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WHY ARE OPTIMISTIC ENTREPRENEURS SUCCESSFUL? AN APPLICATION OF THE REGULATORY FOCUS THEORY

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Abstract

Does entrepreneurial optimism affect business performance? Using a unique data set based on repeated survey design, we investigate this relationship empirically. Our measures of 'optimism' and 'realism' are derived from comparing the turnover growth expectations of 133 owners-managers with the actual outcomes one year later. Our results indicate that entrepreneurial optimists perform significantly better in terms of profits than pessimists. Moreover, it is the optimist-realist combination that performs best. We interpret our results using regulatory focus theory.

Key Words: Entrepreneurship, Optimism, Venture Growth, Regulatory Focus Theory, Latvia

JEL Codes: D21, L21, L26, M13

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Executive summary

Individuals face a world that contains a set of threats and opportunities. An exact assessment of these is difficult as full information is never available, and additional information has to be acquired at a cost. To deal with this complexity, people adopt alternative cognitive (heuristic) strategies (DellaVigna, 2007).

In this context, the contribution of regulatory focus theory (Higgins, 1997) is to highlight the fact that people may not attach the same weight to potential positive outcomes as to the potential negative outcomes of their actions (referred to as 'opportunities' and 'risks' in entrepreneurship literature) (De Carolis and Saparito, 2006). The central contribution of regulatory focus theory is to posit the identification of two stylised strategies of self-regulation aimed at achieving individual standards and goals: 'promotion focus' and 'prevention focus' (Higgins, 1997). The main difference is that individuals using 'promotion focus' highlight the potential gains, while those individuals using 'prevention focus' concentrate on avoiding potential losses (Brockner et al., 2004). It is however impossible, to declare one of these strategies as superior a priori, as their efficiency is conditional on the nature of the task at hand (Baron, 2004). Moreover, empirical evidence suggests that alertness to identifying threats and cognitive skills related to opportunity recognition may not necessary be substitutes; it is in fact likely that the winning combination lies where these complement each other.

We posit that for entrepreneurship to succeed, exploring opportunities must be matched by an alert and correct (realistic) perception of the existing threats. In other words, it may not be enough for entrepreneurs to simply respond to opportunities. In the language of regulatory focus theory, the most efficient combination may be where the "promotion focus" is moderated to some degree by the "prevention focus". Therefore though optimism may be beneficial for business success, realism may also be important. We formulate our four hypotheses exploring the relationship between optimism, realism and human capital on entrepreneurial success.

Using regression techniques on a unique data set collected for this research, our results indicate that entrepreneurial growth expectations are indeed important in a number of ways. Firstly, and not surprisingly, entrepreneurs who expected to expand their businesses and indeed did expand, achieve the best financial performance as captured by profits, 'all other things being equal'. Secondly, and more interestingly, entrepreneurs who expected growth which however did not materialize, perform significantly better (in terms of profits) than those who are 'surprised' by growth (in terms of sales) they did not expect. Thus, our results indicate that the successful optimist-realist performs better than the optimist, who in turn performs significantly better than the pessimist. We view these findings as consistent with regulatory focus theory, where entrepreneurial success can be seen as resulting from an appropriate mix of "promotion focus" and prevention focus".

We believe that this paper makes a number of important contributions to the existing literature. Our unique dataset which includes repeat sampling, allows us to empirically examine the relationship between growth expectations and growth reality for 133 small and medium-sized enterprise (SME) owner-managers. In doing so, we fill an existing knowledge gap in the firm performance literature. Our results indicate a significant relationship between entrepreneurial optimism and entrepreneurial success in terms of actual firm growth and financial performance. Moreover, entrepreneurial realism which we define as a consistency between growth expectations and actual growth also affects financial performance positively. To be sure, the impact of optimism dominates over the impact of realism.

We also identify the impact of human capital on performance. We find that businesses of entrepreneurs with no experience ('nascent entrepreneurs') do not increase profits. In turn, the owners are in the middle category (over one year and less than 16 years entrepreneurial experience) are most dynamic. These results hold when we control for both the age of the businesses and the age of the entrepreneurs (owner-managers) and jointly estimate both the employment growth and the turnover growth equations. In this way, we identify the effects that in much of the literature could be incorrectly attributed to both the age of businesses and the physical age of entrepreneurs. As our results show however, the 'entrepreneurial cycle' of growth can be attributed to the experience of owner-managers as dated from their own individual entrepreneurial entry.

1. INTRODUCTION

Recent research highlights the role of cognitive processes in entrepreneurship. Specifically, recognising, identifying and responding to the existing set of opportunities and threats have been found to play a central role for successful entrepreneurship[1] (eg. Baum and Locke, 2004; Baron, 2004; Brockner et al., 2004; De Corolis and Saparito, 2006). In this context, a research theme that is gaining interest in the entrepreneurship literature is the relationship between cognitive mechanisms such as 'entrepreneurial anticipation' and actual entrepreneurial outcomes.

