

Happy entrepreneurs perform better: The mediating role of the entrepreneurial process

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HAPPY ENTREPRENEURS PERFORM BETTER: THE MEDIATING ROLE OF ENTREPRENEURIAL PROCESS

Larissa Banen

Abstract

This study builds on the existing study of Baron (2008) in which he developed a theoretical framework suggesting that entrepreneurs experiencing positive affect perform better in the entrepreneurial process. The entrepreneurial process consists of the five key aspects: opportunity recognition, acquisition of financial and human resources, development of broad social networks, capacity to respond effectively to highly dynamic environments, and tolerance for intense levels of stress. I will commence by investigating the relation between positive affect and the entrepreneurial process empirically. Additionally, I extend Baron's theory with entrepreneurial success because evidence shows that positive feelings have an influence on business performance. Hereafter I predict a positive relationship between the entrepreneurial process and success. I furthermore propose a positive relationship between positive affect and entrepreneurial success mediated by the entrepreneurial process. Hypotheses are tested using a dataset consisting of 736 Dutch entrepreneurs. As predicted and hypothesized, empirical results in this study find support for Baron's theory. There is a positive relationship between positive affect and the five key aspects of the entrepreneurial process. The entrepreneurial process is also positively related to success. Multiple analyses support the mediating relationship for several measures of entrepreneurial success. The limitations and suggestions for future research are provided.

Keywords: positive affect, entrepreneurial success, entrepreneurial process, mediation model

INTRODUCTION

Success does not only make people happy, positive affect also engenders success (Lyubomirsky et al., 2005). Positive affect is considered to be related to important benefits for the individual in many fields. It is suggested by Lyubomirsky et al. (2005) that positive affect causes several desirable characteristics, resources, and successes. Persons with a higher perceived well-being have a higher likelihood to secure job interviews, to show superior performance and productivity, and to handle supervisory jobs better (Lyubomirsky et al., 2005). Moreover, positive affect is associated with job performance (Cropanzano, 1993), task performance (Kaplan et al., 2009), and human flourishing (Fredrickson & Losada, 2005). Young adults who perceived positive affect earn significantly more after a decade of the person's well-being was measured (De Neve, 2012).

Positive affect refers to the extent to which a person feels amongst others enthusiastic, active, and alert. A person being in a high state of positive affect has high energy, full concentration, and pleasurable engagement, whereas a low state incurs sadness and lethargy (Watson et al., 1988). Positive affect predicts venture effort beyond what is directly required for the business (Foo et al., 2009). Foo et al. (2009) considered that positive affect signals that things are going well in one's business. They state that through a future temporal focus the entrepreneur increases its effort. Their findings suggest that affect, positive and negative, is used as a source of information. Even though there are signals that everything is going well, they found that the entrepreneur exerts more effort instead of less. According to their findings, the entrepreneur is able to aim his focus on the future and not in the moment. They considered that affect does play a role in the entrepreneurial process (Foo et al., 2009).

Baron (2008) suggested that positive affect influences several elements of the entrepreneur's cognition and therefore important aspects of the entrepreneurial process. He has set up a theoretical framework to examine the role of positive affect in five key aspects of the entrepreneurial process: opportunity recognition, acquisition of financial and human resources, development of broad social networks, capacity to respond effectively to highly dynamic environments, and tolerance for intense levels of stress. He theorised a positive association between positive affect and the five key aspects of the entrepreneurial process. However, empirical support for his proposed framework is lacking.

Performing well on these key aspects of the entrepreneurial process may result in higher entrepreneurial success. Successful entrepreneurs may be better than other entrepreneurs at discovering and recognizing opportunities in their environment (Sambasivan et al., 2009). Entrepreneurs with a broad social network have higher business performance (Hoang & Antoncic, 2003; Davidson & Honig, 2003). Entrepreneurs perform better in a highly dynamic environment (Baron & Tang, 2011; Baas et al., 2008). They are better able to handle stress in the entrepreneurial role (Ensley et al., 2006; Teoh & Foo, 1997). Based on this evidence, I therefore extend Baron's

theoretical framework by adding the positive relationship between the entrepreneurial process and entrepreneurial success.

The main research question formulated in this study is the following: How does positive affect explain entrepreneurial success via the entrepreneurial process? This study's aim is to test a set of hypotheses in which the five key aspects of the entrepreneurial process mediate the relationship between positive affect and entrepreneurial success. I first investigate Baron's (2008) theoretical model by analysing it empirically. Secondly, I examine whether Baron's five key aspects of the entrepreneurial process are associated with the eventual success of an entrepreneur. Thirdly, I propose a model in which the five key aspects of the entrepreneurial process play a mediating role in the relationship between positive affect and entrepreneurial success. Self-reported data is used derived from Dutch entrepreneurs.

The contribution of this thesis is twofold. Firstly, Baron's theoretical model of the role of positive affect in the entrepreneurial process is investigated empirically. Previous studies did not directly investigate the relation between positive affect and the entrepreneurial process. They often used concepts as alertness, passion, and creativity to find relations with opportunity recognition (Singh et al., 1999), acquisition of financial resources (Chen et al., 2009), and capacity to respond effectively (Baron & Tang, 2011). Instead of using distinct features of the positive affect scale I use positive affect as one concept. Therefore, I intend to fill the gap in the empirical literature by examining the joint effect of positive feelings on five key aspects of entrepreneurship. Secondly, Baron's model is extended with the focus on entrepreneurial performance rather than on the first stages of the entrepreneurial process. Previous research pointed out to the existence of different stages of entrepreneurship. Not all stages of the entrepreneurial process have been analysed equally through recent years. The focus of previous literature has been mostly on the initial stages of the entrepreneurial process (as opportunity exploitation) and the recovery of failure (Garcia et al., 2015; Cardon et al., 2012). I aim to contribute to the existing literature to look at the stages of venture success and survival.

This thesis is structured as follows. In the next section, I describe the theory and propose the hypotheses. The method section discusses the sample, the used measures, and the analysis. I then present the results, discuss the results of the research and mention the implications, discuss the limitations and present suggestions for future research.

THEORETICAL CONTEXT AND HYPOTHESES

This thesis follows Baron's theoretical framework by empirically testing the potential effects of positive affect on the entrepreneurial process. The five key aspects, opportunity recognition,

acquisition of financial resources¹, the development of broad social networks, the capacity to respond effectively to highly dynamic environments, and tolerance for intense levels of stress are suggested to play a role in the success of ventures. Figure 1 presents the hypotheses. Positive affect is suggested to have a positive relation with each key aspect individually depicted by hypotheses *H1a* until *H1e*. The entrepreneurial process consists of the total of the five key aspects. Positive affect is predicted to have a positive relation with the entrepreneurial process depicted by hypothesis *H1*. The entrepreneurial process is suggested to have a positive relation with entrepreneurial success depicted by hypothesis *H2* in the figure. Hypothesis 3, which suggests a positive relationship between positive affect and entrepreneurial success mediated by the entrepreneurial process, is not depicted in the figure. The main research question proposed in this study is the following: How does positive affect explain entrepreneurial success via the entrepreneurial process?

