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**Productive, Unproductive and Destructive Entrepreneurship:
A Theoretical and Empirical Exploration**

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Productive, Unproductive and Destructive Entrepreneurship: A Theoretical and Empirical Exploration¹

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Abstract

Drawing on Baumol's concepts of productive, unproductive and destructive entrepreneurship and relevant amendments, this thesis aims to contribute to the entrepreneurship literature by developing a conceptual framework which allows operationalising the concepts for empirical assessment. Furthermore, using data from longitudinal survey, author makes one of the first attempts to address the concepts empirically. The results provide with support for the conceptual framework highlighting the importance to shift the focus from firms' activities to output on both, venture and societal levels, short and long term, when concepts are addressed empirically. Overall findings suggest that productive entrepreneurs are those who are less involved in behaviour such as tax avoidance or illegal business and show a higher level of entrepreneurial orientation.

Key words: value creation; productive, unproductive and destructive entrepreneurship; transition context, small firms

JEL Codes: L260, E260, H260

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1. Introduction

Entrepreneurship can take various forms, and not everything labelled as ‘entrepreneurial’ is actually desirable (Baumol, 1990, 1993; Dallago, 1997). On the one hand, it is often emphasised that the main engine of entrepreneurial activity is profit as well as various forms of self-fulfilment. On the other hand, Baumol (1993) points out that if we define entrepreneurs simply as persons who are innovative in generating profits or in adding to their power and prestige, it cannot be expected that they will be concerned with how much or little the activities employed to achieve these goals will contribute to the net output of economy. In this context, a key question concerns the activities entrepreneurs pursue in order to create value, pointing to the necessity to distinguish between ‘positive’ and ‘negative’ activities and their output, or as argued by Baumol (1990, 1993), productive, unproductive and destructive entrepreneurship.

Several authors (e.g. Baumol, 1990, 1993; Dallago, 1997, 2000; Foss and Foss, 2002) have contributed to these concepts. Rent seeking in the form of litigation, lobbying, takeovers, tax evasion and avoidance efforts as well as ‘use of the legal system’; illegal and shadow activities, including drug dealing, prostitution, racketeering, blackmailing; and various forms of corruption are often mentioned among unproductive or destructive entrepreneurship activities. Job generation and innovativeness, if not used for rent seeking purposes, are mainly associated with a ‘productive value’ on societal and economy levels (e.g. Baumol, 1990, 1993; Foss and Foss, 2002; Dallago, 2000). According to entrepreneurship literature, however, there is no consensus on what determines productive, unproductive and destructive entrepreneurship on a conceptual level. The main reason for this is that in reality a few activities among, for example rent seeking, make absolutely no contributions to economy output (Davidsson and Wiklund, 2001; Davidsson, 2004).

Davidsson and Henrekson (2002:1) emphasise that productive entrepreneurship is an “... essential factor of the economic performance of a country.” The challenges in the conceptual framework, however, make empirical assessment of value creation rather ambitious. In the context of the above discussion, it is not surprising that little work has been done to empirically assess productive, unproductive and destructive entrepreneurship. This thesis aims to fill this gap.

The determinants of and potential influences on SMEs involvement in productive, unproductive and destructive entrepreneurship in this thesis are derived both from theory (e.g. Baumol, 1990, 1993; Davidsson, 2004; Warren, 2003; Wiklund and Shepherd, 2005) and existing empirical evidence from the studies exploring some important aspects of this issue (e.g. Aidis and Van Praag, 2007; Fadahunsi and Rosa, 2002; Wiklund and Shepherd, 2005; Sobel, 2006). More specifically, the following research questions are addressed by this thesis:

- What is meant by productive, unproductive and destructive entrepreneurship on a conceptual level?
- How can the concepts of productive, unproductive and destructive entrepreneurship be operationalised for empirical assessment?
- What types of activities do small firms pursue in order to create value on different levels?
- What are the outputs of the different types of entrepreneurial activities?

- What are the main factors influencing SMEs involvement in productive, unproductive and destructive entrepreneurship?

The context or environment in which firms operate, transforming the personal skills, qualities and ambitions of individuals in outputs, have been explored in literature as the framework within which entrepreneurial processes take place, thus highlighting the importance of environmental influence on the entrepreneurial processes as such (e.g. Smallbone and Welter, 2006). When it comes to conceptually and empirically addressing productive, unproductive and destructive entrepreneurship, *contextual influences should thus be considered*, as they shape not only the role of entrepreneurship and small firms but also their structure and performance (Karlsson and Dahlberg, 2003). In light of this discussion, according to entrepreneurship literature the *transition countries* of Central and Eastern Europe (CEE) and the former Soviet Union (FSU) seem particularly suited for a study on the influence of context on various entrepreneurship processes (e.g. Aidis, 2006; Aidis and Sauka, 2005; Smallbone and Welter, 2001).

Empirically this thesis draws on the interviews with SMEs² conducted in Latvia during 2005 and 2006. As argued by Aidis and Sauka (2006: 3): “Latvia provides an excellent example of a transition country that has successfully transformed its status from a centrally planned Soviet republic to a fast-growing, sovereign, market-oriented and democratic state. Latvia’s ability to implement the institutional and economic requirements for a market-based economy as well as its recent successful accession into the European Union positions it in the advanced stages of transition.”

In order to address the determinants of and influences on productive, unproductive and destructive entrepreneurship within an advanced transition setting, the following thesis structure has been developed. Followed by the introductory chapter, the second chapter deals with the development of a theoretical framework to be used for the scope of this thesis. The framework consists of seven theoretical constructs: SME output on micro and aggregate levels in various time frames, entrepreneurial behaviour and entrepreneurial orientation, goals and expectations as well as environmental influences on entrepreneurship processes. Drawing on this, the Chapter 2 continues with a review of previous empirical findings on the relationship between these concepts. This in turn results in the development of hypotheses and the introduction of a new theoretical framework for the assessment of productive, unproductive and destructive entrepreneurship.

Chapter 3³ further deals with methodology, revealing most of the empirical choices made for the thesis. Here, method and sample is discussed as well as concepts as introduced in the Chapter 3 are operationalised for the measurement. Chapter 4 continues by introducing the main empirical findings, representing one of the first attempts to address productive, unproductive and destructive entrepreneurship empirically. A hierarchical linear regression analysis is used to assess the determinants of and influences on SME involvement in productive, unproductive and destructive entrepreneurship within an advanced transition setting and to test whether a universal, contingency or configurational model best fits the data. In addition,

² Up to 250 employees.

³ Structure of the summary of the thesis is condensed to 4 chapters, although originally author uses 6 chapters in the thesis (e.g. chapter 2 and 3 as well as 3 and 4 are merged in one chapter here accordingly).

exploratory analysis is implemented to provide a more complete picture of the issue. Furthermore, among other issues, the main findings, contributions, and shortcomings of the study as well as implications and suggestions for further research on the topic are covered here.

2. Theoretical exploration of productive, unproductive and destructive entrepreneurship

2.1. Productive, unproductive and destructive entrepreneurship: conceptual review and empirical evidence

Analysing the determinants which influence the allocation of entrepreneurial inputs and the flow of entrepreneurial talent, and drawing on examples from economic history, Baumol (1990, 1993) distinguishes between productive, unproductive and destructive entrepreneurship activities. *Productive entrepreneurship* "... refers, simply, to any activity that contributes directly or indirectly to net output of the economy or to the capacity to produce additional output" Baumol (1993:30). For example, innovation can be perceived as a productive contribution from entrepreneurs, financial activities which facilitate production, or any activities which contribute to producing goods and services (Baumol, 1993). Foss and Foss (2002) add to this by introducing the element of new discovery, referring to 'productive entrepreneurship' as the discovery of new attributes, opportunities, procedures and the like, where the discovery leads to an increase in joint surplus.

A key idea in defining *unproductive and destructive entrepreneurship* is that not everything that is entrepreneurial is necessarily desirable. Often, an entrepreneur makes no productive contribution to the real output of an economy, and in some cases even plays a destructive role Baumol (1990). This happens when the structure of payoffs in an economy is such as to render unproductive activities such as rent seeking more profitable than productive activities Baumol (1993). In this light, Baumol argues that the allocation of resources to either productive or unproductive use varies across societies. Weak and unstable formal institutions Baumol (1990) as well as norms and societal values (Welter and Smallbone, 2004) might foster unproductive entrepreneurship. Dallago (2000), however, emphasises the importance of social capital in order to produce a social basis for trust, reputation and relational contracts, pointing out that this does not suffice to explain the allocation of these factors to productive use, but that it is essential to have a 'proper economic system'.

Unproductive and destructive entrepreneurship can take many forms (Baumol, 1990, 1993; Dallago, 1997, 2000). These include, but are not limited to, rent seeking, illegal activities and shadow activities, and different forms of corruption. Baumol (1993:51) refers to rent seeking as the "expenditure of resources in (deliberate) pursuit of economic rents by means that do not (automatically) contravene the accepted rules of society". Various forms and types of rent seeking can be distinguished such as litigation, takeovers, tax evasion and avoidance efforts or acquiring a monopoly as well as a different use of the legal system; and rent-seeking seems to constitute the prime threat to productive entrepreneurship (Baumol, 1993).

Illegal entrepreneurship activities and involvement in and '*informal*' economy are mostly associated with activities such as the production and distribution of illegal drugs, racketeering and blackmail. In this context, productive activity is seen as a legal, registered business. Although likely to be profitable, illegal or informal types of

entrepreneurial behaviour are seen as unproductive because little, if any, value is added to the economy and society (Baumol, 1993). Moreover, these activities contravene the legal and normative framework of a society. According to entrepreneurship literature, illegal entrepreneurial behaviour will have a destructive role in an economy in the cases when these activities attract followers (Baumol, 1990).

