

Understanding Motivations for **Entrepreneurship A Review of** Recent Research **Evidence**

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Rapid Evidence Assessment paper

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Understanding Motivations for Entrepreneurship

A Review of Recent Research Evidence

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Executive Summary

Our systematic search for empirical studies on entrepreneurial motivation published over the last five years (2008-2013) retrieved 51 relevant studies (filtered from over 1,200 search results), which form the basis of this review. Considering the type and quality of studies suggests that we can be relatively confident in our answer to the first review question below (typologies). The evidence-base for the second and third review questions (drivers and consequences of entrepreneurial motivation) is weaker and still developing.

Beyond answering the three broad research questions below, we develop a framework for future research synthesising the review findings.

1) What typologies exist to describe entrepreneurial motivation?

We recommend that future research move beyond the commonly used opportunity-necessity dichotomy and measures entrepreneurial motivation on multiple dimensions.

Our review indicates that the following seven dimensions capture entrepreneurial motivation in sufficient breadth and depth:

- 1. Achievement, challenge & learning
- 2. Independence & autonomy
- 3. Income security & financial success
- 4. Recognition & status
- 5. Family & Roles
- 6. Dissatisfaction
- 7. Community & social motivations

Past studies treat growth ambitions largely separate from these 7 dimensions, although growth motivations show certain relationships with some of these 7 dimensions.

We suggest that future research also probes into motivation profiles and differentiates individual from firm-level goals (e.g. personal financial success and firm growth). Research on motivational profiles would take into account a) the relative importance entrepreneurs ascribe to each aspect of motivation and b) that entrepreneurs' motivation is multi-facetted and that certain combinations of motivations (e.g. achievement and financial success vs. achievement and social motivations) are likely to lead to different firm performance outcomes.

2) What influences and shapes entrepreneurial motivation?

We differentiated individual drivers of entrepreneurial motivation from



contextual drivers. Individual drivers are factors related to the entrepreneur and his/her business, whilst contextual drivers refer to regional and national characteristics including macro-economic variables (GDP), formal institutions (such as welfare systems and property rights), and informal institutions/national culture.

The effects of gender, education and age are most commonly studied, and their effects seem to be closely intertwined making generalizations difficult. Nevertheless, studies investigating the effects of gender, education and age in isolation suggest that women start businesses for somewhat different reasons than their male counterparts. Autonomy/flexibility and social motives play, relatively speaking, a greater role for women than for men. Evidence on gender and growth ambitions is mixed. Education appears to have a positive effect on opportunity, necessity, social entrepreneurship and on growth ambitions. Necessity entrepreneurs tend to be somewhat older than opportunity-motivated entrepreneurs, and age is also related to other motivations although those relationships are also contingent on gender. There was no evidence for a systematic relationship between age and growth ambitions. Evidence linking racial and ethnic background as well as personality traits and values to entrepreneurs' motivation is scarce and too limited to draw general conclusions.

Evidence on how resources may impact motivations is equally scarce and mixed at the individual-level. Two studies suggest links of resource-scarcity to wealth and financial motivations. Evidence from country- and regional level studies is somewhat more consistent. It indicates that resource-poor contexts are related to necessity-motivated, increase-wealth opportunity-motivated and socially-motivated early-stage entrepreneurship. Independence-motivated entrepreneurship and growth ambitions tend to be more common in resource-rich context. We found no studies investigating direct impacts of economic recession or the level of unemployment on entrepreneurial motivations, although some descriptive findings suggest that motivations may be sensitive to recession effects.

The effect of government intervention on opportunity- and necessity-motivated entrepreneurship is conflicting. For growth-motivation, the effects of greater government intervention appear to be negative. With regard to broad institutional quality, including government effectiveness, the rule of law and the protection of property rights, the findings are mixed. Some results suggest positive effects of elements of the rule of law and property rights on opportunity entrepreneurship and negative effects on necessity entrepreneurship. Findings for growth ambitions are clearer, entrepreneurs develop stronger growth aspirations in countries with a stronger rule of law.

Only very few studies link informal institutions including national and regional culture to entrepreneurial motivation. These studies suggest that independence-motivated and growth-motivated entrepreneurs thrive in cultures in which social relationships are important (i.e. socially supportive and collectivist cultures). There is also a strong facilitation effect of low



levels of corruption for growth motivated entrepreneurship.

3) What consequences have different entrepreneurial motivations for entrepreneurial performance?

Collectively, the evidence reviewed in this report suggests entrepreneurial motivation matters for firm performance and for entrepreneurs' strategic decisions that shape their business. There is evidence that differences in entrepreneurial motivations link to firm performance, entrepreneurs' investments in their firms, their success in turning start-up efforts into operative businesses, their satisfaction with their business, and for how they exist from entrepreneurship. Although research in this area is still developing, the existing findings suggest that entrepreneurial motivation is important to understand both for researchers and policy makers.



1. Introduction

Our understanding of the drivers of the recent rapid rise in the number of new businesses in the UK is fairly superficial. This 'evidence gap' has led the Department for Business, Innovation and Skills (BIS) to commission a research project which seeks to answer an apparently very simple question - why do individuals create and run businesses? The question is, however, a little more complicated than that and there are a number of related issues as we seek to develop a deeper understanding of the motivations for people becoming entrepreneurs, provide some quantification against a more detailed classification of sub-groups, and investigate whether any qualitative differences exist between those sub-groups that would have implications for Enterprise policy development.

To inform the BIS project before further empirical evidence is gathered, the ERC has undertaken this literature review in which we aim to synthesize what we know about the motivations for entrepreneurship. We sought to understand the reasons and goals that motivate individuals to create a business, and once it is created the goals they pursue with running the businesses. In doing so we aim to answer the following specific research questions:

- 1) What typologies exist to describe entrepreneurial motivation?
- 2) What influences and shapes entrepreneurial motivation? In particular we differentiate Individual and contextual drivers of entrepreneurial motivation.
- 3) What consequences have different entrepreneurial motivations for entrepreneurial performance?

To answer these questions we conducted a rapid evidence assessment on entrepreneurial motivation in November and December 2013. In this report, we review in detail the most relevant 51 sources including published and un-published academic research and practitioner reports. We organise the review of these sources along the following four themes corresponding to our research questions.

- Typologies of entrepreneurial motivation (Chapter 3)
- Individual drivers of entrepreneurial motivation (Chapter 4)
- Contextual drivers of entrepreneurial motivation (Chapter 5)
- Consequences of entrepreneurial motivation (Chapter 6)

Chapter 2 provides details on the methodology we used to identify relevant evidence. Chapter 3 to 6 contain the description of the reviewed literature. Chapter 7 summarizes key insights from the review, offers directions for future research and develops a framework for understanding entrepreneurial motivation based on the review findings.



2. Background

2.1 Methodology of Literature Review

The aim of this rapid evidence assessment was to provide a survey of recent evidence on entrepreneurial motivation. Thus, we conducted broad searches of the literature and included academic, practitioner and policy-oriented research published between 2008 and 2013.

Three types of searches were conducted. An initial key search was undertaken using the Thomson Reuters Web of Knowledge service, to identify the relevant academic papers. This was backed up by a Google Scholar search, which largely confirmed the list of results from Web of Knowledge. Finally, to ensure relevant grey literature from bodies such as the OECD and European Commission were also included, a normal Google search was conducted.

Different combinations of keywords were used, such as "entrepreneur", "self-employed", "founder", combined with "motive", "motivation", "growth-ambition"¹. The search was specified to include title, abstract and keywords. The Google search was further adjusted to only include pdf documents, and the search terms "OECD" or "European Commission" were added.

All of the 800 results from the Web of Knowledge searches were reviewed, as were the first 200 results for Google Scholar and Google searches. This was with the aim of keeping the review manageable.

Collectively, the searches resulted in a short-list of about 90 publications. These were complemented with citation searches and sources recommended by BIS and academics with expertise in research on entrepreneurial motivations, resulting in a total of 125 publications. These were coded for inclusion in the review in two steps. First, only studies written in English, with an empirical element (i.e. not purely a theoretical discussion/review) and focussing on the investigation of motivations to become an entrepreneur or motivations of entrepreneurs were included. Second, we discarded publications that investigated entrepreneurs' personality traits, skills or resource-endowments, or linked these factors solely to the emergence of businesses. We also excluded research investigating motivational processes (e.g., willingness to expend effort) rather than different types of motives. Finally, some papers were discarded due to poor methodological quality resulting in uncertainty about the validity of findings.

As a result, 51 studies were reviewed in-depth. Of these the majority (90%) were academic publications, and the remainder practitioner publications (e.g., policy reports). The references to all studies are contained in Appendix 1 and reviewed in chapters 3 to 6 according to their main focus, that is, whether they speak to typologies of entrepreneurial motivation,



individual or contextual drivers of entrepreneurial motivation or investigate the consequences of entrepreneurial motivations. Some sources speak to more than one of the chapter themes, whilst others only speak to one theme.

2.2 Overview of key data sources in entrepreneurial motivation

A substantial number of the studies included in the review draw on data collected by a few large-scale survey projects. We describe these projects here in more detail.

