



## AMBITIOUS ENTREPRENEURSHIP: ANTECEDENTS AND CONSEQUENCES

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# Ambitious Entrepreneurship: Antecedents and Consequences

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**Abstract:** In the recent literature on entrepreneurship, a growing body of knowledge recognizes that some entrepreneurs have higher ambitions than others and that these entrepreneurial ambitions are an important antecedent of actual firm success. Consequently, it is not surprising that ambitious entrepreneurship gradually becomes a topic of high interest for policy makers and scholars (e.g., Gundry and Welsch, 2001; Van Gelderen, 2006). Nevertheless, there does not yet exist a clearly defined overview of what is known (and not known) about this topic. Moreover, although authors advocate that the difference between high and low entrepreneurial ambitions should be recognized (Cassar 2007), few studies actually distinguish between ambitious entrepreneurs and their less-ambitious counterparts. In this paper, we address this gap and provide a structured overview of existing literature on ambitious entrepreneurship. Our analysis confirms that ambitious entrepreneurs might be an interesting population for the research community as well as for policy makers and other practitioners. Indeed, it suggests that ambitious entrepreneurs have a specific impact upon the economy and contribute to the quality of entrepreneurial activity. From a conceptual point of view, the review reveals that there is no consensus with regard to the operationalization of ambitious entrepreneurship and growth ambitions in general. As outcomes of this review, we identify promising paths for future research and we propose the concept of a projecting process to clarify the link between growth attitude, growth intention and growth expectation.

**Keywords:** ambition, motivations, growth, entrepreneurship

**JEL codes:** D84; L25; L26; M13

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## 1 Introduction

In the recent literature on entrepreneurship there is increasing recognition that entrepreneurship covers a very heterogeneous category of individuals and actions: from lifestyle entrepreneur in personal services like hairdressing to the highly educated ambitious entrepreneur in biotechnology. There is a growing body of knowledge that recognizes that some entrepreneurs have higher ambitions than others and that these entrepreneurial ambitions are an important antecedent of actual firm success. Moreover, recent contributions suggest that ambitious entrepreneurship would contribute more strongly to macro-economic growth than entrepreneurial activity in general (Stam et al. 2009; Stam et al. 2011). Consequently, it is not surprising that ambitious entrepreneurship gradually becomes a topic of high interest for policy makers and scholars (e.g., Gundry and Welsch, 2001; Van Gelderen, 2006). Nevertheless, there does not yet exist a clearly defined overview of what is known (and not known) about this topic. Moreover, although authors advocate that the difference between high and low entrepreneurial ambitions should be recognized (Cassar 2007), few studies actually distinguish between ambitious entrepreneurs and their less-ambitious counterparts. In this paper, we address this gap and provide a structured overview of existing literature on ambitious entrepreneurship, in order to make informed choices of refining this line of research and to improve our insight into the causes, nature and consequences of ambitious entrepreneurship.

We build on the definition suggested by Stam et al. (2012, p.40) who define an ambitious entrepreneur as “*someone who engages in the entrepreneurial process with the aim to create as much value as possible*”. More specifically, an ambitious entrepreneur “*identifies and exploits opportunities to create new products, services, processes and organizations with high aspirations to achieve entrepreneurial success – i.e., to maximize value creation (beyond self-sufficiency)*”. The aim of this paper is to provide the reader with a structured overview of the knowledge that has been accumulated so far about the ambitious entrepreneur: the antecedents and consequences discussed in extant literature. Moreover, limitations of extant studies are highlighted and promising research avenues with regard to the study on ambitious entrepreneurship are discussed. Finally, we provide a theoretical model refining the study of ambitious entrepreneurship.

The paper is organized as follows. In the next section, we describe the method used to select the papers on ambitious entrepreneurship. In section 3, we present an overview of the selected papers as well as their theoretical anchoring. Therefore, we focus on the analysis of the selected papers, first by assessing the operationalization of ambitious entrepreneurship and then by discussing its influencers and outcomes. In section 5, we build on findings to propose a conceptual ambitious entrepreneurship framework and suggest some future research avenues. Finally, we conclude in section 6.

## 2 Method

To find studies on ambitious entrepreneurship, we first searched for published material in twenty top-ranked peer-reviewed journals identified in Fried (2003) as adequate

publication outlets for entrepreneurship research<sup>1</sup>. We adopted the following search terms: “high” in combination with “ambition”, “motivation”, “aspiration”, “intention” and “expectation” on the one hand and “entrepreneur”, “venture”, “firm” and “start-up” on the other hand. The wildcard symbol \* was used to broaden the search.

Because ambitious entrepreneurship is a research domain which is only recently emerging in the academic research agenda, we needed to include a step that would capture its latest developments. To do so, we followed a strategy utilized by Van Praag and Versloot (2007), who identified the most recent research results by also including working papers. Finally, we carefully read the selected articles and checked whether additional articles could be found based on their reference lists.

To be included in this inventory and analysis, the papers had to satisfy two criteria:

- (1) Explore the ambition of the entrepreneur regarding to his or her expected entrepreneurial performance;
- (2) Distinguish between high and low ambition, by splitting the sample or using a threshold.

The first criterion obviously results from our focus on the expectation of entrepreneurs concerning the performance of their venture. It also points to an already large literature on entrepreneurial ambitions, with topics such as growth willingness (Davidsson 1989), entrepreneurial motivations (Chell and Allman 2003; Rauch and Frese 2007), entrepreneurial intentions (Krueger and Carsrud 1993) or growth aspiration (Cassar 2006; Tominc and Rebernik 2007; Edelman et al. 2010; Stenholm 2011). By contrast, the second criterion drastically narrows the search and stresses the distinction between “entrepreneurial ambitions” and “ambitious entrepreneurship”. It follows our goal to identify the extant literature that distinguishes between high and low ambitions, as urged very recently by Stenholm et al. (2011) or Mole and Levy (2012). It is also inspired by the seminal work of Carland et al. (1984, p.358) who define the entrepreneur as “*an individual who establishes and manages a business for the principal purposes of profit and growth. The entrepreneur is characterized principally by innovative behavior and will employ strategic management practices in the business*”. On this basis, entrepreneurs are per definition oriented to growth but the ambitious entrepreneurs differentiate themselves from their less-ambitious counterparts by having above-normal expectations.

An alternative criterion was introduced. We decided to also include papers that explicitly use the label “Ambitious Entrepreneur(ship)” (see for instance Gundry and Welsch 2001). This criterion allows for comparing our *a priori* definition of the ambitious entrepreneur with its effective use in literature.

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<sup>1</sup> Academy of Management Review (AMR), Academy of Management Journal (AMJ), Journal of Business Venturing (JBV), Strategic Management Journal (SMJ), Administrative Science Quarterly (ASQ), Organization Science (OSC), Management Science (MS), Entrepreneurship: Theory and Practice (ETP), American Journal of Sociology (AJS), Small Business Economics (SBE), Journal of Management (JM), Harvard Business Review (HBR), Research Policy (RP), California Management Review (CMR), Sloan Management Review (SMR), Journal of Management Studies (JMS), Academy of Management Executive (AME), Entrepreneurship and Regional Development (ERD), Journal of Small Business Management (JSBM), Journal of Private Equity (JPE).

### 3 Inventory and Theoretical background

#### 3.1 Overview

We selected 25 studies making a distinction between high and low entrepreneurial ambitions and/or explicitly mobilizing the label “ambitious entrepreneurship”. Although the publication period of all papers is between 2001 and 2011, it is apparent that no less than 20 out of 25 papers were published after 2005. This confirms that this research topic is fairly recent.

The label “ambitious entrepreneurship” first appears in 2001 in the work of Gundry and Welsch (2001) and Guzmán and Santos (2001). Those authors are interested in the quality of entrepreneurial activity, which refers to the initiatives and behaviors exhibited by the entrepreneurs to boost their businesses along the lifespan of the company (Guzmán and Santos 2001). After those early studies, the ambitious entrepreneur remains relatively unnoticed in the scientific literature up to 2005 when a first wave of studies gains visibility (see Figure 1a,b).