The comparison of 'entrepreneurial anticipation' and 'actual entrepreneurial outcomes' is considered as an 'ideal measure of entrepreneurial cognitive bias (Wu and Knott, 2006). However, given the difficult nature of the latter process coupled with the difficulty in collecting adequate data, only a limited number of studies (e.g. Wiklund and Shepherd, 2003) have attempted to empirically investigate the link between growth expectations (also referred to as anticipations, predictions, or aspirations) of entrepreneurs and actual growth outcomes. The aim of this paper is to broaden this empirical literature by further exploring some additional aspects of the interaction between forward looking entrepreneurial beliefs shaping the growth strategies of entrepreneurs and their business's actual growth outcomes. By utilising a unique data set based on a repeated survey design collected specifically for this study, we are able to contribute to the existing literature by providing empirical evidence as to the relationship between the exactness of entrepreneurial expectations and business financial performance. Regulatory focus theory (Higgins, 1997) is used in order to develop testable empirical hypotheses and interpret our results.

Through the use of regression estimation techniques, our results indicate that entrepreneurial growth expectations are indeed important in a number of ways. Firstly, and not surprisingly, the entrepreneurs who expected to expand their businesses and indeed did expand, achieve the best financial performance as captured by profits, 'all other things being equal'. Secondly, and more interestingly, entrepreneurs who expected growth which however did not materialize, perform significantly better (in terms of profits) than those who are 'surprised' by growth (in terms of sales) they did not expect. Thus if we view expectations as an element of

[1] In this paper, our empirical equivalent of the entrepreneur is the owner-manager of a small and medium sized company.

planned behaviour constrained by environmental factors and imperfect knowledge, our results indicate that the successful optimist-realist performs better than optimists, who in turn performs significantly better than pessimists. We view these findings as consistent with regulatory focus theory, where entrepreneurial success can be seen as resulting from an appropriate mix of "promotion focus" and prevention focus".

The rest of the paper is structured as follows. Section two presents a literature overview and our hypotheses. In section three we discuss the data and methodology. Section four presents the results. The paper concludes in section five.

2. LITERATURE REVIEW AND HYPOTHESES

In this section, we motivate our empirical design by relating it to the existing theoretical and empirical literature. The first two subsections focus on the relationship between expectations, performance and entrepreneurial characteristics and present the hypotheses to be tested later in this paper.

2.1 Cognitive strategies, optimism and performance

Individuals face a world that contains a set of threats and opportunities. An exact assessment of these is difficult as full information is never available, and additional information has to be acquired at a cost. To deal with this complexity, people adopt alternative cognitive (heuristic) strategies, the efficiency of which is conditional on the environmental characteristics (DellaVigna, 2007). In this context, the contribution of regulatory focus theory (Higgins, 1997) is to highlight the fact that people may not attach the same weight to potential positive outcomes as to the potential negative outcomes of their actions (referred to as 'opportunities' and 'risks' in entrepreneurship literature) (De Carolis and Saparito, 2006). The central contribution of the regulatory focus theory is to posit the identification of two stylised strategies of self-regulation aimed at achieving individual standards and goals: 'promotion focus' and 'prevention focus' (Higgins, 1997). The main difference is that individuals using the first 'promotion focus' highlight the potential gains, while those individuals using 'prevention focus' concentrate on avoiding potential losses (Brockner et al., 2004). It is however impossible, to declare one of these strategies as superior a priori, as their efficiency is conditional on the nature of the task at hand

(Baron, 2004). Moreover, empirical evidence suggests that alertness to identifying threats and cognitive skills related to opportunity recognition may not necessary be substitutes; it is in fact likely that the winning combination lies where these two foci overlap. At this intersection we find individuals who can combine 'promotion focus' with some 'prevention focus', or those individuals who are flexible in modifying their approach depending on the circumstances. In the context of entrepreneurship, a 'promotion focus' may be of more critical value in an early phase of business start up when innovation is essential. On the other hand, a 'prevention focus' may be more useful during the business planning stage, where a reality check as well as the identification of business risks is of key importance (Brockner et al., 2004).

In addition, it is also important to acknowledge how different cognitive strategies interact with expectations. As Brockner et al. observe: "It is an advantage for people in a promotion focus to anticipate success because this positive expectancy will maintain their motivational intensity (high eagerness). (…) There is also evidence that high promotion-pride individuals are optimists with high self-confidence." (*Ibid.*, p. 215).[2] The perspective presented above stresses the self-fulfilling features of people's beliefs. However, there are additional compelling arguments that highlight how optimism may be beneficial for entrepreneurship.

Firstly, in the entrepreneurial context, opportunity recognition as related to promotion focus may be clearly seen as particularly beneficial (Baum *et al.*, 2001; Baron, 2004).

Secondly, shifting from a psychological to an economic argument, in an environment where most individuals are risk-averse, the willingness to take risks is rewarded (Parker, 2004). Even if entrepreneurs do not differ in their tolerance for risk from the general population, risk taking under certain circumstances, can be a perfectly rational strategy for the entrepreneur (Wu and Knott, 2006).