The three core surveys used by many of the studies included in the review:

- the Global Entrepreneurship Monitor (GEM). GEM conducts yearly representative surveys of the adult population across a wide range of countries. Motivation questions are posed to both nascent entrepreneurs who are taking the formative steps to create a business and owner-managers of new and established businesses. GEM mainly captures opportunity vs. necessity motivation. In addition, the 2009 GEM surveys include questions to differentiate socially-motivated entrepreneurship. GEM data was used in 14 studies included in this review.
- the Panel Study of Entrepreneurial Dynamics (PSED I and PSED II: US; Reynolds & Curtin 2008). The main focus of the PSED studies is to trace a sample of nascent entrepreneurs representative of the U.S. adult population over time. These nascent entrepreneurs answer motivation questions. The PSED studies include several types of motivation questions including a single-item question on opportunitynecessity, and dedicated multi-item questions capturing career reasons for entrepreneurship (which differ somewhat between PSED I and PSED II). The PSED studies also includes an open-ended question ("What are the one or two main opportunities that prompted you to start this new business?") the answers to which have been subsequently content-analysed and classified into categories by interviewers at the University of Michigan. This should be a particularly rich source of information on entrepreneurial motivation, yet researchers to date have hardly used it. An exception is one study that uses this information to differentiate social from commercial entrepreneurs in the PSED dataset (Renko 2013). Four studies included in the review were based on PSED data.
- the **EU Flash Barometer** (**EUFB**, DG-Enterprise 2012) conducts regular population-representative surveys. The last round in 2012 covered a total of 40 countries including the EU-27, European countries that look to join the EU, BRICS, the US and Japan². Opportunity-necessity motivation questions are posed to those who are currently self-employment and nascent entrepreneurs. In addition, more fine-grained reasons to start a business are elicited from those who express an interest in self-employment as a career option. Earlier versions of the EUFB, e.g. in 2009, asked similar questions, but comparisons are



limited to a smaller set of countries. In addition to the European Commission's Flash Eurobarometer report, two further studies included in the review used this dataset.

The databases used in other studies are typically original data collected by researchers for the sole purpose of investigating motivation. Consequently, those studies often offer more fine-grained insights into entrepreneurial motivation, based on samples that are not representative of the population of entrepreneurs. The value of these studies is twofold, first they provide evidence on the extent motivation typologies hold in specific contexts and for specific types of entrepreneurs (e.g., minority entrepreneurs in deprived communities), which are underrepresented in the large-scale studies mentioned above. Second, they can highlight additional dimensions of motivation and motivation types that may have been overlooked by large-scale quantitative surveys, which by their very nature can only include short questions on motivation. Of particular value are those studies that examine entrepreneurial motivation through in-depth qualitative research.

Two other large-scale surveys that include questions on entrepreneurial motivation and offer descriptive results are:

- the Kauffman Firm Survey (KFS; U.S., Wadhwa et al. 2009). The KFS includes motivation questions in a survey of existing U.S. businesses from a range of sectors. It relies on an existing dataset of corporate records, the OneSource Information Services Companies database and is not representative.
- Amway survey on entrepreneurship conducted in 2013 covers 24 mostly developed countries (Amway 2013).

For the UK, a survey of entrepreneurial motivation through the ONS Labour Force Survey (LFS) is underway and we can perhaps review that within the timeline of this project.



3. Typologies of entrepreneurial motivation

In this chapter we present the different typologies of entrepreneurial motivation used in the literature we have reviewed. We also comment on the methodological aspects of the different measures and typologies used in order to provide advice for future research on how to measure entrepreneurial motivation.

Studies investigating types of entrepreneurial motivation can largely be split into three streams: The first of these streams differentiates necessity versus opportunity motivation (also called push vs. pull motivation) and is presented in section 3.1. The second stream adopts multi-dimensional typologies of entrepreneurial motivation (section 3.2). The third stream focusses on motivations to grow a business, or growth ambitions (section 3.3). Studies that investigate motivation across these three streams are rare and we discuss these in section 3.4.

We discuss each stream in turn and include a short summary, critique and comments on future research directions at the end of each section.

3.1 Opportunity and necessity motivation

The opportunity-necessity differentiation, also referred to as push-pull, is the longest standing conceptualisation of entrepreneurial motivation (e.g., Stoner & Fry 1982). It acknowledges that entrepreneurship can be an employment choice out of necessity, for example, to deal with job loss, rather than a positive choice to take advantage of an opportunity. A total of 33 studies (65% of all studies) included in the review investigated opportunity and necessity motivations.

The opportunity-necessity differentiation continues to be investigated in empirical research as it is intuitively appealing and because it is included in large population-representative surveys such as GEM, the EU Flash Eurobarometers as well as the PSED studies. Studies in this stream, thus, often have the advantage of being able to rely on large population-representative samples across multiple countries. This comes at the cost of needing to rely on simple questions with constrained response categories to capture complex entrepreneurial motivation (see section 3.2).

Within the GEM surveys those respondents indicating that they are in the process of starting or running a business are asked "Are you involved in this start-up/firm to take advantage of a business opportunity or because you have no better choices for work?" Next to the response categories "Take advantage of a business opportunity" and "No better choices for work", GEM interviewers can also record "Combination of both of the above", "Have a job but seek better opportunities" or "Other". The latter categories are rarely included in analyses, which typically focus on the



opportunity-necessity dichotomy. Around 11% of entrepreneurs (nascent, new and established) fall into the combination-category³. The combination category was only analysed in two studies included in the review and these were not based on GEM (Verheul et al. 2010; Block & Koellinger 2009).

GEM also includes a follow-up question differentiating opportunity motivation: "Which one of the following, do you feel, was 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?" This distinction is important as some findings suggest that national drivers of entrepreneurship due to motivation to maintain and even to increase income can be similar to those driving necessity-motivated entrepreneurship (Hessels et al. 2008).

Using data from both motivation questions, GEM researchers thus started to differentiate necessity-driven entrepreneurship from improvement-driven opportunity entrepreneurship (Bosma et al. 2011). The latter is the subset of opportunity-motivated entrepreneurs who seek either to increase their independence and freedom, or their personal income. In less developed, factor-driven economies these motivations are almost equally prevalent (at nearly 40%), whilst the relative importance of improvement-driven motivation increases with the level of economic development and is highest in innovation-driving economics such as the UK. However, this differentiation is recent and has not yet been picked up by research investigating drivers or consequences of entrepreneurial motivation.

Similar to the GEM surveys, the US PSED studies identify opportunity-necessity motivation by asking "Are you involved in this new business to take advantage of a business opportunity or because you have no better choices for work?", offering four pre-defined response options: "Take advantage of business opportunity", "No better choice", "Combination of both", "Have job but seek better employment".(Curtin 2012; Reynolds & Curtin 2008). The first category (opportunity) is by far the most frequently mentioned reason for starting a business by nascent entrepreneurs (e.g., 82% in the first wave of the PSED II survey, Curtin, 2012). The fourth category is rarely used, whilst the combination category roughly receives 4 to 13% of responses (i.e. higher responses in later rounds of the PSED surveys, Curtin 2012). Subsequent research focusses almost exclusively on the twofold distinction of opportunity and necessity, discarding the combination category.

The EUFB asks "All in all, would you say you started or are starting your business because you came across an opportunity, out of necessity, because there was a need/opportunity to take over the business from a family member." (DG-Enterprise 2012) As can be expected most nascent entrepreneurs and owner-managers (both of new and established businesses) indicate that their activity is opportunity-driven (49%), 29% indicate necessity motivation, and 15% family business related motives. As



may be expected, the latter motivation is relatively higher in countries which traditionally have a well-developed SME sector such as Italy (25%), Austria (24%) or Greece (18%) and compares to 7% in the UK.

Most studies collecting dedicated data on entrepreneurial motivation contain, implicitly or explicitly, opportunity-necessity motivation, amongst a range of other motivations. All these studies rely on entrepreneurs' self-reported motivation of an event which could be many years previously.

An interesting alternative approach to identifying opportunity-necessity motivation is suggested by Block and Sandner (2009: 121). They use the Socio-Economic Panel Study (GSOEP) and entrepreneurial motivation based on their work history. That is, "those reporting to have left their previous job in paid employment on their own" as opportunity entrepreneurs, and "those who were either dismissed by their employer or laid off due to a closing down of their workplace" as necessity entrepreneurs. This is a promising approach to measuring opportunitynecessity motivation and one that may be easier to incorporate into analysis of labour force and household panel studies. Future research is needed to examine the overlap of these measures of motivation with the typical entrepreneur self-reports discussed above.

Summary, Critique & Recommendations for Future Research

It is becoming increasingly accepted that the opportunity-necessity differentiation is oversimplifying the complex motivations underlying entrepreneurship. However, the distinction provided a useful starting point for research that builds more fine-grained models of entrepreneurial motivation (see next section).

If the opportunity-necessity motivation distinction is used in research, then the refined classification piloted in GEM research should be used (i.e. distinguishing **improvement-driven opportunity motivation**) as it is more consistent with the theoretical basis of opportunity-motivation. A challenge of this approach to measuring motivation is the fact that it relies on singular questions the answers to which are typically less reliable compared to multi-item indices (see next section). If resource constraints prohibit the use of longer indices, a feasible option may be the triangulation with work history reports such as those used by Block and Sandner (2009) discussed above.

The backdrop to the opportunity-necessity differentiation is theory that regards motivation to be the result of countervailing forces to approach and to avoid a certain behaviour (Elliot 2008). Yet these theories explicitly acknowledge that approach and avoidance motivation are at work simultaneously as no goal has only positive aspects. This likely explains why we see **combinations of both opportunity and necessity** motivation, and also why there may be shifts in the dominant motivation from opportunity to necessity and vice versa over time (as found in the



PSED surveys).

Necessity entrepreneurship is often argued to be associated with lower entrepreneurial skills and some evidence supports this argument (Block & Sandner 2009). However, equating necessity motivation with lower entrepreneurial skill is perhaps an oversimplification. In times of economic recession and periods of high unemployment, necessity entrepreneurs as a group are likely to have collectively higher average levels of skill. It also may not be only those with lower entrepreneurial skill that start businesses out of necessity, but also those that are otherwise able but are discriminated against in the workplace such as minority entrepreneurs and female entrepreneurs (e.g., Levie & Hart 2013).

These points are important in light of evidence that both skill and motivation may change over the process of starting a business and running it (Cassar 2007; Estrin, Mickiewicz, et al. 2013), that is, entrepreneurs learn how to run a business and this in turn impacts on their motivation. Thus, necessity entrepreneurship may at least for some individuals be a way into successful entrepreneurship. However, research explicitly testing these mechanisms is scarce and often fraught with methodological limitations.