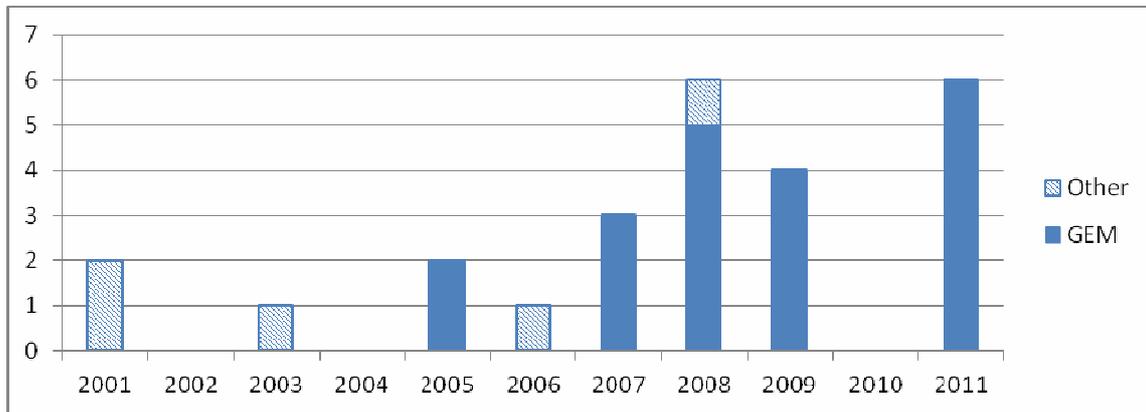


Figure 1a Ambitious entrepreneurship : a first decade of studies (databases exploited: GEM or other)

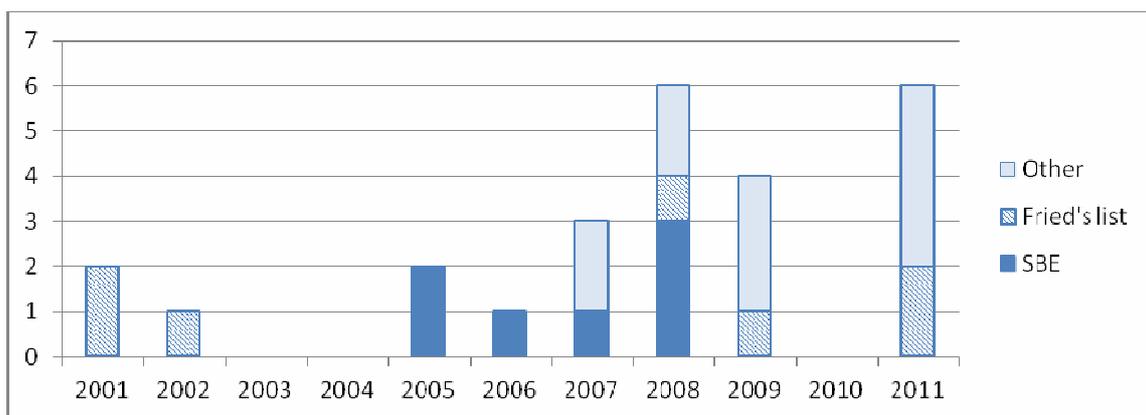


Figure 1b Ambitious entrepreneurship : a first decade of studies (Outlets of the studies: SBE; other journals from Fried's list – see footnote 1; other)

This sudden attention is supported by the availability of relevant data collected by the Global Entrepreneurship Monitor (GEM) initiative which notably allows for the computation of the High-Expectation Total Entrepreneurial Activity (HE TEA) rate, that is the total rate of early-stage entrepreneurial activity among the adult population aged 18–64 years who expects to employ at least 20 employees within five years' time (Autio 2007). Researchers from this wave (see Table 1) are therefore familiar with the concept of high-expectation entrepreneurship. Interestingly for the present paper, it is frequently used under the label “ambitious entrepreneurship”, on its own (Stam et al. 2009) or in combination with other dimensions (Bosma and Schutjens 2007; Hessels et al. 2008a; Bosma and Schutjens 2009) like innovativeness or the expectation of the entrepreneur regarding exportations, thereby acknowledging the multi-facet aspect of ambitions.

Other labels are also provided. In Wong et al. (2005, p. 345) for instance, high-expectation entrepreneurship is combined with innovativeness and exportation in order to account for the prevalence of what the authors call “high-growth potential” entrepreneurship. In this contribution, this type of business creation activity is identified as “*the sole form of entrepreneurship that has any explanatory effect on differing rates of economic growth across nations*”. Stam et al. (2009, p.105) claims as well that “*ambitious entrepreneurship contributes more strongly to macro-economic growth than entrepreneurial activity in general*”. With such contributions comes the proposal that not all entrepreneurial activities contribute equally to development (Autio 2007; Amorós et al. 2011). High-expectation (and ambitious entrepreneurship) therefore emerges as a legitimate research topic with a relevant and growing database. A share of subsequent contributions focused on the replication and refinement of earlier studies assessing the expected impact of ambitious entrepreneurship upon the economy (Valliere and Peterson 2009; Stam et al. 2011), while other researchers turn their attention to the determinants of high ambitions (e.a. Bosma and Schutjens 2009; Verheul and Van Mil 2011).

**Table 1 A first decade of studies on ambitious entrepreneurship**

Contribution	Outlet	Research goal
Gundry and Welsch (2001)	JBV	In this study, high-growth-oriented (“ambitious”) entrepreneurs are differentiated from low-growth-oriented (“status quo”) entrepreneurs by actual firm growth rates (actual sales growth). Also, growth intention is mobilized as an explanatory variable to explore the differences between “ambitious” and “status-quo” entrepreneurs.
Guzman and Santos (2001)	E&RD	The ambition of the entrepreneur, “or capacity to grow”, is one of the four exponents of the quality of entrepreneurs. At the same time, ambition is also defined (p. 221) as “ <i>the interest to reach a higher degree of growth</i> ”, not only in terms of profit but also in terms of market power and social status. The ambitious entrepreneur is then conceptualized as the one that experienced some expansion in the last 3 years and still expects to grow in the course of the next year.
Mangematin et al. (2003)	RP	Entrepreneurial ambitions are mobilized in terms of the size, or nature, of the innovation project at the origin of the venture. The ambition of the project determines the business model of the firm and thus also its growth potential.
Acs and Varga (2005)	SBE	Here, the rate of ambitious entrepreneurial activity is an explanation variable for the development of an endogenous growth model. The label used is “high potential entrepreneurship”.
Wong et al. (2005)	SBE	In this study, because “ <i>the ambitions and growth expectations of entrepreneurs are a likely antecedent to achieving future high performance</i> ”

		(p. 341), the authors explain the variation of performance between countries through the level of ambitious entrepreneurship, called “high-growth potential and innovative entrepreneurship”.
Van Gelderen et al. (2006)	SBE	The authors empirically identify the ambitious entrepreneurs as a subsample of the entrepreneurial population that is “ <i>relatively homogenous</i> ”. They also identify the factors that specifically impact the performance of ambitious entrepreneurs in terms of venture creation.
Autio (2007)	GEM report	This report on high-growth entrepreneurship also presents findings about high-expectations entrepreneurial activity. Interestingly, it also provides related definitions and constructs, such as the High-Expectation Total Entrepreneurial Activity (HE TEA).
Bosma and Schutjens (2007)	Other	In this study, different types of entrepreneurial activity are mapped across regions. In particular, the authors confirm the importance of making a distinction between low and high ambition entrepreneurship. Ambitious entrepreneurs exhibit either innovative potential or high ambitions to grow in terms of employment.
Ho and Wong (2007)	SBE	Ho and Wong build on their previous article (Wong et al. 2005). Keeping the same conceptualization of high-potential entrepreneurship, they explore the institutional factors (finance market access and regulatory business costs) that affect the level of ambitious entrepreneurs across countries.
Acs and Amorós (2008)	SBE	Based on the expectations of the entrepreneurs concerning their intended growth (HE TEA), these authors identify the prevalence of “high potential entrepreneurship” as an explanatory variable of national competitiveness.
Bosma et al. (2008)	WP Scale	The study investigates entrepreneurial attitudes and entrepreneurial activity in three contrasting labor market regions in the Netherlands. The authors also show that the regional pattern of overall early-stage entrepreneurial activity is different from the pattern of ambitious early-stage entrepreneurial activity.
Brush et al. (2008)	JSBM	In this study, growth aspirations are mobilized as a determinant of the level of resource assembling and venture performance, more specifically the likelihood of first sale. The authors also explore the role of location for the realization of higher aspirations.
Hessels et al. (2008a)	Other	The authors explore the drivers of ambitious entrepreneurship at the regional level. Ambitious entrepreneurship is explicitly linked to three distinct dimensions that are separately assessed in the paper: aspirations in terms of growth (job creation), exportations and innovativeness.
Hessels et al. (2008b)	SBE	Here, the variables related to ambitions (that is, aspirations in terms of growth, exportations and innovativeness) are also used to assess the impact of ambitious entrepreneurial activity on economic development and growth.
Levie and Autio (2008)	SBE	While the focus of the paper is on the overall GEM model and not specifically on ambitious entrepreneurship, the model is tested for both overall entrepreneurial activity (TEA) and high-expectation entrepreneurial activity (HE TEA) which (p. 249) “ <i>captures the top 10% of the early stage entrepreneurial population by growth expectation (or ambition)</i> ”.
Bosma and Schutjens (2009)	Book chapter	The study builds on the central distinction between high and low ambitions. In particular, the authors posit that “ <i>the distinction between high and low ambition entrepreneurship is key to recent propositions of the role of “entrepreneurship capital” (Audrestch et al. 2006) or entrepreneurship as the knowledge filter (Acs et al. 2003) in fuelling economic growth</i> ” (p50). Specific drivers (at the individual, regional and national level) are revealed.
Bosma et al.	Book	In this contribution, the authors search for determinants for different types of