Further, in the definition of unproductive activity, Baumol (1993) also includes undertakings related to production in all cases of *governmental intervention* in the productive process- regulation. Examples include the granting of exclusive licences, or the enactment of laws by which the productive process is affected directly or through litigation. Overall, however, although there appears to be no lack of suggestions, no consensus on the question of which activities can actually be regarded as productive, unproductive or destructive exists (Sauka and Welter, 2007). The key challenge here is that in practice there are only a few genuine ‘unproductive entrepreneurship activities’ (Davidsson and Wiklund, 2001; Davidsson, 2004). As argued by Baumol (1993) himself activities tainted by, for example, rent seeking, cannot in every case be regarded as unproductive. Moreover, in relation to a transition context, several empirical studies show that legal and illegal activities coexist and most new and small firms are actually involved both in productive and rent seeking activities at the same time (e.g. Glinkina, 2003; Los, 1992; Rehn and Taalas, 2004; Scase, 2003; Smallbone and Welter, 2001). In this light, especially in early transition conditions when the legislation and rules are not yet in place, rent seeking activities such as tax avoidance can well be necessary to ensure the survival and growth of the enterprise, thus making at least some contributions to economic development (Smallbone and Welter, 2006).

2.2. Activities and value creation: a general framework

Analysing the link between activities and SME output, Davidsson and Wiklund (2001) draw attention to the output of legal, illegal, informal, formal, rent seeking and other types of activities emphasized by empirical studies, distinguishing between output on venture and societal levels. According to Davidsson and Wiklund (2001), output from these activities results in four types of enterprises: ‘hero’ or ‘success enterprises’, ‘robber’ or ‘re-distributive enterprises’, ‘catalyst’ and ‘failed enterprises’. The authors argue that entrepreneurship researchers often seem to oversimplify with the assumption that micro- level outcomes can be directly translated to an aggregate level (Davidsson and Wiklund, 2001; Davidsson, 2004). Davidsson and Wiklund (2001) emphasise that, “It is fully conceivable that a successful new enterprise at the micro level translates into economic regress at the societal level and that failed entrepreneurship at the micro level contributes to economic development.” A more relevant measurement as to the relative output of firms in entrepreneurship studies is therefore the obsolete performance of ventures on micro and aggregate levels (Venkataraman, 1997). Davidsson and Wiklund (2001) also emphasize that most existing studies tend to regard a new enterprise either as a ‘hero’ or as the ‘failed’ type. However, as they further argue (Davidsson and Wiklund, 2001:91), “There are reasons to believe that neither robber nor catalyst enterprises are marginal phenomena that could be disregarded.”, suggesting that, for example, a catalyst enterprise may have a significant impact on the economy.

In light of this discussion, several authors acknowledge the importance of considering the output of SME activities when productive, unproductive and destructive entrepreneurship is addressed on a conceptual level (e.g. Davidsson and Wiklund, 2001; Baumol, 1993). As argued by Davidsson (2004), for instance, ‘unproductive entrepreneurship activity’ can also lead to some positive output on both a venture and societal level, whereas ‘productive entrepreneurship activity’ will not necessarily lead to a successful company performance or its contribution to society. Drawing on the conceptualisation of productive, unproductive and destructive entrepreneurship in literature, Sauka and Welter (2007) introduce a new conceptual framework for the assessment of productive, unproductive and destructive entrepreneurship. According to Sauka and Welter (2007), *‘negative’ activities, such as, for example, rent seeking or tax avoidance, which create positive output should not be regarded as unproductive. On the other hand, ‘positive’ activities, for instance, innovation, which make no contributions on venture or societal levels, should not be regarded as productive.*

More specifically, Sauka and Welter (2007) argue that in general, there is no agreement in entrepreneurship literature (e.g. Davidsson and Wiklund, 2001; Baumol, 1993) as to whether productive or unproductive entrepreneurship refers to activities only or to output or to both. This ‘mix’ of two different dimensions, activity and output, in combination with a blurred and often inappropriate use of terminology, could be a key to the problems both in developing this concept further and for its empirical assessment (Sauka and Welter, 2007). In this light, Sauka and Welter (2007) suggest a need to *distinguish between activities and output (venture and societal level) in order to assess productive, unproductive and destructive entrepreneurship.* While emphasizing the importance of *shifting the focus from the activities to output*, Sauka and Welter (2007) argue that SME output has to be assessed together with the activities which create this output. According to the authors, this has not yet been properly addressed in literature.

In this light, regardless of the type of activity (e.g. positive or negative) entrepreneurs become involved in, positive SME output will be interpreted as productive entrepreneurship, whereas negative SME output refers to unproductive entrepreneurship. Furthermore, following the discussion initiated above⁴, in the context of this framework, entrepreneurship will be considered as destructive when various types of activities, for instance, different forms of illegal entrepreneurship, which in turn lead to negative output, attract followers.

In the context of this framework, it is therefore output on different levels (e.g. a venture level and a societal level), ‘created’ by either ‘positive’ or ‘negative’ activities, which result in productive, unproductive or destructive entrepreneurship. As already highlighted in the introduction to the thesis, however, both short-term and long-term effects should be considered as some ‘negative’ activities may have a positive but short-term impact on either the performance of a company or its contribution to the growth of the economy, while in the long term, the same activity might lead to harmful output.

In the scope of the framework as introduced in the previous section of this chapter, however, various types of entrepreneurial activities should be considered. Although a number of different activities can be distinguished from the various trends in entrepreneurship literature, following the suggestions of Wiklund (1998), in

⁴ See ‘illegal entrepreneurship activities’

the framework of this thesis, ‘activities’ are conceptualised as individual-level entrepreneurial behaviour and venture-level business strategy. Further, ‘physical activities’, such as, for example, processes in manufacturing or services, can be distinguished. Entrepreneurial behaviour and strategy, as used in the scope of this thesis, however, needs more explanation and operationalisation.

2.2.1. EO and value creation

Some entrepreneurship scholars argue that how entrepreneurs operate is even more important than what they do (Wickham, 2003). In this context, drawing on a resource-based perspective, the role of venture-level strategy is highlighted as an important influence on the performance of companies, determining the appropriate use of resources and capabilities available to the company (Wiklund, 1998). In the context of assessing productive, unproductive and destructive entrepreneurship, the influence of strategy on the output of firms should thus be considered. Increasingly, in recent years entrepreneurial orientation (EO) has been used as a major construct to assess firms’ strategy (e.g. Morris and Kuratko, 2002). In general, the concept of EO is based on the previous research-assessing strategy-making, “... in terms of patterns of action or decision-making styles that are generalisable across organisations” (Dess and Lumpkin, 2005: 147), deriving dimensions of EO from both entrepreneurship and strategy research. The most often used dimensions of EO, as originally proposed by Miller (1983), are innovativeness, proactiveness and risk-taking. Further, Lumpkin and Dess (1996) have introduced two additional dimensions: competitive aggressiveness and autonomy. It is argued that altogether these five dimensions can reflect managers’ decision- making styles and practices, enhancing the performance of firms (Dess and Lumpkin, 2005).

While attempting to explore the relationship between EO and output, previous studies tend to regard EO as venture-level phenomena (Covin, Green and Slevin, 2006), linking the dimensions of EO with the venture-level performance indicators. The positive role of higher *EO* on the output of SMEs is usually highlighted in this regard (Wiklund, 1998), e.g. the findings presented by most of the existing empirical studies linking EO and output show that EO positively affects the performance of firms (e.g. Wiklund, 1998; Zahra and Covin, 1995; Wiklund and Shepherd, 2005). It should be noted, however, that these findings are not consistent, since some empirical evidence shows that no statistically significant relationship between these concepts exists (e.g. Smart and Conant, 1994).

When assessing the possible impact of EO on SME output, however, various time perspectives are not considered by the previous empirical studies. In the context of the framework introduced by Sauka and Welter (2007), the author argues that, as in the case of conforming and deviant behaviour, EO’s effect on SME output can vary in the short and long term. To fill the research gap, in the scope of the framework introduced by Sauka and Welter (2007), this thesis explores the impact of EO on venture and societal level performance, both in the short and long term.

Furthermore, as argued by Wiklund and Shepherd (2005), time is necessary for the effects of EO to take place. Thus it is advisable to use a longitudinal study where independent variables such as EO are measured at one point in time and dependent variables, e.g. output, at least one year later. In this thesis, the author uses such a longitudinal design in order to assess the direct effect of EO on SME output. More specifically, drawing on Wiklund and Shepherd (2005), the following

hypothesis is tested in order to address the direct relationship between EO and SME value creation (e.g. output on venture and societal levels, short and long term):

H1: EO has a universal positive effect on SME value creation. That is, firms with higher EO will outperform firms with a lower level of EO both on a venture and societal level, short and long term.

2.2.2. EB and value creation

Entrepreneurial behaviour (EB) has been operationalised in a number of ways in entrepreneurship literature. Drawing on a review of existing studies, Wiklund (1998: 224), for example, argues that, in general entrepreneurial behaviour “... points to a number of actions that can be regarded as entrepreneurial, i.e. the development of new products and markets, proactive behaviour, risk-taking, the start-up of new organisations and the growth of an existing organisation.” As highlighted in the introduction to the thesis, however, influenced by external environment, entrepreneurship in transition countries has specific features compared to more advanced market economies. In light of this discussion, inadequate access to external capital, frequent changes in legislation, the general attitude of government and society towards entrepreneurs, frequent tax inspections, government corruption and other similar constraints facing entrepreneurs in transition as found by previous empirical studies (e.g. Smallbone and Welter, 2001; Aidis, 2006; Kolodko, 1999; Aidis and Sauka, 2005) also determine specific types of entrepreneurial behaviour in transition countries.

In this context, drawing on an institutional perspective, authors such as Welter and Smallbone (2003) argue that entrepreneurs in transition tend to become involved in ‘*evasion behaviour*’ in order to overcome these constraints, mostly determined by the external environment. Evasion behaviour can have various forms, but mostly refers to a combination of legal and informal activities, including efforts to lower or avoid taxes, the reduction of social security contributions to employees by hiding actual wages or not offering labour contracts, and various informal payments to government officials to ensure contracts and similar activities (e.g. Welter and Smallbone, 2003; Chepurensko, 1999; Gustafson, 1999). Although various types of ‘*evasion behaviour*’ are perceived as ‘*normal*’ experiences in transition countries (Welter and Smallbone, 2003), in general such behaviour is characterised as a ‘*deviance*’ or ‘*departure from norms*’ (e.g. Warren, 2003). In this light Warren (2003) distinguishes between two schools of thought regarding ‘*deviant behaviour*’. According to Warren (2003) the first school of thought consists of literature focusing on negative forms of deviant behaviour, such as tax avoidance, for example. The other school of thought emphasises the beneficial forms of deviant behaviour for organisations, such as functional disobedience and tempered radicalism⁵. The main conclusion in this regard is that deviance in organisations may be associated with both desirable and undesirable behaviour (Warren, 2003).

