

“The Determinants of Happiness among Entrepreneurs ”

MSc Industrial Dynamics & Strategy

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July 2017



Acknowledgments

It has been a period of intense learning for me, not only in the scientific arena, but also on a personal level and therefore I would like to reflect on the people who have supported and helped me so much throughout this period. I would never have been able to finish my thesis without the guidance of my supervisor, help from my classmates and friends, and support from my family.

I would first like to thank my thesis supervisor dr. Spyridon Stavropoulos. The door to dr. Stavropoulos office was always open whenever I ran into a trouble or had any question regardless of my thesis. With his excellent guidance, caring and patience created an excellent atmosphere for working on my thesis. He consistently allowed this paper to be my own work, but steered me in the right direction whenever he thought I needed it. I appreciate the effort and time you devoted for me.

I must also acknowledge my classmates and my friends from Greece for our philosophical debates about the topic of happiness, exchanges of knowledge and skills that helped me enrich the experience during my master program.

Finally, my deep and sincere gratitude to my family for their continuous help throughout my entire life and in particular, I am grateful to my sister, Maria-Christina. Without her knowledge, support and encouragement in the topic of happiness, I would not have finished this thesis.

Thank you,

Ilias Mitsou

"Happiness depends upon ourselves"
Aristotle

Abstract

Using data from Global Entrepreneurship Monitor and the adult population survey in 2013, which included for first time subjective measures for happiness, this study investigates determinants within entrepreneurs that can affect their level of happiness. Following existing literature in entrepreneurial field, this paper distinguishes entrepreneurs based on motivational perspective and venture characteristics. Furthermore, by taking into account perceptual variables such as freedom of choice, fear of failure, expectations and utility, we predict that motivational perspective, and in particular opportunity perception, is the most significant determinant of happiness among entrepreneurs. Using a probit model, the results suggest that entrepreneurs who pursue a business opportunity have higher probability of stating happier than those who became entrepreneurs due to unemployment or lack of alternatives. In addition, no significant difference on the level of happiness is found within distinctions of entrepreneurs based on venture characteristics. These results point out the importance of perceptual variables on the level of happiness among entrepreneurs.

Key words: Happiness, Entrepreneurship, GEM, Opportunity, and Venture Characteristics.

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1. Introduction

This study analyzes which factors are associated with happiness in an entrepreneurial field.

Happiness has received great attention in research over the last decades, because of the multidimensional aspect that it has. Happiness can be examined and interpreted in many different fields such as economics, social, and psychology (Graham, 2005). During the past years, literature has transferred its interest from measuring happiness with objective measures to subjective (Frey & Stutzer, 2002). Since happiness involves perceptions and emotional conditions, individuals feel happy when they subjectively believe themselves to be so (Diener, 1994). In addition, literature measures subjective happiness either with affective or cognitive component (Schimmack et al., 2008). Furthermore, authors have related happiness with life satisfaction (Pavot & Diener, 2008) and happiness with job satisfaction (Wanous et al., 1997). The present study relates happiness with life satisfaction, as an individual could report high levels of job satisfaction but still he is not living a fulfilled life (Wright & Doherty, 1998).

Entrepreneurs are an extremely heterogeneous group and therefore many different definitions have been constructed (Santarelli & Vivarelli, 2007). According to Gartner (1990) entrepreneur ‘‘is someone who involves in the process of new business creation’’, while according to Shane and Venkataraman (2000) entrepreneur ‘‘is someone who discovers, evaluates and exploits opportunities to create future good and services’’. In addition, studies have distinguished entrepreneurial activity to occupational and behavioral notion in order to identify the determinants of entrepreneurs (Sternberg & Wennekers, 2005). They have been distinguished by individual characteristics, by human capital, by motivational perspective and by venture characteristics (Carree & Verheul, 2012). The present study distinguishes entrepreneurs by their motivational perspective and venture characteristics, in particular by the duration of the firm, by the number of owners in a venture and the number of employees that a venture has.

The relationship between happiness and entrepreneurs is examined more often lately. Predominantly, studies focus on the comparison between the level of happiness of entrepreneurs and employees (Benz & Frey, 2008). However, lately a new stream

of studies has risen, which focuses on the comparison among different types of entrepreneurs (Carree & Verheul, 2012; Arenius & Minniti, 2005). These studies point out that perceptual variables determine the level of happiness among the aforementioned distinctions.

Perceptual variables describe personal judgments and perceptions that are highly correlated both with life satisfaction and entrepreneurs (Arenius & Minniti, 2005). Therefore, the present study by combining theories regarding perceptual variables, tries to fill in the literature of determinants that may affect happiness among entrepreneurs. The theory of freedom of choice explains that an individual who loses his free will, independence and autonomy, experiences a loss of happiness (Gries & Naudé, 2010). In addition, Gilad and Levine (1986) introduced the ‘‘pull’’ and ‘‘push’’ theories. Individuals who started a business out of necessity (‘‘pull’’ theory) in comparison with individuals who started a business to pursue an opportunity (‘‘push’’ theory) are less satisfied with their lives. Furthermore, how an individual perceives the fear of business failure, affects his level of happiness through stress (Arenius & Minniti, 2005; Koellinger et al., 2007). Moreover, the concepts of over-optimism and expectations have been pointed out both in studies of subjective happiness and of entrepreneurs, since entrepreneurs can change their perceptions ex-post, which can lead to biased results (Arenius & Minniti, 2005; Seligman, 2004). As Stutzer (2004) mentioned, happiness depends on the gap between aspirations and actual outcome.