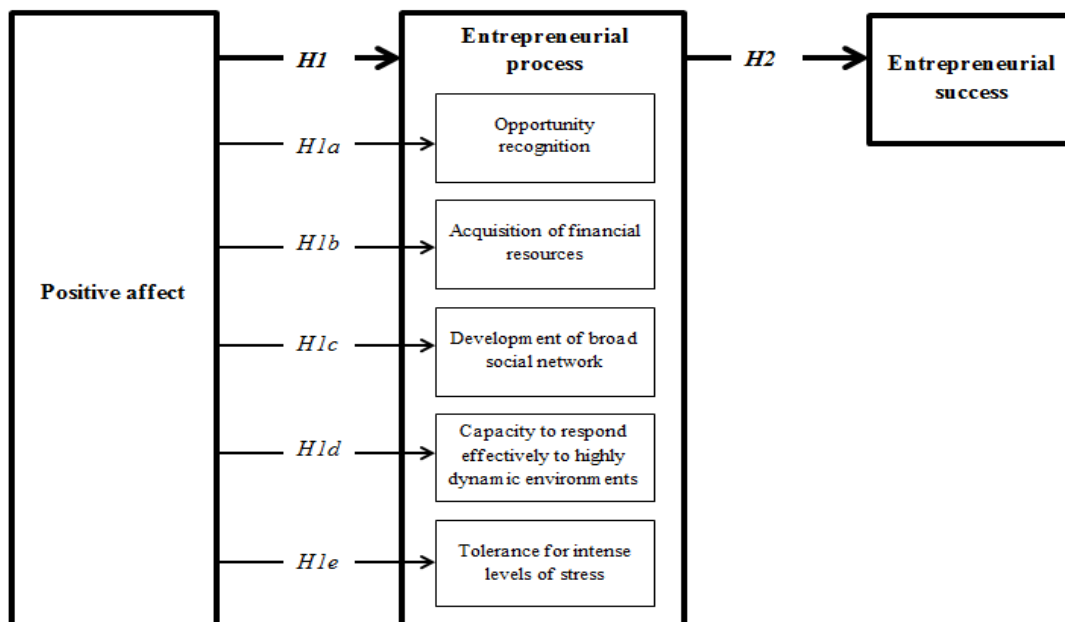


Figure 1. The proposed research model with corresponding hypotheses.

The next part firstly discusses positive affect in general and presents the characteristics of the entrepreneur. Secondly, I review the potential benefits in the entrepreneurial process structured by Baron's framework and I state the corresponding hypotheses. This is followed by theory concerning the entrepreneurial process and success. Finally, I suggest a mediation model of the entrepreneurial process.

POSITIVE AFFECT AND THE ENTREPRENEUR

Affect refers to relatively temporary and mild moods or feelings individuals experience throughout their daily lives (event-induced or state affect) as well as to more stable tendencies to experience

¹ Baron used the concept of acquisition of financial and human resources. In this thesis human resources are not relevant, since a zpp'er does not hire employees.

positive or negative feelings (dispositional affect or trait affect) (Baron, 2007). Whereas positive affect includes having high energy and concentration, negative affect is characterized by distress and unpleasant engagements. The features from positive affect seem to be the opposite of the negative affect features. However, positive affect and negative affect are not negatively correlated, but they can occur in different combinations (Watson et al., 1988). Persons with high positive affect can also experience high levels of negative affect.

Positive affect is considered to be associated with benefits in many fields. Positive affect enhances the process of problem solving and decision making leading to thorough, efficient, flexible, innovative, and creative cognitive processing (Isen, 2001). Experiencing positive affect leads to more motivation to invest time and effort in order to pursue and accomplish important career goals (Haase et al., 2012). Positive affect also has an influence in the decision-making process, where it increases the efficiency in tasks individuals need to perform (Isen & Means, 1983).

Suggested by previous literature, the entrepreneur has the following characteristics: higher tolerance of ambiguity, higher propensity to take risk, higher need for achievement, greater locus of control and more self-confidence than non-entrepreneurs (Chye Koh, 1996). Another study distinguished entrepreneurs from non-entrepreneurial managers by different characteristics. Characteristics specific to entrepreneurs were: need for achievement, internal locus of control, need for independence, need for responsibility, and need for power (Carland et al., 1984). Rauch and Frese (2007) found that personal traits (e.g., need for achievement, stress tolerance, and being proactive) matched to the task of entrepreneurs produced higher correlations with success than traits not matched to the task of running a business. Markman and Baron (2003) found that the closer the match between entrepreneurs' personal characteristics and the requirements of being an entrepreneur, the more successful they will be. One requirement of an entrepreneur is for example having the ability to create companies by exploiting opportunities and transforming these discoveries into a real business. Successful entrepreneurs are suggested to use more counterfactual thinking, where they imagine different scenarios, to develop accurate business strategies (Baron, 2004). In addition, Baron found that they are better able to avoid common traps in running a business, such as sunk costs.

POTENTIAL EFFECTS OF POSITIVE AFFECT ON THE ENTREPRENEURIAL PROCESS

This part discusses theory of each key aspect of the entrepreneurial process: opportunity recognition, acquisition of financial resources, development of broad social networks, capacity to respond effectively to highly dynamic environments, and tolerance for intense levels of stress. Each of the five key aspects is accompanied with its corresponding hypothesis.

OPPORTUNITY RECOGNITION

The entrepreneur is not a source of innovative ideas, but he is alert to opportunities that already exist in the market and are waiting to be exploited (Kirzner, 1999). Entrepreneurial alertness is an essential

and critical condition for the success of the opportunity identification triad: to recognize, to develop, and to evaluate existing opportunities (Ardichvili et al., 2003; Fatima et al., 2011). Self-perceived alertness has a positive and significant relationship with the opportunity recognition process (Singh et al., 1999). Recognition of new business opportunities is a crucial element in starting and running a business (Baron, 2006). According to Baron, pattern recognition is a key component of opportunity recognition. He suggests that pattern recognition is the cognitive process through which individuals identify meaningful patterns. The pattern recognition processes of experienced entrepreneurs were more clearly defined, and richer in content than those of novice entrepreneurs (Baron & Ensley, 2006). Baron and Ensley found that they took factors and conditions into consideration related to actually starting and running a business. Positive moods result in more creativity than neutral moods (Baas et al., 2008). They examined that creativity is enforced by active positive mood states with the focus on motivation and promotion. They concluded that creativity is enforced by happiness. This finding applies to both state and dispositional positive affect. Entrepreneurs do not perceive themselves as being any more predisposed to taking risks compared to non-entrepreneurs (Palich & Bagby, 1995). Palich and Bagby analysed that they just see some business scenarios significantly more positively than others. Therefore, they view some situations as “opportunities” whereas others recognize them with only little potential. Alertness, being one descriptor of the positive affect scale, explains the process of opportunity recognition. Entrepreneurs are alert towards new information and change in the market’s environment. Recognizing these opportunities require active and extensive search. On the basis of previous literature and the above reasons, the following hypothesis is proposed:

Hypothesis 1a: There is a positive relationship between positive affect and opportunity recognition.

ACQUISITION OF FINANCIAL RESOURCES

The entrepreneur’s passion is found to be related with creative problem solving and persistence in the pursuit of venture creation (Cardon et al., 2009). An entrepreneur faces many challenges when starting and running a business. To secure funding the entrepreneur needs to be persistence (Gimeno et al., 1997). Positive feelings are likely to result in the entrepreneur mastering the imposed challenges, as overcoming uncertainties and resource shortages. Passion of the entrepreneur has an association with energetic and persistent goal pursuit (Bierly III et al., 2000). This finding applies in particular to overcome resistance, obtain resources, coordinate activity, and motivate key people. An entrepreneur’s cognitive passion has a significant positive effect on venture capitalists’ funding decisions (Chen et al., 2009). Moreover, venture capital funding decisions of the investors are often based on the creativity of the entrepreneur making the pitch (Elsbach, 2003). Tenacity or perseverance is related to new resource skills. Tenacity is a trait concerning the focus on goal-directed action and energy, even when confronted with obstacles and barriers. New resource skills was defined as the ability to acquire necessary operating resources in order to start and grow a business (Baum & Locke, 2004). Thus

tenacity results in the ability to acquire financial resources. Entrepreneurs having high levels of positive affect, being highly determined, are better in obtaining needed financial resources for their business. Therefore, I propose:

Hypothesis 1b: There is a positive relationship between positive affect and the acquisition of financial resources.

