely to adhere to the status quo and are more risk averse. Wiklund et al. (2003) and Cassar (2006) find no significant effect of age on growth ambition. We formulate and test the following hypothesis:

[8] Although Cassar (2006) finds that the expected smaller venture size of female entrepreneurs disappears when including industry and location variables.
[9] Kolvereid (1992) suggests that this insignificance may be due to the gender equality in Norway.
[10] Lau and Busenitz (2001) and Terjesen and Szerb (2007) find that the negative relationship between age and growth ambition is only valid for young and established business owners and not for nascent entrepreneurs.

H3: Younger early-stage entrepreneurs are more likely to have an ambition to grow than older early-stage entrepreneurs.

Education level

The relationship between education level and growth ambition is investigated in different studies. According to Cassar (2006) human capital has a positive effect on the intended venture size because higher levels of human capital lead to higher opportunity costs which drive up the desired and expected firm size[11]. A positive effect of education level of the entrepreneur on the ambition to grow the firm is found in studies by Kolvereid (1992), Autio (2005) and Terjesen and Szerb (2007). Kolvereid (1992) finds a nonlinear relationship where highly educated people have the highest ambition to grow, followed by individuals with the lowest level of education. It may be that lower educated entrepreneurs have relatively high growth ambition because they are dreamers and, therefore, less realistic. Terjesen and Szerb (2007) only find a positive effect of education level for nascent entrepreneurs, while Autio (2005) finds that this effect holds for both nascents and young business owners. We formulate and test the following hypothesis:

H4: Highly educated early-stage entrepreneurs are more likely to have an ambition to grow than early-stage entrepreneurs with lower level of education.

Children and family life

The time spent on family responsibilities may reduce the resources available for expansion and lower the growth ambition of the entrepreneur (Cliff, 1998). As time can only be used up once, it can be expected that the number of children within the household reduces the hours in the company. Indeed, Lau and Busenitz (2001) argue that there is a positive relationship between time commitment and the intention to grow the firm. They find that entrepreneurs who expect to expand their firm commit more of their time to the business than entrepreneurs who plan on maintaining the present size of their firm. We formulate and test the following hypothesis:

H5a: Early-stage entrepreneurs with a few or no children are more likely to have an ambition to grow than early-stage entrepreneurs with more children.

In general women are still seen as the primary parent and housekeeper, whereas for men the main responsibility is to be a good provider (Cliff, 1998; Parasuraman et al. 1996; Singh and Lucas, 2005; Kepler and Shane, 2007). Male entrepreneurs commit less time to home making and family care than female entrepreneurs[12]. Kepler and Shane (2007) find that male entrepreneurs have a smaller household size than female entrepreneurs. Cliff (1998) argues that being a good provider is compatible with heading a growing firm. Given the above considerations, it can be expected that the responsibility for raising children weighs more heavily on women than on men with a business. Anticipating upon a moderating effect of gender, we formulate and test the following hypothesis:

H5b: Male entrepreneurs with children are more likely to have an ambition to grow than female entrepreneurs with children.

Personality characteristics

Opportunity perception

The perception of business opportunities will affect an entrepreneur's ambition to grow the firm (Bager and Schøtt, 2004; Autio, 2005; Terjesen and Szerb, 2007; Tominc and Rebernik, 2007)[13]. Whereas Bager and Schøtt (2004) find a positive effect for nascent entrepreneurs only, both Autio (2005) and Terjesen and Szerb (2007) stress that the effect applies for both nascent entrepreneurs and young business owners. Although there may be a two-way direction of causality (i.e., opportunities leading to growth or entrepreneurs with growth ambition are more likely to perceive opportunities), a positive relationship is expected between growth ambition and opportunity perception. The following hypothesis is tested:

H6: Entrepreneurs who perceive business opportunities are more likely to have an ambition to grow than those who do not perceive business opportunities.

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[11] Cassar (2006) does not find evidence to support his claim for the relationship between education level and growth ambition.

[12] Cliff (1998) finds that on average men spent 10.5 hours on housework and childcare against 16.2 hours for women.

[13] These studies use GEM data and looked at the percentage of the adult survey that answered 'yes' to the question: *In the next 6 months will there be good opportunities for starting a business in the area where you live?* This study uses a similar measure for opportunity perception.

Risk attitude

Because growing the firm is associated with high risk, it may be expected that relatively risk-averse entrepreneurs are less likely to have the ambition to develop the firm to its full potential. Indeed, Cassar (2007) finds that individuals who are tolerant of risk are more likely to have an ambition to grow the firm[14]. A concept closely related to risk tolerance is that of fear of failure. Autio (2005) shows that nascent entrepreneurs who fear to fail are less likely to be high-expectation entrepreneurs. Bager and Schøtt (2004) find evidence for such an effect for young and established firm owners[15]. The following hypothesis is tested:

H7: Entrepreneurs who fear failure of their business are less likely to have an ambition to grow the firm than entrepreneurs who do not fear failure of their business.

Entrepreneurial self-efficacy

Self-efficacy is an individual's belief in his or her ability to perform a given task (Bandura, 1982). This is similar to Ajzen's (1991) concept of perceived behavioral control. Entrepreneurial self-efficacy refers to a person's conviction that (s)he is able to start up a company. It affects entrepreneurial intentions (Boyd and Vozikis, 1994). Entrepreneurial self-efficacy may also influence the ambition to grow the firm as individuals who believe in their entrepreneurial skills are more likely to feel comfortable with growing the firm. Indeed, the relationship between entrepreneurial self-efficacy and growth ambition is found to be positive (Bager and Schøtt, 2004; Autio, 2005; Terjesen and Szerb, 2007). According to Autio (2005) and Bager and Schøtt (2004) high-expectation nascent entrepreneurs and young business owners have more confidence in their entrepreneurial skills than low-expectation entrepreneurs. Terjesen and Szerb (2007) find evidence for such a relationship for young and established business owners. We formulate and test the following hypothesis:

H8: Early-stage entrepreneurs with high confidence in their entrepreneurial knowledge and skills are more likely to have an ambition to grow than early-stage entrepreneurs with low confidence in this area.

[14] Cassar (2007) asked respondents to choose between: (1) A business that would provide a good living, but with little risk of failure, and little likelihood of making you a millionaire, and (2) A business that was much more likely to make you a millionaire but had a much higher chance of going bankrupt.

[15] Note that Autio (2005) as well as Bager and Schøtt (2004) use the following proxy for fear of failure: *Fear of failure would prevent me from starting a new business (yes or no)?*

Motivation: opportunity versus necessity

To what extent is there a relationship between the motivation for starting up a business and ambition to strive after firm growth? It can be expected that if an individual runs a business just for the fun of it, (s)he will have less ambition to pursue firm growth than someone who aims at making more money than in a wage job. Indeed, Cassar (2007) shows that the value an entrepreneur places on financial success is a key determinant of growth preferences, intended venture size and achieved growth. Also, striving for independence is negatively related to intended employment growth. According to Autio (2005) high-expectation entrepreneurs are found to be more often motivated by a business opportunity (as opposed necessity motivated) than low-expectation entrepreneurs. This is true for both nascent entrepreneurs and young business owners. Terjesen and Szerb (2007) find that opportunity motivated young and established business owners are more likely to focus on growth than necessity motivated entrepreneurs[16]. We formulate and test the following hypothesis:

H9: Opportunity motivated early-stage entrepreneurs are more likely to have an ambition to grow than necessity driven early-stage entrepreneurs.