3.2 Multi-dimensional typologies of entrepreneurial motivation

A wealth of typologies of entrepreneurial motivation exists next to the opportunity-necessity differentiation. A total of 27 studies included in the review discuss a typology of motivation beyond opportunity-necessity.

Most studies (15 studies) in this research stream use reliable multi-item indices and factor-analyses as a statistical technique to derive multiple dimensions on which entrepreneurial motivation can be described. They typically collect original data from smaller, unrepresentative samples of nascent entrepreneurs as well as owners of young or established businesses. The number of dimensions on which entrepreneurial motivation is described ranges from two (distinguishing personal from business-related motivations, Gorgievski et al. 2011) to 7 (Jayawarna et al. 2011), with most studies discussing 5 to 6 dimensions. An exception are the PSED studies, which also describe entrepreneurial motivation in depth whilst also following a representative sample of US entrepreneurs (Reynolds & Curtin 2008; Edelman et al. 2010).

A review of these studies indicates variation in the relative importance of certain types of motivation in different countries, but it also indicates significant consistency in the underlying dimensions of motivation. This is particularly the case when studies are compared based on actual items used to measure dimensions of entrepreneurial motivation as opposed to comparing the labels that different researchers have given these dimensions. The most commonly identified dimensions are:



- Achievement, challenge & learning: This dimension captures a desire for personal development through entrepreneurship. It includes aspects such as having meaningful work and responsibility and to learn through the challenge of creating/running a business. It also includes aspects of self-realization including fulfilling one's personal vision. (Jayawarna et al. 2011; Akehurst et al. 2012; Edelman et al. 2010; Friedman et al. 2012; Giacomin et al. 2011; Gorgievski et al. 2011; Renko et al. 2012; Uddin & Kanti 2013; Dej et al. 2012; Reynolds & Curtin 2008; Benzing et al. 2009)
- Independence & autonomy: This dimension highlights the entrepreneurial motivation to be able to control one's work life including control over one's own time and work, making independent decisions, having flexibility to combine work with one's personal life. (Reynolds & Curtin 2008; Uddin & Kanti 2013; Renko et al. 2012; Jayawarna et al. 2011; Giacomin et al. 2011; Friedman et al. 2012; Fernández-Serrano & Romero 2012; Edelman et al. 2010; Benzing et al. 2009; Akehurst et al. 2012; Aziz et al. 2013)
- Income security & financial success: This dimension captures the importance of financial returns from entrepreneurship (Edelman et al. 2010; Benzing & Chu 2009; Fernández-Serrano & Romero 2012; Friedman et al. 2012; Giacomin et al. 2011; Dej et al. 2012; Reynolds & Curtin 2008; Uddin & Kanti 2013; Renko et al. 2012; Jayawarna et al. 2011; Aziz et al. 2013). Notably there is no strong distinction of motives related to income security and financial success as one may expect based on the opportunity-necessity studies of motivation. In studies that measure both aspects they often make up one dimension.

There appears to be a tendency to merge financial success and security with family financial security, particularly so in studies surveying entrepreneurs in deprived and less developed regions in developed countries and studies in developing economies (Jayawarna et al. 2011; Uddin & Kanti 2013). This could point to the role of cultural factors, for example, a greater role attributed to family in collectivist cultures and subcultures (e.g. amongst minority and ethnic entrepreneurs in the UK).

Recognition & status: This dimension captures aspects related to social status such as the desire to receive recognition and respect from friends, family and the wider community for one's work as an entrepreneur. (Akehurst et al. 2012; Benzing & Chu 2009; Edelman et al. 2010; Friedman et al. 2012; Giacomin et al. 2011; Jayawarna et al. 2011; Renko et al. 2012; Reynolds & Curtin 2008; Aziz et al. 2013).

Three dimensions that are rarely included in research are the following:



- Family & roles: This dimension captures the desire to continue a family tradition as well as follow the example of other role models (which are usefully not further specified in the studies themselves). In some studies this dimension also emphasises creating a family legacy. (Benzing & Chu 2009; Edelman et al. 2010; Fernández-Serrano & Romero 2012; Friedman et al. 2012; Jayawarna et al. 2011; Dej et al. 2012; Uddin & Kanti 2013; Aziz et al. 2013)
- Dissatisfaction: This dimension describes entrepreneurial motivation out of dissatisfaction with prior work arrangement. (Akehurst et al. 2012; Giacomin et al. 2011). It, therefore, bears some similarity to necessity motivation, which is rarely explicitly included in this type of motivational research (Fernández-Serrano & Romero 2012).
- Community & social motivations: This dimension includes the desire to contribute back to the community the entrepreneur lives in either through philanthropy or the business itself (i.e. social entrepreneurship) (Levie & Hart 2011; Estrin, Mickiewicz, et al. 2013). It also includes aspects such as looking after one's employees and being an environmentally friendly company. (Jayawarna et al. 2011; Dej et al. 2012).

Qualitative studies on entrepreneurial motivation are rare; perhaps because researchers feel that consensus on the dimensions of entrepreneurial motivation has been reached. We identified five qualitative studies that explored entrepreneurs' motivations for doing their job and how they define success (Hayter 2011; Lukes & Stephan 2012; Shinnar & Young 2008; Williams & Williams 2012; Dej et al. 2012). By and large these qualitative studies emphasise dimensions similar to those listed above, even though they often subdivide specific aspects further, for example, distinguishing self-realisation from achievement (Lukes & Stephan 2012; Williams & Williams 2012). Some studies uncover aspects specific to relatively unique populations of entrepreneurs (e.g. Hayter, 2011 researches academic entrepreneurs), but which correspond with the broad dimensions outlined above, for instance public service motivation with contributing back to the community.

A range of studies include **specific**, **single-item questions** probing for motivations similar to those described in the 7 dimensions (6 studies out of 39). For instance, in the EUFB, those individuals who express an interest in self-employment are subsequently asked about their reasons. They are given 10 pre-defined response options. In line with the first three dimensions mentioned above, the three most cited reasons for self-employment in the EUFB were "personal independence / self-fulfilment", "freedom to choose place and time of working" and "better income prospects" (DG-Enterprise 2012). This is akin to the UK LFS, where those elements also feature prominently. Similarly, a US study based on the KFS saw the key motivational drivers behind firm foundation to be wealth



creation, building your own firm and to materialise an idea (Wadhwa et al. 2009). Other studies on specific smaller samples of Dutch, Polish and U.S. entrepreneurs presented response options which were similarly consistent with the broad dimensions reviewed above (Dunkelberg et al. 2013; Gorgievski et al. 2011; Tyszka et al. 2011), as was a study conducted for the firm Amway across 24 mostly developed countries (Amway 2013).

Studies on **social entrepreneurship** typically conduct comparisons with commercial entrepreneurs. These studies do not measure social entrepreneurs motivation as such (for an exception see Lukes & Stephan 2012), but rather classify social entrepreneurs on the basis that they are reporting to be involved in an initiative or organisation with a social, community or environmental objective (Acs et al. 2013; Estrin, Mickiewicz, et al. 2013). Renko (2013) identified social entrepreneurs in the PSED. Social entrepreneurs are those who indicated in their response to the openended question regarding the nature of the start-up opportunity that they sought to help others, the community, or aid economic development.

Summary, Critique & Recommendations for Future Research

Collectively the research reviewed provides good evidence that the 7 dimensions outlined above are sufficient to capture entrepreneurial motivation. We feel this conclusion is justified given that these dimensions were found in research across diverse samples of entrepreneurs and a wide range of countries. The reviewed research also suggests that these 7 dimensions are sufficient to describe entrepreneurial motivation by different subgroups. For instance, Williams and Williams (2012) study highlights that main dimensions of motivations are similar for entrepreneurs in deprived communities to those in more affluent regions in the UK (also Jayawarna et al. 2011). Edelman et al. (2010) reach a similar conclusion comparing white and minority black entrepreneurs in the US. Lukes and Stephan's (2012) research compares the motivational profiles of social and commercial entrepreneurs and similarly suggests that both types of entrepreneurs can be described on the same dimensions of motivation. Research on student samples was rare, but similarly suggested that the 7 dimensions are sufficient to describe entrepreneurial motivation (e.g., Friedman et al. 2012; Giacomin et al. 2011).

Future research faces a trade-off between on the one hand, questionnaires that include up to 25 questions to capture entrepreneurial motivation in depth and with great reliability, and on the other hand, response lists of items that are short but may not be understood by all respondents in similar ways.

Despite the abundant research on dimensions of entrepreneurial motivation, research profiling entrepreneurs on combinations of these dimensions is scarce. Jayawarna et al. (2011) present such a profile approach also taking resources and firm strategies into account. Thus, in addition to investigating relevant dimensions of entrepreneurial motivation,



their combinations can also yield important insights.

3.3 Growth ambitions

Growth ambitions or intentions to grow one's business are typically measured as a forecast about the future size of the business in terms of number of employees and sales. A recent meta-analytic review summarizes the literature on entrepreneurial growth ambitions (Levie & Autio 2013) suggest that forecasts of the future business size should be differentiated from intentions, that is, where the entrepreneurs states a preference for growth and growth plans.