DEVELOPMENT OF BROAD SOCIAL NETWORKS

In the entrepreneurial process, entrepreneurs use networks to gain information and advice (Birley, 1986). This occurs not solely in the first phases of business creation. Throughout the entrepreneurial life cycle, the entrepreneur preserves its reliance on networks for market information, advice, and problem solving issues (Greve, 1995). The role of social networks are important in the entrepreneurial process. With the assistance of mentors, informal industry networks, and participation in professional forums, entrepreneurs may identify opportunities for new ventures (Ozgen & Baron, 2007). Networks are high in value for entrepreneurs for financial, human, and informational resources (Adler & Kwon, 2000). Social activity involved in the entrepreneurial process is correlated with positive affect (Watson et al., 1992). Individuals experiencing a positive mood are more likely to engage in social contact than those without positive affect (Lucas & Diener, 2004). Moreover, respondents having greater social activity than others can be explained by having increased positive affect (Lucas et al., 2008). Positive affect enhances individuals' tendency to engage in social contacts with others. Persons experiencing frequently positive affect have more broad social networks than those experiencing negative affect on a regular base (Staw et al., 1994). Based on this reasoning and previous empirical evidence, the following hypothesis is proposed:

Hypothesis 1c: There is a positive relationship between positive affect and the development of broad social networks.

CAPACITY TO RESPOND EFFECTIVELY TO HIGHLY DYNAMIC ENVIRONMENTS

Positive affect may promote creativity and therefore facilitate creative thinking and problem solving (Greene & Noice, 1988). Baron and Tang (2011) found creativity to be needed in the entrepreneurial process. Their results show that positive affect is significantly related to entrepreneurs' creativity and this in turn related to firm-level innovation. This effect is moderated by the dynamism of the environment. The effect of positive affect on creativity is stronger in a highly dynamic environment than in the presence of low dynamism (Baron & Tang, 2011). High levels of positive affect are therefore more present in highly dynamic environments, in which the entrepreneur is able to perform well with respect to business performance. Moreover, Baas et al. (2008) analysed higher levels of activation among entrepreneurs in highly dynamic environments, a necessary condition for positive affect to enhance creativity. A study by Seo and Ilies (2009) let respondents engage in activities trying

to achieve performance goals in response to dynamic task environments. Individuals experiencing higher positive affect inclined to spend more time on a given task and achieving higher performance on that task than those experiencing more negative affect (Seo & Ilies, 2009). In the setting of a negotiation, positive affect was analysed on the process and outcome of a negotiation in an integrative bargaining task. Positive affect would increase the joint benefit for both parties in the negotiation (Carnevale & Isen, 1986). The intrinsic motivation, enjoyment and performance of enjoyable tasks is enhanced by positive affect. However, this is not at the expense of responsible work behaviour on a more uninteresting task that needs to be done (Isen & Reeve, 2005). Creativity, related to positive affect, is suggested to enhance the problem-solving capabilities, and this effect is stronger in dynamic environments. Therefore, the following hypothesis is proposed:

Hypothesis 1d: There is a positive relationship between positive affect and the capacity to respond effectively to highly dynamic environments.

TOLERANCE FOR INTENSE LEVELS OF STRESS

Running a business typically involves situations with high stress levels for entrepreneurs, due to rapid change, unpredictable market environments, tasks overload (Baron et al., 2016). In their study, Baron et al. investigated that entrepreneurs experience regularly intense levels of stress. They explain with the attraction-selection-attrition theory how persons select themselves into entrepreneurship. Individuals who are relatively more able to tolerate stress and to cope with stress select themselves into entrepreneurship. Entrepreneurs experience lower levels of self-reported stress than non-entrepreneurs (Baron et al., 2016). Affect influences the cognitive strategies individuals use to cope with intense stress (Carver & Scheier, 2001). High-resilient individuals experiencing positive emotions state it helps them to recover from daily stress (Ong et al., 2006). Positive emotions make individuals more prone to risk than negative emotions (Hu et al., 2015). There exists an interaction between positive affect and the level of risk (Isen & Geva, 1987). They examined on a high bet, persons with positive affect set a higher level of probability to win as the minimum necessary for taking the bet than the control group. However, with a low bet positive affect resulted in a more risk prone condition, thus setting a lower probability level of winning. Positive moods give a higher likelihood to interpret a strategic issue as an opportunity (Mittal & Ross, 1998). In their study, individuals with positive moods revealed lower risk-taking levels than individuals with negative moods. For this reasoning, the following hypothesis is proposed:

Hypothesis 1e: There is a positive relationship between positive affect and tolerance for intense levels of stress.

THE ENTREPRENEURIAL PROCESS

Baron (2008) described the entrepreneurial process by opportunity recognition, acquisition of financial and human resources, development of broad social networks, capacity to respond effectively to highly dynamic environments, and tolerance for intense levels of stress. Positive affect is associated with all five key aspects of the entrepreneurial process. For the first hypothesis, all five aspects are taken into account as the entrepreneurial process instead of looking at the aspects individually. Based on the above evidence and reasoning the following is proposed:

Hypothesis 1: There is a positive relationship between positive affect and the entrepreneurial process.

ENTREPRENEURIAL PROCESS AND SUCCESS

In the existing literature, the key to the success of new ventures is believed to be the entrepreneur. Stuart and Abetti (1987) were the first to offer a significant correlation between initial success and entrepreneurship level, whereas entrepreneurship level is defined as the extent to which a person acts like an entrepreneur driven by opportunity and using an informal approach. As entrepreneurs differ from executive managers in firms, successful entrepreneurs also differ from unsuccessful entrepreneurs. Shane defines success in entrepreneurship as “success at entrepreneurial activities may be explained by (the entrepreneur) taking actions that are rare for entrepreneurs to take” (Shane, 2003). The following part discusses the five different key aspects (opportunity recognition, acquisition of financial resources, development of broad social networks, capacity to respond effectively, and tolerance for intense levels of stress) of the entrepreneurial process related to success.

Firstly, there is a positive relationship between the opportunity recognition skills of the entrepreneur and venture performance, measured by sales volume, sales growth, and stability in profit. The better the entrepreneur is in recognizing opportunities the higher the success of the venture (Sambasivan et al., 2009).

Secondly, high amounts of capital are not a necessary condition for business performance (Wiklund & Shepherd, 2005). They argue that entrepreneurs with limited capital can perform above average if they have a high entrepreneurial orientation. This gives the entrepreneur the possibility to find and discover new opportunities which may differentiate them from competitors. In addition, the capability to secure financial capital for their businesses has an effect on the profitability and the growth rate of men-owned firms (Coleman, 2007).

Thirdly, entrepreneurs rely in the entrepreneurial process on networks for market environment information, advice, and problem solving strategies (Hoang & Antoncic, 2003). The authors found that the entrepreneur actively seeks to build and maintain these networks not only for information, but also for reputational and signaling purposes. Being active in a highly dynamic environment as the entrepreneur is, information holders (i.e. potential investors) want information from the entrepreneur

that shows its future potential. According to Hoang and Antoncic (2003), entrepreneurs can reduce the involved risks of running a business by connecting with well-established individuals or organizations. Those relationships are often best established on the basis of trust, implying informal and open contracts. Thereby enhancing quality and creating cost advantages for the entrepreneur. Having broad social networks exerts an impact on entrepreneurial outcomes, such as higher growth rates (Hoang & Antoncic, 2003). Moreover, the networking activity of a CEO or entrepreneur in a business is the strongest predictor of business performance above his previous business, industry or start-up experience (West & Noel, 2009). Having a broad social network with friends in businesses and being encouraged by them has a significant positive effect on outcomes like the first sale or showing a profit (Davidson & Honig, 2003). Baron and Markman (2003) studied entrepreneurs in two different industries, cosmetics and high-tech, and found support for the hypothesis that the higher the entrepreneur's social skills, the greater his financial success. Network capability, defined as a company's ability to develop and utilize inter-organization relationship, moderates the relationship between entrepreneurial orientation and organizational performance (Walter et al., 2006).

Fourthly, improvisational behaviour by the entrepreneur does not necessarily lead to higher venture performance. In dynamic environments, entrepreneurs must not solely base their strategies on improvisational behaviour, since this has a negative relationship with firm performance. This effect is stronger for entrepreneurs who were high in optimism compared to those with moderate levels of optimism (Hmieleski, 2013). To produce effective forms of entrepreneurial action, the entrepreneur cannot only conduct improvisational behaviour for business performance. Entrepreneurs perform better when they adapt their behaviour to the internal and external factors of the firm. They have to respond to this factors and effectively change their entrepreneurial behaviour in order to produce revenue growth and employment growth (Hmieleski & Ensley, 2007).