Warren’s conception is especially relevant to the framework developed by Sauka and Welter (2007), who acknowledge both positive (e.g. ‘*desirable*’) and negative (‘*undesirable*’) output from various ‘*productive*’ or ‘*unproductive*’ types of activities. In the context of this discussion, drawing on the conceptualisation of productive, unproductive and destructive entrepreneurship as introduced by Baumol

⁵ See Warren (2003) for a review of studies on positive and negative deviance.

(1990, 1993) and further elaborated by Sauka and Welter (2007), the author therefore refers to rent seeking, corruption, and different kinds of illegal, informal and unethical behaviour as ‘deviant behaviour’ in this thesis. The opposite of deviant behaviour is labelled as ‘conforming’ (e.g. Sauka and Welter, 2007), involving, for example, paying taxes and honest competition. In the context of the framework as introduced by Sauka and Welter (2007), both conforming and deviant behaviour could thus result in ‘positive’ and ‘negative’ output on both venture and societal levels, short and long term.

A number of empirical studies have attempted to explore the relationship between various types of *EB* and some aspects of productive, unproductive or destructive entrepreneurship. By addressing the effect of forms of deviant behaviour on the output of firms, Aidis and Van Praag (2007), for example, report a statistically significant, positive relationship between illegal entrepreneurship experience and business performance for younger entrepreneurs and entrepreneurs who started a completely new legal business in a transition context. A few studies have attempted to address the effect of illegal entrepreneurship experience and entrepreneurship output in terms of the probability of a business start-up, both in transition and more advanced market economies. Earle and Sakova (2000), for instance, find a positive relationship between having a side- business during a pre- transition year and a business start-up after the start of the transition process in various transition countries. Fairlie (2002), however, reports on the significant relationship between illegal entrepreneurship experience, measured as drug dealing experience in the past, and the probability of legal self-employment.

As in the case of *EO*, the previous empirical studies do not provide evidence on the relationship between involvement in conforming or deviant behaviour and *SME* output on various levels and in various time frames. As highlighted in the previous chapter of the thesis, however, some deviant activities can have a positive, but only short-term effect on *SME* performance, whereas in the long term these activities can actually lead to unsuccessful *SME* output on both venture and societal levels. Considering this notion and drawing on the existing empirical evidence, the following hypothesis is introduced in order to explore the relationship between *EB* and *SME* value creation:

H2 (a) Those SMEs involved in deviant forms of EB on a larger scale will outperform firms preferring conforming forms of EB, both on a venture and societal level, but only in the short term. (b) In the long term, SMEs following deviant behaviour will be less successful than firms involved in conforming behaviour.

2.3. Antecedents and influences for activities

Motivation is often highlighted as the core influence on the output of entrepreneurial activities, determining the types of activities *SMEs* become involved in as well as shaping the growth of the firms in general. As argued by Wiklund (1998:40), “The underlying logic in the motivation perspective is that someone’s choice of work tasks and the time and energy devoted to these work-tasks (e.g. growing of firm), is dependent on the individual’s motivation to perform different tasks”. Differences in motivation, however, can further explain differences in small firm performance (e.g. Miner, 1990; Wiklund, 1998). Wiklund (1998) also emphasises the necessity to combine various motivation theories, as opposed to focusing only on one single motivation theory. In this light, the conceptual model of

motivation by Locke (1991) and Locke and Henne (1986) can be used as a background to describe and conceptualise the influence of motivation on SME involvement in various activities (Wiklund, 1998) In this light, the influence of motivation on actions can be determined by goals and intentions (influenced by needs and values), and expectancy and self-efficacy.

In this context, the influence of goals and expectations on activities and also on a company's output has been specifically highlighted (e.g. Davidsson, 1991; Wiklund and Shepherd, 2003). For instance, it has been emphasized that the personal aspirations of managers of companies ambitious to grow entrepreneurially impact positively on business performance (Gray, 1992). In this light, scholars affirm that an orientation towards growth can be seen as desirable objective, as it is often associated with increased profits through a more optimal scale of operations (Barrow, 1988). Maximising profits and personal achievement (e.g. Cooper and Artz, 1995) have been highlighted as the main goals in the main driving forces of business activity.

In terms of assessing the role of business goals and expectations, strategic orientation research (e.g. Stratos, 1990; Poutziouris, 2003) distinguishes between growth-oriented firms, survival-oriented firms, exit-oriented firms and control-oriented firms. To summarise, growth-oriented firms are likely to be younger, smaller and more willing to take risks than survival-oriented companies. Control-oriented firms are most likely to be family companies operating in traditional sectors, whereas exit-oriented companies tend to be sizeable firms mostly involved in manufacturing (Poutziouris, 2003). When addressing exit-oriented firms, however, it should be considered that some of them can also be owned and managed by so-called serial entrepreneurs, who create, succeed, exit and then re-launch other businesses (Poutziouris, 2003). In light of the general discussion, it is furthermore important to consider that goals and expectations can both emerge and change during different stages of the entrepreneurship process.

Empirical studies highlight that entrepreneurs with strong motivation, e.g. desire to succeed, are more likely to exploit entrepreneurial opportunities and thus perform better (e.g. Shane and Wenkatamaran, 2000). Aidis and Van Praag (2007) further report a significant and positive link between illegal entrepreneurship experience and motivation, whereas Aidis, Mickiewicz and Sauka (2007), find a statistically significant positive relationship between higher goals and expectations and the output of SMEs. Considering the positive relationship between motivation and SME output, as well as motivation and activities found by the existing empirical studies, and attributing this relationship to an advanced transition setting, it could thus be argued that entrepreneurs with higher goals and expectations will be both more EO-oriented and active in terms of (either conforming or deviant) EB. With regard to EB, as argued by H2, active involvement in conforming behaviour will result in positive output in the long term, whereas active involvement in deviant behaviour will be 'rewarded' on both venture and societal levels, but only in the short term. Referring to these notions, the following hypothesis has been developed in order to address the relationship between motivation and involvement in EO, EB and resulting SME value creation:

H3: Goals and expectations positively influence the degree of EO and EB, leading to better SME value creation.

2.4. Addressing the complexity of the relationship between activities and SME value creation

Recent studies exploring the link between *EO* and *SME output on a venture level* highlight the necessity to consider various additional influences when this relationship is addressed (e.g. Lumpkin and Dess, 1996). Attempting to assess the complexity of the EO and performance relationship, Wiklund and Shepherd (2005), for example, emphasise that previous studies mostly use the ‘*universal effect approach*’, assuming that EO has a universally beneficial effect on SME output, or exploit *contingency models*, capturing the two-way interaction between EO and external or internal environment characteristics.

In this light, previous empirical evidence suggests that EO is context-specific and has a more positive influence on output in environments perceived by SMEs as hostile (Covin and Slevin, 1989; Zahra and Covin, 1995). Furthermore, *access to financial capital* is highlighted as an internal characteristic with an important impact within the EO and SME output relationship. In general, previous findings show that more access to financial capital facilitates EO⁶, as provides possibilities to experiment and thus both create and exploit new business opportunities (e.g. Zahra, 1991; Wiklund and Shepherd, 2005). In light of this discussion, the interaction of environmental influences and access to financial capital should therefore be considered when addressing the relationship between EO and SME output (Wiklund and Shepherd, 2005). Following the aforementioned arguments, it is furthermore of importance to include both venture and societal level dimensions and to consider various effects of time when the EO and output relationship is addressed.

Referring to this notion and drawing on the existing empirical evidence, in line with Wiklund and Shepherd (2005), the following hypotheses are addressed in order to capture the two-way relationship between EO, SME value creation and environmental influences as well as EO, output and access to capital:

H4: The relationship between EO and SME value creation is moderated by environmental influences. SME value creation increases with EO, but at a higher rate for those SMEs perceiving the environment as hostile.

H5: The relationship between EO and SME value creation is moderated by access to capital. SME value creation increases with EO but at a faster rate for SMEs that are less concerned about access to financial capital.

Although widely used in entrepreneurship research, main-effects-only relationship and contingency models do not provide a broad enough picture of the relationship between EO and SME output (e.g. Wiklund and Shepherd, 2005). In this light, Lumpkin and Dess (2005) argue that additional insight into the complexity of the relationship between EO and SME output can be gained by assessing a three-way interaction, considering the *joint influences* of both environmental influence and access to capital, e.g. using a *configurational approach*. As summarised by Wiklund and Shepherd (2005:79), according to the configurational approach “EO has the strongest positive effect on performance among firms in hostile environments with substantial access to financial capital and the strongest negative effect on performance among firms in stable environments with little access to capital”. Drawing on this

⁶ See Wiklund and Shepherd (2005) for a further review of the literature on the role of environmental influences and access to capital in the EO and performance relationship.

conception, the following hypothesis is addressed in order to capture the three-way interaction between EO, SME value creation, environmental influences and access to capital within the scope of this thesis:

H6. (a) SME value creation is explained by configurations of EO, access to capital, and environmental influences. (b) SMEs value creation is better amongst firms with a higher degree of EO, less concerned about access to financial capital and in environments perceived as hostile than for other configurations.

As in the case of EO, additional influences should also be considered when the relationship between EB and SME value creation is addressed (e.g. Smallbone and Welter, 2001). As exemplified by various empirical studies (e.g. Smallbone and Welter, 2006; Aidis, 2006), both formal and informal institutions shape the environment and are major influences on the involvement of SMEs in different types of entrepreneurial behaviour. In this light, emphasising the impact of environmental influences in the relationship between SME behaviour and output, Smallbone and Welter (2001), for example, suggest that in a transition context, especially an early transition setting, some forms of ‘deviant’ behaviour not only increase SME output but are actually necessary for SMEs in order to develop and expand their companies while overcoming constraints brought on by the uncertainty of the hostile environments in these countries. Morris, et al. (1997) furthermore report that the informal sector in general makes a significant contribution to the growth of developing countries and is also a major potential source of entrepreneurship. Furthermore, Sobel (2006) reports a positive and significant link between productive entrepreneurship and economic growth in various states of the U.S., highlighting that higher institutional quality, e.g. a less hostile environment, is associated with a higher level of productive entrepreneurship.