Thirdly, asymmetry may exist between failure and success. In particular, taking the resource perspective view, planning for success (associated with optimism) may be more beneficial than an alternative strategy of planning to limit the impact of potential negative shocks (associated with pessimism). Entrepreneurial opportunities are by definition of a transient nature and therefore the speed of response may be a critical factor. Accordingly, the reward for an optimistic entrepreneur from having resources

[2] An important point to note is that here we talk about a cognitive bias (i.e. the difference in perceptions of risk), not about a different level of risk tolerance, as in the traditional theory (see discussion in: Baron, 2004; De Carolis and Saparito, 2006; Wu and Knott, 2006).

mobilised to meet a surge in demand (such as to secure an adequate level of employment with required skills) may be more than proportional when compared with the reward for a pessimistic entrepreneur that may result from potential savings from a decrease in the venture resource base in anticipation of the decrease in demand. Thus, the asymmetry between the gains from being prepared for the success versus the savings from being prepared for a downturn may explain why optimism may on average result in better performance than pessimism.

It is for these reasons that the cognitive bias resulting in optimism may be beneficial for entrepreneurial success as measured by financial performance. We apply this theoretical perspective to develop our first hypothesis:

H1: Entrepreneurial success[3] *is associated with the entrepreneurial optimism.*

However, we posit that for entrepreneurship to succeed, exploring opportunities must be matched by an alert and correct (realistic) perception of the existing threats. In other words, it may not be enough for entrepreneurs to simply respond to opportunities. In the language of regulatory focus theory, the most efficient combination may be where the "promotion focus" is moderated to some degree by the "prevention focus" (Baron, 2004). Therefore though optimism may be beneficial for business success (as formulated in hypothesis 1), realism may also be important. This leads us to formulate our second hypothesis:

H2: Entrepreneurial success is positively affected by entrepreneurial realism.

Next, for the development of hypothesis three and four we turn to the possible effects of additional personal characteristics of the entrepreneur on firm performance.

2.2. Individual entrepreneurial characteristics and performance

Entrepreneurship research is paradoxical. In an ideal world in which we could identify all observable characteristics of successful entrepreneurs, it would be easy to

[3] Though 'entrepreneurial success' can be conceptualised in a variety of ways including using subjective as well as objective measures, this paper analyses 'entrepreneurial success' in terms of financial performance. See Section 3 below.

stimulate entrepreneurship by adopting tailored policy measures and training. While this is, to some extent possible, a significant part of entrepreneurship remains unexplained by objective, external characteristics. This is why psychological characteristics such as optimism are important to test empirically. It is also paramount to include the effects of observable external characteristics that have already been identified as influential in existing research. Of particular interest are those characteristics related to human capital, specifically, education and experience. In general, existing studies have shown that human capital as measured by education and business owner's age is not only an important characteristic of entrepreneurial capacity (Sexton and Upton, 1985) but has a positive influence on firm survival, growth (Cooper et al., 1994; Aidis and Mickiewicz, 2006) and entrepreneurial performance (Cooper and Gimeno-Gascon, 1992; Chandler and Hanks, 1998). Education seems to provide the knowledge base as well as analytical and problem-solving skills that foster more effective strategies for dealing with the demands of entrepreneurship. Indeed, Watkins et al. (2003) find a significant and positive relationship between venture growth and higher levels of education and work experience. Given these findings, we formulate hypothesis three to read:

H3: Entrepreneurial success will be positively affected by the business owner's education level.

In terms of business owner's age, Watkins et al. (2003) found that younger business owners with fewer employees were significantly more likely to grow their ventures. A related argument is that with time, the entrepreneurs achieve their target business size (by both expanding and adjusting their aspirations to the actual level) (Parker, 2004). However other studies have indicated that middle-aged entrepreneurs are more likely to grow their businesses than other age groups (Burns, 2001). Business sector may have an influence on these results with younger entrepreneurs growing their firms faster in IT sectors. As a result, the relationship between business owner's age and business performance is still not completely understood. The ambiguity of existing empirical findings as to the link between age of entrepreneurs and performance of businesses may be coloured by the fact that the age is in fact an

imperfect proxy for experience[4]. Moreover, unlike large organisations, the level of direct control in small entrepreneurial firms is high and therefore the latter are more directly affected by the experience-driven strategies and choices of the owner-manager (Baum *et al.*, 2001).

Since entrepreneurship is a learning process where entrepreneurs adjust their beliefs based on their results, we would expect that in the early stages, entrepreneurs weight their priors relatively more heavily against outside information, as they take outside signals as noisy and therefore initially imperfect evidence. That is, they may persist with their drive to expand their businesses, as they are unsure if the barriers they encounter (including their own abilities) are of temporary or permanent nature (Parker 2004, 2006). As a result, we expect that, controlling for business age and the age of the entrepreneurs, we may still find that the owners-managers with no entrepreneurial experience, i.e. those at the beginning of their entrepreneurial learning curve will achieve lower profits. Hypothesis four addresses this possible effect of entrepreneurial experience:

H4: Business venture performance will be lower for owner-managers with less entrepreneurial experience than for owner-managers with greater entrepreneurial experience.