Data and Methodology

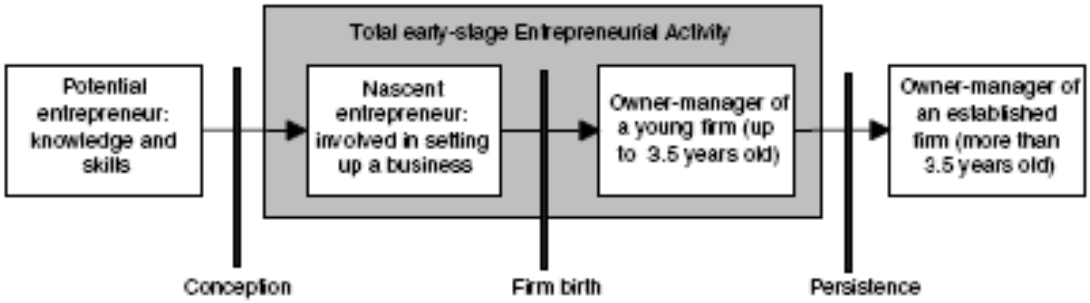
Data sample

For this study we make use of data collected for the Adult Population Survey of the Global Entrepreneurship Monitor (GEM). The data sample consists of individual level data for the Netherlands for the years 2002 to 2007. Data for these years are merged into one dataset to boost the number of observations, allowing for more reliable empirical results[17]. This is a valid exercise as each year's sample is random and checked for representativeness. The focus is on early-stage entrepreneurs (nascents and young firms) as growth ambition is expected to play an important role mainly at start-up and in the years directly after start-up. Established entrepreneurs participating in GEM are not asked about their growth ambition. Nascent entrepreneurs are those who are actively involved in starting a business and young business

[16] Note that Terjesen and Szerb (2007) do not find such an effect for nascent entrepreneurs.

owners are those who own a business that has been in existence for less than 42 months. Established entrepreneurs own a business over 42 months old, and are not taken into account (Reynolds et al., 2005). Figure 2 shows the classification of entrepreneurs according to their firm stage.

Figure 2: Defining total early-stage entrepreneurial activity



Source: Reynolds et al. (2005)

Variables

Dependent variable: growth ambition

Growth ambition is measured by asking the respondent which statement fits him or her best: (1) I want my company to be as large as possible, or (2) I want a size I can manage myself or with a few key employees. The first answer represents growth ambition and is coded '1'. The second answer reflects no or little growth ambition and is coded '0'. In our sample 13.5 percent of the nascents and 17.3 percent of the young business owners want their company to be as large as possible. There is a gender difference with respect to growth ambition. For the nascents we see that 12.4 percent of the women and 14 percent of the men have a growth ambition. For the young business owners this gender difference is more pronounced (and significant at 0.05): 22 percent of the men have a growth ambition against only 10 percent of the women.

[17] The survey can be found in Appendix I. The surveys slightly differ per year. Sometimes questions were left out, added or asked in another way. Appendix II describes the reclassification process.

Independent variables

Several control variables are included in the analysis. *Time investments* in the business are included, next to having children, because part-time entrepreneurs are expected to be less ambitious with respect to growth than fulltime entrepreneurs. In particular at start-up entrepreneurs may choose to combine work in a wage job with their own business and only quit their jobs when the business is successful and fully up and running. *Firm size*, in terms of the number of employees, is taken into account for the young business owners (it is not available for nascent entrepreneurs). The effect of firm size on growth ambitions is ambiguous and may be subject to reversed causality in cross-sectional analysis. Several scholars argue that owners of small firms are more likely to pursue growth than owners of larger firms (Davidsson, 1989; Wiklund et al., 2003)[18]. Other studies find evidence for a positive effect of firm size on growth ambition (Lau and Busenitz, 2001; Terjesen and Szerb, 2007). *Innovation* is important for small business growth and development (Kalleberg and Leicht, 1991). It can therefore be expected that innovation is positively related to growth ambition, although the direction of causality is not clear. Indeed, Terjesen and Szerb (2007) find support for this positive relationship for entrepreneurs in all stages (nascents, young and established firms). This is not only true for product innovation, but also for process innovation (the use of a new technology to produce the product/service)[19]. Gundry and Welsch (2001) find that growth-oriented entrepreneurs are more likely to pursue technological change than other entrepreneurs. We include a measure of *internationalization* because going international is an important growth strategy. On the other hand, international markets may speed up the growth process because it offers new business opportunities. Studies by Kolvereid (1992) and Terjesen and Szerb (2007) find evidence for a positive relationship of export with growth ambition and expected growth. Finally, we control for the *industry* in which the business is situated as in some sectors there is more growth potential than in others. Including sector variables may change the results of the analysis as is found out by Cassar (2006).

[18] Wiklund et al. (2003) find that owners of firms with 10-19 employees are less likely to desire growth than owners of firms with 20-49 employees.

[19] Note that this result is found for nascent entrepreneurs only. Nascents may expect their technologies to be new, (still relatively unaware of what is going on in the industry) and later on find out that the techniques were already in use.

Table 2: Description explanatory variables

Variable name	Variable description	nascent	young
1. GrowthAmbition	Does the respondent have the ambition to grow the firm? [0=no; 1=yes]	0.14 (0.34)	0.17 (0.38)
2. Gender	Is the respondent male or female? [0=male; 1=female]	0.36 (0.48)	0.38 (0.49)
3. Age	Age of the respondent [between 18 and 64]	41.18 (10.43)	38.87 (8.96)
4a. LowEducation	Respondent's highest education is primary education or low-level secondary education [0=otherwise]	0.14 (0.35)	0.14 (0.35)
4b. MidEducation	Respondent's highest education is high-level secondary education [0=otherwise]	0.33 (0.47)	0.32 (0.47)
4c. HighEducation	Respondent's highest education is higher vocational training or university [0=otherwise]	0.53 (0.50)	0.54 (0.50)
5. Children	Number of children under 18 years old in the respondent's household	0.99 (1.19)	1.09 (1.14)
6. MotiveOpp	What drives the respondent to become an entrepreneur? [0=starting out of necessity; 1=benefit from opportunity]	0.84 (0.37)	0.84 (0.37)
7. Opportunity	Do you see good opportunities to start a new business within the next six months? [0=no; 1=yes]	0.62 (0.49)	0.56 (0.50)
8. FearFail	Would fear of failure stop you from starting a new business? [0=no; 1=yes]	0.17 (0.38)	0.15 (0.36)
9. SelfEfficacy	Do you have the knowledge, skill and experience needed to start a new business? [0=no; 1=yes]	0.87 (0.33)	0.89 (0.31)
10. Hours	Number of hours invested in the business per week	23.38 (23.28)	39.47 (22.46)
11. Employees	Number of people employed in the business (only for young business owners	N/A	9.18 (47.95)
12a. NewAll	The respondent believes that *all* customers consider the product or service to be new [0=otherwise]	0.22 (0.41)	0.12 (0.33)
12b. NewSome	The respondent believes that *some* customers consider the product or service to be new [0=otherwise]	0.19 (0.39)	0.20 (0.40)
12c. NewNo	The respondent believes that *no* customers consider the product or service to be new [0=otherwise]	0.59 (0.49)	0.67 (0.47)
13. HighTech	The technology used is less than one year old [0=otherwise]	0.09 (0.29)	0.09 (0.28)
14. Export	Percentage of (expected) sales to foreign customers [0=no foreign customers; 1=≤25%; 2=>25%; 3=>50%; 4=>75%; 5=>90%]	0.88 (1.34)	0.83 (1.20)
15a. ManuCons	The business is in manufacturing or construction [0=otherwise]: ISIC codes D & F	0.10 (0.30)	0.13 (0.34)
15b. TransCom	The business is in transport or communication [0=otherwise]: ISIC code I	0.03 (0.17)	0.04 (0.19)
15c. Service	The business is in services [0=otherwise] ISIC codes J, K, N, O & P	0.56 (0.50)	0.54 (0.50)
15d. Trade	The business is in trade [0=otherwise] ISIC codes G & H	0.20 (0.40)	0.18 (0.38)
15e. Other	The business is not in manufacturing, construction, transport, communication, services or trade [0=otherwise] ISIC codes: A, B, C, E, L, M & Q	0.11 (0.31)	0.11 (0.31)