In light of these findings, one can argue that, in a transition context, at least in the short term, a hostile environment can act as a catalyst for the successful performance of SMEs involved in deviant behaviour. A stable environment, as exemplified by Sobel (2006), may in turn contribute to successful SME output in the long term. Drawing on these notions, the author proposes that relationship between conforming and deviant behaviour and SME value creation is moderated by contextual influences – formal, informal, economic and other institutions in the following way:

H7: The relationship between EB and SME value creation is moderated by environmental influences. (a) SME output on both venture and societal levels increases in the short term with higher involvement in deviant forms of EB, but at an even higher rate for SMEs perceiving the environment as hostile. (b) SME output on both venture and societal levels increases in the long term with a lower level of involvement in deviant behaviour, but at a higher rate for SMEs perceiving the environment as stable.

The author is not aware of any studies linking EB, SME value creation and access to capital. Access to capital, however, has been found to be of positive influence on SME output (Wiklund and Shepherd, 2005). In this light, while providing better possibilities to experiment and thus creating more business opportunities (e.g. Zahra, 1991; Wiklund and Shepherd, 2005), better access to capital

could also enhance the level of EB within SMEs as such. It is, however, difficult to predict whether such behaviour will be directed to conforming or, on the contrary, deviant forms. In general, as in the case of EO, the role of the access to capital should be considered when the relationship between EB and SME value creation is addressed.

Referring to the previous discussion regarding EB and SME value creation as well as the influence of a specific transition environment in this relationship, one can argue that in the short term, better access to capital could increase SME output, even if behaviour is directed towards less conforming forms. In the long term, however, access to capital will facilitate involvement in conforming forms of EB, thus leading to higher SME value creation. Referring to these notions, the following hypothesis has been developed in order to address the relationship between EB, access to capital and SME value creation:

H8: The relationship between EB and SME value creation is moderated by access to capital. (a) SME output on both venture and societal levels increases in the short term with higher involvement in deviant forms of EB, but at higher rate for SMEs showing less concern for access to capital. (b) SME output on both venture and societal levels increases in the long term with a lower level of involvement in deviant behaviour, but at higher rate for those showing less concern for access to capital.

In order to address the complexity of EB and value creation, the author furthermore makes an attempt to test a configuration model, e.g. the three-way interaction considering the joint influence of the environment and access to capital within the EB and value creation relationship. In light of the discussion addressing the relationship between EB, SME value creation and environmental influences as well as EB, SME value creation and access to capital, the following hypothesis has been developed in order to test the configuration model:

H9. (a) SME value creation is explained by configurations of EB, access to capital, and environmental influences. (a) SME output on both venture and societal levels is better in the short term for firms with a higher level of involvement in deviant forms of EB behaviour and that are less concerned about access to capital and in environments perceived as hostile than for other configurations. (b) SME output on both venture and societal levels is better in the long term for firms with lower levels of involvement in deviant forms of EB and that less concerned about financial capital and in environments perceived as stable than for other configurations.

2.5. Conceptualising the relationship between EO, EB and SME value creation

As regards the interaction of EO and EB and SME value creation, it can be argued that strategic choices of firms, e.g. EO, can not only influence SME value creation but also determine the degree of involvement in conforming or deviant behaviour. By further addressing the aforementioned suggestions by Dess and Lumpkin (2005) regarding the possible relationships between entrepreneurial orientation and entrepreneurial behaviour, this thesis explores the possible effect of involvement in deviant behaviour and EO on SME value creation. The following hypothesis has been developed in order to address this relationship:

H10: (a) EO has a positive effect on SME value creation and this relationship is mediated by EB. (b) SME value creation increases with EO but, in the short term, at a faster rate for SME that are more involved in deviant forms of EB. (c) SME value creation increases with EO but, in the long term, at a faster rate for SMEs that are less involved in deviant forms of EB.

2.6. Framework for the assessment of (directly and indirectly) productive, unproductive and destructive entrepreneurship

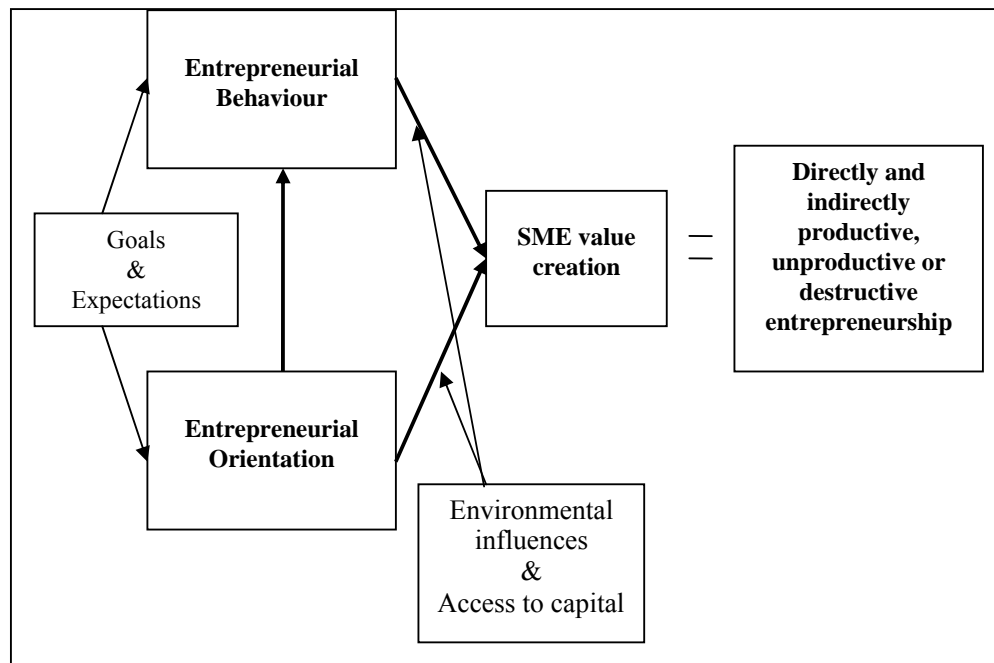
In the context of the discussion in the previous sections, the key question addressed by this thesis is: “What activities do entrepreneurs pursue in order to expand their business as well as gain personal satisfaction and how does the nature and extent of these activities influence the value a company creates in terms of productive, unproductive or destructive entrepreneurship?”. As highlighted in the first chapter of this thesis, however, although there is no lack of suggestions, no common agreement on what constitutes productive, unproductive or destructive entrepreneurship exists. In order to measure the productive, unproductive and destructive relationship, however, a conceptual framework allowing for the operationalisation of the concepts for empirical assessment is therefore necessary. Drawing on the identification of the main elements as well as the conceptualisation of the relationship between these concepts, as addressed by this chapter, the author proposes the following framework for the assessment of factors determining and influencing entrepreneurial value creation, leading to (directly and indirectly) productive, unproductive or destructive entrepreneurship (see Figure 1).

More specifically, in the scope of this framework, (directly and indirectly) productive, unproductive and destructive entrepreneurship is explained by the interaction between activities (e.g. EB and EO), SME value creation (e.g. output on venture and societal levels, short and long term) as well as the moderating effect of environmental influences and access to capital in this relationship. Further, the possible influences of goals and expectations on activities are considered by the model as well as the mediation effect of entrepreneurial behaviour in the relationship between EO and SME value creation, altogether shaping the value creation of firms. Overall, drawing on the framework introduced by Sauka and Welter (2007), the author proposes that activity will be regarded as productive if it results in positive output on either a venture or a societal level, short or long term. In turn, an activity will be regarded as unproductive if no value is added to the company or society. Furthermore, destructive entrepreneurship will represent cases when some activities (for example, illegal activities) will create negative output, at the same time attracting followers (Sauka and Welter, 2007).

In the context of this framework, it should furthermore be noted that a number of empirical studies highlight the importance of the business owner and firm characteristics influencing the performance and growth of companies. In this light, studies highlight the important role of human capital indicators, such as education and the business owner’s age, in the development and growth of SMEs (Cooper et al., 1994). Although the findings regarding the business owner’s age are not consistent (e.g. Burns, 2001), a higher level of education is usually associated with better SME performance (e.g. Watson et al., 2003; Chandler and Hanks, 1993). Further, as argued by Wiklund and Shepherd (2005:82), “Businesses of different size and age may exhibit different organizational and environmental characteristics, which in turn may

influence performance. The same is true for firms in different industries”. Gender has also been found to be an important influence on the business development, e.g. female-run businesses tend to be smaller and less likely to grow than male-run businesses (e.g. Brush, 1992; Cooper et al., 1994). Drawing on the existing empirical evidence, the size, age and sector of a firm, as well as education and the gender are thus included as controls for the effect of activities on SME value creation.

Figure 1: The proposed framework for assessing (directly and indirectly) productive, unproductive and destructive entrepreneurship (Author)



3. Methodology

3.1. Description of the survey method

Referring to previous studies such as Wiklund and Shepherd (2005), in order to address the relationship between SME activities and output, longitudinal data is needed. That is, cross-sectional data do not infer causality, but time is necessary for activities to have the effect on outcomes, thus independent variables should be assessed one at a time and dependants at least a year later. Since such data is not included in existing databases it was necessary to design a survey and collect own data. Since hypotheses addressing the relationship between activities and SME value creation as developed in the Chapter 2 are based on the design used by Wiklund and Shepherd (2005), the authors’ suggestions for the necessity of longitudinal data are considered in the thesis by addressing most dependent variables and controls with the survey conducted in 2005 and dependent variables as well as some of the independent variables with a follow-up survey a year later, in 2006.

In the first round of empirical data collection, 133 face-to-face interviews were conducted in the form of conversation, yet based on the list of standardised questions. The interviewees were randomly sampled and the interviews were carried out during

May- June 2005. The sampling frame was defined as including owners and owner-managers of SMEs⁷ who have the right to sign the business documents of their enterprises and whose firms are registered in the capital city of Latvia, Riga, and were operational at the time of the survey. Data on companies was obtained from the official statistics of the Latvian Company Register, compiled in the Lursoft (www.lursfot.lv) database.