Finally, a research conducted among Singaporean entrepreneurs showed that the higher they were on tolerance for ambiguity or on risk-taking propensity, the better their position to handle the effects of stress in the entrepreneurial role, resulting in higher performance (Teoh & Foo, 1997). Risk-taking behaviour and locus of control were found to have no significant interaction effect on entrepreneurial success (Olakitan & Ayobami, 2011). Taken all aspects of the entrepreneurial process in consideration, the following hypotheses are proposed:

Hypothesis 2: There is a positive relationship between the entrepreneurial process and entrepreneurial success.

MEDIATION OF THE ENTREPRENEURIAL PROCESS

Positive affect may influence the five key aspects of the entrepreneurial process and this process in turn may influence the eventual success of the entrepreneur. Staw and Barsade (2005) found that persons having high positive affect are more accurate in their decisions, and perform better on the

processes underlying good decision making. Moreover, higher positive affect resulted in a better use of the existing data and information (Staw & Barsade, 1993). Happiness precedes successful work performance (Lyubomirsky et al., 2005). They suggested that positive affect may be the cause of increased success on the working domain.

The environmental dynamism has a positive moderating effect on the relationship between entrepreneurial leadership and new venture performance. Entrepreneurs perform better in a highly dynamic environment, where performance was measured as sales growth rate and absolute sales volumes of new ventures (Ensley et al., 2006). High levels of positive affect, being more present in highly dynamic environments, are significantly related to business performance, measured by firm-level innovation (Baron & Tang, 2011). Based on theory and evidence the following is proposed:

Hypothesis 3: There is a positive relationship between positive affect and entrepreneurial success mediated by the entrepreneurial process.

METHOD

This section discusses the sample, measures, analysis, and the robustness checks. In the analysis I describe the followed procedures and how a mediation model works. Finally, I explain the usage of different robustness checks.

SAMPLE

The data were gathered from randomly selected Dutch “zzp’ers”, self-employed professionals without employees. Data were collected between the end of 2014 until the beginning of 2015. Initially, 2,498 zzp’ers got selected for the survey. Three rounds of mailing, used as reminders, were sent to generate more responses. Eventually, 736 persons participated in the survey. A survey was mailed to the respondents, designed to measure several variables of interest. The entrepreneurs from this sample were operating in a broad range of sectors, from agriculture and construction to health care and education. Among the participating entrepreneurs, 33 % is female and 67% is male.

MEASURES

This part discusses all variables. In the first place, I define the independent variable positive affect. This is followed by the variable entrepreneurial process which plays the role of a dependent variable for the first hypothesis, an independent variable for the second hypothesis and a mediating variable for the third hypothesis. Thirdly, it defines different measures of entrepreneurial success used in this thesis. Finally, it describes the control variables.

POSITIVE AFFECT

Positive affect is assessed using the ten positive affect items from the Positive Affect and Negative Affect Scale (PANAS) (Watson et al., 1988). *Positive affect* is measured by the following emotions: attentive, interested, alert, excited, enthusiast, inspired, proud, determined, strong, and active. Whereas *negative affect* is determined by: scared, afraid, upset, distressed, jittery, nervous, ashamed, guilty, irritable, and hostile. Cronbach's alpha is used to examine the reliability of the variable *positive affect* by determining the internal consistency of a test or the average correlation of variables within the test. If all variables are entirely independent from one another then Cronbach's alpha is zero. When all variables have high covariance's Cronbach's alpha approaches one and the greater the internal consistency of all variables in the scale. A high alpha means that the variables included in the scale probably measure the same underlying concept. The reliability coefficient for *positive affect* is 0.84 and for *negative affect* 0.87, both indicating good reliability (Gliem & Gliem, 2003). Respondents had to indicate to what extent they experienced different feelings and emotions in general. Feelings were rated on a scale from 1 until 5, with 1 being very slightly or not at all and 5 extremely. The variable *positive affect* used in the regressions analyses represents the sum of all ten positive affect descriptors.²

ENTREPRENEURIAL PROCESS

The entrepreneurial process variable consists of a total of five entrepreneurial key aspects: opportunity recognition, acquisition of financial and human resources, development of broad social networks, capacity to respond effectively to highly dynamic environments, and tolerance for intense levels of stress. Respondents had to indicate to what extent they found themselves able to recognize opportunities, able to acquire financial resources etcetera. They could rank their answers on a 5-point Likert scale with 1 being totally disagree and 5 totally agree. Taking the total of the entrepreneurial process instead of taking the key aspects individually gives more nuance in the aspects. Someone may be less gifted in recognizing opportunities but will at the same time perform above average on one of the other four aspects.

ENTREPRENEURIAL SUCCESS

In the literature, there is a wide variety of indicators present to assess entrepreneurial company performance. It is important to measure different aspects of success to create a thorough image. Using only one dependent variable of success would most likely generate biased results (Rauch & Frese, 2000). Because of the multifaceted concept of success there is no indicator that fully captures it. In this study the following five measures of entrepreneurial success have been used to capture success: survival of the business, income per hour, revenues per week, monthly net income and annual revenues.

² I conducted a principal component analysis on the positive and negative emotions to check the established positive and negative affect scales of Watson et al. (1988). The first component clearly included all negative emotions and in the second component all positive emotions had the greatest weight.

Survival of the business measures the number of years since the current business of the entrepreneur exists.

Income per hour is defined by average monthly net income divided by the hours per month an entrepreneur puts effort into his business.

Revenues per week is defined by the number of hours an entrepreneur worked in his business multiplied by the tariff he charges his customers.

Monthly net income in euros was measured in six categories on an ordinal scale: (1) < 1,250; (2) 1,250 till 1,500; (3) 1,500 till 2,000; (4) 2,000 till 3,000; (5) 3,000 till 5,000; and (6) > 5,000.

Annual revenues was measured in seven categories: (1) < 10,000; (2) 10,000 till 25,000; (3) 25,000 till 50,000; (4) 50,000 till 100,000; (5) 100,000 till 200,000; (6) 200,000 till 500,000; and (7) > 500,000.

CONTROL VARIABLES

Several control variables were included: entrepreneur's age, gender, education, the sector of the business, hours per week worked on business, whether or not the entrepreneur ever worked as an employee in the same branch before, and total years of being self-employed.

The mean of the *entrepreneur's age* in the sample is 51, with the youngest entrepreneur being 24 and the oldest one being 76 years.

Gender was coded with 0 as female and 1 as male. Kalleberg and Leicht (1991) examined gender differences in business performance. Companies led by men did not have a higher likelihood on survival than those led by women. In contrast to their predictions, they found no differences in earnings growth between businesses led by men and women.

Education was measured using six categories, coded from 1 till 6 with every step increasing the level of education. Shane (2003) found support for the fact that highly educated people are more likely to become self-employed and they are more likely to succeed as well. The number of years spent in full-time education is an important factor in success.

Sector was coded from 1 until 10 for the differing sectors the entrepreneur is active in, including agriculture, industrial, construction, trade, logistics, ICT, finance, health care, education and others.

Hours per week accounts for how many hours the entrepreneur puts effort in his business on average per week. The mean of this variable is 44 hours (N = 709).

The variable *same branch* is coded with 1 as yes and 0 as no. Respondents had to answer the question if they were ever active as an employee in the same branch before. I predict that an entrepreneur that ever worked in the same branch as his current business is now active in has more knowledge, more experience, a broader network, and thus higher performance.

Zzp accounts for the years the entrepreneur is active as a *zpp'er*. The mean is 13 years with a minimum of 0 and a maximum of 52 (N = 721).