(2009)	chapter	entrepreneurship (including ambitious entrepreneurship), and unravel the mechanisms behind their respective economic effects.
Stam et al. (2009)	Book chapter	This study investigates whether the presence of ambitious entrepreneurs is a more important determinant of national economic growth than entrepreneurial activity in general.
Valliere and Peterson (2009)	E&RD	This study expands Wong et al.'s model (2005) by taking into consideration the level of economic development (developed countries vs. emerging countries).
Levie and Autio (2011)	JMS	The authors explore the interaction of institutional factors (regulatory burdens and rule of law) with the prevalence of high-expectation entrepreneurial activity (HE TEA) which " <i>captures the most ambitious 10 per cent of the early-stage entrepreneurial population</i> " (p. 1403). The authors use the label of strategic or high-aspiration entrepreneurs: people who engage in entrepreneurial activities as a strategic act because they want an optimal way to exploit their human, social and financial capital.
Levie and Hart (2011)	Book chapter	In this study, the authors explore the impact of ethnicity and migration on different types of entrepreneurial activity, in particular ambitious entrepreneurship or, in their own terminology, "high-expectation" or "high aspiration" entrepreneurship.
Stam et al. (2011)	Book chapter	The chapter examines whether there is an impact of ambitious entrepreneurship (entrepreneurs expecting to grow their firm) and high-growth firms (firms that have actually realized high growth rates) on subsequent macroeconomic growth in a sample of high and low-income countries.
Teruel and de Witt (2011)	WP EIM	Here, the authors explore the impact of high-expectation entrepreneurial activity on the prevalence of high-growth firms in a country.
Verheul and van Mil (2011)	Other	This study explores the determinants of growth preference (or ambitions in their terminology) and high growth expectations. It also confirms the link between growth preference and growth expectation.
Stenholm et al. (2011)	JBV	This study reveals how differences in institutional arrangements influence both the rate and the type of entrepreneurial activity in a country, specifically "high-impact" entrepreneurship. High-impact entrepreneurship is measured in terms of aspirations and includes multiple dimensions: " <i>the newness of the product and of technology, internationalization, high-growth ambitions and finance among entrepreneurially active individuals in a country</i> " (p.9).

### 3.2 Theoretical frameworks

The work on growth ambitions has its roots in the seminal work of Davidsson (1991), who shows that an entrepreneur's growth motivation depends on his ability, opportunity and need to grow, and that this motivation, in turn, affects realized performance.

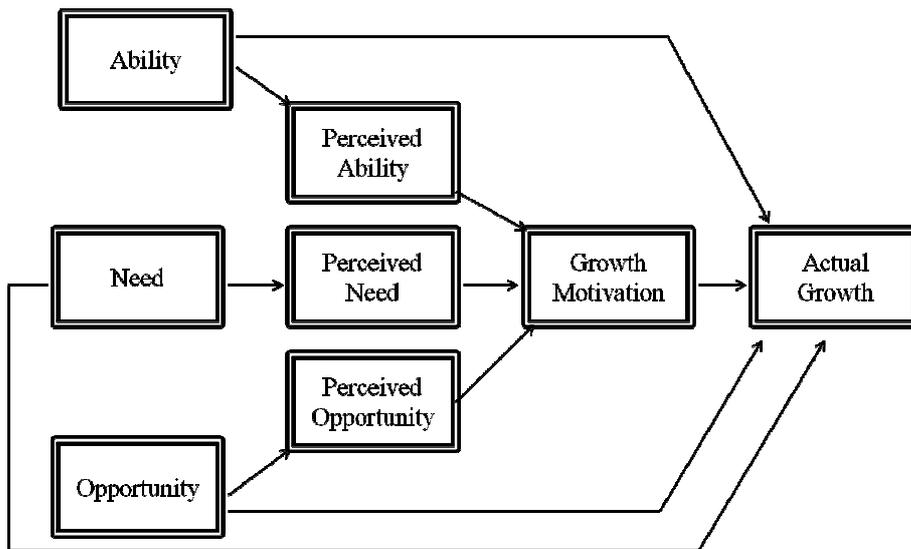


Figure 2 Davidsson (1991)'s model of determinants of small firm growth

More precisely, an entrepreneur's motivation to pursue growth depends on his own perceptions about the three proposed components:

- the perception of his own capacities, such as technical competences (Liao and Welsch 2003) or managerial skills (Cassar 2006) ;
- his explicit needs such as need for independence, need for recognition and approval from peers (Kolvereid 1992; Cassar 2007) as well as need for achievement (McClelland 1961) ;
- the opportunities that the entrepreneur perceives in the environment.

In another seminal contribution, Davidsson and colleagues mobilize a complementary model to elucidate growth motivation. Building on the theory of planned behavior developed by Ajzen (1991), Wiklund, Davidsson and Delmar (2003, p.248) explore “*how the overall attitude toward growth is influenced by specific cognitive beliefs about the consequences of growth*”. Indeed, the theory of planned behavior suggests that “*intentions to perform behaviors of different kinds can be predicted with high accuracy from attitudes toward the behavior, subjective norms, and perceived behavioral control; and these intentions, together with perceptions of behavioral control, account for considerable variance in actual behavior*” (Ajzen 1991 p.179). In the context of entrepreneurship, it means that growth seeking behaviors, often represented by realized growth (see for instance Wiklund and Shepherd 2003), can be explained by the entrepreneur's intention regarding growth. The theory of planned behavior also predicts that the entrepreneur's intention will be affected by the expected consequences of growth, such as the well-being of employees, the entrepreneur's control over the firm or the firm's capacity to endure a crisis (Davidsson 1989; Wiklund et al. 2003). The study of entrepreneurial ambitions heavily draws on conceptual insights from the theory of planned behavior and promising findings resulting from it, such as the work from Davidsson and colleagues.

Stimulated by a new panel survey focused on nascent entrepreneurs (the PSED database), other scholars such as Cassar (2006, 2007) and Liao and Welsch (2003) also explore the mechanisms behind growth ambitions. In particular, they link growth expectations with complementary determinants such as social and financial capital (Liao and Welsch 2003), household income (Cassar 2006) and wealth-attainment motivation (Cassar 2007). These authors measure growth ambitions in terms of “intended venture scale”, either in terms of future sales or employment creation. For instance, the PSED survey typically asks nascent entrepreneurs the following question: “*What would you expect the total sales, revenues, or fees to be in the fifth year of operation*” (Cassar 2007, p.95).

In line with Cassar (2006; 2007) and Liao and Welsch (2003), expected performance in five years time is a common conceptualization of entrepreneurial ambitions (Tominc and Rebernik 2007; Autio and Acs 2010) and even ambitious entrepreneurship (e.a. Bosma and Schutjens 2007; Hessels et al. 2008a; Bosma and Schutjens 2009). In Stam et al. (2011) for instance, the authors define ambitious entrepreneurship as the share of early-stage entrepreneurs who state that they expect their firm to grow with at least six employees within five years. As expressed by Verheul and van Mil (2011, p.186), this construct combines “*what the entrepreneur wants with what is possible given the (cap)abilities of the entrepreneur and the available opportunities*”. This construct seems compatible with Davidsson’s model, where growth motivation (including growth intentions) is determined by the entrepreneur’s perceived ability, need and opportunity.

However, this conceptualization in terms of expected performance is quite different from the construct of growth motivation actually mobilized by Davidsson (1991) and later on by Wiklund et al. (2009). Indeed, those authors propose a “tripartite view” of growth motivation (or “attitude” as labeled in Wiklund et al. 2009).