Taken the aforementioned together, we aim to find more about the factors that can affect happiness in an entrepreneurial field. Therefore the following research questions will be investigated:

Which are the determinants of happiness among entrepreneurs?

Which are the differences in the level of happiness within entrepreneurs, when distinctions based on motivational perspective and venture characteristics are made?

The main contribution of this paper is the examination of the level of happiness within entrepreneurs regarding venture characteristics. Previous literature has focused on the distinctions of entrepreneurs based on specific and general human capital, the motivational perspective and the individual characteristics. By doing this we eliminate the gap in the literature of distinctions based on venture characteristics

and moreover we clarify which are the significant variables that affect mostly the happiness among entrepreneurs.

By using an ordered probit model and data from the Global Entrepreneurship Monitor (GEM) the present study argues that perceptual variables and motivational perspective are the most important determinants of happiness in an entrepreneurial field. Entrepreneurs who pursue a business opportunity have higher probability of being happier than those who became entrepreneurs due to unemployment or lack of alternatives. In addition, no significant difference on the level of happiness is found within distinctions of entrepreneurs based on venture characteristics nor within distinctions of opportunity entrepreneurs on venture characteristics. These results support the importance of perceptual variables on the relationship between happiness and entrepreneurs. Given the nature of the cross sectional analysis, the results do not allow us to establish a casual direction and therefore the present study highlights the need of time-series datasets to give a better insight of how perceptual variables can affect happiness within entrepreneurs.

This paper is organized as follows. In the next section of the present study, happiness is defined. Moreover, in the same section entrepreneurship and its functions as the different types of entrepreneurs in today's economy are reviewed. This section also looks at previous literature that deals with the determinants of happiness in an entrepreneurial field, and lastly the hypotheses of the present study are developed. The third section provides a detailed description of the data used and the statistical methods that are employed. In the fourth section, the empirical results of the main findings but also the findings of the control variables are presented. In the last section, the purpose of the study and the summary of the findings are reviewed, as well as the limitations and the implications for further research and practice are discussed.

2. Theoretical framework and hypotheses development

In this section, the relation between happiness and entrepreneurs is reviewed. At first a thorough definition of happiness is given. After that, previous literature regarding different types of entrepreneurs is investigated, while in the next section the previous literature regarding the relation between happiness and entrepreneurs is examined. Lastly, based on the previous literature, we justify how the hypotheses of the present study are derived.

2.1 Happiness

The topic of happiness has gained attendance in economics and social sciences. An extensive literature review has been conducted to develop domains descriptive of well-being, which could be linked not only to economic aspect but also to encompass broader dimensions such as social, environmental aspects, and human rights (Graham, 2005). Economists have associated the terms happiness, life satisfaction and subjective wellbeing (Easterlin 2004). Well-being is a complex term, and there is not a clear consensus about how to define and measure well-being. People are happy when they subjectively believe themselves to be so, since well-being involves emotional conditions (Diener, 1994). As Andrews and Withey (2012) mentioned that the selection of whichever set of indicators happened to make somebody happy is totally subjective. Individuals have not only unique criteria for happiness but also different standards for success in each area of their lives. A great demand for explanation and advice of the definition of happiness is also rising among individual citizens, because happiness is becoming ever more prominent in the personal life of many people (Veenhoven, 2004). Happiness or well-being in economics is separated into two main directions: the traditional measures, which are objective indicators that attempt to define happiness and the subjective measures that attempt to measure how people perceive their quality of life and how much they are satisfied with their lives (Frey & Stutzer, 2002).

Objective measures of life satisfaction have been firstly recognized as a single objective dimension and defined by income, GDP, productivity, or poverty level (Blanchflower and Oswald, 2003; McGillivray, 2007). Standard economic theory is that people's wellbeing increases with consumption of good or services. Nevertheless,

when large increases in GDP take the form of growth in investment rather than consumption, then GDP itself does not necessarily improve wellbeing (Di Tella, MacCulloch & Oswald, 2003). Furthermore, the classical economic view of happiness, or utility, has searched primarily the relation between income and happiness (Clark and Oswald, 1994; Frey and Stutzer, 2002; Blanchflower and Oswald, 2003). Similarly, income and happiness are positively correlated in the assumption that income allows increases in consumption and consumption increases utility. In single item objective measures, consumption is the most important argument in the utility function used by economists in order to capture the extent to which consumption translates into the wellbeing of an individual (Blanchflower and Oswald, 2003). In later stages multidimensional objective measures of happiness added in literature, such as education achievements, health outcomes, social and environmental factors, to construct more valid concept factors that can affect wellbeing. However, these adjustments are difficult to quantify (McGillivray, 2007). Moreover, many studies suggest that objective measures are correlated with happiness less strongly than intuition or everyday experience (Diener, 1984; Lyubomirsky & Ross, 1999).