A total of 17 studies (33% of studies) in the review investigated entrepreneurs' growth motivations. They measure growth ambitions as:

- preferences for optimal firm size in PSED studies ("Which of the following two statements best describes your preference for the future size of this (new) business: I want this (new) business to be as large as possible, or I want a size I can manage myself or with a few key employees?" (Edelman et al. 2010; Reynolds & Curtin 2008)):
- the national rate of early-stage entrepreneurship (both nascent and new entrepreneurs who are operating for less than 3.5 years) that expect to create at least six or 20 jobs in the next 5 years (Hessels et al. 2008, using GEM data) or the national rate as the proportion of high-growth start-ups (expecting to create at least 20 jobs in the next 5 years) relative to all start-ups (Bowen & De Clercq 2008);
- the individual's expectation of the level of employment in 5 years' time (Hart et al. 2010, using GEM data), the same expectation relative to the number of current employees (Estrin, Korosteleva, et al. 2013, using GEM data), and the level of future sales in 5 years' time relative to current sales (Delmar & Wiklund 2008).
- an index made up of five question was used in one report including preferences for growth and intended firm size in terms of both employees and sales (Allinson et al. 2013).⁴

Of the two qualitative studies one defined growth ambition in terms of creating well-paid, high quality jobs in the region (Hayter 2011), the other one used entrepreneurs own definitions of growth, which varied and included both employment as well as sales growth (Hansen & Hamilton 2011).

Summary, Critique & Recommendations for Future Research

The impact of these different measures of growth ambitions is unclear, yet Levie and Autio (2013) report a positive effect of growth ambitions on subsequent growth across 13 longitudinal studies using different measures.



3.4 Relationships among different motivations

Only a few studies investigate relationships among the different motivations, with an emphasis on entrepreneurial motivation in relation to growth ambitions.

Studies relating aspects of opportunity and necessity motivation to growth ambitions conclude that wealth-seeking links to growth ambitions, while seeking independence and autonomy does not (Levie & Autio 2013). This pattern seems to hold both on the individual-level and for studies examining the prevalence of entrepreneurial motivation across countries. An example of the latter is Hessels et al. (2008) study, which finds that growth ambition is negatively related to the rate of necessity entrepreneurs and independence-motivated entrepreneurs, but positively related to the level of entrepreneurs motivated to increase one's income. A report by the Center for High-Impact Entrepreneurship (2011) underlines this link between income-generation motivation and growth ambition (based on GEM data pooled over multiple years and countries). However, this report also suggests that there may be a positive link between independencemotivated entrepreneurship and growth ambitions in high-income countries. Presumably, entrepreneurs in high-income countries associate larger businesses with greater possibilities to enjoy their autonomy. Yet there report is largely descriptive and does not control for potential confounding factors (Center for High-Impact Entrepreneurship 2011).

On the individual-level, Reynolds and Curtin (2008) report similar positive associations between opportunity motivation and growth ambitions, and negatively associations between necessity motivation and growth ambitions. They similarly link growth ambitions to wealth-seeking, but also to achievement motivations. Despite these associations, seeking independence and autonomy is still the most important motivation proclaimed in the group of nascent entrepreneurs most likely to create high-impact, growth-oriented businesses, followed in importance by wealth-creation.

In the U.S., Edelman et al. (2010) find the link between wealth-increase motivation and growth ambitions only for nascent entrepreneurs from a white racial background, but not for black nascent entrepreneurs. They also report a positive association of achievement motivation (i.e. motivation to innovate and learn) with growth motivations for both groups of entrepreneurs. Surveying a sample of UK entrepreneurs residing in deprived areas, Jayawarna et al. (2011) similarly finds growth ambitions linked to achievement/learning motivation. They also confirm the link between financial, wealth-increase motivation and growth ambitions. However, they also find this group to have only a moderate determination to stay in business, and show relatively poor business performance. Reluctant, necessity-motivated entrepreneurs show the lowest growth ambitions in their sample.

Beyond growth ambitions, Tyszka et al. (2011) highlight significant



differences in the underlying characteristics of necessity and opportunity motivated entrepreneurs in Poland. Opportunity entrepreneurs attached far less importance to job security, whilst necessity-driven entrepreneurs were similar to wage-earners with regard to their desire for job security and time for themselves and family.

Summary, Critique & Recommendations for Future Research

The links across the different motivation typologies (opportunity-necessity, dimensions of motivation and growth ambitions) have received only scarce attention to date. Given the diversity of entrepreneurial motivation, it would be useful to gain further insights under which conditions different types of entrepreneurial motivations link with growth ambitions.

Furthermore, Jaywarna et al.'s (2011) findings suggest that the growth ambitions of wealth-motivated entrepreneurs could be born out of their poor business performance - a so-called deprivation effect where individuals increase the importance they attach to goals that are particularly difficult to attain for them. Hessels et al. (2008) suggest similar relationships at the country level (see chapter 4 and 5 for more detail). These studies indicate a need to better understand the individual and contextual drivers behind growth motivations (see chapters 4 and 5).

The positive link between wealth-motivated entrepreneurship and growth ambition does not seem to bode well for enhancing business growth in developed economies such as the UK, where independence-motivation is a key driver of entrepreneurial activity, neither is this good news when it comes to the scaling up of social entrepreneurs. Social entrepreneurs show characteristically low wealth-seeking motivations (Lukes & Stephan, 2012). Taken together, this calls for future research investigating how growth may be framed to raise ambitions among other than the wealth-seeking entrepreneurs.



4. Individual drivers of entrepreneurial motivation

Individual drivers of entrepreneurial motivation refer to factors related to the entrepreneur and his/her business such as their socio-demographic profile, personality and their ability to access resources. This section explores the impact of these factors on the type of entrepreneurial motivation.

4.1 Gender

Summary: Past studies repeatedly show that women are less likely to start a business (Bosma et al. 2011; Verheul et al. 2010; Reynolds & Curtin 2008). The findings reviewed in this section suggest that women start businesses for somewhat different reasons than their male counterparts. Autonomy/flexibility and social motives play, relatively speaking, a greater role for women than for men. Evidence on growth ambitions is more mixed.

Opportunity-necessity motivation

With regard to the opportunity-necessity motivation distinction, descriptive findings suggest that women are more likely to necessity entrepreneurs in a range of countries including the UK (e.g., Bosma et al. 2011). However, other research that controls for a range of other socio-demographic characteristics does not find gender to be differently related to opportunity-necessity motivation (Block & Sandner 2009; Verheul et al. 2010).

Multi-dimensional motivations

Studying Northern Irish female entrepreneurs McGowan et al. (2012) identify family needs as an important driver of female entrepreneurial motivation. In particular, the autonomy and flexibility of work associated with enterprise ownership is seen as a motivational factor. At the same time, the overall high time demands, associated feelings of guilt towards the family and childcare issues are described as lowering female motivation to create their own enterprise.

Jayawarna et al. (2011) report similar findings with regard to autonomy and flexibility which seems to be a particular driver for entrepreneurial engagement amongst working class young white mothers in the UK. Reynolds and Curtin (2008) report related findings for the U.S. in the PSED I and II studies. They find that women put slightly less emphasis on achievement, income/wealth and reputation motives but a slightly greater emphasis on autonomy and flexibility.

By contrast, in the African context, Benzing and Chu (2009) found that female entrepreneurs reported stronger financial motivations (to increase income) than their male counterparts. Female entrepreneurs also reported lower motivation to demonstrate competence (prove that I can do it) and to build a business that they can pass on compared to male entrepreneurs.



A few studies indicate a relationship of gender with **socially-oriented entrepreneurship**. In a multi-level study across 47 countries and controlling for differences in national context, Estrin, Mickiewicz, et al. (2013) find that women are less likely to engage in either commercial or social entrepreneurship but that relatively speaking women are more likely to engage in social compared to commercial entrepreneurship. Levie and Hart 2011 also find that women are more likely to engage in social compared to commercial entrepreneurship. Surveying UK entrepreneurs residing in deprived areas, Jayawarna et al. (2011) suggest that older more educated women are more likely to purse entrepreneurship out of motivations to give back to the community. In a study of German commercial entrepreneurs, Dej et al. find similarly that female commercial entrepreneurs attach more importance to community impact than their male counterparts (Dej et al. 2012).

Hirschi and Fischer assess the impact of work values on entrepreneurial intentions, controlling for gender (Hirschi & Fischer 2013). Based on their sample of German university students, they argue a possible tendency by women to consider entrepreneurship as a way to do good rather than just self-fulfilment.

Growth ambitions

Levie and Autio (2013) found no consistent relationship of gender with growth ambitions in their meta-analysis of 13 studies. This contrasts with descriptive findings (e.g., Reynolds & Curtin 2008) and findings by Estrin, Korosteleva, et al. (2013). Estrin et al. use GEM data for 42 countries and find that women are less likely to report growth ambitions, controlling for a range of individual-level characteristics and differences in national context

Analysing UK data and controlling for the fact that women are less likely to start businesses, Hart et al. (2010) find an interactive effect of gender and resources. Women appear to be more cautious than men and need to have more resources (start-up capital) available to develop the same level of growth ambition than men.

4.2 Education

Summary: There is some evidence for a positive effect of education on opportunity-, necessity- and socially-motivated entrepreneurship as well as growth ambitions. However, overall the effect of education on entrepreneurial motivation is complex association and also contingent on gender and age.

Opportunity-necessity motivation

Verheul et al. (2010) find a positive effect of education on both opportunity and necessity entrepreneurship, although the education effect is even



larger for the mixed opportunity-necessity motivation category of entrepreneurs. They use EUFB data and control for other socio-demographic as well as institutional characteristics.

Multi-dimensional motivations

Surveying UK entrepreneurs residing in deprived areas, Jayawarna et al. (2011) suggest that education is positively related to older men seeking recognition through entrepreneurship, whilst mid-life educated men are more likely to seek achievement and learning through entrepreneurship.

Older educated women are more likely to pursue socially oriented entrepreneurship (Jayawarna et al. 2011). Higher education was also positively related to pursing social entrepreneurship in a multi-level crossnational study (Estrin, Mickiewicz, et al. 2013) and in a large UK study (Levie & Hart 2011), both based on the GEM 2009 data.

Growth ambitions

Levie and Autio (2013) confirmed a significant but small positive impact of education level on growth intention in their review of 13 studies. These are findings that Estrin, Korosteleva, et al. (2013) confirm in their multi-level study of 42 countries.