With this tripartite view, growth motivation is composed of:

- a cognitive component about the expected consequences of growth;
- an affective component which consists of feelings, moods, or emotions that the entrepreneur has in relation to growth;
- a behavioral component derived from concurrent work (Davidsson 1991; Wiklund and Shepherd 2003) and expressed in terms of “growth intentions” (or aspirations; both wordings are used by these authors) which is related to the difference between present size and ideal size of the venture five years ahead.

Given these differences in conceptualization of growth ambitions, a confusing provision of labels and constructs emerged. Furthermore, such labels are used more or less interchangeably when we think that they must be distinguished. Nevertheless, this research stream, combined with prior work on gazelles, also leaves an insightful legacy to researchers studying ambitious entrepreneurship. It puts forward the central role of the entrepreneur as a driver of growth, at least at the level of his own firm. It also draws the attention of researchers to the multiplicity of drivers and their intertwining for the creation of growth-favorable contexts. For instance, Wiklund and Sheperd (2003) show that education, experience and environmental dynamism magnify the effect of growth aspirations (or intention) on the realization of growth. More interestingly, they find that when independent effects are investigated, education level or experience of the individual do not have a direct impact on realized growth. In fact, those factors affect realized performance only when accompanied by growth aspirations.

It is on this challenging but promising background that the study of ambitious entrepreneurship anchors. Researchers entering this path are armed with two precious tools. First, they explore a subpopulation of entrepreneurs sharing common traits (van Gelderen et al. 2006) that might be influenced by specific drivers (Hessels et al. 2008b). Second, they are inspired by the findings provided by the related research streams briefly discussed in this section. At the same time, they also have to deal with the darker side of this legacy, when facing the heterogeneous, interrelated and sometimes still unclear (Verheul and Van Mil 2011; Stam et al. 2012) labeling and measurement.

## 4 Analysis

### 4.1 Operationalization of ambitious entrepreneurship

Given the theoretical roots identified in the previous section, it is not surprising to see that growth is the prevalent dimension when researchers empirically capture ambitious entrepreneurship (see Table 2). However, our review also reveals that there is no consensus regarding the operationalization of the concept.

**Table 2 Operationalization of ambitious entrepreneurship (bold : composites)**

Dimensions	Gundry and Welsch (2001)	Guzmán and Santos (2001)	Mangematin et al. (2003)	Acs and Varga (2005)	Wong et al. (2005)	van Gelderen et al. (2006)	Autio(2007)	Bosma and Schutjens (2007)	Ho and Wong (2007)	Acs and Amorós (2008)	Bosma et al. (2008)	Brush et al. (2008)	Hessels et al. (2008a)	Hessels et al. (2008b)	Levie and Autio (2008)	Bosma and Schutjens (2009)	Bosma et al. (2009)	Stam et al. (2009)	Valliere and Peterson (2009)	Levie and Autio (2011)	Levie and Hart (2011)	Stam et al. 2011)	Ternel and de Witt (2011)	Verheul and van Mil (2011)	Stenholm et al. (2011)
Growth	x	x		x	x	x	x	x	<b>x</b>	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	<b>x</b>
Innovation			x		x			x	<b>x</b>		x		<b>x</b>	<b>x</b>		x	x								<b>x</b>
Export				x	x				<b>x</b>				x	x											<b>x</b>
Finance						x																			<b>x</b>
Wealth						x																			

In the pioneer work of Gundry and Welsch (2001) and Guzmán and Santos (2001) for instance, the authors draw on prior work on gazelles. They focus on established entrepreneurs (whatever the level of development of their firm) and distinguish between ambitious entrepreneurs and their *status quo* counter-parts on the basis of realized performance. Although they do not explicitly operationalize the difference between high and low ambitions, they do find evidence that entrepreneurial intent influences sustained high-growth, hence their use of the label “ambitious”. They also reveal the central role of the entrepreneur’s intent in sustaining high-growth through the implementation of strategic plans, stronger entrepreneurial intensity or a greater openness towards opportunity costs. In line with our working definition of ambitious entrepreneurship (cf. Stam et al, 2012), Gundry and Welsch (2001) also link ambitious entrepreneurship with innovativeness: they propose a Schumpeterian view of ambitious entrepreneurs, arguing that these ambitious entrepreneurs pay attention to innovation along the lifespan of the firm. This is in contrast with the “ambitious firm” introduced by Kirchoff (1994). The latter defines the ambitious firm as a venture created on the basis of a major innovation

that keeps exploiting this innovation along the venture's lifespan without reinventing itself. Innovation is also the main criterion utilized by Mangematin et al. (2003) who distinguish between high and low ambitions on the basis of the degree of novelty of the innovation project (radical or incremental) of the technological firm.

Drawing on the "ambitious entrepreneurship" label, a group of research scholars turned its attention from above-normal realized performance towards above-normal expectations (Acs and Varga 2005; Wong et al. 2005; Bosma and Schutjens 2007; Ho and Wong 2007; Acs and Amorós 2008; Hessels et al. 2008a; Hessels et al. 2008b; Levie and Autio 2008; Bosma and Schutjens 2009; Stam et al. 2009; Valliere and Peterson 2009; Levie and Autio 2011; Stam et al. 2011). Stimulated by the GEM initiative, these researchers focus on early-stage entrepreneurs rather than established entrepreneurs. For these researchers, the ambitious entrepreneurs are individuals who are at the beginning of the venture creation process and who already exhibit higher ambitions in terms of expected job creation. Sometimes the expected number of jobs created is combined with complementary facets, such as the intent to provide a product or service which is new for most of the customers (referred to as "Innovation" in table 2), or the intent to internationalize (referred to as "Export" in table 2).

Although these researchers use data originated from GEM, they do employ different labels and constructs to measure ambitious entrepreneurship. As said, Bosma and Schutjens (2007; 2009), Hessels et al. (2008a), Stam et al. (2009) and Stam et al. (2011) build on the construct of high-expectation entrepreneurship and explicitly use the label "ambitious entrepreneurship". By contrast, Wong et al. (2005) talk about high-growth potential and innovative entrepreneurship and combine a focus on job creation with innovativeness, internationalization and technological pioneering. Although Wong et al.'s (2005) work was one the first publications that exploited the GEM database with a focus on the early-stage entrepreneurs with high ambitions, they did not use the label "ambitious entrepreneurship". Their operationalization can however be associated with the so-called high-impact entrepreneurship (Acs 2010), in which the leveraged start-up is engaged in a process of innovation, builds a growth business and shifts the wealth creation curve. Extensions of Wong et al.'s model reinforce a focus on growth expectation (see for instance Vallier and Peterson, 2009).

Acs and Varga (2005) also use the label "high potential" entrepreneurship but keep only two out of the four dimensions proposed by Wong et al. (2005): the growth orientation in terms of job creation and the intention to export goods or services. Others such as Levie and Autio (2008) or Stam et al. (2009) and Stam et al. (2011) even propose a focus on job creation only. More recently, Levie and Autio (2011) switched to the label "strategic entrepreneurship" which is associated with the expectation of 20 or more jobs created within five years. This choice is based on consistent findings linking growth ambitions to wealth-attainment motives (Kolvereid 1992; Cassar 2007; Hessels et al. 2008b), which in turn supports the hypothesis suggested in traditional economic theories that ambitious entrepreneurs adopt a "strategic" behavior driven by profit (Levie and Autio 2011). The heterogeneity of constructs results in a limited potential for meta-analysis and drawing overarching conclusions is thus nearly impossible.

The lack of consensus with regard to the operationalization of ambitious entrepreneurship is strengthened by ambiguities linked to prior work on the willingness to grow. At first sight, growth expectations seem to be closely related to the construct of growth intention

as mobilized by authors such as Edelman et al. (2010), Davidsson (1991) or Wiklund and Sheperd (2003). However, closer examination reveals interesting differences. For Davidsson (1991) or Wiklund and Sheperd (2003), growth intention is related to the difference between present size and ideal size of the venture five years ahead. In other words, it relates to what the entrepreneur wants, and not necessarily to what she or he thinks is possible given his abilities or available opportunities. Growth expectation, on the other hand, should combine intentions – what the entrepreneur wants – with the perceived opportunities and constraints (Verheul and Van Mil 2011).

Building on that distinction, Verheul and van Mil (2011) identify ambitious entrepreneurs on the basis of what the entrepreneur desires and not on the basis of what she or he expects that will happen. By so doing, they also suggest that ambitious entrepreneurs only refer to above-norms intentions, not above-norms expectations. More specifically, they ask respondents to choose one of the following: (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. Note that this question has been used by other scholars to measure growth ambition (Mole and Levy 2012), growth intention (Edelman et al. 2010) and growth preference (2007).