Note: the last two columns present the mean and standard error (between parentheses) for nascents and young business owners, respectively.

Table 3: Correlations between all variables (nascent entrepreneurs)

	1	2	3	4a	4b	4c	5	6	7	8	9	10	12a	12b	12c	13	14	15a	15b	15c	15d
1	1																				
2	-.02	1																			
3	-.17**	-.05	1																		
4a	-.06	.05	.10	1																	
4b	.05	.11*	-.11*	-.28**	1																
4c	-.01	-.14**	.04	-.43**	-.75**	1															
5	-.07	.05	-.11*	.01	.07	-.07	1														
6	.16**	-.05	-.21**	-.13*	.02	.08	.09	1													
7	-.04	-.01	-.17**	-.09	-.01	.07	.05	.06	1												
8	-.10*	.03	-.06	.05	-.04	.01	.07	.02	.01	1											
9	-.03	-.10*	.01	-.11*	-.02	.09	.01	.01	.17**	-.16**	1										
10	.10	-.06	.12*	.15**	.02	-.13*	-.06	-.10	-.25**	.02	.07	1									
12a	.10*	-.01	.00	-.03	-.03	.05	-.04	.10	.08	.04	.16**	-.05	1								
12b	-.02	.10*	-.06	-.02	-.10*	.11*	.04	.10	.05	.01	-.09	-.08	-.25**	1							
12c	-.07	-.07	.05	.04	.11*	-.13**	.00	-.17**	-.10	-.04	-.06	.10	-.63**	-.59**	1						
13	.10	.02	.05	-.03	.00	.02	-.07	-.04	-.01	-.05	-.10	.05	.15**	.00	-.13*	1					
14	.14**	-.14**	.02	-.07	-.02	.07	.03	.06	-.02	.00	.01	.04	.03	.01	-.03	.06	1				
15a	-.14*	-.14**	.09	.19**	.06	-.19**	-.05	-.13*	-.04	.01	-.04	.21**	-.04	-.02	.05	.02	.01	1			
15b	-.02	-.04	-.05	.01	.00	-.01	-.11*	-.02	.03	-.08	.02	.01	.05	-.05	.00	-.06	.04	-.06	1		
15c	-.02	.06	-.07	-.17**	-.11*	.23**	.03	.06	.18**	.01	.07	-.28**	.14**	.05	-.16**	.03	-.10	-.37**	-.20**	1	
15d	.07	-.02	-.02	.05	.06	-.10	.00	.02	-.08	.07	-.03	.08	-.07	-.03	.08	-.04	.06	-.17**	-.09	-.57**	1
15e	.06	.09	.08	.02	.04	-.06	.06	.01	-.15**	-.07	-.05	.15**	-.12*	.01	.10	.03	.05	-.12*	-.06	-.40**	-.18**

** Significant at 0.01; * significant at 0.05

Table 4: Correlations between all variables (young business owners)

	1	2	3	4a	4b	4c	5	6	7	8	9	10	11	12a	12b	12c	13	14	15a	15b	15c	15d
1	1																					
2	-.16**	1																				
3	-.12*	-.05	1																			
4a	-.10	.12*	-.04	1																		
4b	.00	-.07	-.09	-.28**	1																	
4c	.07	-.02	.11*	-.44*	-.74*	1																
5	-.03	.12*	.07	.06	-.03	-.01	1															
6	.12*	.08	-.07	-.03	-.10	.11*	.01	1														
7	-.02	-.05	-.05	-.05	.02	.02	-.04	.02	1													
8	-.01	.05	-.04	.03	.08	-.09	.08	-.06	-.17**	1												
9	.08	-.23**	.03	-.06	-.08	.11*	.11	.07	.05	-.24*	1											
10	.04	-.31**	.01	.06	.07	-.10	.02	.00	-.05	-.07	.11	1										
11	.15**	-.09	.02	-.05	.00	.04	.11*	.05	.08	-.03	-.08	.13	1									
12a	.05	-.01	.00	-.07	.04	.02	.03	.11	.06	.02	.10	-.01	.08	1								
12b	.06	.04	-.04	-.14*	-.07	.17*	-.04	.11	-.06	-.04	.12*	-.03	.01	-.19**	1							
12c	-.08	-.03	.03	.17**	.04	-.15**	.01	-.17*	.01	.02	-.18*	.03	-.06	-.54**	-.72**	1						
13	.04	-.04	-.01	-.04	-.03	.06	.00	.07	-.12*	.05	.03	-.02	-.02	.11*	.14*	-.20*	1					
14	.24**	-.14**	-.01	-.03	-.11	.12*	-.09	-.01	.00	.00	-.02	.10	.12	.09	.06	-.12*	-.02	1				
15a	-.02	-.06	-.10	.14*	.04	-.14*	.05	-.01	.05	.10	-.08	.06	.08	-.02	-.11	.11	-.06	-.07	1			
15b	-.04	-.04	.04	.02	.02	-.03	.10	.05	.13*	.01	-.10	.00	.19*	-.07	-.05	.09	-.06	.02	-.08	1		
15c	-.02	.05	.04	-.14	-.24*	.32*	-.08	.03	-.01	-.14*	.08	-.14*	-.12*	.12	.07	-.14	.00	-.11	-.42**	-.21**	1	
15d	.09	-.03	-.03	.05	.13*	-.16*	.02	.01	-.04	.03	.03	.13	.01	-.05	.09	-.05	-.06	.23**	-.18**	-.09	-.51**	1
15e	-.04	.03	.06	.00	.16**	-.15	.00	-.07	-.07	.07	-.01	.00	-.02	-.07	-.07	.11	.18**	-.05	-.14	-.07	-.39*	-.17*

** Significant at 0.01; * significant at 0.05

Table 2 gives an overview of the explanatory variables included in this study as well as their means for nascent entrepreneurs and young business owners. Tables 3 and 4 present the correlations between all variables for nascent entrepreneurs and young business owners, respectively. For nascent entrepreneurs there are no correlations above 0.30 (except for some of the dummy variables). For young business owners there is a relatively high correlation between gender and the hours variable, indicating that female young business owners are more often part-time entrepreneurs than their male counterparts[20].