4.3 Age

Summary: Necessity entrepreneurs are somewhat older than opportunity-motivated entrepreneurs, and age is also related to other motivations although those relationships are also contingent on gender. There appears to be no systematic relationship between age and growth ambitions.

Opportunity-necessity motivation

In a longitudinal study in Germany, Block and Sandner (2009) find a negative relationship of age with opportunity as opposed to necessity motivation, i.e. necessity entrepreneurs are somewhat older than opportunity entrepreneurs. Verheul et al. (2010) replicate this finding in their study using EUFB data and also controlling for other sociodemographic as well as institutional characteristics.

In a study of Finnish entrepreneurs, who were predominantly new business owners, Kautonen (2008) finds that amongst the group of so-called "thirdage" entrepreneurs (aged 50-64 years) the dominant motivation was clearly opportunity-based, only 10% mentioned necessity-related motivations. This group of "third age" entrepreneurs did not differ from the prime-age group (aged 20-49 years) with regard to necessity motivation. There were slight differences regarding opportunity-motivated entrepreneurship, which depended on whether or not third-age entrepreneurs were also serial entrepreneurs.



Multi-dimensional motivations

Surveying UK entrepreneurs residing in deprived areas, Jayawarna et al. (2011) find young female entrepreneurs to be more likely to be reluctant and convenience entrepreneurs (akin to necessity motivation and flexibility/autonomy-motivation respectively). Young male entrepreneurs are more likely to be financially-motivated. Older entrepreneurs by contrast are more likely to seek fulfilment of social motives if female, and of achievement/learning and reputation motives if male. By contrast, a crossnational, multi-level study finds that middle-aged individuals are most likely to be either nascent social or commercial entrepreneurs controlling for a range of alternative explanations (Estrin, Mickiewicz, et al. 2013).

Growth ambitions

Levie and Autio (2013) found no systematic relationship of age with growth ambitions in their review of 13 studies, while Estrin, Korestelova et al. (2013) report a negative relationship in their multi-level cross-country study.

4.4 Racial and ethnic background

Summary: Evidence linking racial and ethnic background to entrepreneurs' motivation is scarce and too limited to draw general conclusions. Two studies suggests the importance of differentiating between mobility and ethnicity (Levie & Hart 2011; Levie & Hart 2013).

Opportunity-necessity motivation

No studies

Multi-dimensional motivations

Surveying UK entrepreneurs residing in deprived areas Jayawarna et al. (2011) report that ethnic minority entrepreneurs compared to white entrepreneurs were more likely to express achievement- & learning-related and reputation related motivations (particularly male entrepreneurs) and socially-oriented motivations (particularly female entrepreneurs).

Using the PSED II data, Edelman et al. (2010) compared nascent entrepreneur with white and black racial backgrounds with regard to start-up motivation and success. They find no racial differences in the motivations to start a firm (including independence, self-realization, financial success, roles & family, innovation and recognition).

Analysing UK GEM data, Levie and Hart (2011) find that the likelihood of being a social compared to a commercial early-stage entrepreneur is higher for in-migrants into a local area, whilst it is lower for individuals from an ethnic minority background (compared to being from a British White background).



Growth ambitions

Using the PSED II data, Edelman et al. (2010) found differences in growth ambitions, which were lower amongst black entrepreneurs and only linked to their level of achievement motivation (i.e. motivation to innovate and learn). For white entrepreneurs, growth ambitions were linked to both achievement motivation and wealth-increase motivation.

Analysing UK GEM data, Levie and Hart (2013) highlight that it is important to differentiate between mobility and ethnicity. They find that UK-born regional in-migrants as well as immigrants are more likely to be early-stage entrepreneurs with high growth ambitions compared to life-long residents. By contrast, they do not find any effect on growth ambitions across the fifteen different ethnic minorities and being White British.

4.5 Personality differences

Summary: The personality traits and values investigated in the studies reviewed in this section are highly diverse and make it difficult to draw more general conclusions.

Opportunity-necessity motivation

Verheul et al. (2010) find no effect of risk aversion for the likelihood of opportunity and necessity-motivated individuals to take first steps towards setting up a business, whilst they find opportunity, necessity and mixed opportunity-necessity motivated entrepreneurs to be similarly tolerant of risk. Verheul et al. (2010) use EUFB data and control for other sociodemographic as well as institutional characteristics.

Multi-dimensional motivations

In a study of Dutch entrepreneurs, Gorgievski et al. (2011) find that the entrepreneurs' motivations for their business were broadly consistent with the personal values that they held. Values are stable and important life goals that influence individuals thinking, how they make important decisions and behaviour (e.g., Bardi & Schwartz 2003). Entrepreneurs driven by self-interest values emphasize traditional business-oriented success criteria including growth, innovation, profitability and longevity of the business. Entrepreneurs who hold strong social values are motivated by having satisfied business stakeholders and a good work-life balance. Entrepreneurs who are open to change emphasize personal satisfaction and those entrepreneurs who hold conservative values emphasize public recognition, but also contributing back to society and they are motivated by running a business that provides an important service/product and is useful to society.



Growth ambitions

In their review of 13 studies Levie and Autio (2013) conclude that the personality characteristics of risk-taking, need for achievement and innovativeness have small but robust effects on growth ambitions. They report that the effects for self-efficacy beliefs are more mixed, although a recent multi-level study finds positive effects on growth motivations (Autio et al. 2013).

4.6 Resources

Summary: Evidence on how resources may impact motivations is scarce and mixed, with two studies suggesting intriguing links of resource-scarcity to wealth and financial motivations. The effects of resource availability on growth ambitions seem equally mixed for the individual-level, reviewed here, compared to effects of operating in resource-rich contexts (see section 5.1).

Opportunity-necessity motivation

In a longitudinal study in Germany, Block and Sandner (2009) find household income to be positively related to opportunity as opposed to necessity motivation.

Multi-dimensional motivations

Jayawarna et al. (2011) findings suggest that lack of access to resources and poor business performance, arguably another indicator for low resources, are associated with necessity but also with financial/increase wealth motivation. They surveyed UK entrepreneurs residing in deprived areas. Dej et al. (2012) similarly find an association between the importance attributed to financial rewards and entrepreneurs' annual income.

A multi-level cross-national study links greater individual access to resources, as captured by being a business angel, equally to a greater propensity to be a social or commercial nascent entrepreneur (Estrin, Mickiewicz, et al. 2013).

Growth ambitions

Surveying UK entrepreneurs residing in deprived areas Jayawarna et al. (2011) suggest that poor business performance, arguably a proxy for low resources, is linked to growth ambitions. However, Estrin, Korosteleva, et al. (2013) find a positive relationship of access to resources, as captured by being a business angel, with growth ambitions in a cross-national, multilevel study that controls for national institutions and socio-demographic characteristics studies. Similarly, a Swedish longitudinal study finds a positive effect of previous business growth on growth ambitions which may



also be due to an underlying positive link of resources with growth ambitions (Delmar & Wiklund 2008).

The study by Hart et al. (2010) discussed in chapter 4.1 indicates that resources (start-up capital) have weaker effects on growth ambitions for female compared to male entrepreneurs.

4.7 Other drivers

A study of UK micro-businesses (0 to 9 employees), highlights that smaller businesses, particularly those who are sole owners and non-employers, especially lack ambition to grow their business (Allinson et al. 2013). Allison et al. (2013) report mainly descriptive findings, which suggest that especially this group of business owners may have somewhat skewed perceptions regarding the difficulties and obstacles related to growth. This group of entrepreneurs did not see themselves as "running a business", was happy with the current size of their business and was reluctant to take on the responsibility (for people and assets) involved with growing their business. This could indicate that they became self-employed to gain autonomy and independence which they may feel they risk giving up by growing their business and employing others.



5. Contextual drivers of entrepreneurial motivation

Contextual drivers of entrepreneurial motivation refer to impacts on motivation by regional and national characteristics including formal institutions (such as property rights and welfare systems), informal institutions/national culture, and other macro-economic variables. The latter include those related to recession such as unemployment or economic growth.

A number of descriptive reports evidence different prevalence rates of types of motivations across countries (Amway 2013; Center for High-Impact Entrepreneurship 2011; Bosma et al. 2011; DG-Enterprise 2012). Similarly, researchers who collected original data on multiple dimensions of motivations across countries often comment on country differences (Friedman et al. 2012; Giacomin et al. 2011; Benzing & Chu 2009). By contrast, this section focusses on studies that go beyond such descriptions of country differences. Studies reviewed below incorporate measures of contextual drivers and relate them to entrepreneurial motivation. Broadly, there are two types of studies: country-level studies which predict the prevalence of a certain motivational type in a country and multi-level studies that also control for individual-level characteristics.

5.1 National Wealth, Economic Growth and Resources

Summary: National wealth, typically measured as GDP per capita (in purchase power standards), is largely a descriptive variable, but is often used as proxy-indicator for the availability of resources to potential entrepreneurs. Similarly, the level of deprivation of a region is used to indicate the availability of opportunities and resources in a region (Williams & Williams 2012). We found no studies investigating direct impacts of economic recession or the level of unemployment on entrepreneurial motivations, however descriptive reports based on population-representative samples indicate that motivations may be sensitive to recession effects (Amway 2013; DG-Enterprise 2012). For instance, the Eurobarometer indicates a slight dampening of opportunity-related motives (e.g., achievement, autonomy) from 2009 compared to 2012 (DG-Enterprise 2012).

The studies reviewed below suggest that resource-poor contexts are related to necessity-motivated, increase-wealth opportunity-motivated and socially-motivated early-stage entrepreneurship, whilst independence-motivated entrepreneurship and growth ambitions tend to be more common in resource-rich context. Studies that do not differentiate between the two aspects of opportunity-motivation (increase-wealth vs. independence) tend to find no relationship with GDP. Yet the patterns are far from clear and based on a small number of studies. Collectively, they point to the importance of investigating more specific characteristics of context, that is, beyond GDP.