As mentioned before, happiness is multidimensional; more subjective aspects of human life need to be captured since the objective measures cannot cover the concept of happiness (McGillivray, 2007). Therefore, in the scientific definition of happiness, findings from psychology and behavioral economics have been included and as a consequence the existing literature has been grown significantly (McGillivray 2007). In this case subjective happiness can be relied either on affective component or on cognitive component (Schimmack et al., 2008). One of the most widely used measures of affective happiness is Bradburn's (1969) Affect Balance Scale, which estimates the balance of positive and negative effect that a respondent experienced during the past four weeks (Lyubomirsky & Ross, 1999). However, in these surveys a respondent may identify himself as a generally unhappy person, despite having felt "pleased," "proud," and "particularly excited" in the previous four weeks as the Affect Balance Scale suggests.

Due to the subjectivity of the topic different measures have been found; however the development of such measures has helped to provide clearer conceptualizations of the construction of subjective wellbeing. In terms of cognitive subjective measures, happiness in economics has also been defined from different

aspects, while authors have related happiness with life satisfaction (McGreal & Joseph, 1993; Hills & Argyle, 2002; Abdel-Khalek, 2006; Pavot & Diener, 2008), happiness with job satisfaction (Fried & Ferris, 1987; Wright & Doherty, 1998; (Wanous et al., 1997), and happiness that depends on the balance between life satisfaction and job satisfaction (Keon & McDonald, 1982).

In particular, subjective happiness in terms of life satisfaction claims that psychologically well people are more prone to experience positive feelings and less prone to experience negative feelings (Argyle & Crossland, 1987; Diener & Larsen, 1993). The most used measures of subjective happiness related to life satisfaction in previous studies are the single item scale, the Oxford Happiness Inventory (OHI), the Depression-Happiness Scale (D-H S) and the Satisfaction With Life Scale (SWLS). Abdel-Khalek (2006) measured happiness by a single item (Do you feel happy in general?) on a scale from 0 to 10. The OHI comprises 29 items, asking respondents to self-report about their psychological wellbeing (Hills & Argyle, 2002). Moreover a 25-item self-report from McGreal and Joseph (1993) constructs the D-H S. D-H S includes the negative variables that affect the level of happiness of an individual. Lastly, the SWLS, which is a five-item instrument, asks individuals to evaluate their over well-being, happiness, or life satisfaction while it is designed to measure global cognitive judgments of satisfaction with one's life (Diener, Emmons, Larsen, & Griffin, 1985).

Nonetheless, as mentioned before, authors have related happiness with job satisfaction as well. An individual could report high level of happiness and life satisfaction but still he may feel that he is not living a fulfilled life (Wright & Doherty, 1998). Job satisfaction is important for every individual's happiness since they spend a great deal of time from their lives on their job (Wright & Doherty, 1998). Clark and Oswald (1994) have shown that a major and significant cause of unhappiness and no-satisfaction is unemployment. Consequently, not having a job when you want one is a major source of low level of happiness (Clark, 2010). More importantly for the subjective job satisfaction, Seligman (2004) showed that more creativity, optimism, confidence and the ability of free choice affect positively the happiness of an individual. It is well established that certain job attributes such as challenge and stress are related to subjective job satisfaction (Fried & Ferris, 1987; Fairbrother & Warn, 2003). One of the most used measures for job satisfaction is the Hoppock's Job Satisfaction Measure, which consists of four questions related to

various aspects of satisfaction with a person's job (Hoppock, 1935). Another measure of job satisfaction was constructed in the study of Wanous et al. (1997) where they measured overall job satisfaction with a single self-report item. Lastly, a popular measure that is frequently used in job satisfaction studies is the 20-item short form of the Minnesota Satisfaction Questionnaire (MSQ) (Weiss, Dawis, England, & Lofquist, 1967). MSQ measures, both intrinsic and extrinsic job satisfaction (Spector, 1997). In the same study, Spector (1997) defined intrinsic job satisfaction as how people feel about the nature of the job tasks, whereas extrinsic job satisfaction as how people feel about the aspects of the work situation that are external to the daily job tasks.

As far as happiness related to the balance between life satisfaction and job satisfaction concerned, the results are contradicted. Keon and McDonald (1982) concluded that life and job satisfaction are jointly determined as their model proved that work-related activities and attitudes will be transferred to non-work activities and attitudes. Life satisfaction is defined with self-esteem and environmental issues while job satisfaction with reward satisfaction and daily tasks at job. Furthermore, Judge and Watanabe (1993) found the same results while they suggest that job and life satisfaction are positively related. Their study showed that both variables appear to mutually influence one another. However, the effect of life satisfaction on job satisfaction was significantly stronger than the effect of job satisfaction on life satisfaction. On the other hand, some studies found that job satisfaction and satisfaction with leisure time is unrelated, while both contribute to the happiness of an individual. Leisure satisfaction but not job satisfaction contributes to the quality of life of people whose life-styles may not be dominated by work activity (London, Crandall & Seals, 1977).