Analyses

We use binary logistic regression analysis. It estimates odds ratios indicating a decrease or increase in the probability that the respondent has the ambition to grow the firm, given a one percentage point increase in the explanatory variable. For a continuous variable, such as the number of children) the odds ratio gives the probability that a respondent will have growth ambition, adding one child to the respondent's household. For dummy variables the odds ratio gives the probability the respondent has a growth ambition, compared to the reference group. An odds ratio lower (higher) than unity indicates a negative (positive) relationship between the explanatory variable and growth ambition.

Different models will be estimated to examine the effect of the hypothesized factors on growth ambition. First, to test for the effect of firm stage on growth ambition (H1), distinguishing between growth ambitions of nascents and young business owners, we estimate a model including observations from all early-stage entrepreneurs and firm stage (nascent versus young business) as a dummy variable. Subsequently, we estimate the models separately for nascent entrepreneurs and young business owners to find out whether their growth ambitions are driven by different factors. These models are the same, with the exception that we include a measure of firm size in the analyses for the young business owners. In addition to explaining growth ambition, we estimate regressions explaining expected firm size in five years to examine the robustness of the

[20] Note that in the analyses we test for multicollinearity using the VIF test for all independent variables (in a linear model). There is no reason to believe that multicollinearity is a problem as all VIF values remain below the value of ten.

model. It is expected that these two dependent variables are strongly related as the willingness to grow will be captured in the expected (future) firm size. Indeed, the correlation coefficient appears to be significant, amounting to 0.515 for nascent entrepreneurs and 0.448 for young business owners.

Results

Explaining growth ambition

Results of the regression analysis explaining growth ambitions of all early-stage entrepreneurs (including a firm stage dummy) are presented in Table 5. We see that there is no difference in growth ambition between nascent entrepreneurs and young business owners. This can also be derived from the descriptive statistics in Table 2 indicating that 14 percent of the nascent entrepreneurs have a growth ambition against 17 percent of the young business owners. Hypothesis 1 is not supported.

Table 5: Explaining the growth ambition of early-stage entrepreneurs

	B	Exp (B)
Constant	-1.731*	0.177
Gender	-0.567**	0.567
Age	-0.037**	0.964
MidEducation	0.832	2.298
HighEducation	1.259**	3.523
Children	-0.144	0.866
Opportunity	-0.346	0.707
FearFail	-0.442	0.642
SelfEfficacy	-0.206	0.814
MotiveOpp	1.326**	3.765
YoungBusinessOwner	0.301	1.352
N	504	
-2 Log likelihood	426.052	
Cox and Snell R-squared	0.078	
Nagelkerke R-squared	0.129	

* significant at 10%; ** significant at 5%

Tables 6 and 7 present the results of the binary logistic regression explaining the growth ambition of nascent entrepreneurs and young business owners, respectively.

Table 6: Explaining the growth ambition of nascent entrepreneurs

	Model 1		Model 2		Model 3	
	B	Exp (B)	B	Exp (B)	B	Exp (B)
Constant	-1.411	0.244	-1.357	0.258	-1.268	0.282
Gender	0.015	1.015	0.394	1.483	0.204	1.226
Age	-0.041**	0.960	-0.065**	0.937	-0.065**	0.937
MidEducation	0.504	1.655	0.501	1.651	0.427	1.532
HighEducation	0.789	2.202	0.764	2.147	0.681	1.975
Children	-0.117	0.889	-0.217	0.805	-0.293	0.746
Opportunity	-0.294	0.745	0.126	1.134	0.106	1.111
FearFail	-1.125*	0.325	-1.603*	0.201	-1.588*	0.204
SelfEfficacy	-0.885	0.413	-1.402*	0.246	-1.399*	0.247
MotiveOpp	2.035*	7.654	2.095*	8.123	2.119*	8.325
Hours	.	.	0.028**	1.028	0.028**	1.029
NewAll	.	.	0.656	1.928	0.639	1.895
NewSome	.	.	-0.016	0.984	0.009	1.009
HighTech	.	.	-0.211	0.810	-0.152	0.859
Export	.	.	0.318**	1.375	0.321**	1.379
ManuCons	.	.	-19.855	0.000	-19.909	0.000
TransCom	.	.	-0.823	0.439	-0.814	0.443
Trade	.	.	-0.200	0.819	-0.194	0.824
Other	.	.	0.852	2.345	0.861	2.364
Gender*Children	.	.	.	.	0.186	1.204
N	277		234		234	
-2 Log likelihood	210.766		155.400		155.161	
Cox and Snell R-squared	0.086		0.189		0.189	
Nagelkerke R-squared	0.150		0.324		0.325	

* significant at 10%; ** significant at 5%

Table 7: Explaining the growth ambition of young business owners

	Model 1		Model 2		Model 3	
	B	Exp (B)	B	Exp (B)	B	Exp (B)
Constant	-2.110	0.121	-3.530**	0.029	-3.528**	0.029
Gender	-1.133**	0.322	-0.750	0.472	-0.779	0.459
Age	-0.024	0.976	-0.013	0.987	-0.013	0.987
MidEducation	0.582	1.790	0.333	1.396	0.337	1.400
HighEducation	1.248	3.483	0.747	2.111	0.752	2.122
Children	-0.240	0.786	-0.236	0.790	-0.243	0.784
Opportunity	-0.277	0.758	-0.085	0.919	-0.084	0.920
FearFail	0.152	1.164	0.482	1.620	0.485	1.624
SelfEfficacy	0.828	2.288	1.200	3.319	1.198	3.314
MotiveOpp	0.768	2.155	1.265*	3.544	1.264*	3.539
Hours	.	.	0.000	1.000	0.000	1.000
Employees	.	.	0.006*	1.006	0.006*	1.006
NewAll	.	.	-0.407	0.665	-0.411	0.663
NewSome	.	.	-0.396	0.673	-0.399	0.671
HighTech	.	.	0.401	1.494	0.403	1.496
Export	.	.	0.357**	1.430	0.355**	1.427
ManuCons	.	.	-0.179	0.619	-0.480	0.619
TransCom	.	.	-1.177	0.308	-1.174	0.309
Trade	.	.	-0.152	0.859	-0.151	0.859
Other	.	.	0.111	1.117	0.109	1.115
Gender*Children	.	.	.	.	0.028	1.028
N	227		200		200	
-2 Log likelihood	207.364		168.506		168.502	
Cox and Snell R-squared	0.101		0.134		0.134	
Nagelkerke R-squared	0.158		0.214		0.214	

* significant at 10%; ** significant at 5%

Socio-demographic characteristics

The results including all early-stage entrepreneurs show that women are less likely to have a growth ambition. In the separate regressions for nascents and young business owners this gender effect disappears when including controls in the analysis. We find no convincing support for Hypothesis 2. It may be expected that the effect of gender is mediated by other factors. In fact, gender is significantly and negatively correlated with export, which has a positive effect on the ambition to grow.