Opportunity-necessity motivation

Mirroring the pattern of resource-effects of at the individual level, resource scarce national environments were associated with higher levels of increase-wealth opportunity entrepreneurship and necessity-motivated entrepreneurship (i.e. GDP was negatively related to both entrepreneurial motivations) in a study across 36 countries (Hessels et al. 2008). Amorós et al. (2009) replicate the results with regard to necessity-motivated entrepreneurship in a study across 50 countries, and Terjesen and Amorós (2010) for female necessity-entrepreneurship rates in their study of 13 Latin American countries.

McMullen et al. (2008) similarly report negative relations of GDP for both the rate of opportunity and necessity entrepreneurship in a study across 37 countries. The negative relationship for opportunity entrepreneurship in McMullen et al's study may be due to the fact that they could not differentiate between increase-wealth and independence-motivated opportunity entrepreneurship, for which Hessels et al (2008) report different relationships with GDP. In a more restricted sample of 13 Latin American countries, Terjesen and Amorós (2010) find no relationship of GDP with female opportunity-entrepreneurship rates.

Furthermore, Hessels et al. (2008) found that changes in resource-levels (i.e. GDP growth) were positively related to increase-wealth opportunity entrepreneurship but not to necessity entrepreneurship. Independence-motivated entrepreneurship, by contrast, seemed to benefit from resource-rich national environments and was positively related to GDP, but negatively to GDP growth. In contrast, Stephan and Uhlaner (2010) find no relationship between GDP and independence-motivated opportunity entrepreneurship analyzing data across 40 countries.

Relationships similar to those reported by Hessels et al. (2008) between GDP and the prevalence of necessity-motivated and independence-motivated entrepreneurship are also found in more descriptive studies (Amway 2013; Bosma et al. 2011).

In their study across 50 countries, Amorós et al. (2009) further examine the variability of necessity entrepreneurship over time. They observe substantial variation over time in a country's necessity entrepreneurship rate particular in lower and middle-income countries, which they also relate to institutional quality (see next section).

Multi-dimensional motivations

Williams and Williams (2012) applied motivation typologies beyond the opportunity-necessity distinction in a qualitative study of entrepreneurial motivation in deprived English neighbourhoods. They find that most



entrepreneurs report multiple motivations simultaneously including, for example, independence, financial motives, achievement/challenge, no better choices for work, dissatisfaction. Williams and Williams (2012) particularly challenge the simplistic link of necessity motivation with economic deprivation. In particular, they suggest that although locality impacts motivation, motivations are not fixed and evolve over time. They cite examples of from their in-depth interviews of entrepreneurs starting out of necessity and lack of better employment options, who subsequently – through learning on the job and positive feedback – came to develop opportunity motivations. Similarly, a study conducted on Hispanic immigrants in the Las Vegas (US) region found that despite their economically disadvantaged position, the majority of Hispanic immigrant entrepreneurs cited a range of opportunity-related motivations rather than necessity-related motives as their main motivational driver (Shinnar & Young 2008).

Fernández-Serrano and Romero (2012) compare low and high income Spanish regions with regard to types of motivations endorsed by entrepreneurs in these regions and controlling for a range of confounding factors. They find that autonomy/independence motivation and family-business-related motivation are less prevalent among small business entrepreneurs in low-income, deprived regions compared to affluent regions; whilst the pattern for necessity motivations (escape from unemployment and need to add to family income) is the opposite.

Studies investigating multi-dimensional motivations across countries are rare, they are likely constraint by the lack of available data. In their study across 47 countries, Estrin, Mickiewicz, et al. (2013) find a negative impact of GDP on social entrepreneurship. Levie and Hart (2011a) paint a more differentiated picture relating social entrepreneurship to a multidimensional measure of deprivation across the UK. They find that the likelihood of being a social compared to a commercial entrepreneur increases with the level of deprivation in the community. However it decreases again at the highest level of deprivation, presumably because these areas also have the least developed levels of civil society and lack support for any type of community engagement.

Growth motivation

In their 36 country study, Hessels et al. (2008) find a positive weak relationship of GDP and GDP growth with high-growth aspirations (creating at least 20 jobs in 5 years' time), which does not hold for more modest growth aspirations (creating at least 5 jobs in 5 years' time). By contrast, Estrin, Korosteleva, et al. (2013) find a negative effect of country GDP on individual growth aspirations controlling for both country-level and individual-level alternative explanations. Other studies similarly find no clear effects for GDP (as reviewed by Levie & Autio, 2013), thus suggesting that there may not be a straightforward effect of GDP on growth aspirations. Its effect appears to depend on the study design, the measure



of growth aspirations (see section 3.3), and in particular on the inclusion of relevant institutional variables.

Bowen and De Clercq include more specific resource-indicators in their study and find that the availability of financial and human capital in a country is linked to a higher share of high-growth motivated start-ups in that country (Bowen & De Clercq 2008).

5.2 Formal institutions

Summary: The effect of government intervention (including welfare spending and regulation) on opportunity-necessity motivated entrepreneurship is conflicting. Verheul et al.'s (2010) study suggests that this may be because government intervention may have specific effects on entrepreneurial motivation in conjunction with other national institutions. For growth-motivation, the effects of greater government intervention appear to be negative, presumably because the welfare state provides other, easier income options and more regulation deters growth motivation.

With regard to broad institutional quality, including government effectiveness, the rule of law and the protection of property rights, the findings are mixed. Some results suggest positive effects of elements of the rule of law and property rights on opportunity entrepreneurship and negative effects on necessity entrepreneurship. However, the diversity in measures of institutions, entrepreneurship and samples of countries make it difficult to draw definite conclusions. However, entrepreneurs seem to develop stronger growth aspirations in countries with a stronger rule of law, presumably because this will allow them to appropriate the returns from their activity but also because a strong rule of law increases predictability and lowers transaction costs (e.g., Estrin, Korosteleva, et al. 2013).

Opportunity-necessity motivation

Hessels et al. (2008) report that higher levels of social welfare provision are positively related to the rate of necessity-motivated entrepreneurship and negatively related to the rate of independence-opportunity motivated entrepreneurship across 36 countries.

Verheul et al. (2010) classify countries according to their institutional systems primarily based on the configuration of their welfare state (based on Esping-Andersen 1999) and find a more differentiated picture than Hessels et al.. Independent of institutional system entrepreneurs were predominantly motivated by opportunity compared to necessity or mixed opportunity-necessity motivation. Verheul et al. (2010) report that individuals in Anglo-Saxon countries are more likely to take steps toward creating a business compared to all other countries and this holds for all three motivations (necessity, opportunity and mixed opportunity-necessity). When it comes to the level of entrepreneurs as owners of operating businesses, Verheul et al (2010) find that Scandinavians compared to



Anglo-Saxons were more likely to be involved in opportunity-motivated and mixed-motivated entrepreneurship than in necessity-based entrepreneurial activity. Entrepreneurs in post-communist European countries were more likely to be necessity motivated or report a mixed opportunity-necessity motives than opportunity motivation – again compared to Anglo-Saxon countries. Similarly, entrepreneurs in Southern European and post-communist countries were more likely to be necessity motivated than opportunity-motivated compared to entrepreneurs in Anglo-Saxon countries.

Beyond welfare-state aspects, three studies investigate a cluster of formal institutions relating broadly to government effectiveness, the rule of law and the protection of property rights. In their study across 37 countries, McMullen et al. (2008) analyze indicators of institutional quality taken from the Freedom House database. They find that stronger property-rights protection impacts positively on opportunity-motivated entrepreneurship, but has no effect on necessity-entrepreneurship. The latter is, however, positively associated with lower taxation rates and monetary policies that enforce free markets. The prevalence of both opportunity and necessity entrepreneurship is higher in countries with higher labor freedom, that is, countries which implement fewer controls on prices for goods and labor.

In a sample of 13 Latin American countries, Terjesen and Amorós (2010) analyze the how countries scores on the Global Competitiveness Report, a very broad measure of institutional quality supporting markets and businesses, relate to female opportunity and necessity entrepreneurship. They find a negative relationship with the rate of female opportunity entrepreneurship and no relationship with female necessity entrepreneurship.

In their study across 50 countries, Amorós et al. (2009) found that countries with more effective governments and higher levels of entrepreneurship education, show less variability of necessity entrepreneurship over time. They suggest that a reduction in the variability, or volatility, of entrepreneurship rates is desirable and that higher-quality institutions, in the form of effective government and entrepreneurship education can help achieve this.

Multi-dimensional motivations

Studies investigating multi-dimensional motivations across countries are rare as they are constrained by the lack of available data. In their study across 47 countries, Estrin, Mickiewicz, et al. (2013) find a negative impact of government spending on nascent social entrepreneurship – although that effect is somewhat weaker than for nascent commercial entrepreneurship. Institutional quality had a similarly positive effect on nascent social and commercial entrepreneurship.



Growth motivation

Most studies report that higher levels of social welfare provision, social contributions or more generally government involvement dampen entrepreneurs' growth aspirations (Levie & Autio 2013; Hessels et al. 2008; Estrin, Korosteleva, et al. 2013).

Bowen and De Clercq (2008) find no evidence that regulatory protection and regulatory complexity impact the share of high-growth motivated start-ups in that country. However, subsequent research as summarized by Levie and Auto (2013) indicates that greater regulatory protection and stronger rule of law are associated with the prevalence of high-growth motivated entrepreneurs (also Estrin, Korosteleva, et al. 2013). They also report a robust relationship across studies that shows a negative effect of the regulatory burden and complexity on high growth motivated entrepreneurship, and point to interactive effects of rule of law and regulatory burden (Levie & Autio 2013).

5.3 Culture/ Informal Institutions

Summary: The few studies reviewed below suggest that independence-motivated and growth-motivated entrepreneurs thrive in cultures in which social relationships are important. There is also a strong facilitating effect of low levels of corruption for growth motivated entrepreneurship.