2.3 Other determinants of performance

Our analysis includes a number of control variables, which are well documented in the existing literature. To verify that age and entrepreneurial experience have a similar influence on business growth (as discussed above) we include a control for age. We expect the actual growth of the entrepreneurial venture to be negatively correlated with its age as indicated by a number of studies (summarised in Parker 2004).

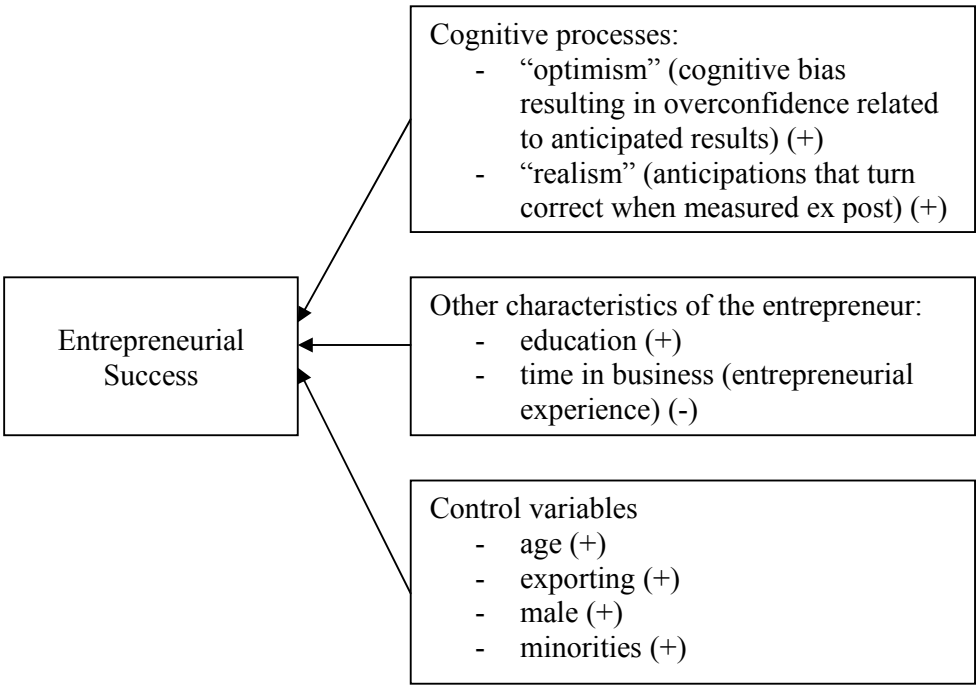
Exporting has also been found to be a strong driver for business performance and growth. This has been confirmed empirically in a study by Beck *et al.* (2002). Similar results are reported by Becchetti and Trovato (2002), Batra *et al.* (2003), and Aidis and Mickiewicz (2006).

[4] The role of individual experience is currently being stressed in business and economics research mainly motivated by the psychology approach (DellaVigna, 2007).

Gender and ethnicity have also been found to affect business growth. In particular, female businesses tend to be smaller and are less likely to grow than male-owned businesses (Cooper et al., 1994). A study by Cliff (1998) indicates that female business owners tend to have lower growth thresholds for their businesses than men, which can partially explain the tendency for women to have smaller businesses with lower turnovers. We therefore expect that male entrepreneurs will achieve higher growth performance (but not necessarily higher financial performance) than female entrepreneurs. Existing studies also indicate that minorities tend to perform better in entrepreneurship than the majority population (see Parker 2004 for further discussion). We would expect a similar trend to occur in our sample.

Finally, we also control for those owners-managers who work part-time at their businesses, initial size of the business and sectoral affiliation. Figure 1 below summarises our framework for analysis.

FIGURE 1.
Framework for analysis.



3. DATA AND METHODOLOGY

This section is made up of four subsections. The data set is described and presented in section one. Section two discusses the operationalisation of the dependent variable and section three provides a description of the estimation techniques used for our regression analysis, which take into account the formal characteristics of the dependent variable. Section four presents our key explanatory variables.

3.1 Summary statistics

The data used in this paper is based on 133 strictly confidential face-to-face structured interviews with the owner-managers of small and medium-sized enterprises (SMEs) which were initially conducted in the summer of 2005 and then again one year later (in the summer of 2006). All interviews took place in Riga, Latvia. The initial interviews were randomly sampled using official statistics from the Company Register of Latvia, collected in the Lursoft database (see http://www.lursoft.lv). The sampling frame was limited to SMEs, i.e. firms with up to 250 employees registered in Riga, the capital city of Latvia, and operational at the time of the survey. Key descriptive statistics from this data are presented in Table 1.

TABLE 1.
Descriptive statistics: independent variables.