With respect to the effect of age, we see that in the analysis including all early-stage entrepreneurs, as well as for the nascent entrepreneurs, we find that older entrepreneurs are less likely to have a growth ambition. For young business owners we do not find a significant effect of age. Age appears only important in the start-up phase and not in later stages. Hypothesis 3 is supported only for nascent entrepreneurs. In the start-up phase it may be that older entrepreneurs who have more life experience are more realistic and therefore less likely to state they want to grow their firm as large as possible. It also appears that (when including all early-stage entrepreneurs) higher educated entrepreneurs are more likely to have growth ambition as compared to those with a low level of education. However, the effect disappears in the separate analyses (including the controls). Hypothesis 4 is not supported. There may be an indirect effect of education on growth ambition through the other variables.

All analyses show that the number of children in the household has no impact on the growth ambition of early-stage entrepreneurs. There is no support for Hypothesis 5a. It can be expected that the absence of a family effect is due to the fact that no distinction is made between older and younger children (GEM counts children younger than 18 years). Younger dependent children are more time-consuming than older independent children, so that it can be expected that more dependent children reduces an entrepreneur's growth ambition. Our results do not lead us to believe that there is a moderation effect of gender in the relationship between children and growth ambition. We find no support for Hypothesis 5b.

Personality characteristics

Perceiving business opportunities does not play a role for nascent entrepreneurs or young business owners. Hypothesis 6 is not supported. In particular for nascent entrepreneurs it is strange that they do not perceive of opportunities as they are in the process of starting up a business. From Table 4 we see that 62 percent of the nascents and 56 percent of the young business owners see an opportunity to start a business in the next six months. Still, opportunity perception does not drive entrepreneurial activity at different stages. It is possible that not all (nascent) entrepreneurs see opportunities to start a business within

the next 6 months *besides* the opportunity they are already exploiting with their current business.

Fear of failure has a weak effect only for nascent entrepreneurs in Table 6. Nascent entrepreneurs who fear failure are somewhat less likely to have a growth ambition. Thus, although fear of failure plays a role in determining new venture creation, it does not have such a strong effect on the decision (not) to grow. We find weak support for Hypothesis 7 for nascent entrepreneurs.

Entrepreneurs who believe in their entrepreneurial skills and knowledge are not more likely to have a growth ambition. From Table 6 it appears that entrepreneurial self-efficacy even negatively influences growth ambition of nascent entrepreneurs. How can this be explained? It may be that entrepreneurs who feel confident with their knowledge and skills do not feel that they need to prove themselves by growing the business[21]. No support is found for Hypothesis 8 for young business owners. For nascents the hypothesis is even rejected.

Motivation

Hypothesis 9 is supported for both nascent entrepreneurs and young business owners. Starting because of an opportunity is more likely to result into growth ambition than starting a business because there is no other option (necessity). Tables 6 and 7 show that the odds are larger for nascent entrepreneurs than for young business owners, indicating that the difference in likelihood of having growth ambition is larger in the start-up phase than when the business is up and running.

Controls

Apart from individual-level characteristics, other factors may also influence the growth ambition of entrepreneurs. From Table 6 it appears that nascent entrepreneurs with a growth ambition spend somewhat more time in the business than their counterparts without such an ambition. The variable Employees is only included in the analysis

[21] Note that entrepreneurial self-efficacy measures the respondent's abilities to be(come) an entrepreneur. Abilities to be(come) an entrepreneur may differ from those needed to grow the firm.

explaining growth ambitions of young business owners. It appears that young business owners with growth ambition have larger firms. Note that reversed causality may play a role here: firms are large because owners want them to be large. Export activity is significantly related to growth ambition of nascents and young business owners. Again, reversed causality may be at stake: Do people with growth ambition go international? Or do export-oriented entrepreneurs have higher growth ambitions?

Explaining expected firm size

To examine the robustness of the results on growth ambition, in this section we use the same variables to explain expected firm size in five years from now (in terms of number of employees). This variable consists of two answer categories: expect to hire ≤10 employees (coded '0') and: expect to hire >10 employees. The difference in expected firm size between nascent entrepreneurs and young business owners is significant: about 13 percent of the nascents expect to employ more than 10 people against about 21 percent of the young business owners. Tables 8 and 9 present the results of the regression analyses explaining expected growth for nascent entrepreneurs and young business owners, respectively.

From the results in Tables 8 and 9 we see that growth ambition is positively related to expected growth for both nascent entrepreneurs and young business owners, although for nascents the effect is far larger than for the young business owners. Willingness weighs heavier for the newcomers, whereas for the established young owners who have now gained some experience it may have become clear that willingness is not the sole driver of business growth. Furthermore, innovation and export are important for explaining expected growth by nascents, whereas it does not play a role for young business owners. Perhaps the role of these two factors is more important at start-up than at a later stage of the business. Perceiving opportunities for business start-up in the next five years is important explaining expected growth of young business owners and not nascent entrepreneurs. Nascents are already starting a business, often because of an opportunity, while recently established entrepreneurs look ahead to see whether there are more

opportunities out there that may be exploited within the context of the current firm or another one.

Table 8: Explaining expected growth of nascent entrepreneurs

	Model 1		Model 2		Model 3	
	B	Exp (B)	B	Exp (B)	B	Exp (B)
Constant	-4.316**	0.013	-3.608**	0.027	-9.079**	0.000
Gender	-0.380	0.684	-0.300	0.741	-0.307	0.736
Age	0.007	1.007	0.002	1.002	0.067*	1.070
MidEducation	1.364	3.911	1.209	3.352	1.312	3.715
HighEducation	2.133**	8.443	1.907*	6.733	2.377	10.776
Children	-0.013	0.987	-0.129	0.879	-0.035	0.965
Opportunity	-0.051	0.950	-0.126	0.882	0.594	1.810
FearFail	-0.048	0.953	-0.617	0.540	0.672	1.959
SelfEfficacy	0.050	1.052	-0.960	0.383	-0.609	0.544
MotiveOpp	0.787	2.197	0.829	2.290	0.765	2.150
Hours	.	.	0.014	1.014	0.010	1.010
NewAll	.	.	1.304**	3.684	1.363*	3.910
NewSome	.	.	0.019	1.020	-0.880	0.415
HighTech	.	.	-1.143	0.319	-1.929	0.145
Export	.	.	0.309**	1.362	0.216	1.241
ManuCons	.	.	-1.131	0.323	0.841	2.319
TransCom	.	.	-20.510	0.000	-21.606	0.000
Trade	.	.	-0.813	0.444	-2.389**	0.092
Other	.	.	-1.165	0.312	-3.005*	0.050
GrowthAmbition	.	.	.	.	5.283**	197.053
N	263		223		217	
-2 Log likelihood	212.513		146.976		78.532	
Cox and Snell R-squared	0.056		0.123		0.323	
Nagelkerke R-squared	0.097		0.224		0.611	