ANALYSIS

All regressions analyses are tested using ordinary least squares. For hypotheses *H1a* until *H1e* all five key aspects are individually used as dependent variables and for hypothesis *H1* the total of the *entrepreneurial process* is used. For the second hypothesis the *entrepreneurial process* plays the role of the independent variable and *entrepreneurial success* as the dependent variable. The above described success measures are included as distinct models in the analysis. The variable *positive affect* is the sum of the ten descriptors. The third hypothesis suggests a mediating role of *entrepreneurial process* in the relationship of *positive affect* and *entrepreneurial success*. To test this mediation effect, procedures developed by Baron and Kenny (1986) are used. Following the concepts of a mediating variable accordingly, a mediation effect is found when the following conditions are met: (a) the independent variable is a significant predictor of both the mediator and the dependent variable, (b) the mediator is a significant predictor of the dependent variable, and (c) the effect of the independent variable on the dependent variable is reduced when the mediating variable is added to the regression. Results show full mediation if the effect of the independent variable is not significant any more when the mediator is added. Partial mediation is obtained when the effect of the independent variable is reduced but remains significant in the model.

ROBUSTNESS CHECKS

Several robustness checks are performed where variables are slightly altered in order to check for the reliability and validity of the results.

ROBUSTNESS CHECK 1

Robustness check 1 takes the growth intentions into consideration. Respondents had to select a limiting factor that applies to their business. Among all respondents, 20.82% said to have no limiting factors, because they do not want to grow. As the current study is particularly interested in success, I exclude from the analysis entrepreneurs without the intention to grow and run the same regressions for hypotheses *H1a* until *H1e*, *H1* and *H2*. I expect these entrepreneurs to have less incentive to strive for high income per hour, high revenues per week, high monthly net income, or high annual revenues. Entrepreneurs without the intention to grow usually have substance goals and no growth goals (Rauch & Frese, 2000).

ROBUSTNESS CHECK 2

Robustness check 2 uses another measure of monthly net income. The precise amounts are unknown, because entrepreneurs had to just categorize their monthly net income. *Monthly net income average1* has the following six categories: (1) 1187.50; (2) 1375; (3) 1750; (4) 2500; (5) 4000; and (6) 7000. And *monthly net income average2* has for the last category 10,000 instead of 7000. I used the trend

between the upper and lower class limits of the categories of income to establish the class means above.

ROBUSTNESS CHECK 3

Robustness check 3 concerns the relation between negative affect and success instead of positive affect. The focus of this study is on positive affect and business success, but the same model used for hypothesis 3 is examined for *negative affect*. I predict that negative affect has a negative relationship with entrepreneurial success via the entrepreneurial process.

RESULTS

This section first provides the descriptive statistics. Secondly, it describes the regression results for testing hypotheses 1 and 2. Thirdly, mediation results show the mediating role of entrepreneurial process for hypothesis 3. Finally, it shows the robustness results.

DESCRIPTIVE STATISTICS

Table 1 presents descriptive statistics by summarizing the means, standard deviations, and correlations for all variables. On average, entrepreneurs found themselves capable of recognizing opportunities, having broad enough social networks, responding effectively and tolerating intense stress levels. Acquisition of financial resources scored rather low indicating that entrepreneurs encountered somewhat problems with their funding. The mean age of the entrepreneur is 51 years. The dataset consists of 241 females and 495 males. Education level of the entrepreneur is rather high, 53% of the dataset completed the highest level (university degree or HBO). On average, entrepreneurs work 44 hours in their businesses and most of them ever worked before in the same branch as their current business. The variable *entrepreneurial process* (Table 1, variable number 6) is highly correlated with each of the five key aspects (Table 1, variables 1 until 5). To check whether indirect correlations are not too high and whether the variables suffer from multicollinearity I used the variance inflation factors (VIF). VIF for the regressions for the five entrepreneurial success measures (survival, hourly income, weekly revenues, monthly net income, annual revenues) are all around 1.50 indicating that the data met the assumption of collinearity since all VIF are below the threshold³ of 10 (O'brien, 2007; Cohen et al., 2013).

³ A VIF above the threshold of 10 indicates a sign of severe or serious multicollinearity .

Table 1. Means, standard deviations, and correlations for all variables.

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. Opportunity recognition	3.17	1.06	1.00																	
2. Financial resources	1.99	1.65	0.25	1.00																
3. Social network	3.53	1.03	0.45	0.17	1.00															
4. Respond effectively	3.60	1.05	0.54	0.25	0.44	1.00														
5. Stress tolerance	3.48	1.10	0.38	0.15	0.31	0.58	1.00													
6. Entrepreneurial process	15.77	4.08	0.73	0.64	0.64	0.77	0.66	1.00												
7. Positive affect	35.52	5.18	0.32	0.07	0.32	0.30	0.26	0.35	1.00											
8. Age	51.38	9.00	-0.01	0.03	-0.01	-0.01	0.02	0.01	-0.10	1.00										
9. Gender	0.67	0.47	0.06	0.12	-0.06	0.14	0.16	0.13	-0.07	-0.01	1.00									
10. Education	4.91	1.35	0.07	0.02	0.07	0.06	-0.01	0.06	0.16	0.02	-0.15	1.00								
11. Sector	6.11	2.85	0.13	-0.06	0.10	0.02	0.01	0.04	0.13	-0.02	-0.36	0.34	1.00							
12. Hours per week	44.34	16.44	0.06	-0.01	-0.01	0.08	0.09	0.05	0.06	-0.14	0.30	-0.19	-0.23	1.00						
13. Same branch	0.64	0.48	0.05	-0.04	0.03	0.10	0.03	0.03	-0.01	-0.12	0.07	0.01	-0.02	0.00	1.00					
14. Years of zzp'er	13.34	9.36	-0.11	-0.02	-0.16	-0.13	-0.04	-0.12	-0.13	0.38	0.06	-0.14	-0.07	0.03	-0.21	1.00				
15. Survival	13.04	13.18	-0.08	0.00	-0.12	-0.10	0.00	-0.08	-0.13	0.30	0.06	-0.17	-0.08	0.01	-0.11	0.76	1.00			
16. Income per hour	14.81	14.98	0.09	0.13	0.11	0.10	0.06	0.15	0.01	-0.01	0.11	0.16	0.06	-0.30	0.15	-0.10	-0.09	1.00		
17. Revenues per week	2750.27	2189.17	0.17	0.04	0.14	0.15	0.13	0.17	0.18	0.03	0.23	0.26	0.08	0.44	0.11	-0.06	-0.10	0.03	1.00	
18. Monthly net income	3.20	1.59	0.19	0.11	0.14	0.20	0.16	0.23	0.05	-0.14	0.34	0.06	-0.12	0.34	0.29	-0.08	-0.09	0.30	0.44	1.00
19. Annual revenues	3.58	1.41	0.17	0.12	0.10	0.17	0.17	0.21	0.00	-0.14	0.40	0.02	-0.17	0.45	0.24	-0.02	-0.02	0.12	0.49	0.69

REGRESSION RESULTS

Hypotheses *H1a* until *H1e*, and *H1* predicted that positive affect has a positive relationship with the entrepreneurial process. Table 2 presents the results of the analysis performed to examine these hypotheses. The positive significant coefficients of *positive affect* for all five individual key aspects of the entrepreneurial process and the total of the entrepreneurial process indicate support for hypotheses *H1a* until *H1e* and *H1*. Therefore *positive affect* has a positive relationship with the five key aspects, opportunity recognition, financial resources, social network, respond effectively, and tolerance for high stress levels, and with the total of the entrepreneurial process. The model of *entrepreneurial process* where all five key aspects are taken together shows the highest adjusted R^2 .

Table 2. Regression results for hypotheses *H1a* through *H1e*, and *H1*.