Latvia was chosen because it provides an excellent example of a transition country that has successfully transformed its status from a centrally planned Soviet republic to a fast-growing, sovereign, market-oriented and democratic state. According to Aidis and Sauka (2006:3): “Latvia’s ability to implement the institutional and economic requirements for a market-based economy as well as its recent successful accession into the European Union positions it in the advanced stages of transition”, thus providing a good scope for measuring environmental influences on the entrepreneurship process. Riga, the capital city of Latvia, was chosen as almost 1/3 of the entire population of Latvia lives there, and nearly 60% of its companies are registered in Riga. Further, considering the large proportion of Russian-speakers in Riga and Latvia in general, interviews were carried out in either Latvian or Russian, according to the preference of the respondents.

As a result 550 contacts were made out of which 142 agreed to interviews, thus resulting in a response rate of over 25 percent. Four of those did not appear because of a lack of time. Another five were excluded as they were obviously neither owners nor owner/managers. Lack of time and unwillingness to participate in any surveys as well as disbelief that ‘this will change anything’ were the main reasons why SME owners or owner-managers refused to participate in the interviews, although it was explained to them how important their participation in the survey would be during the first phone call. On average, interviews lasted 100 minutes, with a minimum of one and a maximum of four hours.

Face-to-face interviews were carried out in order to collect data on most of the independent variables, such as EB, EO and environmental influences. Considering the necessity for longitudinal study, data for the empirical assessment of determinants of and influences on directly and indirectly productive, unproductive and destructive entrepreneurship after one year, the same respondents were contacted again in August 2006. This was done with the intention to mostly to address the dependent variables, including the performance of firms on venture and societal levels, both short and long term. Since we were already in contact with the respondents and the nature of the questions included in the follow-up study was, comparably, far less sensitive, phone interviews were chosen as the method for data collection. Phone interviews were implemented by the author of the thesis himself. Over the period of one year, 3 companies had gone out of business and for 6 of the companies we had contacted a year ago, the owners or owner-managers had changed. The author, however, decided to keep these 6 firms in the sample. As a result, the final sample consists of 130 SME owners and owner managers.

3.2. Questionnaire forms and measures

The questionnaire form for the face-to-face interviews is made up of 63 questions, whereas the follow-up study questionnaire form consists of 23 questions.

⁷ SMEs are defined according the EU definition: less than 250 employees.

The main question clusters include individual and venture-level characteristics, SME value creation, e.g. output on venture and societal levels in the long and short term, EB, EO, environmental influences expressed in the form of formal, informal, economic and other constraints to business development, as well as various control questions to increase the validity of the often subjective and indirect methods used in the study.

3.2.1. Measurement of EB

The construct for the measurement of the degree of involvement in deviant behaviour consists of 13 questions. These questions were included in the first round of data collection, e.g. face- to- face interviews, and capture various aspects of each of the three dimensions operationalised in the previous chapter of the thesis. More specifically, in order to address rent seeking, respondents were asked to estimate the degree of underreporting business income, salary, the number of employment as well as involvement in informal payments, e.g. bribes. A list of various types of unofficial payments was then presented to the respondents, who were asked to estimate the degree of involvement in each type of unofficial payment, such as, for instance, involvement in unofficial payment for getting licences, permits or dealing with tax inspection. Finally, the respondents were asked to address the degree of involvement in various forms of unethical behaviour, including crowding-out efforts and exploiting business ideas introduced by other firms without any compensation. Similar 5 or 6-item scales were used, where 1 represents a 'low level of conforming behaviour' and 5 or 6 a 'high level of conforming behaviour'.

Factor analysis was used to extract sets of variables for the empirical assessment of the degree of involvement in conforming or deviant behaviour. The final factor analysis was run with 11 variables; thus, a few items were dropped because of an unclear loading pattern with side-loadings above 0.30. The author used a principal component analysis and there was no need to extract factors, since the number of factors with eigenvalues over 1 seemed to be optimal. Varimax rotation was also used and missing variables excluded pair-wise. As a result, following indices were extracted: rent seeking (underreporting business income and number of employees, hiding actual salary, lobbying and litigation (including bribes) (Cronbach Alpha = .682)), unethical payments (payments to ensure connection to public services, to obtain licences and permits as well as deal with customs ((Cronbach Alpha = .534)), unethical behaviour (exploiting others' business ideas, crowding out efforts and using old networks (blats) (Cronbach Alpha = .386))

3.2.2. Measurement of EO

As with the assessment of the degree of conforming and deviant behaviour, questions addressing EO were included in the first round of data collection. As already highlighted in the previous chapter of the thesis, however, EO is a well researched concept and thus it is possible to use already validated measurement scales for the empirical assessment of various EO dimensions. Therefore, the author used the original 7-point scale (e.g. 1 represents the lowest degree of EO, whereas 7 mean the highest level of involvement in EO) as developed by Miller (1983) and further developed by Lumpkin and Dess (1996), including the five dimensions of EO: innovativeness (Cronbach Alpha = .767), proactiveness (Cronbach Alpha = .835), competitive aggressiveness (Cronbach Alpha = .569), risk-taking (Cronbach Alpha = .745) and autonomy (Cronbach Alpha = .763).

3.2.3. Measurement of SME output on a venture level

A set of various venture-level performance indicators validated by previous studies is used to measure venture-level performance. More specifically, in order to derive a measurement scale for the assessment of venture-level output indicators, the following questions were included in the questionnaire form. First, to address the monetary dimension, respondents were asked whether net sales profits, sales turnover, employment, investments (including investments in production, training, etc.) and export share increased, decreased or remained stable in comparison to the situation 12 months ago (short term) or 3 years ago (long term)? Each of these variables was then measured on a five- item scale: decreased a lot, decreased, remained stable, increased or increased a lot. Additionally, one question was included to assess the non- monetary aspect of venture-level performance: “Regardless of the success of your company’s performance or your future plans regarding growth, has your last 12 months (short term) or 3 years (long term) of business activity brought personal fulfilment (satisfaction) to you?” Personal fulfilment was also measured on a five- item scale, where 1 represented ‘not at all’ and 5 represented ‘yes, to a very great extent’.

The measurement scale for the assessment of short and long-term venture-level output indicators was derived by conducting a reliability analysis, e.g. testing the validity of these measures using the Cronbach alpha test for multi- item variables. As a result, the following measures were developed: index of venture level output in the short term and long term (Cronbach Alpha = .885 and .927 accordingly) . The growth of export share was not included in the scale in the short or long term since most of the respondents are not involved in exporting activities.

3.2.4. Measurement of SME output on a societal level

Most entrepreneurship textbooks and articles highlight the importance of entrepreneurship, emphasizing its contribution to economic growth. In this light, new theories of industrial evolution allow the framework to link entrepreneurship and economic growth (Ericson and Pakes, 1995; Audretsch, 1995; Klepper, 1996). To summarise, although empirical evidence from different environments is often robust, the findings of existing studies show that entrepreneurship, especially SMEs, play a significant role in the generation of employment (e.g. Birch, 1979; Davis, Haltiwanger and Schuh, 1996a, 1996b; Storey and Johnson, 1987), in innovations in products or services (e.g. Acs and Audretsch, 1990, Harhoff and Licht, 1996; Jovanovic, 2001), and in bringing new technologies to a country (e.g. Wagner, 1994). Entrepreneurs are the ones who attract investments from abroad, investing in infrastructure, including roads, electricity, communications (e.g. Acs and Audretsch, 2003). Some of them are involved in social activities, such as sponsorship for social needs by donations for hospitals, social organisations, sports, etc. After all they educate employees or provide them with a possibility to gain experience (e.g. Smallbone and Welter, 2001) and pay taxes to support the country in general (Aidis, 2006). Further, entrepreneurship activity involves spill-over effects, when knowledge generated by one firm can be used by other companies without significant costs involved in the transfer (Van Stel, 2006).

Still, assessing societal-level contribution, e.g. capturing total SME output on a societal level, seems to be one of the most challenging tasks in entrepreneurship literature and no consensus exists in this regard (Sauka and Weler, 2007). Indicators such as employment generation and innovativeness are regarded as the most

appropriate for this purpose (e.g. Johnson et. al., 2000) as these are considered to be the main contribution of SMEs to economic development. Despite the contribution of entrepreneurship to the generation of employment, employment generation as an indicator is problematic when it comes to the assessment of entrepreneurship outcomes on a societal level. One of the main reasons here is that companies do not know how many jobs they actually create (e.g. Audretsch, Keilbach and Lehmann, 2006). That is, apart from 'direct jobs', companies also create 'indirect employment', for instance in related industries. Further, when assessing job generation, it would be advantageous to know what type of jobs we are talking about. Only a few studies have analysed the quality of jobs provided by SMEs (e.g. Wagner, 1997). Using innovativeness as the indicator for assessing entrepreneurship contribution on a societal level has proven to be even more difficult. The main challenge in this regard is the definition of innovative activity. Defining and measuring innovation, especially in the context of SMEs, is often problematic and no common agreement exists in entrepreneurship literature (Audretsch, 2002).

Considering the difficulties described above, it is necessary to introduce a measurement scale in order to assess entrepreneurship's contribution on a societal level. As noted already by Storey (1991), this, however, is a rather complicated task. Moreover, only recently have scholars begun to try to find an empirical link between the performance of firms, measured in terms of growth, and the societal level (e.g. Thurik, 1999; Audretsch et al., 2002). In this context, Audretsch and Thurik (2002), for example, have identified that higher entrepreneurial activity leads to subsequent higher rates of growth for the economy as well as a decrease in unemployment. The Global Entrepreneurship Monitor (Reynolds et al., 2000) also established an empirical link between the degree of entrepreneurial activity and economic growth, as measured by employment on a national level. Various other measures have been used to assess the contribution of entrepreneurship on a societal level. These include self-employment rates, business ownership rates, and new firm start-ups, various measurements of industry demography, including the extent of simultaneous birth and exits as well as net entry. Although useful for various purposes, these measurements have often been criticised for various reasons. Self-employment, for example, has received criticism for its lack of projection of the impact on national and global markets while business ownership rates have been criticised for treating all business, such as high tech and low- tech, the same way (e.g. Audretsch, 2002).