* significant at 10%; ** significant at 5%

Table 9: Explaining expected growth of young business owners

	Model 1		Model 2		Model 3	
	B	Exp (B)	B	Exp (B)	B	Exp (B)
Constant	-3.296**	0.037	-7.048*	0.001	-8.076*	0.000
Gender	-0.788*	0.455	0.255	1.290	0.557	1.745
Age	0.003	1.003	-0.035	0.965	-0.024	0.976
MidEducation	0.159	1.173	0.922	2.515	1.571	4.810
HighEducation	1.627**	5.087	2.863	17.515	3.346	28.378
Children	0.056	1.058	-0.190	0.827	-0.114	0.892
Opportunity	0.639*	1.894	1.330*	3.782	1.438*	4.213
FearFail	0.384	1.468	1.013	2.755	1.176	3.242
SelfEfficacy	-0.481	0.618	-0.170	0.844	-0.053	0.949
MotiveOpp	1.139*	3.122	0.482	1.620	0.051	1.052
Hours	.	.	0.023	1.023	0.021	1.022
Employees	.	.	0.509**	1.663	0.461**	1.586
NewAll	.	.	0.126	1.134	-0.193	0.824
NewSome	.	.	-0.085	0.919	-0.196	0.822
HighTech	.	.	1.239	.3453	1.056	2.876
Export	.	.	0.199	1.220	0.196	1.216
ManuCons	.	.	-0.272	0.762	-0.220	0.803
TransCom	.	.	0.746	2.109	0.572	1.771
Trade	.	.	-1.231	0.292	-1.643	0.193
Other	.	.	0.683	1.980	0.884	2.419
GrowthAmbition	.	.	.	.	1.614**	5.025
N	215		187		183	
-2 Log likelihood	201.457		67.690		63.462	
Cox and Snell R-squared	0.117		0.512		0.505	
Nagelkerke R-squared	0.180		0.775		0.777	

* significant at 10%; ** significant at 5%

Comparing the results of the analyses explaining growth ambition (Tables 6 and 7) with those explaining expected growth (Tables 8 and 9), there are several similarities. Gender (female) has a negative effect on expected growth by young business owners in Model 1 of Table 9. It is likely that this effect runs through the control variables. For growth ambition we saw a similar effect in Model 1 of Table 7. For young business owners firm size (in terms of number of employees) is positively related to both growth ambition (in Table 7) and expected growth (in Table 9), although the effect is larger for expected growth. This may be related to the fact that expected growth does not only incorporate willingness but also growth opportunities. For nascent entrepreneurs export level is

positively related to both growth ambition (in Table 6) and expected growth (in Table 8). These effects are quite similar in strength.

Focusing on differences in the analyses explaining growth ambition and expected growth, we see that age is an important predictor of growth ambition (in Table 6), but not for expected growth (in Table 8): age determines the willingness rather than the ability or opportunity of growing the business. Younger inexperienced entrepreneurs appear to have high hopes for their business, but may be dreamers as the growth realization is dependent upon other factors than their enthusiasm. For nascents fear of failure is negatively related to growth ambition but not to expected growth. Hence, fear of failure appears to be important in determining willingness, but when thinking about the future, five years from now, fear of failing with a start-up firm is no longer an issue.

Entrepreneurial self-efficacy affects the growth ambition of nascent entrepreneurs but is not related to expected firm size of nascent entrepreneurs. As discussed earlier, entrepreneurial self-efficacy captures if someone feels capable of starting up a business rather than growing it to its full potential. This may explain the lack of explanatory power, in particular for expected growth and later-stage entrepreneurs.

Opportunity *motivation* is positively related to the growth ambition of both nascent entrepreneurs and young business owners, but not to expected growth. It may be that the stage of start-up and five years from now are too far apart and that individuals who saw an opportunity to start a firm and have the ambition to grow do not necessarily see opportunities for firm growth in five years. With respect to opportunity *recognition* we see that young business owners who see opportunities are expected to grow in the next five years, whereas there is no relationship between growth ambition and opportunity recognition. This seems a plausible result as opportunities are captured within the expected growth measure rather than in the growth ambition measure.

With respect to the controls, we see that time invested in the business is related to the growth ambition but not to expected firm growth of nascents. Furthermore, young business owners who engage in export activity have a growth ambition but there is no relationship between export and expected growth in the next five years. High education

appears to be related to expected growth rather than to growth ambition of nascents and young business owners. This suggests that high education affects ability rather than willingness to grow. Entrepreneurs who have attained a high level of education may be better able to see new possibilities than other entrepreneurs. Product innovation (i.e., whether a product is considered to be new to all customers) is positively related to expected growth but not growth ambition of nascent entrepreneurs. Innovative entrepreneurs may have more possibilities to expand.

Overall, the results of the models explaining growth ambition and expected growth are relatively distinct. This probably has to do with the fact that growth ambition refers to what the entrepreneur wants, whereas expected growth also incorporates growth opportunities and abilities.

Conclusions and discussion

This paper investigates the determinants of the ambition to grow among Dutch early-stage entrepreneurs (nascents and young business owners). We find that nascent entrepreneurs and young business owners are equally likely to strive after business growth. For nascent entrepreneurs we find that fear of failure, entrepreneurial self-efficacy and opportunity motivation are important factors explaining growth ambition. Nascents who have a fear of failure at start-up are less likely to have the ambition to grow the firm to its full potential. Moreover, nascent entrepreneurs who believe they have the right skills and knowledge to start a business are less likely to have a growth ambition. This counterintuitive finding may relate to the fact that our measure of entrepreneurial self-efficacy refers to the perceived ability to be(come) an entrepreneur rather than to strive after firm growth. Alternatively, it may be that self-confident entrepreneurs do not have the need to prove themselves, for example through expanding the business. Age of the entrepreneur has a negative effect on the growth ambition of nascent entrepreneurs. Older entrepreneurs have more experience (in life or business) and therefore may be more realistic with respect to growth. This would also explain the absence of an age effect for young business owners, who have now gained business experience. Alternatively, as

people get older they may attach less value to future earnings (Lévesque and Minniti, 2006).

Starting a business because of perceiving and exploiting a business opportunity (as opposed to starting a business out of necessity) is an important driver of growth ambition for both nascents and young business owners. This is in line with Reynolds et al. (2002) who find that opportunity entrepreneurs are more likely than necessity entrepreneurs to expect that their ventures create more than 20 jobs in the next five years. Indeed, opportunity entrepreneurs often give up their wage job for their own business. Because opportunity costs are relatively high, the business start-up should be promising in terms of performance from the viewpoint of the entrepreneur. We find that the magnitude of the effect of opportunity motivation is about twice as large for nascents as for young business owners. Nascent entrepreneurs who are opportunity motivated are not yet completely dependent upon the firm for subsistence and may still be relatively overoptimistic regarding (future) firm performance, whereas owners of young firms who started because of an opportunity may have become more realistic and adjusted their goals and ambition.