	Opportunity recognition	Financial resources	Social network	Respond effectively	Stress tolerance	Entrepreneurial process
PA	0.06*** (0.01)	0.03** (0.01)	0.05*** (0.01)	0.06*** (0.01)	0.06*** (0.01)	0.26*** (0.03)
Age	0.01 (0.00)	0.00 (0.01)	0.01 (0.00)	0.01* (0.00)	0.01* (0.00)	0.03** (0.02)
Gender	0.27*** (0.09)	0.50*** (0.15)	0.00 (0.09)	0.25*** (0.09)	0.40*** (0.09)	1.41*** (0.33)
Education	0.01 (0.03)	0.04 (0.05)	0.02 (0.03)	0.05* (0.03)	-0.01 (0.03)	0.12 (0.11)
Sector	0.04*** (0.02)	-0.06** (0.03)	0.02 (0.02)	0.02 (0.01)	0.02 (0.02)	0.04 (0.06)
Hours per week	0.00 (0.00)	-0.01 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.01 (0.01)
Same branch	0.03 (0.08)	-0.13 (0.13)	0.08 (0.08)	0.12 (0.08)	0.06 (0.08)	0.16 (0.30)
Years of zzp'er	0.00 (0.00)	0.01 (0.01)	-0.01* (0.00)	-0.01** (0.00)	0.00 (0.00)	-0.02 (0.02)
Constant	0.08 (0.40)	0.77 (0.66)	1.07*** (0.39)	0.48 (0.38)	0.64 (0.41)	3.05** (1.47)
Observations	697	697	697	697	697	697
R^2	0.12	0.04	0.10	0.14	0.11	0.15
Adjusted R^2	0.11	0.03	0.09	0.13	0.09	0.14

Note: Standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

PA = Positive Affect

Table 3 presents the results of multiple regression analyses to test the second hypothesis. The second hypothesis predicted a positive relationship between the entrepreneurial process and entrepreneurial success. *Entrepreneurial process* has a positive and significant coefficient for *income per hour*, *weekly revenues*, *monthly net income*, and *annual revenues*. Respondents scoring high on the entrepreneurial process have in four of the five success measures more success than respondents scoring lower on entrepreneurial process.

Table 3. Regression results for hypothesis H2.

	Survival	Income per hour	Revenues per week	Monthly net income	Annual revenues
Entrepreneurial process	0.09 (0.13)	0.40*** (0.15)	54.1** (22.18)	0.07*** (0.01)	0.07*** (0.01)
Age	0.27*** (0.05)	0.04 (0.07)	13.70 (10.78)	-0.02*** (0.01)	-0.02*** (0.01)
Gender	0.45 (1.16)	3.79*** (1.36)	1,351*** (199.48)	0.86*** (0.13)	0.67*** (0.11)
Education	-1.20*** (0.39)	1.46*** (0.47)	420*** (70.20)	0.13*** (0.04)	0.08** (0.04)
Sector	-0.68*** (0.20)	0.33 (0.23)	73.9* (37.87)	0.02 (0.02)	-0.05*** (0.02)
Hours per week	0.04 (0.03)			0.02*** (0.00)	0.03*** (0.00)
Same branch	-3.06*** (1.02)	3.08** (1.25)	447** (191.16)	0.78*** (0.11)	0.46*** (0.10)
Years of zzp'er		-0.06 (0.07)	-7.03 (11.66)	0.00 (0.01)	0.01** (0.01)
Constant	8.09* (4.39)	-6.60 (4.67)	-2,505*** (727.00)	0.16 (0.48)	1.01** (0.41)
Observations	690	651	550	651	657
R ²	0.11	0.06	0.17	0.29	0.35
Adjusted R ²	0.10	0.05	0.16	0.28	0.34

Note: Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 4. Mediation results for testing hypothesis 3.

	Survival	Income per hour	Revenues per week	Monthly net income	Annual revenues
a coefficient	0.27*** (0.03)	0.26*** (0.03)	0.26*** (0.03)	0.26*** (0.03)	0.25*** (0.03)
b coefficient	0.08 (0.13)	0.47*** (0.16)	30.6 (23.37)	0.07*** (0.02)	0.08*** (0.01)
Indirect effect	0.02 (0.04)	0.12*** (0.04)	7.88 (6.10)	0.02*** (0.00)	0.02*** (0.00)
Direct effect	0.04 (0.10)	-0.14 (0.12)	53.76*** (17.94)	-0.01 (0.01)	-0.03*** (0.01)

Note: Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

The a coefficient represents the relation between positive affect and the entrepreneurial success.

The b coefficient represents the relation between entrepreneurial process and the specific success measure.

MEDIATION RESULTS

Hypothesis 3 proposes a mediation: positive affect has a positive relationship with entrepreneurial success mediated by the five key aspects of the entrepreneurial process. Table 4 shows the results of the mediation models tested. The results show for two success measures full mediation, for one measure partial mediation and for two measures no mediation at all. Mediation effects are controlled for age, gender, education level, sector, hours a week put in their business, whether they ever worked in the same branch and how many years they work as a zzp'er. *Monthly net income* and *income per hour* suggested full mediation of *entrepreneurial process*. The indirect effect between *positive affect* and *income per hour* was significant (indirect effect = 0.12, $p < 0.01$). The direct effect of *positive affect* on *income per hour* was not significant (direct effect = -0.14), indicating full mediation by *entrepreneurial process*. The indirect effect between *positive affect* and *monthly net income* was significant (indirect effect = 0.02, $p < 0.01$). The direct effect of *positive affect* on *monthly net income* was not significant (direct effect = -0.01), indicating full mediation. *Positive affect* has no direct effect on the success of a business measured by *monthly net income*, as the effects are fully mediated by the *entrepreneurial process*. The mediation model for *annual revenues* shows a partial mediation, where both the indirect and the direct effect have an influence on *annual revenues*. The indirect effect between *positive affect* and *annual revenues* was significant (indirect effect = 0.02, $p < 0.01$). Also the direct effect of *positive affect* on *annual revenues* was significant (direct effect = -0.03, $p < 0.01$), indicating partial mediation. *Survival* of the business showed no support for a mediation model, both the indirect and direct effect did not reach significance. Also for *weekly revenues* there is no mediation found. Indirect effect of *positive affect* on *weekly revenues* is not significant, whereas the direct effect is.

ROBUSTNESS RESULTS

This part provides three robustness checks to test whether results are stable. Firstly, it excludes entrepreneurs from the dataset who indicated to have no intention to grow and provide results for hypothesis 1 and 2. Secondly, it uses a slightly different defined measure of monthly net income. Finally, I expect negative affect to have the opposite effect as positive affect has on success. Therefore the variable negative affect is replaced for positive affect to examine its relationship with success in a mediation model.

ROBUSTNESS CHECK 1

Robustness check 1, excluding entrepreneurs without the intention to grow, does not give different results for the first hypothesis. *Positive affect* still has a positive significant effect on the *entrepreneurial process* for all five key aspects and the total of the process as well, only the coefficients differ slightly (Table A1). This also applies for the second hypothesis, there are no

differences found for any of the five success measures, only the coefficients slightly differ between the models (Table A2). Excluding those entrepreneurs who do not want to grow does not raise the effect of positive affect on the success for others.

ROBUSTNESS CHECK 2

As a second robustness check I added *monthly net income average1* and *monthly net income average2* based on the known monthly net income in categories. Since respondents had to categorize their income, precise amounts are unknown. Table A3 shows that these two different definitions from the original monthly net income variable returned the same results with respect to significance level and sign. The *entrepreneurial process* is positively and significantly related to both *monthly net income average1* and *monthly net income average2*.

ROBUSTNESS CHECK 3

In the mediation results for *negative affect*, for all success measures the effect between *negative affect* and *entrepreneurial process* is negative and significant (the a coefficient, see Table A4.), indicating that respondents with negative affect perform lower in the entrepreneurial process. The effect between the *entrepreneurial process* and *entrepreneurial success* is for all success measures positive and in four of the five models also significant. The models for income per hour, revenues per week, monthly net income, and annual revenues show full mediation. *Negative affect* has a negative relationship with *entrepreneurial success* mediated by the *entrepreneurial process*.

DISCUSSION

The discussion provides the key findings of this study along with its implications. Furthermore, the limitations and suggestions for future research are provided.