The literature based on happiness is so abroad and hence are the measures of happiness. As mentioned before, there is no agreed measure to calculate the level of happiness. However some measures are more valid than others. Traditional measures are not suitable despite focusing purely on objective indicators, because individuals in many cases do not try to maximize their utility (Graham, 2005). The reason why higher income does not translate into higher level of happiness relies on the explanation of which it is not the absolute level of income that matters most, but rather one's position related to other people (Graham, 2005). Frey and Stutzer (2002) noted that individuals compare themselves to others with respect to income,

consumption or status. Individuals have different preferences for material and non-material goods. For example, they may choose a lower income but more personally rewarding job. Similarly, the narrow scope of job satisfaction, which does not include aspect of life outside of work, is in contrast with the psychological well-being in which life satisfaction is considered as a broader concept than job satisfaction (Diener, 1984). High job satisfaction might be counterbalanced by lower satisfaction in the family domain, or social life more generally. This does not mean that economic factors such as income and employment are unimportant, but as mentioned, life satisfaction indicators are more consistent (Diener, 1984). Therefore in the present study, life satisfaction indicators are used in order to measure happiness. SWLS is used in order to capture the different level of happiness. Since its introduction in 1985, the SWLS has been heavily used as a measure of happiness or subjective well-being. The SWLS expresses an individual's general sense of satisfaction with their life as a whole (Diener, Emmons, Larsen, & Griffin, 1985). However, the main measurement of happiness in the present study relies on a single-item scale. Numbers of studies have used single-item self-rating scales, because of the validity due to high correlation with concepts of optimism, hope, self-esteem and self-ratings (Abdel-Khalek, 2006).

2.2 Entrepreneurial activity

The literature about entrepreneurship is rich, since the topic has received different definitions. Over the past decades, the term of entrepreneurship is explained as a multilevel, multidisciplinary occupation with multiple perspectives (Parker, 2009). However thorough definitions of entrepreneurship have been examined through the past years. Gartner (1990) defines entrepreneurship as “the process of new business creation”, while Shane and Venkataraman (2000) explain entrepreneurship as “the examination of how, by whom and with what effects opportunities to create future goods and services are discovered, evaluated and exploited”. Additionally, Casson (2005) focuses on a specific area in the economic cycle: “entrepreneur is someone who is specialized in making decisions about the co-ordination of scarce resources”. Hébert and Link (2006) not only broadened this definition by adding a responsibility for the actions taken by an entrepreneur, but also broadened the areas that are affected

by judgmental decisions of an entrepreneur, which are: the location, and the use of goods, resources and institutions.

Taking into account the aforementioned definitions of entrepreneurship, we notice that literature has focused on entrepreneurial activity and the distinctions among entrepreneurs, counting at least two principal meanings, in order to identify different determinants of an entrepreneur. Hence, what entrepreneurs actually do is divided in two categories: 1) the occupational choice, when an individual owns and manages a business on his own account and risk and 2) the behavioral notion, when an entrepreneur shows behavior in the sense of seizing an economic opportunity (Sternberg & Wennekers 2005). By combining the two aforementioned notions, a new discipline of entrepreneurial studies has risen that considers new venture creation as the most important factor of entrepreneurship (Gartner, 1989; Cooper, 2005). The Global Entrepreneurship Monitor (GEM) belongs to this new stream of studies, as one of their entrepreneurial measure that distinguishes entrepreneurs according the duration of their firm, the number of owners in a venture and the number of employees (Acs et al., 2004; Reynolds et al., 1999; Kelly et al., 2012). Furthermore, another topic that has gained attention is the reason of starting a new firm, which is classified by opportunity or necessity (Reynolds et al., 2001; Acs 2006).

Studies among different types of entrepreneurs appear frequently in order to identify specific characteristics of entrepreneurs and give better insight in literature for entrepreneurship. Few examples are: McClelland (1987) who compared successful versus average entrepreneurs and Mescon & Montanari (1981) who compared independent versus franchise entrepreneurs. Furthermore, Wennekers and Thurik (1999) based on entrepreneurial activity, divided entrepreneurs into three types: independent entrepreneurs, business owners and corporate entrepreneurs within a firm. Lastly, as mentioned before, GEM not only measures entrepreneurial activity across countries, but also estimates the different factors that can affect entrepreneurship. Some of the distinctions are: entrepreneurs based on their motivation and entrepreneurs based on venture characteristics (Reynolds et al., 2005).