Several recent empirical studies provide evidence that even subjective perceptions have a strong influence on the actual behaviour of firm owners in terms of their relation to the firm's growth. Using an extensive data set collected over a 10-year period from 3 different studies, Wiklund et al. (2003), for example, conclude that entrepreneurs' beliefs and attitudes play an important role in understanding why they act in a particular way. The authors find that beliefs concerning the consequences of growth may influence entrepreneurs' overall attitude toward growth (Wiklund et al., 2003). Furthermore, a study by Watson et al. (2003) has indicated that perceptions of performance may actually be more insightful indicators than objective measures because perceptions draw on insiders' knowledge of a firm's goals, strategy, structure and processes. In the scope of assessing societal-level performance, if perceptions can be linked with venture-level performance, one could argue that they might have the same or a similar effect on the contribution of companies to society. As argued by Davidsson (2005), we need an innovative approach for gathering data when we face problematic issues. This is very relevant to the assessment of 'total entrepreneurial

outcome' on a societal level. Considering the difficulties in using various 'objective' measures, in the context of the theoretical framework, this thesis focuses on the perceptions of small firm owners' contribution to society in order to develop the measurement scale for assessing societal-level output. For similar reasons as in the case of venture-level indicators, both short and long-term perspectives should be considered when SME output is addressed on a societal level.

Drawing on this operationalisation, the following question was included in the questionnaire form: "In the last 12 months (short term) and 3 years (long term), do you believe that your business has contributed to the growth of the Latvian economy with regard to the following". Further, dimensions as classified above (e.g. indirect generation of employment, education of employees according to economic requirements, innovations in products or services, bringing new technologies to the country, attracting investments from abroad, investing in the infrastructure (roads, electricity, communications), sponsorship for social needs (by paying taxes, generating knowledge spill-overs), were included as possible answers. Entrepreneurs' perceptions of their contribution to various dimensions of society were measured on a five- item scale, where 1 represents no 'contribution at all' and 5 means contribution 'to a very great extent'.

As in the case of venture-level output, Cronbach's alpha test was used to test for the validity of using multi- item variables. As a result, the following measures were developed: societal level output by SMEs on the short term (e.g. 12 months) (Cronbach Alpha = .768) and societal level output by SMEs on the long term (e.g. 3 years) (Cronbach Alpha = .772)

3.2.5. Measurement of environmental influences and access to capital

Influences of context, e.g. formal, informal, economic and other barriers, on the involvement in directly and indirectly productive, unproductive and destructive entrepreneurship are thus empirically determined by the summated index of 12 barriers found to be of influence during the advanced stage across transition countries (Cronbach Alpha = .647). By asking 'what are the major barriers to your business development?', environmental influences are measured using a five- item measurement scale, where 1 represents a dynamic (hostile) and 5 a stable environment.

Further, drawing on Wiklund and Shepherd (2005), considering the importance of addressing access to capital in the relationship between EO and performance, one more question was included in the questionnaire form to empirically address the 'access to capital' issue. More specifically, respondents were asked whether or not they experience financial constraints, e.g. lack of funds for investments. The five- item measurement scale was also used to measure the constraints as regards the access to capital.

3.2.6. Measurement of expectations and goals, and controls

The following retrospective question was included in the follow- up survey to capture *SMEs' expectations* from involvement in business activity: 'What were your expectations regarding your business growth 12 months ago (short term) and 3 years ago (long term)?' The measurement scale for expectations is similar to the one used for the assessment of venture-level output, e.g. the 'expansion and growth' dimension. That is, entrepreneurs were asked to rank expectations regarding growth for profits, turnover, employment generation, investments and export share (Cronbach Apha =

.919). A five-item measurement scale was used, 1 representing expectations regarding ‘decrease on a large scale’ and 5 representing ‘increase on a large scale’. Since export share was excluded in the case of venture-level output assessment, the same choice was also made here. It should furthermore be highlighted, that although the question addressing SME expectations captured both short and long-term dimensions, in the end only short-term dimensions are addressed in the thesis. This is due to the reason that both the pilot study and the main data collection proved that respondents could not answer this question for the long term.

Furthermore, numerous questions were included in the survey in order to address the additional influences determining directly, indirectly productive, unproductive and destructive entrepreneurship (e.g. controls). More specifically, to determine the age of a firm, respondents were asked in which year their companies started operation, which was used to calculate the firm’s age. The size of the firm (number of employees, full-time equivalent) was calculated for the response to the question, ‘What is the total number of employees including yourself employed in your enterprise at the present time?’. Respondents were then asked about their education level. Finally, to determine the industry, respondents were then asked whether the company’s main activity is manufacturing, service or retailing. All controls were included in the first-round questionnaire form, however the author also checked for possible changes in these indicators in the follow-up survey.

3.3. Approach for the analysis of results

Analysis of the results to address determinants of and influences on productive, unproductive and destructive entrepreneurship can be broadly divided into two main parts.

In the first part, the author explore which activities EB and EO entrepreneurs pursue in order to create this output, resulting in productive, unproductive or destructive entrepreneurship. This again involves several steps:

First section of the results chapter of the thesis⁸ ‘Determinants and influences of productive, unproductive and destructive entrepreneurship’ aim to address Hypotheses 1, 2 and 4 to 9, that is, to explore the relationship between activities (e.g. EB and EO) and SME value creation as well as the moderating effects of access to capital and environmental influences in this relationship. Drawing on the research design as suggested by Wiklund and Shepherd (2005), the complexity of this relationship can be assessed by exploiting main-effects-only, contingency and configuration models. This design is used in the analysis.

More specifically, as suggested by Wiklund and Shepherd (2005), hierarchical linear regression analysis is used to assess the involvement in directly and indirectly productive, unproductive and destructive entrepreneurship and test whether a universal, contingency, or configuration model best suits the data and whether variables have a significant relationship with SME output on various levels and time frame. Hierarchical linear regression analysis has been recognized as a valid procedure both mathematically and in computer simulations and is applied by numerous authors when assessing issues structurally similar to the ones addressed in

⁸ Originally in the thesis, methodology chapter is followed by the results chapter after which chapter on conclusions is followed. In this summary, however, main findings are provided together with conclusions in the chapter 4, whereas main results summarized in the appendixes.

this thesis⁹. The general approach of hierarchical linear regression analysis used to test the hypotheses is to add the next higher order of interaction (e.g. two-way and three-way interactions respectively) in each of the steps of the analysis. In other words, first control variables are added, then the independent variables (main-effects-only model), the two-way interaction terms (contingency model), and finally the three-way interaction term (configuration model). Incremental R^2 is evaluated in order to determine whether the main-effect, contingency or configuration model best suits the data. According to Cohen and Cohen (1983), “An interaction effect exists if, and only if, the interaction term gives a significant contribution over and above the direct effects of the independent variables” (in Wiklund and Shepherd, 2005:82). F tests of statistical significance are also evaluated from lower-order terms to determine the statistical significance of the dependent variables, e.g. EO, EB, access to capital, environmental influences and interaction terms, in relation to SME value creation.

Summated indexes of EO and EB are used throughout the analysis in section 2 of the results chapter. This choice was made due to the fact that summated EO is also used by Wiklund and Shepherd (2005), e.g. the design this thesis is based on. Cronbach’s alpha values for these indexes are .787 and .530 respectively. However, in section 3., ‘Determinants of productive, unproductive and destructive entrepreneurship: individual indexes of EO and EB’, analysis continues by including separate dimensions of EB and EO. This is important in light of the discussion of exploring the role of EO on the performance of firms. In this context, although one should be aware that various dimensions of EO work together to enhance a firm’s entrepreneurial performance (Dess and Lumpkin, 2005), summarising the findings from various empirical studies addressing the relationship between EO and performance. However, Dess and Lumpkin (2005) conclude that in general, “... exploring the relationship among individual dimensions of EO and performance is superior to considering EO as unidimensional construct”. Namely, EO dimensions can vary independently in their relationships with SME output, thus apart from using the summated index of EO, it is more insightful to use separate indices representing each of the five dimensions of EO (e.g. innovativeness, autonomy, proactiveness, competitive aggressiveness and risk-taking). In the context of the empirical model, the author argues that the same notion can also be applied to various dimensions of EB (e.g. rent seeking, unofficial behaviour and unethical behaviour). This is of even greater importance since Cronbach’s alpha levels for EB dimensions are relatively low and in case of ‘unethical behaviour’ do not even reach the level of 0.5.

Next section addresses the question as to which activities SMEs pursue in order to create value on various levels and time perspectives. This time, however, an exploratory approach is used in order to get a more complete picture. In all sections of the results chapter, separate analysis is carried out with dependent variables (a) venture-level output in the short term, (b) venture-level output in the long term, (c) societal-level output in the short term (d) societal-level output in the long term. This is in turn necessary since SME output is observed on a venture and societal level, short and long term, in both of the above-described cases.

Finally, in the second part of the analysis additional influences on SME value creation, such as the mediating effect of EB in the EO and SME value creation relationship and (Hypothesis 10) the influence of goals and expectations (Hypothesis

⁹ See Wiklund and Shepherd, 2005: 82 for a more detailed description of this procedure, including validity issues.

3) are addressed. Altogether, the results of the analysis covered by the next chapter of the thesis provide insight into the directly and indirectly productive, unproductive and destructive entrepreneurship.