KEY FINDINGS

In this study, the role of positive affect is examined for entrepreneurs on their business performance. The main research question examined in this study is the following: How does positive affect explain entrepreneurial success via the entrepreneurial process? To answer this research question, the main finding of this research suggests a mediating effect of the entrepreneurial process in the positive relationship between positive affect and entrepreneurial success. Positive affect is positively related with the entrepreneurial process for all five success measures. The entrepreneurial process has in turn in three of the five success measures a positive relationship with success. Taken the mediation model into account, this study finds for two of the five success measures full mediation and for one partial mediation for positive affect on entrepreneurial success by the entrepreneurial process.

I shall only discuss the variables of interest, and not the control variables⁴. Accordingly with Baron's theoretical model (2008), positive affect has a positive and significant effect on opportunity recognition, acquisition of financial resources, development of broad social networks, capacity to respond effectively in highly dynamic environments, and tolerance for intense levels of stress. Positive affect also has a positive relationship with the total of the entrepreneurial process taken together. Entrepreneurs experiencing higher positive affect are more likely to perform well in the entrepreneurial process than entrepreneurs with lower positive affect. Entrepreneurs having higher positive affect may be more alert to discover and exploit new opportunities (Baron & Ensley, 2006) and their creativity leads to creative thinking and problem solving (Isen, 2001). Determination and persuasiveness of the entrepreneur results in better and more financial acquisition and a broad social network (Coleman, 2007; Hoang & Antoncic, 2003). Since the higher creativity of entrepreneurs enhanced their thinking and problem-solving, positive affect among entrepreneurs was found to be higher in dynamic environments (Isen, 2001; Greene & Noice, 1988). Positive affect influences the process to cope with intense levels of stress (Palich & Bagby, 1995). Their results showed that positive moods experienced by individuals results in observing a situation more as an opportunity compared to negative moods. Concluding, positive feelings and emotions the entrepreneur experiences in general results in a higher performance in the entrepreneurial process.

The entrepreneurial process has a positive relationship with entrepreneurial success for the success measures: hourly income, weekly revenues, monthly net income, and annual revenues. The higher one's ability to recognize opportunities, to acquire financial resources, to develop broad social networks, to respond effectively, or to tolerate high levels of stress the higher his success. The better the skills to recognize opportunities the higher venture performance is (Sambasivan et al., 2009). The extent to which an entrepreneur is capable to secure funding results in a higher profitability (Coleman, 2007). Having broad social networks is positively related to growth rates (Hoang & Antoncic, 2003). Revenue growth is related to the capacity of the entrepreneur to effectively adapt his strategies due to internal and external factors to the firm (Hmieleski & Ensley, 2007). Higher risk-taking propensity among entrepreneurs resulted in higher performance (Teoh & Foo, 1997). In alignment with previous studies, performing well on the five key aspects of the entrepreneurial process gives the entrepreneur higher success. This higher entrepreneurial success is expressed in a higher income per hour, higher revenues per week, higher monthly net income and higher annual revenues.

Mediation results conducted by the procedures of Baron & Kenny (1986) suggested full mediation for monthly net income and hourly income and partial mediation for annual revenues. All mediation models were controlled for age, gender, education level, sector, hours a week put in their

⁴ Gender has a significant positive relationship with opportunity recognition, financial resources, capacity to respond effectively, and for stress tolerance, implying that males are more likely to perform well in the entrepreneurial process. Moreover, bank loan officers rated female entrepreneurs to be less likely successful as males (Buttner & Rosen, 1988). Findings from the present study are therefore in alignment with previous studies, where women have difficulties to acquire working capital for their businesses, female entrepreneurs have smaller amounts of start-up capital (Verheul & Thurik, 2001).

business, whether they ever worked in the same branch and how many years they work as a zpp'er. For the success measure monthly net income, positive affect has a positive significant relationship with the mediator, the entrepreneurial process. Entrepreneurial process has a positive significant relationship with monthly net income. Entrepreneurs experiencing positive affect perform better in the entrepreneurial process. They recognize opportunities better, are more able to acquire financial resources for their business, have a broader social network, are more able to effectively respond in highly dynamic environments, and have a higher tolerance level for intense stress than those entrepreneurs without positive affect. This better performance in five key aspects of the entrepreneurial process results in a higher monthly net income and a higher income per hour than entrepreneurs having lower positive affect. For the success measure annual revenues, the mediator entrepreneurial process shows a partial mediation model. The effect of positive affect is partly directly on annual revenues and partly indirectly via the entrepreneurial process on annual revenues. There is no mediation model found for the success measures survival and revenues per week. The entrepreneurial process has no mediating role in the relationship between positive affect and the success measures survival, and weekly revenues.

IMPLICATIONS OF THE FINDINGS

The findings of the present study suggest that practitioners might consider positive affect of the entrepreneur as a criterion into the decision to enter entrepreneurship. The significant mediation models are enough to influence practical implications in entrepreneurship. This section provides two implications of the findings.

Firstly, people interested in becoming an entrepreneur and running a business have to evaluate their happiness in general and their skills on the five key aspects of the entrepreneurial process. The more enthusiast, interested, determined, excited, inspired, alert, active, strong, proud, or attentive one is the higher his positive affect. The higher positive affect is, the higher the likelihood to success in running a business. This practical implication does not only concern the entrepreneur himself, but also financial resource providers as banks or venture capitalists. At an earlier stage, potential successful entrepreneurs can be recognized and selected. Before making the decision to start a venture, one should evaluate his own feelings and emotions.

Secondly, another practical implication of this study is regarding entrepreneurship education. As Kuratko (2005) describes the number of colleges and universities offering courses related to entrepreneurship has rapidly increased over the years. Education is found to be positive for business performance (Van der Sluis et al., 2008). However, as the mediation results from the present study suggest is that the entrepreneur's positive affect is a critical factor in the relationship with success. Positive feelings and emotions of the entrepreneur in general play an important role. Previous studies suggested that the role of the entrepreneur is key for its own success. Positive affect of the

entrepreneur, happiness in general, must not be neglected in one's success. Education and courses focussed on future entrepreneurs have to provide information and advice on how to perform well in the entrepreneurial process. Since performing well on the key aspects of the entrepreneurial process is important for the entrepreneur's success.

LIMITATIONS AND FUTURE RESEARCH

The following section discusses several limitations to the current study, which also present opportunities for future research.

Firstly, entrepreneurs often set non-financial goals for their business, as customer satisfaction and respect. Making a living is much more important than making profits (Reijonen & Komppula, 2007). As Rauch and Frese (2000) propose recommendations for future research looking at the limitations in previous studies, studies did not distinguish between the goals of firm owners, whether they have subsistence, lifestyle or growth goals. Researchers usually assume that entrepreneurs have growth goals for their businesses. In the present study entrepreneurs were asked to describe limiting factors to their business, a minority did not have any because they did not want to grow. Assuming the majority of entrepreneurs did want to grow, their primary motivations and goals are still unknown. Therefore, whether entrepreneurs just want to make a living or go beyond that is not accounted for in the present study. From Reijonen & Komppula (2007) it is suggested that business growth is not the primary goal and thus not an important measure of success. Performance is rather measured in job satisfaction and customer satisfaction. Therefore, it might be interesting to take into account the motivations and goals of the entrepreneur into the relation between positive affect and success.

Secondly, although respondents were asked how they felt "in general", data is collected at a certain point in time. Therefore, regression analyses are unable to observe the effect that time brings into the relationship between positive affect and entrepreneurial success. By adding a time dimension, insignificant variables (entrepreneurial process for survival in hypothesis *H2*) in the current study could work on generating entrepreneurial success. The importance of those insignificant variables might come into play over time. However, the significance of other variables could disappear. Although I sometimes mention "the effect of", this thesis examined an association and not a causation. By adding this time dimension a causal relationship may be examined. Therefore future longitudinal research could shed more light on this time dimension by examining the role of positive affect on entrepreneurial success.