Previous literature has shown that the motivation in which entrepreneurs started their firms is one of the most frequent distinctions in an entrepreneurial field. Therefore, the motives of entrepreneurs are divided into opportunity and necessity entrepreneurship (Acs, 2006). Opportunity entrepreneurs are the individuals who started their firms to take advantage of a business opportunity. On the other hand,

necessity entrepreneurs started their business out of long-term unemployment or lack of better alternatives (Block & Koellinger, 2009; Gries & Naudé, 2010; Amorós & Cristi, 2011). In regard to the distinction based on the duration that a venture created, total early stage of entrepreneurial activity (TEA) is the relative amount of nascent entrepreneurs and business owners of young firms (van Stel et al. 2005), while established business owners consist of entrepreneurs that are operating a business more than 42 months (Kelly et al., 2012). TEA is divided in two categories: 1) entrepreneurs, which are in the process of starting a business (nascent entrepreneurs), and 2) entrepreneurs, which are operating new business up to 42 months. Hence, the TEA's main input in society is described by novel ideas and creation of new value, while the main input of established firms is the offering of employment and the stability (Kelly et al., 2012). In addition to the distinctions based on venture characteristics, Reynolds et al. (2005) mention the distinction based on the number of owners that a firm has. Hence, single owner's entrepreneurs and multiple owners' entrepreneurs. The main characteristics of multiple owners are the higher availability of managerial skills and the greater variety of complementary skills. On the other hand, the utility that single owner's entrepreneurs derive is greater, as and the decisions within a firm are faster (Honig, 1998). The last distinction in the present study among the ventures characteristics is based on entrepreneurs with employees and those without employees (Reynolds et al., 2005). Entrepreneurs without personnel perceive higher hazard from their firm while the firms of entrepreneurs with employees have better chances to survive and have more intense entrepreneurial activity (Millán et al., 2014).

Besides the different types of entrepreneurs that previous literature has examined, a thorough investigation of which variables affect entrepreneurial behavior is needed. Previous literature on characteristics that affect entrepreneurial behavior includes demographic and economic characteristics of an entrepreneur, such as education, age, wealth, and work situation (Blanchflower & Oswald, 1998), perceptual variables based on subjective judgments, such as fear of failure, opportunity perception, optimism and confidence (Busenitz & Barney, 1997) and aggregate variables summarizing the environment in which entrepreneurs make decisions (Wennekers & Thurik, 1999). In the present study we focus on perceptual variables that affect entrepreneurial behavior and more specific to the concepts of fear of failure, independence, overconfidence, over-optimism, utility and opportunity

perception. These factors describe subjective perceptions and beliefs of entrepreneurs, without reflecting to objective conditions (Arenius & Minniti, 2005). Perceptual variables have been included in many studies in entrepreneurial field, since independence, overconfidence, over-optimism, utility and opportunity perception are highly correlated to entrepreneurs (Gatewood et al., 1995; Arenius & Minniti. 2005). According to Kelly et al. (2012) this economic perspective of GEM focuses on the usefulness, utility and the desirability of an entrepreneurial career.

2.3 Happiness and entrepreneurial activity

Studies that examine the relationship between happiness or life satisfaction and entrepreneurship have increased the last years. Primarily, most of the studies examined the level of happiness between entrepreneurs and employees. Entrepreneurs have been found to be less prone to negative feelings than employees (Benz and Frey 2008; Blanchflower & Oswald 1998). Benz & Frey (2004) identify certain factors that explain higher levels of happiness reported by the self-employed. Being independent and one's own boss, the absence of hierarchy, control over one's own working hours are among the major factors that determine higher level of happiness for entrepreneurs. Similarly, Hundley (2001) found that the self-employed are more satisfied with their jobs mainly because of greater autonomy, and more flexibility.

Afterwards, in individual level, studies investigated the relationship among different types of entrepreneurs. Authors, taking into account that entrepreneurs are a quite heterogeneous group (Santarelli and Vivarelli, 2007), examined the relationship between happiness and entrepreneurial activity from different point of views. Literature focused on the behavioral characteristics of an entrepreneur that could also influence the relationship between happiness and entrepreneurial activity. For example, Fuchs-Schündeln (2009) found that due to different perception of independence across entrepreneurs, not all self-employed experience an increase in job satisfaction to the same degree. Hence, she found that entrepreneurs who value more independence, the so-called independent types, experience a large increase in job satisfaction from being self-employed, while the most hierarchical types could even experience a decrease. Moreover, Block & Koellinger (2009) found that nascent entrepreneurs derive utility from non-financial factors, since independence and creativity was highly correlated with start-up satisfaction.

Summarizing, the literature shows that at the same time the relationship between happiness and the different types of entrepreneurs can be positive or negative depending on both exogenous and endogenous factors. Previous literature explains the perceptions of the entrepreneurs in order to understand the factors that modify this relationship. As mentioned, most of the studies have shown that the concepts of freedom of choice, over-confidence, and creativity are positively correlated with well-being among self-employment, while fear of business failure and stress are negatively associated with entrepreneurs (Block & Koellinger, 2009; Benz & Frey 2004) and therefore we will focus on these factors in order to develop the hypotheses of the present study.