Although we expected that women would be less likely to have a growth ambition, this study does not find support for a gender difference. For young business owners we find a negative effect for gender, but only when excluding controls (e.g., time investments, number of employees, innovation, export, sector). Hence, it appears that the effect of gender on growth ambition is mediated by other factors. For example, women entrepreneurs export less than their male counterparts, which may partly explain their lower growth ambition.

Though included as a control variable, export intensity shows a positive relationship with growth ambition for nascent entrepreneurs as well as young business owners. Export-oriented entrepreneurs are more likely to have a growth ambition than entrepreneurs serving the domestic market. The causality of this relationship may be either way: export markets offer opportunities for firm growth or entrepreneurs with a growth ambition sooner enter foreign markets. The positive relationship between number of employees

and growth ambition of young business owners may be related to realized firm growth[22]. Finally, nascent entrepreneurs with a growth ambition tend to spend more time in the business than those without a growth ambition, whereas for young business owners there is no evidence for such a difference between individuals with and without growth ambition.

This study measures growth ambition as a choice between only two options: (1) I want my company to be as large as possible, and (2) I want a size I can manage myself or with a few key employees. Further research could use less crude measures of growth ambition, distinguishing between different levels of ambition as well as different measures of firm growth. The focus here is on the willingness to grow. It is also interesting to clearly disentangle willingness from ability and (perceived) opportunities. In addition, more elaborate and adequate proxies could be used to capture personality characteristics. In our study we use single-item, self-report measures that reflect the process of business start-up rather than firm growth. Opportunity perception captures whether respondents see opportunities to start a business (in the near future); fear of failure refers to fear with respect to start-up failure rather than not achieving the aspired growth levels; and entrepreneurial self-efficacy contains information on the perceived ability to *be(come)* an entrepreneur, rather than to grow the firm. Because the factors influencing start-up are not necessarily similar to those influencing growth, more specific measures should be used.

In this study we find that opportunity motivated entrepreneurs are more likely to strive after growth than necessity entrepreneurs. It is interesting to find out who are these necessity entrepreneurs, and how they can be motivated and supported to be more ambitious in terms of growth. We do not find an effect of household size on entrepreneurs' growth ambitions. This may be related to the fact that we do not have information on the age of the children in the household. However, this is valuable information that should be taken into account in future research, in particular since dependent young children are expected to consume more time and energy than older children who already go to school.

[22] Note that this positive effect is also found in the analyses explaining expected growth of young business owners.

It should be born in mind that to investigate and explain the growth ambition of early-stage entrepreneurs we use cross-sectional data from the Netherlands. This limits the extent to which the results can be translated to high-growth entrepreneurship in other countries. Do we expect differences in growth ambition between entrepreneurs from Europe and the United States? Time series data would provide an excellent opportunity to follow entrepreneurs as they step up in the entrepreneurial process. Who wants to grow the business and who actually achieves firm growth? If they did not meet their goals, why didn't they?

From a policy perspective it is interesting to see that opportunity motivated entrepreneurs are more likely to have a growth ambition than necessity entrepreneurs, in particular since, whatever the start position, all entrepreneurs eventually may achieve growth. On the one hand the government could reach out to those entrepreneurs who started out of necessity to find out what are their goals and why they do not want or do not feel able to grow the business to its full size. On the other hand, opportunity entrepreneurship in the Netherlands may be stimulated by educating the people to be aware, perceive and act upon opportunities, for example through paying more attention to business opportunities and entrepreneurship as an occupational choice in education and the media. In the Netherlands, we now have television shows where people come and present their innovative ideas and receive feedback from experienced business men and bankers (e.g., 'Het beste idee van Nederland'). Furthermore, the Dutch government may stimulate the export-orientation of early-stage entrepreneurs by offering seminars and information on 'going abroad' as well as creating networks of foreign business people who are able to give tailor-made advise to new inexperienced entrepreneurs.

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Appendix I: GEM Adult Population Survey

PART 1:

1a. Are you, alone or with others, currently trying to start a new business, including any self-employment or selling any goods or services to others?

1b. Are you, alone or with others, currently trying to start a new business or a new venture for your employer-- an effort hat is part of your normal work?

1c. Are you, alone or with others, currently the owner of a company you help manage, self-employed, or selling any goods or services to others?

1d. Have you, in the past three years, personally provided funds for a new business started by someone else, excluding any purchases of stocks or mutual funds?

1e. Are you, alone or with others, expecting to start a new business, including any type of self-employment, within the next three years?

If no or refused to all questions (1a-1f), randomly choose questions 1g-1j or 1k-1n.
If yes or don't know to at lease one question (1a-1f) ask questions 1g-1n.

1f. Have you, in the past 12 months, sold, shut down, discontinued or quit a business you owned and managed, any form of self-employed, or selling goods or services to anyone?

1g. Do you know someone personally who started a business in the past 2 years?

1h. In the next six months there will be good opportunities for starting a business in the area where you live.

1i. You have the knowledge, skill and experience required to start a new business.

1j. Fear of failure would prevent you from starting a business.

1k. In the Netherlands, most people would prefer that everyone had a similar standard of living.

1l. In the Netherlands, most people consider starting a new business a desirable career choice.

1m. In the Netherlands, those successful at starting a new business have a high level of status and respect.

1n. In the Netherlands, you will often see stories in the public media about successful new businesses.

PART 2: (ONLY IF 1A OR 1B IS YES OR DON'T KNOW)

2a. Over the past twelve months have you done anything to help start a new business, such as looking for equipment or a location, organizing a start-up team, working on a business plan, beginning to save money, or any other activity that would help launch a business?

2b. Will you personally own all, part, or none of this business?

2c. How many people, including yourself, will both own and manage this new business?

2d. Has the new business paid any salaries, wages, or payments in kind, including your own, for more than three months?

2d1. What was the first year the owners received wages, profits, or payments in kind?

2k1. For how long are you busy with the start-up of your firm? Is it Less than 3 months, 3 till 6 months, 6 till 12 months, 1 till 2 year or for over 2 years?

2k2. How many hours do you spent on average per week on your business?

2k3. What are your most important motives for starting this company? Is it the wish to be self-employed, challenge, dissatisfaction of paid job, unemployment, better possibilities to combine family and work, opportunity to make more money than in a paid job or discovering of a opportunity?

2k4. Which of the following statements fits you best? I want my company to be as large as possible, or I want a size I can manage myself with only a few key employees.

2k5. What caused the most problems during the start up? Is it law and regulation, lack of experience in starting your own company, to find employees, to find a building, personal stuff or availability of information?

2k6. What has to be done before your company can start?

2e. What kind of business is this?

2e1. Will all, some, or none of your potential customers consider this product or service new and unfamiliar?

2e2. Right now, are there many, few, or no other businesses offering the same products or services to your potential customers?

2e3. Have the technologies or procedures required for this product or service been available for less than a year, or between one to five years, or longer than five years?

2e4. What proportion of your customers will normally live outside your country? Is it more than 90%, more than 75%, more than 50%, more than 25%, more than 10%, or 10% or less?