4. Results, conclusions and implications

This thesis makes a number of contributions to the existing literature on both conceptual and empirical levels. The main conceptual contribution lies in the development of a theoretical framework for the assessment of productive, unproductive and destructive entrepreneurship. Drawing on this, the thesis presented one of the first attempts¹⁰ to capture productive, unproductive and destructive entrepreneurship on an empirical level. The main results in this regard can be summed up in the following conclusions:

On the venture level, both short and long term, overall larger SMEs are more productive as are entrepreneurs with a higher level of education. More specifically, with regard to the influence of various individual and venture-level characteristics, confirming the findings from previous studies linking SME performance and education level (e.g. Watson et al., 2003; Chandler and Hanks, 1993), the results from this study also suggest that a higher education level is usually associated with better SME output. As found by previous studies (e.g. Wiklund and Shepherd, 2005), the findings of this study also suggest that a larger company size is associated with better output on a venture level, both short and long term. Additionally, the findings suggest that retail companies seem to be less productive on a venture level, long term, than firms representing other sectors of business. Apart from the larger *size of the firm and higher education level of entrepreneurs*, as in the case of venture level, short and long term, *older companies and those involved in manufacturing also seem to be more productive on a societal level, both short and long term.*

Although no statistically significant relationships between EO or EB and SME value creation were identified by using hierarchical regression analysis¹¹, the results from the exploratory analysis suggest that *on a venture level, short and long term, productive companies are less involved in underreporting their business income but more involved in underreporting salaries.* In contrast, *companies following conforming types of behaviour, e.g. reporting actual business income and number of employees, are unproductive on a societal level, both short and long term.* At least for a transition context, this finding suggests the beneficial nature of these types of deviant behaviour for society on the one hand and the unfavourable nature for the companies themselves on the other hand. One explanation for this could be that while underreporting actual results of their business activity, companies can afford to employ more people as well as have additional capital for investments, thus contributing positively to society. Still, an underreporting company can easily lose track of records about cash flow (e.g. Sauka and Welter, 2008), which makes it complicated to plan further growth strategies, leading to negative output in terms of venture-level growth. Further, the results of the survey also suggest that both on in short and long term, the productive contribution of SMEs increases by involvement in ‘irregular, unofficial payments’ and ‘old networks’ (*blats*). These findings provide

¹⁰ e.g. in line with Sauka and Welter (2007) and Sobel (2006)

¹¹ Except for the EO dimension ‘innovativeness’ for a venture and societal level in the long term and ‘proactiveness’ on a societal level, long term (see Figure 17 and Figure 18)

further support for the conceptual framework of this thesis, highlighting that it is output, not conforming behaviour that determines productive forms of entrepreneurship. On a societal level, however, low involvement in unofficial types of payments was associated with unproductive forms of entrepreneurship. In this regard, however, company owners seem to be reluctant to talk about specific types of 'irregular, unofficial' payments, e.g. companies that reported that they have never been involved in various types of unofficial payments performed best both on a venture and societal level, short and long term. A similar conclusion can also be made with regard to SMEs' involvement in unethical types of behaviour on a venture level, including squeezing newcomers out of the market and exploiting business ideas generated by other companies. With regard to all dimensions of EO, however, the results suggest that firms highly involved in EO are more productive than their counterparts. The pattern is especially clear with regard to EO, or more specifically, innovativeness and SME output relationship on a venture level, long term.

Drawing on the design used by Wiklund and Shepherd (2005), in order to address the complexity of the relationship between EO and SME performance, the possible moderating effect of both environmental influences and access to capital in the relationship between activities and SME value creation was addressed. The general conclusion here is that involvement in conforming behaviour together with a stable environment facilitates the productive contribution of SMEs on a societal level, both in the short and long term. A marginally significant moderating effect of the environment and access to capital was also found in the case of a few individual dimensions of EO. Using the summated index of EO, however, as in previous studies (e.g. Wiklund and Shepherd, 2005), no moderating effect of the environment or access to capital in the relationship between EO and SME value creation was observed. In contrast to Wiklund and Shepherd (2005), however, a three-way interaction effect (e.g. configuration model) between EO, access to capital and the environment, as well as EB, access to capital and the environment, was not found by this study.

Apart from the moderating effect of access to capital and environmental influences in the relationship between EO, EB and SME value creation, in considering determinants and possible influences of productive, unproductive and destructive entrepreneurship, the influence of the environment and access to capital on SME value creation was addressed. Further, the influence of the environment and access to capital on the involvement in conforming or deviant behaviour as well as lower or higher level of entrepreneurial orientation was also addressed. According to the findings, at least on a venture level, short term, a *stable environment and higher access to capital facilitates productive entrepreneurship*. Furthermore it is also interesting to note that SMEs engaged in deviant forms of entrepreneurial behaviour, such as rent seeking and unethical behaviour, seemed less affected by environmental constraints. As highlighted by Aidis and Sauka (2006: 19), this result suggests that "... some forms of deviant entrepreneurial activity may actually have emerged as strategies for survival in the highly turbulent business environments that characterise the transition process, even in the advanced stages of transition. Unless government action is taken to reduce the barriers for conforming entrepreneurial activities as well as increasing the penalties for deviant entrepreneurial activity, there will be an unfair advantage for those entrepreneurs who engage in deviant entrepreneurial activity". Greater concern for the environment, and additionally, also access to capital, were also reported by more entrepreneurially oriented companies, providing further

evidence for the role of policy-makers in shaping the environment in a transition context. Contrarily, low access to capital was associated with involvement in conforming behaviour.

Finally, drawing on the empirical model, in an attempt to capture productive, unproductive and destructive entrepreneurship, the impact of goals and expectations on SME value creation as well as the possible mediating effect of EB in the EO and SME value creation relationship was addressed. Here, although no mediating effect was found for EO, EB and value creation, the results suggest a strong, statistically significant and positive impact of both goals and expectations. It should be noted that this effect is existent regardless of whether it is addressed on venture or societal-level outcomes.

Like all studies, this thesis has a number of *shortcomings*. Here, apart from the difficulties involved in defining clear-cut points to classify different kinds of conforming and deviant behaviour, there are of course also limits as to what can be done to assess SME value creation empirically Sauka and Welter (2007). The main and most challenging limitation of the current approach is the difficulty involved in capturing various dimensions of SME value creation. In this regard, this study should be perceived as aiming for the ‘best possible/ available solution’, rather than as representing ‘perfect research’.

More specifically, a number of new measures not previously validated by other studies, e.g. SME outcomes on both, venture and societal level, the impact of environmental influences, involvement in conforming or deviant behaviour, are used in the thesis. Although the author has argued for the appropriateness of including such measures to address the conceptual model, this can still be seen as a shortcoming of the study not least of all because it renders comparison of the studies more difficult and may in fact raise questions about the validity of the results as such. On the other hand, as already argued in this chapter, inclusion of new measures can also be seen as a contribution of the thesis to entrepreneurship literature. In this light, in terms of *implications for future research*, while being critical, the author would encourage researchers to use these measures to offer justified arguments about the validity of the measures in order to empirically capture productive, unproductive and destructive entrepreneurship. Due to the low Cronbach Alpha levels here, special attention should be paid to the further development of a measurement scale for the assessment of conforming and deviant behaviour.

Secondly, although special consideration was given to sample representativeness, the very small sample for empirically addressing productive, unproductive and destructive entrepreneurship can be seen as another shortcoming of this study. In this light, although (as already emphasised in the thesis) researchers often have to deal with very sensitive questions and data – a time-consuming data collection process requiring direct contact with the respondents – the author would still encourage researchers to challenge themselves and collect a more ‘representative’ data set. In doing so, they should, however, be aware, that most of the data necessary for this kind of study are not available in existing databases and would be difficult to acquire through a standardised survey-based approach, as SME entrepreneurs are often reluctant to talk about the ‘dark’ sides of their entrepreneurial activities. Overcoming this challenge, however, could also help address previous shortcoming, e.g. validations of new measures used to empirically capture productive, unproductive and destructive entrepreneurship.

In general, apart from providing support for the necessity to shift the focus from activities to output when productive, unproductive and destructive entrepreneurship is addressed on an empirical level, the findings of this thesis may provide additional implications for policy-makers. To summarise, in terms of implications for policy-makers, it is of primary interest to find out what determines the supply of productive entrepreneurship and what means can be used to expand it. In this light, a quote from Baumol (1993:47) could be used to send the message to policy-makers and actors involved in supporting entrepreneurs and small firms in new European Union (EU) member states: “...we do not have to wait patiently for slow cultural change in order to find measures to redirect the flow of entrepreneurial activity toward more productive goals. It may be possible to change economic rules in ways that help to offset undesired institutional influences or supplement other influences to work in beneficial directions”.

More specifically, in light of the results presented by this thesis, it can be suggested that policymakers in an advanced transition context should be more flexible regarding taxation policies and different administrative regulations, for example. The main challenge for policy-makers is to facilitate market entry (and exit) as well as to improve the general environment in order to stimulate expansion and the growth of SMEs without introducing too much bureaucracy (Sauka and Welter, 2007). Furthermore, the results show that a number of environmental factors continue to act as constraints to businesses, especially those engaged in conforming forms of entrepreneurial activities. Moreover these environmental constraints, such as the rate of inflation as well as the shortage of qualified workers, are directly related to governmental policy. In addition, formal constraints such as high taxes and inconsistent business legislation are also directly affected by government policy. As such, the government plays a key role in creating the conditions for productive entrepreneurship to thrive and grow in an advanced transition setting. In this light, it would be important for policymakers to take steps to reduce these barriers for SME development (Aidis and Sauka, 2006).

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Appendix 1: Summary of the findings using summated indexes of EO and EB

Output on a venture level, short term	Output on a venture level, long term
Controls	Controls
EO & EB and SME value creation: Firm size: + (P<.05) Education: + (P<.10)	EO & EB and SME value creation: Firm size: + (P<.05) Education: + (P<.05) Retail: - (P<.05)
Universal effect	Universal effect
EO and SME value creation: Environment: + (P<.05) Capital: + (P<.05) EB and SME value creation: Environment: + (P<.10) Capital: + (P<.05)	EO and SME value creation: No statistically significant relationships found EB and SME value creation: No statistically significant relationships found
Contingency model	Contingency model
EO and SME value creation: Capital x Environment: - (P<.10) ¹² EB and SME value creation: Capital x Environment: - (P<.05)	EO and SME value creation: No statistically significant relationships found EB and SME value creation: No statistically significant relationships found
Configuration model	Configuration model
EO & EB and SME value creation: No statistically significant relationships found	EO & EB and SME value creation: No statistically significant relationships found
Output on a societal level, short term	Output on a societal level, long term
Controls	Controls
EO & EB and SME value creation: Firm age: + (P<.01) Firm size: + (P<.01) Education: + (P<.05) Manufacturing: + (P<.05)	EO & EB and SME value creation: Firm age: + (P<.10) Firm size: + (P<.01) Education: + (P<.05) Manufacturing: + (P<.10)
Universal effect	Universal effect
EO and SME value creation: No statistically significant relationships found EB and SME value creation: No statistically significant relationships found	EO and SME value creation: EO: + (P<.05) EB and SME value creation: No statistically significant relationships found
Contingency model	Contingency model
EO and SME value creation: No statistically significant relationships found EB and SME value creation: EB x Environment: + (P<.05) Capital x Environment: - (P<.10)	EO and SME value creation: No statistically significant relationships found EB and SME value creation: EB x Environment: + (P<.05) Capital x Environment: - (P<.05)
Configuration model	Configuration model
EO & EB and SME value creation: No statistically significant relationships found	EO & EB and SME value creation: No statistically significant relationships found

¹² ‘+’ or ‘-’ shows either a positive or negative relationship of a given variable with the dimension of SME value creation (or, in the case of contingency and configuration models, the moderating effect of a given variable on EO (EB) and the dimension of SME value creation). P<.10, P<.05 and P<.01, however, report the significance level of a given variable.