2.4 Hypotheses development

Opportunity perception is correlated to one of the most important reasons of starting a new business. An increasing number of scholars agree that opportunity recognition represents the most distinctive entrepreneurial behavior (Eckhardt & Shane 2003, Shane & Venkataraman 2000). Gilad and Levine (1986) introduced the ‘‘push’’ and ‘‘pull’’ theory, which is an explanation of entrepreneurial motives. ‘‘Push’’ theory, starting a business out of necessity, refers to entrepreneurs that they have no other work options or they need a source of income or they have inflexible work schedule. On the other hand, ‘‘pull’’ theory is when entrepreneurs start a business because they recognize opportunities and choose to pursue them. In this case, entrepreneurs are seeking autonomy, in terms of independence and freedom, or self-fulfillment, wealth, and other desirable outcomes. Moreover the theory of ‘‘freedom of choice’’, explains that an individual who loses his free will, experiences a loss of subjective well-being (Gries & Naudé, 2010). Most of the studies that distinguish between necessity entrepreneurship and opportunity entrepreneurship have showed that necessity entrepreneurs have a lower average satisfaction with their firm than opportunity entrepreneurs. The main reason that opportunity entrepreneurs have a higher life satisfaction from these studies is mainly because of the higher levels of autonomy and freedom of choice that opportunity entrepreneurs perceive (Block & Koellinger, 2009; Hessels, Van Gelderen & Thurik, 2008; Carree & Verheul, 2012). Therefore, we derive the first hypothesis of the present study.

H1: Opportunity entrepreneurs are happier than necessity entrepreneurs

A growing number of students believe that fear of failure is among the most important factors that influence entrepreneurial behavior (Arenius & Minniti, 2005; Koellinger, et al., 2007). However, as mentioned, these measures are subjective and perception influences both entrepreneurial behavior and happiness. Perceptual variables are not only important for the decision to start a business, but also to the degree to which it influences entrepreneur's behavior after the creation of a firm; and as a consequence the level of happiness of an entrepreneur (Minniti & Nardone, 2007). Previous studies, showed that fear of failure reduce the propensity to start a new business and become entrepreneur (Koellinger et al., 2007; Langowitz & Minniti, 2007). Moreover, Arenuis and Minniti (2005) find that fear of failure has a negative and significant effect on TEA. TEA entrepreneurs have the highest score of failure among other types of entrepreneurs. The main reason that the fear of failure among TEA entrepreneurs is high, relies on the uncertainty in the start-up phase of the firm, i.e. phase whether an enterprise will become successful. Approximately 50% to 60% of new business start-ups survive the first three years of activity (Cooper, Woo & Dunkelberg, 1989; Phillips & Kirchoff 1989). Entrepreneurship is a choice, and many new businesses fail shortly after inception, which means that fear of failure among entrepreneurs' decreases while their firm becomes more established (Kelley, Singer & Herrington, 2012). Hence, the uncertainty of start-ups due to high level of fear of failure, leads to higher level of stress (Fairbrother & Warn, 2003). Additionally, Schiffrin & Nelson (2010) showed that individuals who perceive higher levels of stress are less happy than those with lower levels of stress. Therefore, based on the above literature the second hypothesis is derived.

H2: TEA entrepreneurs are less happy than established entrepreneurs

H2a: TEA opportunity entrepreneurs are less happy than established opportunity entrepreneurs

Many studies have shown that happiness and well-being are affected by perceptual variables as the feeling of freedom of choice and utility. The third hypothesis focuses only on the different level of happiness between single owner's entrepreneurs and multiple owners' entrepreneurs. As mentioned in the first hypothesis the theory of

“freedom of choice” affects the happiness of individuals. Freedom of choice affects positively the level of happiness than an individual perceives. Furthermore, Millán et al. (2014) have shown that entrepreneurs without personnel possess a feeling of freedom of choice, as they make the own decisions without collaboration or potential disagreement with other owners.

Besides the difference in how single owners and multiple owners perceive the feeling of freedom of choice, the concept of utility is also essential and needs a thorough investigation. Choosing entrepreneurship above all other occupational choices is a choice in order to gain the highest utility. Utility has both monetary and non-monetary benefits (Parker, 2009). However the utility, which single owner entrepreneurs receive, is significant higher than the utility that multiple owners’ entrepreneurs receive (Benz & Frey, 2004). The concept of procedural utility includes the concept of autonomy. Increased autonomy may be seen as a good decision-making procedure, because it provides individuals with a direct utility from having control over their work and therefore higher level of self-report happiness (Frey, Benz & Stutzer, 2004). As mentioned, happiness is subjective and depends on how an entrepreneur perceives it. Due to aforementioned reasons single owners do not perceive the same level of freedom of choice and utility from their business in comparison with multiple entrepreneurs and hence third hypothesis is derived based on how entrepreneurs perceive those terms that can affect happiness.

H3: Single owner’s entrepreneurs are happier than multiple owners’ entrepreneurs.