Although findings from recent studies are promising and contribute to our knowledge about ambitious entrepreneurship, such ambiguities also threaten the prospect of building a cumulative and relevant body of knowledge. This construct heterogeneity seems to be rooted in the fact that the identified contributions do not build on a common conceptual source: after ten years of study about ambitious entrepreneurship, a shared conceptual article is still missing. Such a conceptual contribution would bring clarification about the dimensions deemed appropriate when exploring ambitious entrepreneurship. It would also help in reducing the ambiguity that persists in prior work on growth expectations.

## **4.2 Antecedents and consequences of ambitious entrepreneurship**

### ***4.2.1 Personal environment***

In Guzmán and Santos (2001), education, family and experience are factors of the personal environment that have a direct influence on the energizer function, the entrepreneur's motivation and his ambition. Because prior (and concurrent) work already widely investigates the link between individual characteristics, growth expectations and performance (see section 3.2), one could argue that its replication in the context of ambitious entrepreneurship might not be relevant. However, promising findings from our inventory suggest that high-expectation entrepreneurs might have specific drivers and that the personal level thus deserves additional attention, as also suggested by Hessels et al. (2008a p. 415), arguing that “*the use of individual micro data may prove superior in unraveling the mechanics of entrepreneurial aspiration*”.

First, in line with prior work such as Davidsson (1991), Bosma and Schutjens (2009) show that the prevalence of modest and low growth ambition at the regional level is largely explained by the perceived skills, perceived opportunities and the potential fear of failure of the entrepreneurs. However, they also draw a very different picture when focusing on ambitious entrepreneurship only. When exploring the determinants of high ambitions, Bosma and Schutjens (2009) find that perceived skills, opportunities and fear of failure are all insignificant. According to these findings, some traditional drivers (e.g.,

risk taking) might not be relevant for the explanation of high ambitions and others might be at play. Bosma et al. (2009), for example, find that the level of household income explains the prevalence of modest and ambitious entrepreneurial activity without influencing entrepreneurial activities with low ambitions. Moreover, besides this rather “new” driver, their research also confirms traditional socio-demographic characteristics such as gender and education as common determinants for all types of entrepreneurship.

Second, in a recent working paper, Levie and Hart (2011) show that ethnicity is not a determinant of high-expectations entrepreneurship. However, they do find that mobility is important: UK-born regional in-migrants and immigrants are more likely to be high-expectation early stage entrepreneurs than life-long residents.

Third, Verheul and van Mil (2011) explore the determinants of growth preference and growth expectation at the individual level. They first show that there is no difference in growth preference between nascent entrepreneurs and young business, which suggests that growth preference could be a more stable characteristic of the entrepreneur. They also show that growth preference and growth expectations are driven by different factors:

- Growth preference seems related to fear of failure, self-efficacy, opportunity motives, the entrepreneur’s own involvement and internationalization;
- Growth expectations seem to be related to growth preference, existing opportunities and innovation.

Age seems to impact both growth preferences and growth expectations. By contrast, the authors did not find a significant impact of gender on preferences or on expectations, acknowledging that it might be mediated by other factors.

Three studies contribute to the personal level by investigating the personal motivations of ambitious entrepreneurs. For Guzmán and Santos (2001), for instance, high-potential entrepreneurs possess an intrinsic motivation that stimulates their ambition and energizes their entrepreneurial behavior. Indeed, it is posited in psychology that individuals can be driven by intrinsic and extrinsic motivations. Intrinsic motivation means that performing a task becomes a value in itself for the entrepreneur. By contrast, extrinsic motivation is stimulated by external material reward (Witt 2007). In line with their model, exploratory findings from Guzmán and Santos (2001) show that growth-oriented entrepreneurs have higher levels of intrinsic motivation while others have higher levels of extrinsic motivation. In this case, intrinsic motivation is represented by items such as entrepreneurial vocation or the need for personal development. Extrinsic motivation, on the other side, is linked to the increased-wealth motive, economic necessity or family tradition. Second, van Gelderen et al. (2006) build on the distinction between push and pull motives: push motives “force” people into entrepreneurship (notably the lack of career alternatives or economic necessity) while pull motives attract people to entrepreneurship (such as challenge, personal development or autonomy). They argue that entrepreneurs characterized by push motives might be more willing to succeed. At the same time, they also recognize that such entrepreneurs might quit their entrepreneurial activity in case of alternative employment opportunities. Findings eventually show that a push motivation combined with high ambition leads to a lower propensity to start-up, which could be explained by the fact that nascent entrepreneurs driven by push motives could be easily diverted from the entrepreneurial path. Finally, as stated earlier, Verheul and van Mil (2011) show that opportunity-driven entrepreneurship

is more likely to feed ambition than necessity-driven entrepreneurship by influencing growth preferences. In short, ambitious entrepreneurs would be mostly motivated by intrinsic, pull motives rather than extrinsic, push motives.

However, the link between ambitious entrepreneurship and intrinsic motives emphasized in the above contributions seems to be at odd with other contributions such as the one from Levie and Autio (2011). The latter define the high-expectation individual as a strategic entrepreneur. This terminology implies a rational and utility-maximization view of the entrepreneur who strategically decides to engage (or not) in entrepreneurial activities. As expressed by Levie and Autio (2011), it is a strategic individual choice that is driven by rationality rather than one driven by psychological traits, behavioural compulsions, or social conformity pressures (Levie and Autio 2011). In this view, high-expectations entrepreneurs want to maximize profit and are motivated by extrinsic motives. This is in line with previous work on growth expectations which confirms wealth-attainment motive as an important determinant (Cassar 2007).

Recent development from the field of psychology might resolve the apparent contradiction. Indeed, the literature about motivations recognizes the existence of explicit and implicit motivational systems (McClelland et al. 1989; Brunstein and Schmitt 2004; Schultheiss et al. 2009; Schultheiss et al. 2010). Implicit and explicit systems work independently and have different impacts in terms of behavioral tendencies (Kehr 2004). On the one hand, implicit motives are aroused by the factors that are intrinsic to the (entrepreneurial) activity (Ryan and Deci 2000; Kehr 2004). As such, implicit motives are more likely to predict general performance and success over time (McClelland et al. 1989; Winter 1991). On the other hand, explicit motives are closely related to the development of goals (Brunstein et al. 1998; Kehr 2004). Combined with self-efficacy (Bandura 1977), it defines what the entrepreneur thinks she or he can achieve (Kehr 2004).

This literature also suggests that motivational systems are not necessarily aligned. In fact, recent contributions (Thrash et al. 2007; Schultheiss et al. 2009) even show that their independence holds even when commensurable measures of implicit and explicit motives are used. When explicit and implicit motivational systems are incongruent, people might experience physical and emotional distress (Kehr 2004; Schultheiss et al. 2011). By contrast, system congruence energizes behavioral tendencies : explicit motives provide the energy which is channeled by the aligned explicit motives and subsequent goals (McClelland et al. 1989). As a result, the study of motives congruence might bring some light on the way entrepreneurial ambitions are formed and later realized (Stam et al. 2012). It would also explain the simultaneous involvement of intrinsic and extrinsic motives in the context of ambitious entrepreneurship.

The study of explicit and implicit motivational systems in entrepreneurship research would require the mobilization of the instruments recently refined in the field of psychology (Brunstein and Schmitt 2004; Schultheiss and Pang 2007). In that case, researchers would measure general motives such as the need for power or the need for affiliation instead of motives to become self-employed. Interestingly, Cassar (2007) provides an additional reason to take distance with strict entrepreneurial motives in the context of ambitious entrepreneurship. Indeed, he provides evidence of a potential recall bias regarding entrepreneurial motives when surveying existing entrepreneurs about the reason why they originally engaged in entrepreneurship. This author suggests that the

importance of “roles” as a motive for undertaking entrepreneurial activity is increased by the established entrepreneurs who, at the same time, underemphasize the importance of financial success and self-realization.

As a result, both the study of motives congruence and longitudinal micro-level data about entrepreneurial motivations should shed light on the role of motives for the building of ambitious expectations. It would also allow investigating the link between expectation and growth realization. Unfortunately, such longitudinal studies are still lacking, with a notable exception by Cassar (2007).