Opportunity-necessity motivation

In their study of 38 countries, Hechavarria and Reynolds (2009) find that both rates of opportunity and necessity motivated nascent entrepreneurship are higher in traditional as opposed to secular cultures. They also find a positive association of self-expression (as opposed to survival values) with the rates of opportunity motivated nascent entrepreneurs.

Stephan and Uhlaner (2010) and Autio et al. (2013) find positive effects of socially supportive cultures, an indicator of social capital, on independence-motivated opportunity entrepreneurship. They study 40 and 42 countries respectively with different statistical methodology.

Multi-dimensional motivations

No studies

Growth motivation

Autio et al. (2013) find a positive link of institutional and in-group collectivism with individual growth aspirations in their multi-level study across 42 countries. Two studies, each drawing on over 40 countries using



different measures of growth aspirations, report that corruption discourages growth aspirations (Bowen & De Clercq 2008; Estrin, Korosteleva, et al. 2013).



6. Consequences of entrepreneurial motivation

The evidence reviewed in this section highlights that motivations are important for firm performance (Jayawarna et al. 2011; Levie & Autio 2013; Bradley et al. 2011), for investments that entrepreneurs make in their businesses (Dunkelberg et al. 2013; Jayawarna et al. 2011), for their satisfaction with their business (Block & Koellinger 2009), and for how they exit from entrepreneurship (Zwan & Hessels 2013). Motivations also impact whether starting entrepreneurs manage to turn their efforts into operative businesses (Renko 2013; Renko et al. 2012).

This evidence contrasts with early studies on entrepreneurial motivation which reported no links to firm performance (Birley & Westhead 1994) and thus suggested that entrepreneurial motivation may only be of limited interest to researchers and policy makers.

Opportunity-necessity motivation

In a longitudinal study of German entrepreneurs, Block and Sandner (2009) find that opportunity and necessity-motivated entrepreneurs stay similarly long in self-employment. Their analyses show, however, that this is only the case after controlling for selection effects. This suggests that opportunity entrepreneurs **survive longer as entrepreneurs** because they start with better human and financial capital compared to necessity entrepreneurs.

In their cross-sectional study of entrepreneurs participating in microcredit programs in developing countries, Bradley et al. (2011) link entrepreneurs' opportunity-necessity motivation to different pathways of achieving **employment growth**. Necessity-motivated entrepreneurs' achieve employment growth by relying on learned resourcefulness strategies, including behavioral resourcefulness (a set of problem-focused coping behaviors) and social resourcefulness (leveraging social relationships). By contrast, opportunity-motivated entrepreneurs achieved employment growth through innovation, and in doing so could rely to a greater extend on human capital acquired before starting their businesses. The latter finding, thus, partially re-replicates Block and Sandner's (2009) result that opportunity-entrepreneurs enter entrepreneurship with greater capital endowments than necessity-entrepreneurs.

Another cross-sectional study of a large sample of nascent entrepreneurs (Block & Koellinger 2009) suggests that opportunity and necessity entrepreneurs differ significantly with regard to how satisfied they are with their start-up. Opportunity entrepreneurs are more **satisfied with their business** than necessity entrepreneurs, even controlling for a range of alternative explanations such as achieved levels of income, flexibility, creativity, personality and other factors.



Van der Zwan and Hessels (2013) investigate how motivations relate to **entrepreneurial exit.** They compare data from 35 countries and remark that there appears to be some link between business failure and necessity entrepreneurs, whilst opportunity-motivated entrepreneurs appear more likely to exit through the sale of their venture.

Multi-dimensional motivations

Renko et al. (2012) and Renko (2013) link the initial start-up motivation to **firm emergence**. Using expectancy theory, they find that a range of start-up motivations positively relates to firm emergence through energizing entrepreneurs to expend effort (Renko et al. 2012). They found a particularly strong effect of financial motivations on effort. Renko (2013) identified social entrepreneurs in the PSED. Social compared to commercially oriented peers, social ventures were less likely to become operative businesses – especially if their product was deemed novel. These nascent entrepreneurs appear to face particularly difficult legitimacy challenges and are struggling to recruit, attract funding and secure sales.

Surveying UK entrepreneurs residing in deprived areas, Jayawarna et al. (2011) investigated motivation types and their links to **firm performance**. They found that reluctant entrepreneurs (necessity driven) display no or slow growth, just as convenience (seeking independence/flexibility) and social entrepreneurs do. Those identified as reputation-motivated entrepreneurs display moderate growth, whilst financially-driven entrepreneurs experience "relatively" high growth. Those described as achievement-oriented, learning and earning entrepreneurs report high growth.

Acs et al. (2013) suggest that different initial entrepreneurial motivations may not necessarily result in different **outcomes for society.** They conduct a comparative case study of Grameen Bank' Muhammad Yunnus and Microsoft' Bill Gates and conclude that these entrepreneurs were driven by opposite motives (social vs. financial), yet they both resulted in "highly innovative ventures (that) have created significant economic and social value".

Surveying US new business starters, Dunkelberg et al. (2013) investigate how motivational types may be linked to **investments into the firm**, comparing wealth-motivated entrepreneurs with those who were motivated by non-monetary goals (including achievement and independence motivation). Dunkelberg et al. (2013) observe that those with primarily non-monetary goals invest more of their own (and their family's) time and money in their firm. A UK study reports somewhat related findings, financially motivated entrepreneurs were described as impatient and making high debt investments, yet investing less of their own time (Jayawarna et al. 2011).





Growth ambitions

Synthesizing 13 longitudinal studies through meta-analyses, Levie and Autio (2013) conclude that growth ambitions are affecting subsequent **venture growth** (both employment and sales growth). Furthermore, there is some limited evidence that suggests high-growth motivation may be linked to export-orientation (Levie & Autio 2013).



7. Summary and Framework

This chapter provides a summary of all previous chapters.

The body of evidence (chapter 2). Our systematic search for empirical studies on entrepreneurial motivation published over the last five years (2008-2013) retrieved 51 relevant studies (filtered from over 1,200 search results). The evidence base is highly diverse with regard to the types of motivations investigated, samples (nascent, new, established and potential entrepreneurs) and the spectrum of countries in which studies were conducted, yet it shows convergence with regard to typologies of entrepreneurial motivation. This lets us believe that our findings with regard to motivation typologies are robust.

However, we have only weak evidence to date regarding the causality of effects regarding drivers and consequences of entrepreneurial motivation. All studies used a correlational as opposed to an experimental research design, mostly in the form of cross-sectional and sometimes longitudinal designs. This is problematic as some evidence indicates that entrepreneurial motivations may be susceptible to change over time, e.g., because entrepreneurs learn on the job, and due to retrospective bias (Cassar 2007; Williams & Williams 2012). Thus future research on drivers and consequences of entrepreneurial motivations should trace motivations over time in longitudinal, PSED-type studies to gain certainty about the direction of effects. Simultaneously, experimental research manipulating motivations in the lab, e.g. through priming studies, could advance our understanding on drivers and consequences of motivation.

Typologies of entrepreneurial motivation (chapter 3). This review revealed a need to go beyond the traditional differentiation of opportunity and necessity motivation. Entrepreneurs can be motivated by both opportunity and necessity, and these broad terms mask many important drivers of entrepreneur's behaviours and decisions. A breadth of studies now investigates motives beyond the simple binary typology of opportunity-necessity. Our review indicates that seven dimensions of entrepreneurial motivation are consistently identified across studies. These are:

- 1. Achievement, challenge & learning,
- 2. Independence & autonomy
- 3. Income security & financial success
- 4. Recognition & status
- 5. Family & roles
- 6. Dissatisfaction
- 7. Community & social motivations

Dimensions 5 to 7 are less often included in research, which suggests an oversight of motivations that are particularly significant to specific populations of entrepreneurs (e.g. female or minority entrepreneurs).



Growth ambitions are largely treated as a separate type of motivation in the studies reviewed here, but appear to be most closely linked to wealth-seeking and financial motivation. Given the diversity of motivations amongst entrepreneurs and the high importance that entrepreneurs place on independence, particularly in developed countries such as the UK, future research should investigate when and how entrepreneurs with motivations other than seeking wealth and financial returns develop growth ambitions. This is also pertinent with regard to social entrepreneurs and the scaling of the innovative solutions they may develop as their motivational profile appears to be particularly inconsistent with growth ambitions (given the low emphasis on personal financial returns).

We suggest that future research probes into motivation profiles and differentiates individual- from firm-level goals (e.g. personal financial success and firm growth). Research on motivational profiles would take into account a) the relative importance entrepreneurs ascribe to each aspect of motivation and b) that entrepreneur's motivation is multi-facetted and that certain combinations of motivations (e.g. achievement and financial success vs. achievement and social motivations) are likely to lead to different firm performance outcomes.

In contrast to the large number of studies investigating types of entrepreneurial motivation, research into individual and contextual drivers of entrepreneurial motivation and its consequences is relatively scarce.

Drivers of entrepreneurial motivation (chapters 4 and 5). We differentiated individual drivers of entrepreneurial motivation from contextual drivers. Individual drivers are factors related to the entrepreneur and his/her business, whilst contextual drivers refer to regional and national characteristics including macro-economic variables (GDP), formal institutions (such as welfare systems and property rights), and informal institutions/national culture.

Gender, education and age appear to have closely intertwined effects on entrepreneurial motivation, for example, some studies suggest that the effects of age and education on entrepreneurial motivation depend on gender. Nevertheless, most studies investigate the effects of gender, education and age in isolation. These suggest that women start businesses somewhat different reasons than their male counterparts. Autonomy/flexibility and social motives play, relatively speaking, a greater role for women than for men. Evidence on gender and growth ambitions is mixed. Education appears to have a positive effect on opportunity, necessity, social entrepreneurship and on growth ambitions. Necessity entrepreneurs tend to be somewhat older than opportunity-motivated entrepreneurs, and age is also related to other motivations although those relationships are also contingent on gender. There was no evidence for a systematic relationship between age and growth ambitions.