H3a: Single owner’s entrepreneurs by opportunity are happier than multiple owners’ entrepreneurs by opportunity

Prior literature in the distinction based on the number of employees is scarce, since only Millán, et al. (2014), Headd (2003) and Kapsalis and Tourigny (2004) have mentioned this specific distinction of the characteristics of a venture. According to Millán, et al. (2014) the ventures of entrepreneurs with employees have better chances to survive and moreover they have a greater entrepreneurial activity. Hence, they feel more confident and they are more optimism than entrepreneurs without employees. In addition, due to the higher perception of hazard about their ventures, entrepreneurs without employees are more stressed and with higher fear of failure than

entrepreneurs with personnel. Due to the aforementioned reasons, the fourth hypothesis of the present study is derived.

H4: Entrepreneurs with employees are happier than entrepreneurs without employees.

H4a: Entrepreneurs with employees by opportunity are happier than entrepreneurs without employees by opportunity.

3. Data and methods

In the first part of this section, we describe our dataset and how we use this in order to answer the three hypotheses. The second section presents our variables, followed by our descriptive statistics in Table I. In the last section, the methods of the present study are explained.

3.1 Sample

The present study uses data from Global Entrepreneurship Monitor (GEM) project. Using population samples across several countries, the GEM project, and measures individuals' perceptions to entrepreneurship, their involvement in entrepreneurial activity and their aspirations. More specifically, the data of the present study comes from GEM and the adult population survey (APS) 2013 that included subjective well-being measures for first time. Each of the participating countries conducts the survey among a random representative sample at the same time of year using a standardized questionnaire provided by the GEM. The aim of this project is to give researchers the opportunity of making use of the data to enrich the existing literature. All the data that is published on the website is freely available to academic researchers. We have a preliminary data of up to 117,682 individuals that participate in GEM project by responding a set of questions related to their subjective wellbeing, however for testing our hypotheses, we make some changes in the dataset. For our final sample we use only entrepreneurs, because we are interested in the level of happiness at different types of entrepreneurs. Furthermore, we exclude very low (<16) and very high values of age (>85) since they seem unrepresentative for our sample. Therefore we end up with around 20,000 entrepreneurs in each hypothesis. Descriptive statistics of the sample are presented in Table I.

3.2 Measures

Happiness. As mentioned, there are many ways to measure happiness or subjective well-being. The present study measures happiness with self-report a single-item about life satisfaction. Respondents, based on a five-point scale from 1 "Strongly disagree" to 5 "Strongly agree" were given to answer the following sentence: " *I am satisfied with my life*". Therefore, in order to answer the hypotheses of our research, we use

the variable of happiness as an indicator of which individual reports higher level of happiness. Happiness is measured with life satisfaction, because life satisfaction is related to the manner in which people experience the quality of their lives, and it comprises both emotional reactions and cognitive judgments (Diener, 1984). As mentioned in section two of theoretical background, these are terms that are not only associated with happiness but also can define it.

Motivation. For testing the first hypothesis, we include the variable of *motivation*, which shows whether an entrepreneur started his entrepreneurial activity by exploring an opportunity or by necessity. The variable of *motivation* takes value 1, when an individual started his business from opportunity and value 2, when a respondent started from necessity.

Based on duration. For testing our second hypotheses, the variable of *based on duration* is needed. The variable of *based on duration* separates into two different types of entrepreneurial activity that our research examines. The independent variable of *based on duration* is recoded, since the dataset did not include the aforementioned specific separation of types of entrepreneurial activity that we need in order to test our hypotheses. Hence, after a merge of two variables, the variable of *based on duration* takes value 1, when an entrepreneur is involved in TEA and value 2 when an entrepreneur owns and manages an established firm.

Based on owners. For testing the third hypothesis, we create the categorical variable of *based on owners*, which takes value 1, when an individual owns and manages a business on his own, and value 2 when an individual owns a company with at least one more owner.

Based on employees. The variable *based on employees* takes value 1 when an individual is entrepreneur without employees and value 2 when an individual is entrepreneur with personnel.

3.3 Control variables

Besides the dependent and independent variables, this study also uses a couple of control variables in order to reduce the effect of irrelevant variables that are not specifically being studied in this research. Controlling for these variables means that specific variable is being held constant while the association of the dependent and

independent variables are analyzed. We follow earlier studies of happiness and entrepreneurs to select the relevant control variables in our empirical models.

Gender. The variable of gender takes value 1 when a respondent is male and value 2 when a respondent is female. Existing literature argues that men are more likely to become entrepreneurs than women.

Age. The respondents were asked to provide their current age. We include the variable of age, because existing literature has associated age both with our dependent and independent variables. A U-shaped relationship among happiness and age is reported by numerous studies, with happiness being the lowest in the age of 45-64 (Clark and Oswald, 1994; Blanchflower and Oswald, 2004; Gerdtham & Johannesson, 2001). Furthermore, Kautonen, Down, and Minniti (2014) found an inverse U-shaped relationship between entrepreneurs and age, while after late 40s the probability of an individual to become entrepreneur decreases. Lastly, in the same study, they showed that age has a smaller effect on necessity entrepreneurs than to opportunity entrepreneurs. For these reasons, the variable *age* and *age2* (age squared) is used to control for the aforementioned relationship between age and the dependent and independent variables in our study.