#### **4.2.2 *Organizational environment***

Growth intentions are not enough sufficient for realizing subsequent firm growth. For Guzmán and Santos (2001), actions such as strategic planning, innovation practices, exporting, actual collaboration and the training of employees need to be undertaken in order to achieve firm growth. By so doing, entrepreneurs assemble the organizational resources that will help them to realize their growth ambitions. Understanding the fit between organizational resources, the expectations of the entrepreneurs and the actual realization of performance is of the utmost importance. Prior work on gazelles already highlighted the importance of factors at the organizational level of the company, such as strategic choices (Parker et al. 2010), business practices (Barringer et al. 2005) and strategic planning (Gundry and Welsch 2001). Furthermore, recent contributions on growth ambitions also suggest that ambitious entrepreneurs might need to take action to support their expectations, for instance by raising finance (Mole and Levy 2012).

In our inventory, some contributions provide preliminary insights about the interaction between ambitious entrepreneurship and factors from the organizational environment of the entrepreneur. Brush et al. (2008) for instance find support for their hypothesis linking higher expectations with greater levels of organizational and financial resources. Verheul and Van Mil (2011) find that internationalization and a higher involvement of the entrepreneur in his venture are positively linked to growth preference and organizational practices such as exportation or a cost-efficiency strategy might provide entrepreneurs with the means to fulfill their growth ambitions. In Mangematin et al. (2003), the authors show that the size, or “ambition”, of the innovation project actually splits the sample into two business models, the first with a business model for small innovation projects and a niche target market, the other with business models adequate for radical innovation projects and broader target markets.

Note that there is no consensus about the role of innovation with regard to the realization of high expectations. For instance, Stenholm (2011) shows that innovation practices such as the development of new products have a positive and direct effect on growth. Interestingly, this study also finds that innovation negatively moderates the effect of expectations on realized growth. Moreover, Bosma and Schutjens (2009) show that high levels of innovative orientations do not necessarily coincide with growth ambitions and Hessels et al. (2008b) do not confirm any of their hypotheses regarding the innovation-oriented entrepreneurs. These results show that the role of innovation as a means to reach entrepreneurial success requires additional investigations and that it is still unclear whether innovation is a prerequisite for high ambitions and expectations or not.

### **4.2.3 External environment**

In this section, we identify influencers from the external environment that have been discussed in existing literature on ambitious entrepreneurship. In particular macro-level factors received attention, such as population density (Bosma and Schutjens 2009), network effects at the regional level (Bosma and Schutjens 2009), access to investment infrastructures (Ho and Wong 2007), regulatory burdens (Ho and Wong 2007; Levie and Autio 2011), the prevalence of wealth-motivated entrepreneurs at the national level (Hessels et al. 2008b) and the prevalence of welfare, in particular at the level of social security (Hessels et al. 2008a) or at the level of job protection (Bosma and Schutjens 2009).

Concerning the national level of economic development, our inventory suggests that the prevalence of ambitious entrepreneurship varies according to a country's income level. First, Autio (2007) suggests that high-income countries generally have higher rates of high-expectation entrepreneurship. Likewise, Acs and Amoros (2008) show that the prevalence of high-expectation entrepreneurship (in terms of firm growth and internationalization) rises with a country's level of competitiveness. Hessels et al. (2008b) show as well that the prevalence of such ambitious entrepreneurs is positively associated to both the level of economic development and the level of economic growth of the country. Interestingly, they fail to confirm the findings when considering innovation-oriented nascent entrepreneurs.

Besides economic development, other institutional factors seem to affect the existence of ambitious entrepreneurship. More specifically, Bosma and Schutjens (2009) find a negative effect of the national degree of employment protection on high growth expectations and innovation-oriented entrepreneurs. Likewise, Hessels et al. (2008b) show that the rate of high-expectation entrepreneurs is negatively related to the social security arrangements at the country level. Note that Hessels et al. (2008b) did not confirm this result for the innovation-oriented entrepreneurs.

Another factor that is usually mobilized to explain entrepreneurial activity is the level or the quality of regulation, expressed for instance in terms of regulatory costs or administrative burdens. This factor is also explored in the context of ambitious entrepreneurship. First, Ho and Wong (2007) show that regulatory business costs do not significantly differentiate between countries with high or low levels of high-growth entrepreneurial propensity. This substantiates that this type of entrepreneurial activity is truly opportunity-driven and that the opportunities in question have a high enough expected value to render regulatory business costs irrelevant. More recently, Levie and Autio (2011) show that a light regulatory burden is associated with high prevalence of high-expectation entrepreneurial activities. They also investigate the impact of rule of law and suggest that, while rule of law does not exhibit a direct association with high-expectation entrepreneurship, it has an indirect effect when interacting with regulatory burdens: the lighter the regulatory burden and the stronger the rule of law, the higher the prevalence of entrepreneurial entry with high expectations.

In a recent contribution, Stenholm et al. (2011) explore the cognitive, normative, regulatory and conducive dimensions of the institutional environment. They focus on their impact on both the rate and type of entrepreneurship. In their contribution, they look in particular at activities with high entrepreneurial aspirations. Their results are striking: they find that regulation is the most important factor for fostering general entrepreneurial

activity, but that it does not have a significant impact on the quality of entrepreneurial activity. On the contrary, they show that what matters most for high-quality entrepreneurial activity is a “conducive” institutional environment characterized by the access to high-quality universities, to skilled labors, to suppliers, to customers and to external finance.

Ho and Wong (2007) also investigated the prevalence of different types of investors at the country level. They find that countries with higher availability of informal investors exhibit higher levels of ambitious entrepreneurial activities. However, they could not draw similar conclusions regarding the availability of debt financing or even the prevalence of venture capitalist funds and suggest that a refined sectoral analysis might bring complementary results. Also Verheul and van Mil (2011) show that some industrial sectors have a significant impact on growth expectations and Autio (2007) and Levie and Autio (2008, 2011) call for a better understanding of the link between industrial sectors and ambitious entrepreneurship. Autio (2007) suggests that structural conditions at the industry level could be an important determinant of the prevalence of high-expectation entrepreneurship in high-income countries while Levie and Autio (2008; 2011) urge for a better understanding of institutional effects on ambitious entrepreneurship across different industries, especially with different technology levels.

Finally, Hessels et al. (2008a) explore the link between the prevalence of various motives for becoming self-employed at the country level on the rate of high-expectation entrepreneurial activities and innovation-oriented entrepreneurship in the same country. They find that, as expected, independence is *not* related to the prevalence of growth aspirations while the increased-wealth motive is. They also show that the prevalence of necessity motives is not related to the rate of high-expectation entrepreneurship. However, they fail to verify their hypothesis about innovation-oriented entrepreneurial activities: they fail to confirm that innovation is linked to independence, or even to increased-wealth motives. They nonetheless do provide evidence that innovation is not linked to necessity entrepreneurial activities.

In conclusion, the examination of factors at the macro-level reveals some interesting findings, confirming the influence of the global environment on entrepreneurial dynamics. It also suggests that different levels or dimensions of the environment might affect ambitious entrepreneurship through distinct dynamics. More specifically, Bosma and Schutjens (2007) suggest that although the process of setting up a new venture generally relates to regional conditions like the urbanization level, ambitious entrepreneurship seems to be more influenced by national institutional factors such as entrepreneurial attitudes. Moreover, Stenholm et al. (2011) distinguish between the regulatory and the conducive dimensions and show that the quality of entrepreneurial activity is mainly influenced by the quality of its feeding environment in terms of linkages with universities, access to skilled labor or access to external finance. Such findings are especially interesting for public authorities and policy makers because they aim to influence socio-cultural and political-institutional factors impacting entrepreneurial activities.

#### ***4.2.4 Consequences on entrepreneurial success***

While the majority of the contributions identified in this work focus on macro-economic outcomes and influencers of ambitious entrepreneurship, a couple of studies pay attention

to the interrelationships between the entrepreneur with high ambitions and firm creation or performance. For instance, van Gelderen et al. (2006) study the link between ambitious entrepreneurship and the probability of venture creation. By means of a non-linear principal component analysis, they identify ambitions, and more particularly high ambitions, as a factor allowing for the identification of a subsample of nascent entrepreneurs with common and specific traits. They show that the performance of ambitious and non-ambitious entrepreneurs are associated with different factors: the writing of a business plan correlates positively to venture creation with limited ambition, but it correlates negatively to nascent entrepreneurs with high ambitions (van Gelderen et al. 2006).

Others like Brush et al. (2008) pay attention to the impact of ambitions on the probability of first sale realization, as well as the interaction effects of contextual variables such as the localization of the newly-created business. They first investigate whether businesses with higher aspirations are more likely to achieve first sale than those with lower aspirations. Unexpectedly, the hypothesis that entrepreneurs with high aspirations are more likely to achieve first sale is not supported and results even show a negative correlation between high aspirations and first sale (Brush et al. 2008). They also investigate whether home-based businesses with high growth aspirations are more likely to achieve first sale than their away-based counterparts. Once again, the hypothesis is rejected on the basis of a significant negative correlation.