Variable	Description	No of obs.	Mean	SD
Turnover [a]	Annual turnover as reported by the owner-manager in 2005.	123	345	565
Employment	Total employment as reported by the owner-manager in 2005.	126	20	31
Bizage	Business's age.	133	9	4
Age	The owner-manager's age.	133	45	11
Uni_edu	Dummy variable. One if the respondent has a university education, zero otherwise.	133	.60	.49
Experience				
Exper 1	Dummy variable. One if the business experience of the owner-manager was less than one year in 2005, zero otherwise.	133	.20	.40
Exper 1-7	Dummy variable. One if the business experience of the owner-manager was between one year and 7 years, zero otherwise.	133	.30	.46
Exper 8 – 15	Dummy variable. One if the business experience of the owner-manager was between	133	.19	.39

	8 and 15 years, zero otherwise.			
Exper 16	Dummy variable. One if the business experience of the owner-manager was over 16 years, zero otherwise.	133	.31	.46
Expectations (v.1)	*Dummy variables*			
Ex_tur_in_05	One if the owner-manager expected their business's turnover to 'increase a lot' or 'increase' (in 2005), zero otherwise.	129	.71	.46
Exp_tur_corr	One if the sign of actual growth in turnover as reported in 2006 was consistent with the expected sign of turnover growth reported in 2005, zero otherwise.	117	.70	.46
Expectations (v.2)	*Dummy variables*			
Re_pessimist	Realistic pessimist. One if the owner-manager did not expect business turnover to increase in 2006 and it did not increase, zero otherwise.	117	.15	.36
Un_pessimist	Unrealistic pessimist. One if the owner-manager did not expect turnover to increase in 2006 but it did increase, zero otherwise.	117	.10 .55	.30 .50
Re_optimist	Realistic optimist. One if the owner-manager expected turnover to increase in 2006 and it did increase, zero otherwise.	117	.20	.40
Un_optimist	Unrealistic optimist. One if the owner-manger expected turnover to increase in 2006 but it did not increase, zero otherwise.	133	.14	.35
Other variables				
Sec_man	Dummy variable. One if the business is in the manufacturing sector, zero otherwise.			
Sec_trade	Dummy variable. One if the business is in the trade sector, zero otherwise.	133	.37	.48
Sec-ser	Dummy variable. One if the business is in the service sector, zero otherwise.	133	.49	.50
Part-time	Dummy variable. One if the owner-manager works part-time at their business, zero otherwise.	133	.13	.34
Export	Dummy variable. One if the company was exporting in 2005, zero otherwise.	133	.18	.39
Emp_in_short	Dummy variable. One if the owner-manager's total employment growth in 2006 ('increased a lot' or 'increased') corresponded to their expectation in 2005, zero otherwise.	130	.30	.46
Inv_in_short	Dummy variable. One if the business-owner 's investment grew in 2006 ('increased a lot' or 'increased') corresponded to their expectation in 2005, zero otherwise.	124	.34	.48
Male	Dummy variable. One if the owner-manager is male, zero if female.	133	.66	.47
Latvian	Dummy variable. One if the owner-manager is Latvian, zero if an ethnic minority.	133	.55	.50
Mark-opp	Dummy variable. One if the owner-manager chose 'to respond to market opportunities' as one of the three most important reasons for starting their business, zero otherwise.	129	.56	.50

Notes:

a) Turnover is reported in thousands of Lats. Applying the appropriate exchange rate as reported by the Bank of Latvia for this period, the mean turnover approximates 243 thousand Euros.

3.2 Entrepreneurial success: financial performance

There are many ways of interpreting 'entrepreneurial success'. Ultimately, however, it is financial performance that decides the future of any business venture.[5] Even though no consensus regarding the definition of small business performance exists, increase in employees, increase in sales, profitability and increase in market share are four ways in which business performance is typically measured (Chandler and Hanks, 1993; Robinson, 1999; Vesper, 1996; Delmar *et al.*, 2003; Watkins *et al.*, 2003). In this paper, we take profits as our key measure of performance. We operationalise it as a short term (a 12 month period) change in profitability (where profitability is defined as the ratio of profits to turnover). As in Baum *et al.* (2001), we prefer to focus on change in profitability rather than level of profitability to eliminate additional effects that we cannot control for, including where profits proxy for some elements of stable rents.

However, it is important to note that there are some limitations to this approach. Firstly, SMEs often rely on simplified accounting where the measures of profit are not clear-cut. Secondly, it is typical for many new firms to follow a period of low profitability in the initial phase of their existence, for which reason current profitability may not be a good indicator of the net present value of the venture. Thirdly, underreporting may be common. Note however that our focus on change in profits alleviates both the second and the third difficulty. With respect to the second issue, even if some ventures are reporting low profits initially, the successful ones should experience a positive trend in profits that is possible to be captured by the direction of change, which is what we rely on. With respect to the third issue, a focus on dynamics may again be better, as long as the proportion of unreported profits remain stable. Moreover, the problem is not specific for profits as hiding some part of the entrepreneurial activity implies underreporting of all relevant information, including sales and employment. Interestingly, reliance on 'subjective' survey data (as in this paper) may have a clear cut advantage than the use of 'objective' financial data collected from the third party, as long as the respondents have little incentive to report incorrectly to the interviewers, conditional on their trust in the anonymity of the survey.

[5] For the discussion of performance measures, see: Chandler and Hanks, 1993; Robinson, 1999; Vesper, 1996; Watkins et al., 2003.