2f1. Right now how many people, not counting the owners but including exclusive subcontractors, are working for this business? By exclusive subcontractors, we

mean only people or firms working ONLY for this business, and not working for others as well.

2f2. How many people will be working for this business, not counting the owners but including all exclusive subcontractors, when it is five years old? By exclusive subcontractors, we mean only people or firms working ONLY for this business, and not working for others as well.

2g. Are you involved in this start-up to take advantage of a business opportunity or because you have no better choices for work?

2gi. Which one of the following, do you feel, is the most important motive for pursuing this opportunity: to have greater independence and freedom in your working life; to increase your personal income; or just to maintain your personal income?

2h1. How much money, in total, will be required to start this new business?

2h1a. Will the total amount of money required be provided by yourself alone?

2h2. How much of your own money, in total, do you expect to provide to this new business?

2h5. In the next ten years, what payback do you expect to get on the money you put into this start-up?

PART 3: (ONLY IF 1C IS YES OR DON'T KNOW)

3a. Do you personally own all, part, or none of this business?

3b. How many people both own and manage this business?

3c. What was the first year the owners received wages, profits, or payments in kind?

3k1. For how long have you been busy with the start-up of your firm? Is it Less than 3 months, 3 till 6 months, 6 till 12 months, 1 till 2 year or for over 2 years?

3k2. How many hours do you spent on average per week on your business?

3k3. What are your most important motives for starting this company? Is it the wish to be self-employed, challenge, dissatisfaction of paid job, unemployment, better possibilities to combine family and work, opportunity to make more money than in a paid job or discovering of a opportunity?

3k4. Which of the following statements fits you best? I want my company to be as large as possible, or I want a size I can manage myself with only a few key employees.

3k5. What caused the most problems during the start up? Is it law and regulation, lack of experience in starting your own company, to find employees, to find a building, personal stuff or availability of information?

3k6. Is managing your own firm easier harder or just as hard as expected?

3d. What kind of business is this?

3d1. Do all, some, or none of your potential customers consider this product or service new and unfamiliar?

3d2. Right now, are there many, few, or no other businesses offering the same products or services to your potential customers?

3d3. Have the technologies or procedures required for this product or service been available for less than a year, or between one to five years, or longer than five years?

3d4. What proportion of your customers normally live outside your country. Is it more than 90%, more than 75%, more than 50%, more than 25%, more than 10%, or 10% or less?

3e. Right now how many people, not counting the owners but including exclusive subcontractors, are working for this business? By exclusive subcontractors, we mean only people or firms working ONLY for this business, and not working for others as well.

3f. Five years from now how many people, not counting the owners but including all exclusive subcontractors, will be working for this business? By exclusive subcontractors, we mean only people or firms working ONLY for this business, and not working for others as well.

3g. Are you involved in this firm to take advantage of a business opportunity or because you have no better choices for work.

PART 4 is only asked to those who answered 'yes' or 'don't know' to question 1d (on business angels). This information is not used in the current study.

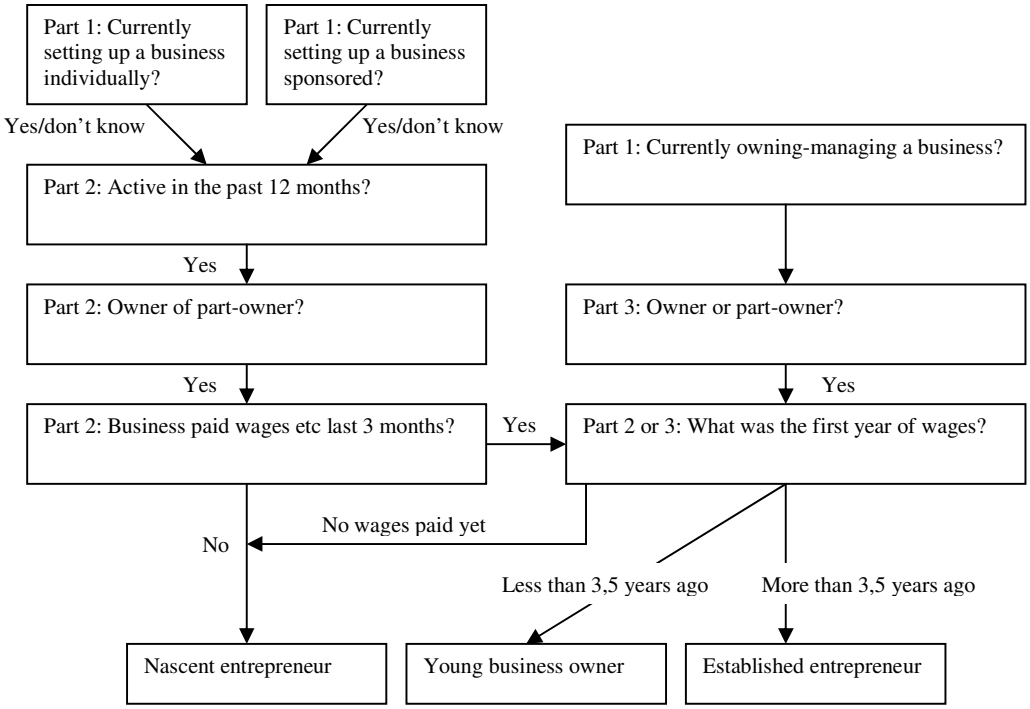
Appendix II: Reclassification of the data

Individuals who are in the process of starting a business or own a business are asked several additional questions[23]. A significant number of respondents consider themselves to be nascent entrepreneurs, while in fact their business is already operational (62 young business owners). Alternatively, there are respondents who state that they are business owners, while no salaries or wages have peen paid yet (161 nascent entrepreneurs). Therefore, all respondents are (re)classified by whether wages have been paid and in which year (Reynolds et al., 2005). Entrepreneurs who have not paid wages for over three months are classified as nascent entrepreneurs. Respondents who own a business and have paid wages up to 42 months are young business owners. When the respondent owns a business and has paid wages for over 42 months, (s)he is classified as established entrepreneur (Reynolds et al., 2005). As the process of self-selection into the questions in part two and three is not similar to the classification into nascent entrepreneurs and business owners, the answers to the questions in part two and part three are merged. The questions are basically the same, as can be seen in appendix I. The (re)classification process is summarized in Figure A-1 below. Here it is shown that to be classified as an entrepreneur, the respondent must be active and own a business. GEM uses the year that wages are paid to identify the firm's age and the stage of the business. Paying salaries is a proxy for the stage of development the business is in.

Respondents who are starting up or running more than one firm and therefore are classified into multiple types of entrepreneurs are eliminated from the dataset. There are 14 respondents who are both nascent entrepreneur and young business owner, 32 respondents who are nascent and established entrepreneur, and 6 respondents who are young business owner and established entrepreneur. Finally, there are 409 nascent entrepreneurs and 336 young business owners for whom information is available. Nevertheless, these entrepreneurs did not answer all questions included in the analysis.

[23] The respondents who state that they are starting a business answer the questions in part two of the questionnaire and those who state they own a business answer those in part three. See appendix I.

Figure A-1: the reclassification process



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