Findings from Van Gelderen et al. (2006) as well as Brush et al. (2008) suggest a negative impact of ambitious entrepreneurship on performance. However, the performance measured in both contributions is about venture creation instead of long-term performance in terms of growth, innovation or exportation. As a matter of fact, rather than drawing on prior work on growth willingness, they are inspired by the venture creation paradigm (e.g., Gartner 1985; Reynolds and Miller 1992; Carter et al. 1996; Davidsson and Honig 2003). By contrast, the impact of ambitious entrepreneurship on the actual performance of the venture over time has not been explored yet and studies that focus on the realization of high-expectation are still needed.

#### **4.2.5 Consequences on economic development**

While the study of high-impact entrepreneurship has mostly been explored *ex post* (see Acs 2010 for an overview), for instance when identifying high-impact firms on the basis of realized revenue flows or estimated employment growth (Morris 2011), some authors employed the GEM database to explore the impact of high expectations on macro-economic growth. The expected impact of ambitious activities on economic development is presented as the *raison d'être* behind the study of ambitious entrepreneurship. Hereafter, we present existing findings going along this view.

A first contribution to the topic is brought by Acs and Varga (2005): these authors

explore what the impact of entrepreneurial activity and agglomeration effects can be on

technological change. In particular they find that the interaction between research and high-expectations for technological change is highly significant, while the interaction

effect loses its significance in the case of overall entrepreneurship or necessity entrepreneurship.

In Wong et al. (2005), the authors explore the potential impact of four different types of entrepreneurial activity on economic growth: overall entrepreneurial activity, necessity entrepreneurship, opportunity entrepreneurship and high-growth potential entrepreneurship. It appears that out of the four types of business creation activity, only high-growth potential entrepreneurship has some explanatory power in understanding variations between countries. Along the same line, Stam et al. (2009, p.105) suggest that high-expectation entrepreneurship would have a positive impact on economic growth, claiming that “*ambitious entrepreneurship contributes more strongly to macro-economic growth than entrepreneurial activity in general*”, especially in transition countries.

Extending the model proposed by Wong et al. (2005), Valliere and Peterson (2009) look into some impact of entrepreneurial activity on economic growth in different economic development groups. They confirm earlier findings for developed countries but also show that these effects are absent in emerging countries. Stam et al. (2011) recently realized a similar study. In contrast with Valliere and Peterson (2009), they found that the overall positive effect of entrepreneurship on macro-economic growth disappears once they controlled for the share of ambitious entrepreneurs (Stam et al. 2011). Consequently, they suggest that growth-oriented entrepreneurship contributes heavily to macroeconomic growth both in low- and high-income countries. (Stam et al. 2011). Interestingly, they also show that “*high-growth firms seem to flourish in countries with high levels of entrepreneurship in general, while there appears to be no connection between the rate of high-growth firms and the share of ambitious entrepreneurs*” (Stam et al. 2011 p. 232). Note that Teruel and de Wit (2011) recently found contradictory evidence. In their recent contribution, they suggest that the level of growth expectations of early-stage entrepreneurs determines the share of high growth firms in a specific country.

The effect of high-growth expectations entrepreneurship on macro-economic growth might suffer from an endogeneity bias, in the sense that both growth expectations and subsequent macro economic growth are driven by a similar underlying variable, e.g. recent economic growth. In contrast to prior studies, Stam and Van Stel (2011) and Stam et al. (2011) did control for this and found that prior macro-economic growth did not take away the effect of high-growth expectations entrepreneurship on macro-economic growth. Prior macro-economic growth did take away the effect of firms with high-sales growth on macro-economic growth; the prevalence of firms with high-employment growth did not affect macro-economic growth at all (Stam et al. 2011).

## 5 Discussion

The conceptual definition of an ambitious entrepreneur we started with was “*someone who engages in the entrepreneurial process with the aim to create as much value as possible*”. More specifically, an ambitious entrepreneur “*identifies and exploits opportunities to create new products, services, processes and organizations with high aspirations to achieve entrepreneurial success – i.e., to maximize value creation (beyond self-sufficiency)*” (Stam et al. 2012, p.40). In empirical terms this can be translated into entrepreneurs that have the aim to create high-impact innovations, resulting in substantial new activities, either measured in terms of turnover (beyond a certain level, or beyond

regional or national markets) or job creation. In empirical studies this has been measured as “growth intentions” or “expected firm size”. The key question in the Global Entrepreneurship Monitor’s (GEM) adult population survey - “how many people will be working for this business five years from now?” – is posed to nascent entrepreneurs and young business-owners. In the Panel Study of Entrepreneurial Dynamics (PSED) a similar measure is used, but with sales levels instead of employment levels. Subsequently, particular thresholds (most often 20 people, sometimes 6 people) are imposed by researchers to distinguish ambitious from non ambitious entrepreneurs. In most other micro, firm level studies the key question indicates the intention or willingness of the founder or owner to grow the sales or employment of the firm (Davidsson 1989; Wiklund et al. 2009).

These measures are not identical, but have sufficient overlap in order to be comparable. They are an indicator of the entrepreneur’s intention to create value beyond self-sufficiency. They are not a direct translation of the concept of ambitious entrepreneurship, because sales or value creation might be more closely associated with entrepreneurs’ objective than job creation and because the entrepreneur might already have established a substantial firm in which value is created beyond self-sufficiency, while the entrepreneur would not like to grow the firm even more (and is thus not recognized as having growth intentions). The GEM indicator is in that sense more adequate as it indicates the number of workers that will be active for the business in five years from now. However, this could also be realized with acquiring another business, without the necessary new value creation involved in the conceptual definition of ambitious entrepreneurship.

Despite these measurement problems, the empirical studies on ambitious entrepreneurship provide new insights on the causal relations involved to construct improved models to explain ambitious entrepreneurship. This model is based on the theory of planned behavior, which has already been used substantially in the entrepreneurship literature. However, we argue that this theory is even better suited for explaining ambitious entrepreneurship than new firm creation, for which it has predominantly been used (see e.g. Kreuger et al. 2000). A considerable share of the new firms has been created out of necessity, without clear intentions or plans to set up a new firm. In contrast, there are hardly new growing firms that are not initiated by entrepreneurs that had the intention to grow their firm (see Stam et al. 2012). Growing a (new) firm is a much more committed act, than establishing a new firm. This makes the theory of planned behavior much better suited to the analysis of ambitious entrepreneurship than entrepreneurship in general. This does of course not imply that growth intentions also necessarily result in firm growth, as entrepreneurs might be overconfident in their own abilities (Camerer and Lovallo 1999; Bernardo and Welch 2001; Forbes 2005; Koellinger et al. 2007), or overoptimistic about opportunities (Lowe and Ziedonis 2006; Dushnitsky 2010), and there might be many unexpected hurdles on the way to firm growth, internal to the firm, in the direct environment of the firm, or in the macro environment, that could either not be foreseen, or for which the entrepreneur was not sufficiently prepared.

Ajzen and Fishbein’s theory of planned behavior (Fishbein and Ajzen 1975; Ajzen 1991) can be translated for our purposes (see figure 3), with taking the growth projecting process as the intermediate component between attitudes and self-efficacy on the one

hand and realized growth on the other hand. In order to take the firm and the external (market) environment more explicitly into account we also add resources of the firm and access to external resources as additional explanatory categories, and opportunities as an explanatory category. The projecting process is central in this model: the entrepreneur confronts his intentions, in terms of ideal (Davidsson 1989; Wiklund et al. 2009) or preferred (Kolvereid 1992; Edelman et al. 2010; Verheul and Van Mil 2011) size with available abilities and resources as well as with the constraints and opportunities from the external environment. By doing so, these determinants are appraised by the entrepreneur and are included in his or her expectations. We thus argue that intentions and expectations are different but closely intertwined. We also argue that both concepts are important for the study of ambitious entrepreneurship: to understand the reasons why entrepreneurs might hold their ambitions as well as the reason why they might fail to transform their intentions into expectations. Moreover, they are also needed to understand the reasons why some entrepreneurs realize their vision and others fail to transform their expectations into actual growth. In our view, ambitious entrepreneurs have high intentions, which are confronted with opportunities and resources they identify in their environment. As such, they develop above-normal expectations and subsequently mobilize the identified resources to realize their ambitious expectations.