Evidence linking racial and ethnic background to entrepreneurs' motivation





is scarce and too limited to draw general conclusions. Two studies suggests the importance of differentiating between mobility and ethnicity (Levie & Hart 2011; Levie & Hart 2013). Similarly, only few studies investigated entrepreneurs' personality traits and values in relation to their motivation and these studies were highly diverse, making it difficult to draw more general conclusions.

Evidence on how resources may impact motivations is equally scarce and mixed at the individual-level. Two studies suggesting links of resource-scarcity to wealth and financial motivations. Evidence from country- and regional level studies is somewhat more consistent – although it is also only based on a relatively small number of studies. It indicates that resource-poor contexts are related to necessity-motivated, increase-wealth opportunity-motivated and socially-motivated early-stage entrepreneurship. Independence-motivated entrepreneurship and growth ambitions tend to be more common in resource-rich context.

We found no studies investigating direct impacts of economic recession or the level of unemployment on entrepreneurial motivations, although some descriptive findings suggest that motivations may be sensitive to recession effects.

The effect of government intervention (including a country's level of welfare spending and regulation) on opportunity- and necessity-motivated entrepreneurship is conflicting. For growth-motivation, the effects of greater government intervention appear to be negative, presumably because the welfare state provides other, easier income options and more regulation deters growth motivation.

With regard to broad institutional quality, including government effectiveness, the rule of law and the protection of property rights, the findings are mixed. Some results suggest positive effects of elements of the rule of law and property rights on opportunity entrepreneurship and negative effects on necessity entrepreneurship. However, the diversity in measures of institutions, entrepreneurship and samples of countries make it difficult to draw definite conclusions. By comparison, findings for growth ambitions are clearer, entrepreneurs develop stronger growth aspirations in countries with a stronger rule of law. Such institutions enable entrepreneurs to appropriate the returns from their activity, and a strong rule of law increases predictability and lowers transaction costs.

Only very few studies link informal institutions including national and regional culture to entrepreneurial motivation. These studies suggest that independence-motivated and growth-motivated entrepreneurs thrive in cultures in which social relationships are important (i.e. socially supportive and collectivist cultures). There is also a strong facilitation effect of low levels of corruption for growth motivated entrepreneurship.

Consequences of entrepreneurial motivations (chapter 6). Collectively,



the evidence reviewed in this report suggests that motivations are significant for our understanding of the process and outcomes of entrepreneurship. Research found links of motivations to entrepreneurs firms' performance, their investment behaviour, their success in turning start-up efforts into operative businesses, their satisfaction with their business, and for how they exist from entrepreneurship. This contrasts, with early studies on entrepreneurial motivation which reported no links to firm performance (Birley & Westhead 1994) and thus suggested that entrepreneurial motivation may only be of limited interest to researchers and policy makers.

Motivation in context. Although we focused on motivation in this report, it should be clear that enhancing motivations alone is not a useful route to generating more, or more high-quality entrepreneurs. Entrepreneurs' motivation is one factor alongside skill, education, other personality characteristics, firm and industry-characteristics that impacts the success of start-ups and the growth of businesses. Thus, entrepreneurial motivations should be seen in the context of other aspects of the entrepreneurial process and enablers in the entrepreneurs' environment.

Our results, furthermore, suggest that aspects of the wider and immediate context the entrepreneur operates in may indeed shape his/her motivation. One unexpected finding in this regard is the potential link between increase-wealth motivations and growth ambitions to low resource positions of the entrepreneur. Such findings indicate that we understand entrepreneurial motivations not as well as we think.

Figure 1 offers a **framework for future research** based on the review findings. We describe it moving from left to right through the figure.

Firstly, the framework suggests that motivation, that is the entrepreneur's willingness to expend effort to achieve certain goals that are important to him/her, is a function of his/her goals and the personal and market context that s/he faces, both of which may change over time. Take the example of a young mother on maternity leave from a well-paid managerial job. She has low opportunity costs and likely a good resource position and thus may decide to pursue a social project. By contrast, a young mother on leave from a poorly paid job may need to set up a home-based business to generate additional income for her family.

Secondly, the upper left-hand side incorporates the notion that motivation is multi-dimensional (indicated by the sub-divisions within each circle) and that personal motivations of the entrepreneur may or may not overlap with goals for the firm. The latter goals may be co-determined by co-owners and important resource providers (e.g., banks) or customers. Thus, as the double-headed arrows indicate there is room for goal conflicts between personal and firm goals. For example, the firm may need to grow and hire employees to be financial viable through economies of scale, yet this goal may conflict with the entrepreneurs' goal of achieving greater independence and autonomy through becoming an entrepreneur. Similarly,



there may be goal conflict arising amongst the multiple goals motivating entrepreneurial activity. That is the sub-divisions of each circle may be in conflict with each other. For example, fulfilling achievement motivations to experience challenge and learn new things through experimenting with new ways of doing business may conflict with goals around continuing a family tradition which may set boundaries on the type and scope of entrepreneurial activities.

Thirdly, the framework recognises that differences in motivation impact entrepreneurs" strategic decision and through this impact firm performance. This is in line with studies reviewed in chapter 6, which for instance highlight different propensities to innovate and differences in resource-acquisitions for necessity- and opportunity-motivated entrepreneurs. Again, we do not assume that motivation is the sole determinant of strategic decisions or firm performance, but that other personal, firm and market-related aspects will also be important.

Finally, the framework implies for researchers that if entrepreneur and firm goals are multi-dimensional in nature, perhaps firm performance measures should also be multidimensional. In part this echo's the call of social entrepreneurship researchers to consider social value creation next to economic value creation. Yet the implied multiple dimensions could be broader in correspondence with the typology of motivation and may include aspects such as entrepreneurs' satisfaction with autonomy achieved through being an entrepreneur next to more traditional criteria such as financial performance and venture growth.



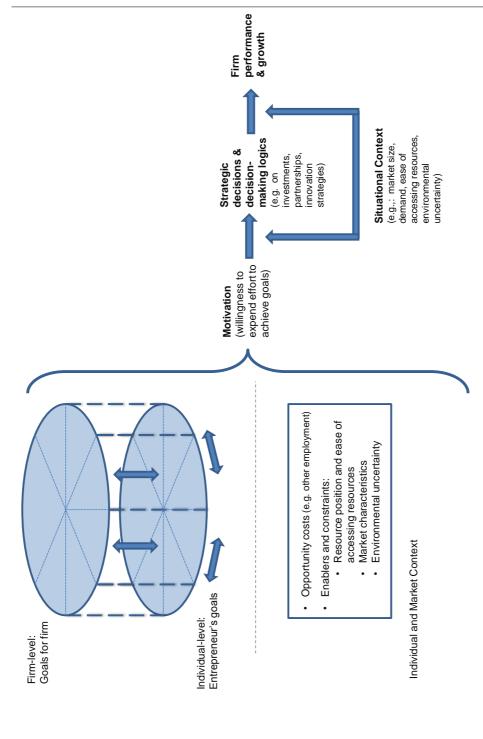


Figure 1: A Framework for Understanding Entrepreneurial Motivation



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Appendix 1: Studies included in the Review

This appendix contains the 51 references included in the literature review

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Appendix 2: Details on studies included in the review

Peer review is one indicator of the quality of studies and 82% of studies included in the review were peer reviewed the remainder were conference paper, working paper or practitioner reports. Given the length of the peer-review process and the potential bias towards positive findings that it can introduce, we deliberately included working papers and practitioner research.

With regards to sample type: The majority of studies investigated entrepreneurs (90%), the remaining studies investigated students or other groups of potential entrepreneurs (i.e. those with an expressed interest in becoming self-employed). Only few studies provided specifics with regard to the type of entrepreneur they were investigating, that is, whether they were nascent entrepreneurs currently in the process of setting up a business, new business-owner managers running businesses less than 3.5 years old or whether they were established business owners running business older than 3.5 years.

Eight studies were conducted in the US, seven in the UK, and four in Germany. A further 13 studies used multi-country samples in which developed countries were over-represented. The remainder were singular studies conducted in other countries (including Sweden, Spain, Kenya, Bangladesh, Turkey) or across up to four countries (e.g. in Africa).

In terms of research design, 82% of studies were cross-sectional, 18% used a longitudinal research design and one was a meta-analytic review of studies. Furthermore, 78% of studies employed a quantitative, 16% a qualitative research approach, and 4 percent combined quantitative and qualitative data. Qualitative studies were either based on in-depth interviews or case studies.



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employment, respectively.

In more detail, the keywords included word stems combined with wildcards for example "entrepreneur*", "self-employ*" such that the search equally retrieved studies on entrepreneurship and entrepreneurs, and self-employed and self-

- "Do you intend to grow the organisation over the next three years?",
- "Do you plan to grow the organisation by at least 20% over the next three years in terms of turnover?",
- "From your personal perspective, what is the ideal size of your business in the long term (beyond the next three years) in terms of turnover?" Significantly larger than its current size, no higher/ slightly larger than its current size,
- "How strongly as an individual do you desire business growth 10 now?" (rating scale 1– 10),
- "Do you have an ambition to grow the business beyond a point where it is able to provide you with what you would consider to be a reasonable income?"

We could not find any information regarding whether or not the combination of these items into one index is justified, for instance, whether or not the items show high correlations with each other (Allinson et al. 2013).

² In addition to the 27 EU member states, the Flash Eurobarometer on Entrepreneurship also includes the EEA states (Iceland, Norway and Switzerland) and ten further countries from around the world (Israel, Turkey, Brazil, Russia, the United States, China, India, Japan and South Korea), (http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/eurobarometer/).

 $^{^{3}}$ Based on own calculations and the 2009 GEM data across all 55 participating countries (N= 183,074).

⁴ The 5 questions are