3.3. Dependent variables and estimators

We adopt the following estimation strategy. Our dependent variables measuring performance include two alternative measures of change in profitability. This situation enables us to verify if the results are sensitive to variation in measurement. According to the first of these measures, the respondents were asked to assess the change in profits using a 5-point Likert scale ranging from profits "decreased significantly" to profits "increased significantly". On the second measure, the respondents were given an ordered range of numerical intervals, ranging from high negative to high positive values. A detailed distribution of answers is given in Table 2. We compared the answers to both questions given by each respondent and we find an exact correspondence between the choices along both scales. That increases our confidence in the reliability of our results.

TABLE 2.
Two survey instruments measuring short-term growth in profits.

(a) Likert scale (**d_prof06_ord**)	Freq.	Percent	Cum.	(b) Intervals **(d_prof06_ore)**	Freq.	Percent	Cum.
increased a lot	6	4.62	4.62	-40 to -1	14	10.77	10.77
increased	76	58.46	63.08	0	34	26.15	36.92
remained stable	34	26.15	89.23	1 to 20	63	48.46	85.38
decreased	14	10.77	100.00	more than 20	19	14.62	100.00
Total	130	10.00		Total	130	100.00	

We regress these two financial performance measures on the same set of explanatory variables using ordered probit estimators with robust standard errors.

3.4 Key explanatory variables

We operationalise the nature of the cognitive bias in expectations using two alternative methods.In the first method, we introduce two explanatory variables:

A1. A binary indicator distinguishing between strictly positive turnover growth expectations and zero otherwise (as declared in the 2005 survey and denoted as *'ex_tur_in_05'* in Table 1), and

A2. A binary indicator that captures exactness of expectations, i.e. takes the value of one in the case either both expectations and actual growth were positive or both were negative, and the value of zero in case of a discrepancy between the expected and actual sign of the change in turnover (denoted as '*exp_tur*_corr' in Table 1).

In the second method, we create four groups, to capture the potential interaction between an owner-manager's pessimistic or optimistic business expectations as compared to actual business outcomes one year later. Accordingly we define:

B1. "Realistic pessimists" are those owner-managers who did not expect an increase in turnover in 2006 and our follow up questionnaire in 2006 verified that these predictions were correct.

B2. "Unrealistic pessimists" are those owner-managers who did not expect an increase in turnover in 2006 growth yet to the contrary, our follow up questionnaire in 2006 verified that they in fact experienced an increase in turnover.

B3. "Realistic optimists" are those owner-managers who expected an increase in turnover in 2006 and our follow up questionnaire in 2006 verified that these predictions were correct.

B4. "Unrealistic optimists" are those owner-managers who expected an increase in turnover in 2006 yet to the contrary, our follow up questionnaire in 2006 verified that they did not experience an increase in turnover.[6]

In addition, we introduce an explanatory variable measuring entrepreneurial experience. Here the owner-manager respondent chooses the length of her/his

[6] As a robustness check, we also explored the possible determinants of expectations of turnover. We found the estimated probit equations to have poor exploratory power regardless of specification (results available on request). That confirms the argument we made in Section 2.2: psychological variables affecting the entrepreneurial outcomes cannot be easily reduced to observable objective characteristics of the entrepreneurs. The only variable that had a significant impact was the indicator of 'opportunity entrepreneurship', a dummy variable where the respondent chose 'to respond to market opportunities' as one of the three most important reasons why the business was started. Clearly, 'entrepreneurial optimism' and 'opportunity entrepreneurship' are closely related phenomena. The simple correlation coefficient between the two variables is 0.22, which is significant (at 5% level). However, we leave this theme for future research.

experience using an ordered scale (distribution parameters of this variable are reported in Table 1). We also include a variable measuring higher education specifically investigating the difference between owner-managers who attained a university education as compared with those that did not.

In addition, we control for age of the entrepreneur, age of business venture, and if the manager-owner considers their business a part-time or full-time job. Also we include dummy variables for gender and ethnicity of the entrepreneur. In terms of business activity, we control for exporting and prior increase in investment and employment. Finally, we control for the size of the company (captured by natural logarithm of turnover, as reported in 2005) and for sectoral affiliation (see Table 1 above for the sectoral distribution of the sample).

4. RESULTS

Our results are presented in four specific equations shown in tables 3 and 4 below.

TABLE 3.
Ordered probit regressions: determinants of profits growth (expectations – version 1).