Appendix 2: Summary of the findings using both summated and individual indexes of EO and EB: venture-level, short and long term

Output on a venture level, short term		Output on a venture level longer term	
Controls		Controls	
EO & EB and SME value creation: Firm size: + (P<.05) Education: + (P<.10)		EO & EB and SME value creation: Firm size: + (P<.05) Education: + (P<.05) Retail: - (P<.05)	
Universal effect	Universal effect	Universal effect	Universal effect
EO and SME value creation: Environment: + (P<.05) Capital: + (P<.05) EB and SME value creation: Environment: + (P<.10) Capital: + (P<.05)	Individual dimensions of EO and SME value creation: Comp. aggressiv.: + (P<.10) Environment: + (P<.10) Capital: + (P<.05) Individual dimensions of EB and SME value creation: Environment: + (P<.05) Capital: + (P<.05)	EO and SME value creation: No statistically significant relationships found EB and SME value creation: No statistically significant relationships found	Individual dimensions of EO and SME value creation: Proactiveness: - (P<.10) Innovativeness: + (P<.10) Individual dimensions of EB and SME value creation: No statistically significant relationships found
Contingency model	Contingency model	Contingency model	Contingency model
EO and SME value creation: Capital x Environment: - (P<.10) ¹³ EB and SMEs value creation: Capital x Environment: - (P<.05)	Individual dimensions of EO and SME value creation: Innovativeness x Environment: + (P<.10) Comp.Aggressiv. x Capital: - (P<.01) Capital x Environment: - (P<.01) Individual dimensions of EB and SME value creation: Capital x Environment: - (P<.05)	EO and SME value creation: No statistically significant relationships found EB and SME value creation: No statistically significant relationships found	Individual dimensions of EO and SME value creation: Comp.Aggressiv. x Capital: - (P<.10) Individual dimensions of EB and SME value creation: Unoffic. Payments x capital: - (P<.10)
Configuration model		Configuration model	
EO & EB and SME value creation: No statistically significant relationships found		EO & EB and SME value creation: No statistically significant relationships found	

¹³ ‘+’ or ‘-’ shows either a positive or negative relationship of a given variable with the dimension of SME value creation (or, in the case of contingency and configuration models, the moderating effect of a given variable on EO (EB) and the dimension of SME value creation). P<.10, P<.05 and P<.01, however, report the significance level of a given variable.

Appendix 3: Summary of the findings using both summated and individual indexes of EO and EB: societal level, short and long term

Output on a societal level, short term		Output on a societal level, longer term	
Controls		Controls	
EO & EB and SME value creation: Firm age: + (P<.01) Firm size: + (P<.01) Education: + (P<.05) Manufacturing: + (P<.05)		EO & EB and SME value creation: Firm age: + (P<.10) Firm size: + (P<.01) Education: + (P<.05) Manufacturing: + (P<.10)	
Universal effect	Universal effect	Universal effect	Universal effect
EO and SME value creation: No statistically significant relationships found EB and SME value creation: No statistically significant relationships found	Individual dimensions of EO and SME value creation: No statistically significant relationships found Individual dimensions of EB and SME value creation: No statistically significant	EO and SME value creation: EO: + (P<.05) EB and SME value creation: No statistically significant relationships found	Individual dimensions of EO and SME value creation: Innovativeness: + (P<.05) EB and SME value creation: No statistically significant relationships found
Contingency model:	Contingency model	Contingency model:	Contingency model
EO and SME value creation: No statistically significant relationships found EB and SME value creation: EB x Environment: + (P<.05) Capital x Environment: - (P<.10)	Individual dimensions of EO and SMEs value creation: No statistically significant relationships found Individual dimensions of EB and SME value creation: Rent seeking x Environment: + (P<.05) Capital x Environment: - (P<.10)	EO and SME value creation: No statistically significant relationships found EB and SME value creation: EB x Environment: + (P<.05) Capital x Environment: - (P<.05)	Individual dimensions of EO and SME value creation: No statistically significant relationships found Individual dimensions of EB and SME value creation: Rent seeking x Environment: + (P<.05) Capital x Environment: - (P<.05)
Configuration model		Configuration model	
EO & EB and SME value creation: No statistically significant relationships found		EO & EB and SME value creation: No statistically significant relationships found	

Appendix 4: Summary of the findings using an exploratory approach: activities and resulting output on a venture level, short and long term

Output on a venture level, short term	Output on a venture level, long term
<p>Rent seeking vs. conforming behaviour The most successful companies are <i>less involved in underreporting their business income, the number of employees</i>. Companies, however, do benefit from underreporting actual salaries paid to employees.</p> <p>Unofficial payments vs. conforming behaviour Although no clear pattern can be identified, the findings suggest that involvement in unofficial payments can increase venture-level output. With regard to specific types of unofficial payments, however, companies that reported that they have never been involved in these types of deviant activities perform best.</p> <p>Unethical behaviour vs. conforming behaviour Venture-level short-term output seems to be better for companies which often draw on old networks. With regard to squeezing newcomers out of the market and picking up business ideas, companies which reported that they had ‘never’ been involved in this type of activity performed best on a venture level, short term.</p>	<p>Rent seeking vs. conforming behaviour The most successful companies are <i>less involved in underreporting their business income, the number of employees</i>. Companies, however, do benefit from underreporting actual salaries paid to employees- even on a larger scale than in the case of venture-level short-term output.</p> <p>Unofficial payments vs. conforming behaviour Although no clear pattern can be identified, the findings suggest that involvement in unofficial payments can increase venture-level output. With regard to specific types of unofficial payments, however, companies that reported that they have never been involved in these types of deviant activities perform best.</p> <p>Unethical behaviour vs. conforming behaviour Venture-level, long-term output seems to be better for companies which often draw on old networks. With regard to squeezing newcomers out of the market and picking up business ideas, companies which reported that they had ‘never’ been involved in this type of activity performed best on a venture level, long term.</p>
<p>Dimensions of EO With regard to all five dimensions of EO- proactiveness, innovativeness, risk-taking, autonomy, competitive aggressiveness and output on a venture-level short term – overall the results suggest that companies that tend to have a higher level of involvement in EO are better performers.</p>	<p>Dimensions of EO The same pattern as for venture-level short-term output</p>

Appendix 5: Summary of the findings using exploratory approach: activities and resulting output on a societal level, short and long term

<p style="text-align: center;">Rent seeking vs. conforming behaviour</p> <p>Companies that report their business income and the number of employees (e.g. conforming behaviour) mostly reported low output on a societal level, short term.</p> <p style="text-align: center;">Unofficial payments vs. conforming behaviour</p> <p>Low output was observed among SMEs that become involved in unofficial payments ‘sometimes’ and ‘never’. With regard to specific types of unofficial payments, however, companies that reported that they have never been involved in these types of deviant activities perform best.</p> <p style="text-align: center;">Unethical behaviour vs. conforming behaviour</p> <p>On a societal level, short term, firms which reported a higher level of involvement in old networks (<i>blat</i>) showed lower performance. Low performance is also reported by companies that have never been involved in other types of unethical behaviour.</p>	<p style="text-align: center;">Rent seeking vs. conforming behaviour</p> <p>Companies that report their business income and the number of employees (e.g. conforming behaviour) mostly reported low output on a societal level, short term</p> <p style="text-align: center;">Unofficial payments vs. conforming behaviour</p> <p>Comparably better output was observed among SMEs that become involved in unofficial payments ‘sometimes’ and ‘never’. With regard to specific types of unofficial payments, however, companies that reported that they have never been involved in these types of deviant activities perform best.</p> <p style="text-align: center;">Unethical behaviour vs. conforming behaviour</p> <p>On a societal level, short term, firms which reported a higher level of involvement in old networks (<i>blat</i>) showed lower performance. Low performance is also reported by companies that have never been involved in other types of unethical behaviour.</p>
<p style="text-align: center;">Dimensions of EO</p> <p>No clear pattern identified.</p>	<p style="text-align: center;">Dimensions of EO</p> <p>No clear pattern identified.</p>

Appendix 6: Summary of the findings using summated indexes of EO and EB

Environmental influences	Access to capital
<p>Rent seeking and unethical behaviour</p> <p>The greatest concern in terms of environmental influences is for firms that tend to be less involved in rent seeking activities, e.g. reporting a larger amount of their business income and honestly reporting their number of employees and employee salaries.</p> <p>The same pattern exists with regard to unethical behaviour (except ‘using old networks’). Firms concerned with environmental influences, however, tend to become involved in ‘using-old-networks’ behaviour.</p> <p style="text-align: center;">Unofficial payments</p> <p>Although the pattern is not consistent, the findings suggest that firms highly concerned with environmental influences tend to be ‘sometimes’ or ‘frequently’ involved in ‘irregular, additional payments’. With regard to the specific dimensions of unofficial payments, such as paying bribes for the connection to public services, getting licences and permits, dealing with customs and influencing the contents of new laws and regulations, however, firms highly concerned with environmental influences reported that they have ‘never’ been involved in these types of activities</p>	<p>Rent seeking, unofficial payments and unethical behaviour</p> <p>For all dimensions of rent seeking, unofficial payments and unethical behaviour, firms which reported a lower level of access to capital tend to be involved in conforming forms of behaviour.</p>
<p style="text-align: center;">Dimensions of EO</p> <p>Companies that tend to be more involved in various dimensions of EO also express higher concern in terms of environmental influences.</p>	<p style="text-align: center;">Dimensions of EO</p> <p>Higher concern for access to capital is mostly reported by firms that are more entrepreneurially oriented.</p>

Appendix 7: Summary of the findings for goals and expectations

According to the results, both goals and expectations have a statistically significant positive relationship with venture-level short-term output ($P < .01$) as well as societal-level short-term output ($P < .05$ and $P < .10$ accordingly). In other words, companies that expect to expand their business and are growth-oriented are also better performers. Thus partial support is found for Hypothesis 3. Moreover, especially in the case of venture-level output as a dependent variable, including goals and expectations significantly increases the explanatory power of the model ($\Delta R^2 = 17.1$). This finding provides further evidence about the importance of considering the influence of goals and expectations when SME value creation is addressed.

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