Thirdly, Baron et al. (2011) found a curvilinear relationship between dispositional positive affect (DPA) and the number of innovations, and sales growth rate. They analysed limits to the benefits of positive affect, after a certain upper bound further increments in entrepreneurs' DPA are associated with decline in firm performance. I investigated a linear relationship between positive affect

and success. Future studies might consider a curvilinear relationship and extend the findings of the current study.

Finally, the present study focussed primarily on the positive feelings of the entrepreneur (with a few control variables). As Sandberg and Hofer (1987) found, venture performance does not solely depend on the entrepreneur but also on the structure of the industry and the chosen strategy of the venture. The key to success is not only the entrepreneur, but involves more factors e.g., the external environment. Markman and Baron (2003) suggested, besides the social competence of an entrepreneur, also personal characteristics, cognitive processes, and the market and environmental conditions in which they operate are useful to consider to answer the question “Why are some entrepreneurs more successful than others?”. The focus of the present study was on happiness of the entrepreneur in general. Besides some control variables, circumstances in the market are not considered in the relationship between positive affect and success. Successful entrepreneurs are more likely to have had self-employed parents, and especially when the parents employed others as well (Henley, 2005). The influence of parents is not accounted for in the present study. As the present study was primarily interested in the effect of positive affect of the entrepreneur himself, future studies could take into consideration external factors as environmental conditions.

CONCLUSION

The present study investigated the relationship between positive affect and entrepreneurial success mediated by five key aspects of the entrepreneurial process. The entrepreneurial process consists of opportunity recognition, acquisition of financial resources, development of broad social networks, capacity to respond effectively in highly dynamic environments, and tolerance for intense levels of stress. The empirical results of the current study add to Baron’s (2008) theoretical framework, as positive affect indeed influences five key aspects of the entrepreneurial process. Additionally, his framework is extended by adding entrepreneurial success to the model. The entrepreneurial process has a positive relationship with hourly income, weekly revenues, monthly net income, and annual revenues. Finally, mediation analysis suggests that entrepreneurs with higher positive affect have higher entrepreneurial success, mediated by the entrepreneurial process. The relationship between positive affect and the entrepreneurial success measures hourly income and monthly net income are fully mediated by the entrepreneurial process. Annual revenues is partly mediated by the entrepreneurial process. Entrepreneurs’ positive feelings and emotions have a positive influence on the success of the entrepreneur.

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APPENDIX A: ADDITIONAL TABLES

Table A1. Results excluding entrepreneurs who do not want to grow for hypotheses *H1a* until *H1e* and *H1* corresponding to robustness check 1.

	Opportunity recognition	Financial resources	Social network	Respond effectively	Stress tolerance	Entrepreneurial process
PA	0.06*** (0.01)	0.04*** (0.01)	0.06*** (0.01)	0.06*** (0.01)	0.06*** (0.01)	0.28*** (0.03)
Age	0.01** (0.01)	0.01 (0.01)	0.01 (0.01)	0.01** (0.00)	0.01* (0.01)	0.05** (0.02)
Gender	0.24** (0.10)	0.36** (0.16)	-0.03 (0.10)	0.26*** (0.09)	0.41*** (0.10)	1.24*** (0.36)
Education	0.01 (0.04)	0.06 (0.06)	0.03 (0.03)	0.04 (0.03)	0.00 (0.04)	0.14 (0.13)
Sector	0.03* (0.02)	-0.09*** (0.03)	0.01 (0.02)	0.02 (0.02)	0.02 (0.02)	-0.01 (0.06)
Hours per week	0.00 (0.00)	-0.01 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.01)
Same branch	0.04 (0.09)	-0.12 (0.14)	0.10 (0.09)	0.08 (0.08)	0.06 (0.09)	0.15 (0.32)
Years of zpp'er	-0.01 (0.01)	0.00 (0.01)	-0.01** (0.01)	-0.01* (0.00)	-0.00 (0.01)	-0.03 (0.02)
Constant	-0.06 (0.43)	0.73 (0.70)	0.84*** (0.42)	0.45 (0.40)	0.45 (0.45)	2.41 (1.57)
Observations	558	558	558	558	558	558
R^2	0.14	0.05	0.13	0.15	0.12	0.18
Adjusted R^2	0.13	0.04	0.12	0.14	0.11	0.17

Note: Standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

PA = Positive Affect

Table A2. Results excluding entrepreneurs who do not want to grow for hypothesis *H2* corresponding to robustness check 1.

	Survival	Income per hour	Revenues per week	Monthly net income	Annual revenues
Entrepreneurial process	0.12 (0.15)	0.39** (0.18)	52.4** (25.85)	0.06*** (0.02)	0.06*** (0.01)
Age	0.27*** (0.07)	0.05 (0.09)	14.20 (12.57)	-0.015** (0.01)	-0.01* (0.01)
Gender	0.15 (1.38)	4.52*** (1.64)	1,336*** (231.19)	0.78*** (0.15)	0.60*** (0.12)
Education	-1.04** (0.48)	1.72*** (0.60)	372*** (85.53)	0.10** (0.05)	0.06 (0.04)
Sector	-0.75*** (0.24)	0.22 (0.29)	98.9** (45.04)	0.01 (0.03)	-0.06*** (0.02)
Hours per week	0.04 (0.04)			0.02*** (0.00)	0.03*** (0.00)
Same branch	-2.24* (1.20)	3.09** (1.48)	399* (216.73)	0.73*** (0.13)	0.49*** (0.11)
Years of zpp'er		-0.07 (0.09)	-1.52 (13.55)	0.00 (0.01)	0.01* (0.01)
Constant	6.79 (5.16)	-8.10 (5.61)	-2,428*** (845.10)	0.30 (0.55)	1.05** (0.47)
Observations	552	524	431	524	526
R^2	0.09	0.06	0.14	0.25	0.33
Adjusted R^2	0.08	0.05	0.13	0.24	0.32

Note: Standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A3. Results for monthly net income average1 and monthly net income average2 for hypothesis *H2* corresponding to robustness check 2.

	Monthly net income avg.	Monthly net income avg. 2
Entrepreneurial process	47.10*** (16.12)	55.20** (23.33)
Age	-6.19 (7.72)	-4.50 (11.18)
Gender	863*** (149.13)	1,173*** (215.80)
Education	199*** (53.49)	295*** (77.40)
Sector	6.07 (25.43)	1.22 (36.80)
Hours per week	17.20*** (4.00)	20.20*** (5.78)
Same branch	573*** (130.92)	673*** (189.44)
Years of zzp'er	-7.44 (7.80)	-14.60 (11.28)
Constant	-587.00 (555.09)	-1,361* (803.22)
Observations	524	524
R^2	0.20	0.17
Adjusted R^2	0.19	0.15

Note: Standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A4. Mediation results for negative affect for hypothesis 3 corresponding to robustness check 3.

	Survival	Income per hour	Revenues per week	Monthly net income	Annual revenues
a coefficient	-0.15*** (0.03)	-0.12*** (0.03)	-0.13*** (0.03)	-0.12*** (0.03)	-0.13*** (0.03)
b coefficient	0.15 (0.13)	0.38** (0.16)	52.04** (22.50)	0.06*** (0.01)	0.06*** (0.01)
Indirect effect	-0.02 (0.02)	-0.05** (0.02)	-6.62** (3.34)	-0.01*** (0.00)	-0.01*** (0.00)
Direct effect	0.02*** (0.09)	-0.07 (0.11)	-9.81 (17.51)	-0.02 (0.01)	-0.01 (0.01)

Note: Standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

The a coefficient represents the relation between positive affect and the entrepreneurial success.

The b coefficient represents the relation between entrepreneurial process and the specific success measure.

APPENDIX B: SURVEY QUESTIONS FOR FIVE KEY ASPECTS OF ENTREPRENEURSHIP

Survey questions

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1. I am very good in recognizing new profitable opportunities (products, services, marketing) for my business.
 2. I do not encounter problems with the acquisition of the needed financial resources (loan at the bank or others).
 3. I build up a broad social network in my work environment.
 4. I have the capacity to effectively respond to a highly dynamic environment.
 5. I have a high tolerance for intense levels of stress.
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