	(a) dependent = d_prof06_ord			**(b) dependent = d_prof06_ore**		
Independent	Robust			Robust		
variables:	Coef.	Std. Err.	P>|z|	Coef.	Std. Err.	P>|z|
Ln_turnover	**.1176833**	**.0589742**	**0.046**	.0743511	.0626169	0.235
ln_bizage	.2022825	.2604357	0.437	.0977509	.2908556	0.737
ln_age	.7651062	.6307151	0.225	.5976642	.5620901	0.288
uni_edu	.4135546	.2665013	0.121	**.547763**	**.2450312**	**0.025**
exper_1_7	.0459073	.2826383	0.871	.0641764	.2739193	0.815
exper_8_15	.2654651	.421756	0.529	.2532431	.4210489	0.548
exper_16	-.5753879	.3855675	0.136	-.3785922	.3635051	0.298
Ex_tur_in_05	**1.036178**	**.3602674**	**0.004**	**.7432447**	**.3430149**	**0.030**
sec_trade	-.2298839	.3888927	0.554	-.314895	.33763	0.351
sec_ser	-.3520575	.3909789	0.368	-.4316223	.3512017	0.219
part_time	**1.055994**	**.3566833**	**0.003**	**.981029**	**.3430429**	**0.004**
Export	.2697312	.3596368	0.453	.2198242	.2965368	0.459
emp_in_short	.321851	.3008727	0.285	**.449195**	**.2689099**	**0.095**
inv_in_short	-.0284866	.2686975	0.916	-.2128928	.2530687	0.400
Male	-.4010567	.2525746	0.112	**-.4094996**	**.2372885**	**0.084**
Latvian	**.578811**	**.2449874**	**0.018**	**.7324796**	**.2410084**	**0.002**
exp_tur_corr	**.6937904**	**.2825483**	**0.014**	**.4668512**	**.2800463**	**0.096**
Number of obs	111			111		
Wald chi2(17)	56.17			65.11		
Prob > chi2	0.0000			0.0000		
Pseudo R2	0.2087			0.1447		

Note: "ln_" denotes a variable, which was transformed into natural logarithm.

TABLE 4.
Ordered probit regressions: determinants of profits growth (expectations – version 2).

	(a) dependent = d_prof06_ord			(b) dependent = d_prof06_ore		
Independent Variables:	Coef.	Robust Std. Err.	P>|z|	Coef.	Robust Std. Err.	P>|z|
ln_turnover	-.0025795	.0708983	0.971	-.0334351	.0760812	0.660
ln_bizage	.2437237	.3844246	0.526	.0917728	.3902137	0.814
ln_age	.5304252	.7928101	0.503	.2571877	.7320312	0.725
uni_edu	.1185245	.2910397	0.684	.3169285	.2604658	0.224
exper_1_7	**.7271891**	**.3813265**	**0.057**	**.6098892**	**.353308**	**0.084**
exper_8_15	.4857764	.5256229	0.355	.4419638	.4848277	0.362
exper_16	-.3481516	.5393406	0.519	-.0672994	.4854748	0.890
sec_trade	-.0253163	.3810068	0.947	-.1603388	.3255963	0.622
sec_ser	-.2472893	.4040006	0.540	-.3443265	.3486445	0.323
part_time	**.626237**	**.316562**	**0.048**	**.6561991**	**.3549806**	**0.065**
export	-.063088	.3736542	0.866	-.0759581	.3104322	0.807
emp_in_short	.0236343	.3697403	0.949	.2176144	.3098394	0.482
inv_in_short	.4128454	.3274079	0.207	.0440494	.2999667	0.883
male	-.3959251	.3111238	0.203	-.4275909	.279861	0.127
Latvian	.0409701	.2490599	0.869	.3803283	.2481482	0.125
ur_pessimist	**4.117951**	**.70706**	**0.000**	**4.354522**	**.7332337**	**0.000**
ur_optimist	**1.14124**	**.4989852**	**0.022**	**1.058547**	**.4688225**	**0.024**
re_optimist	**4.506783**	**.5941053**	**0.000**	**4.21706**	**.5518557**	**0.000**
Number of obs	**111**			**111**		
Wald chi2(16)	**101.04**			**111.07**		
Prob > chi2	**0.000**			**0.000**		
Pseudo R2	**0.5357**			**0.3977**		

Note: benchmark category: realistic pessimists

Table 3 presents two models where we take optimism (defined as positive turnover growth expectations measured *ex ante*) and realism (defined as consistence between *ex ante* expectations and *ex post* results) as two separate variables (A1 and A2 as defined above). Both have a positive impact on financial performance, even when we control for turnover growth and other variables. Thus we obtain support for both hypotheses 1 and 2. Entrepreneurial success measured as financial performance is positively affected by entrepreneurial optimism (H1) and entrepreneurial realism (H2).

Interestingly enough, the impact of 'optimism' is much stronger than the impact of 'realism', as can be seen from comparing the values of the corresponding coefficients. To further confirm that our results are not driven by the particular design of the exploratory variables, we adopted an alternative categorisation (discussed above in section 3: B1-B4). Namely, we categorised entrepreneurs into four groups: unrealistic pessimists, realistic pessimists, realistic optimists and unrealistic optimists. In the two models presented in Table 4 we use realistic pessimists as a benchmark category, so the coefficients capture the difference between each group with reference to this one. Not surprisingly, realistic optimists perform better than realistic

pessimists. More striking however is that unrealistic optimists perform better than realistic pessimists. That is, the entrepreneurs who had anticipated growth that did not materialise perform better financially than those who had anticipated negative growth and were correct in their predictions. This result provides support for the notion that cognitive bias resulting from overconfidence and promotion focus can have a positive impact on financial performance. In other words, the result provides compelling evidence that entrepreneurial optimism results in better financial performance. This provides further strong support for hypothesis 1. In sum, we identify optimism as more important than realism for entrepreneurial success as measured by financial performance.