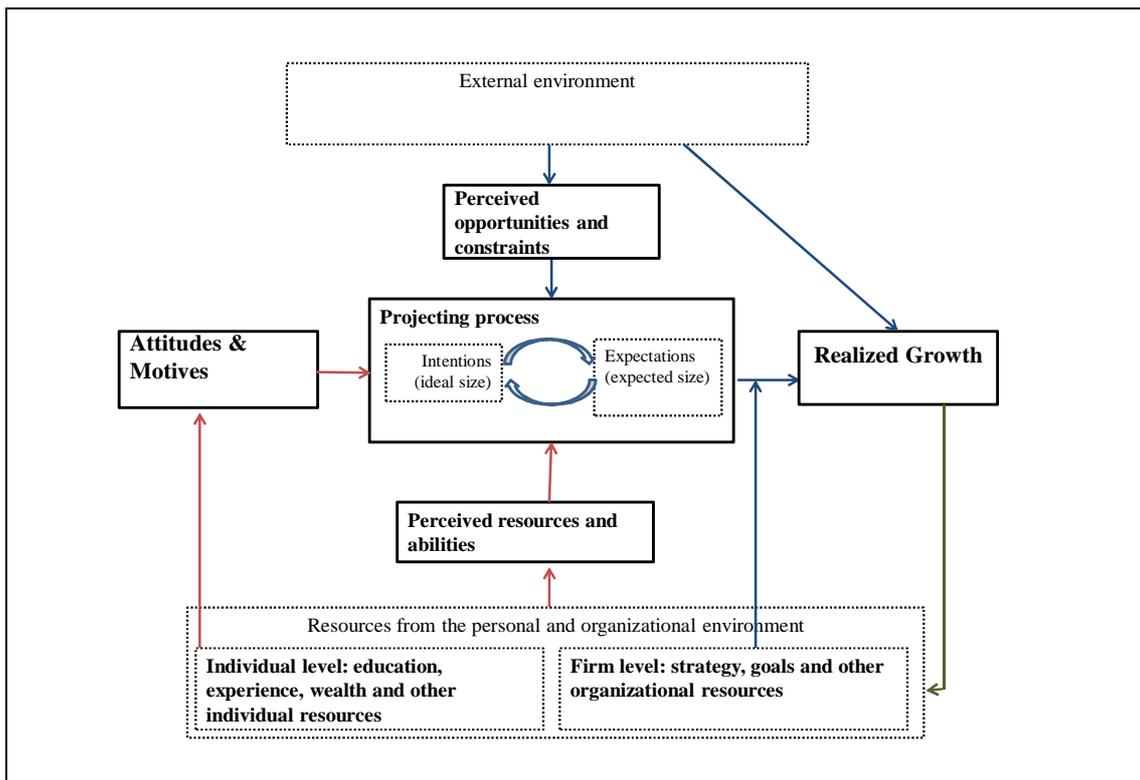


Figure 3 A model of ambitious entrepreneurship and growth realization, adapted from Stam et al. (2012)

From a methodological point of view, the vast majority of the contributions analyzed in this paper adopt a cross-sectional quantitative approach,<sup>2</sup> using mostly GEM data, sometimes combined with additional databases.<sup>3</sup> They identify direct and indirect interactions between ambitious entrepreneurship, its outcomes and its antecedents. Concerning the level of analysis mobilized in the extant literature on ambitious entrepreneurship, the contributions suggest that ambitious entrepreneurship has some implications both at the firm and the macro-economic level. However, most studies focus on macro-economic outcomes (Stam et al. 2009; Stam et al. 2011) and antecedents (Hessels et al. 2008a; Stenholm et al. 2011), for instance in terms of institutional arrangements, thereby neglecting the micro-level.

Based on our analysis, we identify some promising methodological avenue for the study of ambitious entrepreneurship. First, in line with authors such as Autio and Acs (2010) or Hessels et al. (2008a), we call for the combination of multiple levels of analysis when exploring ambitious entrepreneurship. Such a combination would allow research to simultaneously examine personal variables, such as growth intentions and size expectations, and the influence of contextual variables (Liao et al. 2001), such as linkages with local universities or the access to skilled labor (Stenholm et al. 2011). As revealed by prior work on gazelles (Cooper et al. 1994; Brüderl and Preisendörfer 1998; Parker et al. 2010), the organizational level is also expected to be relevant. Therefore, we call for further work that identifies the external and internal contingencies that potentially affect growth performance. This would also mean that entrepreneurial employees and their ambitions need to be taken into account (see Bosma et al. 2012).

Furthermore, the lack of micro-level evidence regarding ambition and its impact at the level of the firm urges for the development of longitudinal studies. Such an approach can allow for a deeper understanding of attitudes, ambitions and their actual realization while avoiding the recall bias identified by Cassar (2007). This element revives the interest for the exploration of entrepreneurial motivations, a research topic that has been neglected in spite of its importance in the specific context of ambitious entrepreneurship (Stam et al. 2012). Going beyond the methodological limitations of extant studies and building on recent development in psychology (Thrash et al. 2007; Schultheiss et al. 2009), entrepreneurship researchers could reveal the role of motives for the construction of ambitious goals and their realization (Carsrud and Brännback 2011).

## 6 Conclusion

Our analysis confirms that ambitious entrepreneurs are an interesting population for the research community as well as for policy makers and other practitioners. Indeed, it suggests that ambitious entrepreneurs may have a specific impact upon the economy and contribute to the quality of entrepreneurial activity. The analysis suggests some specific determinants of the individual and the institutional level that may be of interest for policy

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<sup>2</sup> In fact, only one contribution, namely Mangematin et al. (2003), adopt a qualitative design (in this case an interview-based survey).

<sup>3</sup> Such as the World Bank EDB (Ease of Doing Business) in Levie and Autio (2011), Cambridge Econometrics in Bosma et al. (2009) or the IMF World Economic Outlook database in Acs and Amoros (2008).

makers. Findings from extant literature are discussed in length and summarized in a framework for understanding ambitious entrepreneurship. From a conceptual point of view, the review also reveals that there is no consensus with regard to the operationalization of ambitious entrepreneurship and growth ambitions in general. Most researchers seem to use specific cut-off points to decide whether entrepreneurs are ambitious or not (for example, growth of 20 employees within five years' time, as suggested in Autio (2007)). However, such specific cut-offs appear to be rather arbitrary and should instead be contextualized. Moreover, we also propose the concept of a projecting process to clarify the link between growth attitude, growth intention and growth expectation.

More generally, the review also identifies the limitations of extant studies and opens promising paths for future research. For instance, the role of innovation (Hessels et al. 2008b; Stam and Wennberg 2009) or motivations (Carsrud and Brännback 2011) and their interaction with ambition for the realization of performance is still largely unknown. Moreover, we also show that ambitions may have some implications both at the firm and the macro-economic level but that most current studies focus on macro-economic outcomes. From a methodological point of view, we therefore align with authors such as Autio and Acs (2010) or Hessels et al. (2008) and call for the combination of multiple levels of analysis when exploring ambitious entrepreneurship. Relevant levels and promising factors, such as innovation behaviors or the prevalence of the increase-wealth motive, are discussed in the paper. Furthermore, the lack of micro-level evidence regarding ambition and its impact at the firm level urges for the development of longitudinal studies. Such an approach can allow for a deeper understanding of motivations, ambitions and their actual realization in the specific context of ambitious entrepreneurship. Finally, our analysis highlights the opportunity to develop a qualitative approach for the study of ambitious entrepreneurship.

With this research, we aim to make a threefold valuable contribution to the study of entrepreneurship and practice. First, we aim to explicitly recognize the current state of the art with regard to the difference between high and low entrepreneurial ambitions. As such, we provide future researchers with a structured overview of what is known (and not known) about this topic and discuss how current flaws and gaps can be addressed. Second, policy makers involved in entrepreneurship stimulation seek for knowledge on the factors influencing high entrepreneurial success (Shane 2009; Stenholm et al. 2011). In fact, in many countries, *“entrepreneurship policies are already shifting their focus from seeking to increase the quantity of entrepreneurs to improving the quality of entrepreneurship”* (Hessels et al. 2008b, p.335). Thanks to a better understanding of the influence of personal ambitions on the level of success, and the antecedents and influencers of (high) entrepreneurial ambitions, adequate support programs can be developed. Third, entrepreneurs willing to start a business benefit from knowledge about factors contributing to their level of success. Thus, by having knowledge about the influence of the level of entrepreneurial ambitions, they can evaluate their own viewpoints and related pitfalls (van Gelderen et al. 2006).

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