Further, we find weak evidence that generic human capital in the form of university education is beneficial for entrepreneurial success as measured by financial performance (see especially Table 3, panel b). This provides some support for hypothesis three and it is in line with existing research findings.

We also obtain support for hypothesis four investigating the effects of entrepreneurial experience on firm financial performance (see Table 4, models a and b). Nascent entrepreneurs (with less than one year experience) were found to increase profitability less than owner-managers with 1-7 years of entrepreneurial experience.

In terms of our control variables, age is not a significant factor for financial performance, provided we include the direct measure of entrepreneurial experience (see H4 above). We performed other robustness checks[7] and found that the results for age were are also insignificant for other functional forms (quadratic, linear or log quadratic).

Our results also show that exporting leads to the expansion of employment, and is weakly (i.e. mostly insignificantly) positively correlated with increase in profitability. Contrary to our expectations, no significant differences were found for female business owners. Surprisingly, the results in Table 3 model b suggest that the financial performance of firms run by male entrepreneurs is lower than for female entrepreneurs.

We were also surprised to find strong evidence that businesses owned by ethnic Latvians (the majority members of the population) performed better than those businesses owned by members of the ethnic minority (in this case Russians). To

[7] Available from the authors upon request.

understand this phenomenon we explored if it was possibly influenced by a form of institutionalised discrimination characterised by the fact that a sizeable portion of ethnic Russians living in Latvia do not have Latvian citizenship. Specifically, we wanted to test if the lack of Latvian citizenship played any role in our estimation results. To explore this factor, we replaced the ethnicity variable with a variable capturing citizenship, and also estimated the model where ethnicity and citizenship were introduced jointly. However, the latter variable turned out to be highly insignificant regardless of specification. We conclude that our results, which are not consistent with the literature based on ethnic minorities in other countries (Parker, 2004), may be explained by transition specific effects. It may be closely linked to informal institutions in general and cultural differences in particular.[8]

5. CONCLUSIONS

We believe that this paper makes a number of important contributions to the existing literature. Our unique dataset which includes repeat sampling, allows us to empirically examine the relationship between growth expectations and growth reality for 133 SME owner-managers. In doing so, we fill an existing knowledge gap in the firm performance literature. Our results indicate a significant relationship between entrepreneurial optimism and entrepreneurial success in terms of actual firm growth and financial performance. Moreover, entrepreneurial realism which we define as a consistency between growth expectations and actual growth also affects financial performance positively. To be sure, the impact of optimism dominates over the impact of realism.

Thus, even when we control for a standard set of performance determinants, the initial expectations of the owner-manager have an additional positive impact on the actual future growth performance. In this sense it is legitimate to argue that the concept of entrepreneurial expectations is closely related to the concept of 'aspirations' since these results are in line with studies focusing on 'entrepreneurial aspirations' (such as Wiklund and Shepherd 2003). Moreover, we believe that these results can also be seen as consistent with regulatory focus theory. In the context of

[8] Another potential explanation is that results in the literature relate to minorities, which are smaller in numbers, while in Latvia, both main ethnic groups are very large. Close to 30% of the population are ethnic Russians. About two thirds of these have no citizenship status (Paalzov *et al*., 2007). See also Hazans (2007).

entrepreneurship, the winning cognitive strategy may be the one that focuses predominantly on 'promotion' (defined as 'optimism' in our analysis), with the accompanying overconfidence cognitive bias being modified by 'prevention' (defined as 'realism' in our analysis), to ensure some degree of correcting perceptions of business risks.

Moreover, we also contribute to the literature by identifying a non-linearity in the impact of entrepreneurial experience on performance. We find that the businesses of entrepreneurs with no experience ('nascent entrepreneurs') do not increase profits. In turn, the owners are in the middle category (over one year and less than 16 years entrepreneurial experience) are the most dynamic. These results hold when we control for both the age of the businesses and the age of the entrepreneurs (owner-managers) and jointly estimate both the employment growth and the turnover growth equations. In this way, we identify the effects that in much of the literature could be incorrectly attributed to both the age of businesses and the physical age of entrepreneurs. As our results show however, the 'entrepreneurial cycle' of growth can be attributed to the experience of owner-managers as dated from their own individual entrepreneurial entry.

Our results are subject to several limitations. Firstly, our findings may be context specific. At time of the surveys (2005-2006), Latvia was a fast growing economy, where entrepreneurs who failed to identify the emerging opportunities correctly were paying a high price in terms of performance. In a more stable, economic environment, the optimum balance between 'promotion' and 'prevention' cognitive strategies may be different. Further empirical research would be useful to explore the possible context specific characteristics on this relationship. Secondly, our analysis incorporated a 12-month period in which to measure expectation versus reality in terms of business growth. Additional research that captures various time periods (such as an annually for a ten year period) may help distinguish other important effects.

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