Education. We add the categorical variable of *education*, because according to Clark and Oswald (2002) different level of education lead to different level of happiness. More specifically, the higher the level of education of an individual is, the higher self-report of happiness is noticed. Furthermore, as far as the relationship between education and entrepreneurs concerned, individuals with higher level of education are more likely to become entrepreneurs or to pursue an opportunity (Peterman & Kennedy, 2003). The variable of *education* consists of 5 different categories (none education, some secondary, secondary degree, post-secondary and the post graduate degree).

Income. The variable of *income* is a categorical variable, which splits *income* of respondents into thirds on the national income (lowest 33%, middle 33%, and upper 33%). We include the variable of income, because it affects positively the level of happiness (Easterlin, 2001). Moreover, income is one of the main factors that can distinguish TEA entrepreneurs and established entrepreneurs (Keuschnigg & Nielsen, 2004). Hence, it affects positively the likelihood of an entrepreneur to continue run his business and become established entrepreneur. Similarly, income affects both opportunity and necessity entrepreneurship, while in opportunity entrepreneurship an

individual pursues the opportunity in order to gain higher rewards and in necessity entrepreneurship, due to the absence of income, an individual is “pushed” to entrepreneurial activities (Eckhardt & Shane, 2003).

Fear of failure. In our dataset, individuals were asked ‘*if fear of failure would prevent you from starting a business?*’. The variable of *fear of failure* is binary which takes value zero when a respondent answered “no” and value 1 if the respondent answered “yes”. The variable of *fear of failure* is included in our study because not only affects negatively the self-report happiness but also affects, as mentioned, the choice of an individual to become entrepreneur.

Country stage. We include the categorical variable of country stage, which indicates the level of development of a country. The variable consists of three categories, 1=factor-driven economies (less development), 2=efficiency-driven economies, and 3= innovation-driven economies (the most developed countries). Inglehart et al., (2008) noticed that individuals which live in less developed countries, report lower level of happiness than those that live in innovation-driven economies. Furthermore, the structure of entrepreneurial activities varies across countries (Acs, Desai & Hessels, 2008). Acs and Varga (2005) found that opportunity entrepreneurship has a positive significant effect on economic development, whereas necessity entrepreneurship has no effect.

Members of household income. It is a continuous variable and respondents were asked ‘*how many members make up your permanent household, including you?*’ According to the described literature, the more the members contribute to the household income, the more self-report happiness is noticed.

3.4 Descriptive statistics

Means, standard deviations, frequencies, observations and percentages are presented in Table I. The number of observations in the categorical variable of happiness is 19,090 respondents, with the answer of “somewhat agree” being the most frequent by having 7,537 individuals which reflects on 39.48 % among the other categories. On the other hand, “strongly disagree” is the less frequent response with 609 individuals and frequency equals with 3.19 %. Regarding our main independent variable of motivation, we can see that overall we have more opportunity entrepreneurs (72.14%) than necessity entrepreneurs (27.86%). The independent

variable of based on duration has 18,997 individuals, which are separated in 10,434 (54.92%) TEA entrepreneurs and 8,563 (45.08%) of established entrepreneurs. In addition, single owner entrepreneurs represent 68.63 % of the independent variable based on owners. For testing the fourth hypothesis, we include the independent variable of based on employees, which accounts for 13,188 individuals in total. Looking at table I in more detail and concerning the control variables, we can see that 0.33 is the mean of fear of failure (0: No, 1: Yes). 13,184 individuals (66.78%) responded that they do not feel fear of failure, whereas 6,558 individuals (33.22%) reported that they feel fear of failure in their businesses. Most of the entrepreneurs that took part in the questionnaire of GEM have secondary education (35.97%) and they come from efficiency driven countries (60.79%). Also, in our sample we can see that just half of the respondents (56.99 %) are males, and furthermore, the mean in the variable of age is 42 years old. Moreover, around 4 members help in the household income per month according to 19,742 individuals, which answered about the members that make up the household income. Lastly, in Table II a correlation matrix among the variables that we use in our study is presented.

Table I. Descriptive statistics of the analysis sample

Variable	Mean (S.D.)	Freq.	Percent
Happiness		19,090	
Strongly disagree		609	3.19 %
Somewhat disagree		1,868	9.78 %
Neither agree nor disagree		3,365	17.63 %
Somewhat agree		7,537	39.48 %
Strongly agree		5,711	29.92 %
Motivation	1.27 (0.44)	18,991	
Opportunity		13,701	72.14 %
Necessity		5,290	27.86 %
Based on Duration	1.45 (0.49)	18,997	
TEA		10,434	54.92 %
EB		8,563	45.08 %
Based on Owners	1.31 (0.46)	18,997	
Single owner		13,037	68.63 %
Multiple owners		5,960	31.37 %
Based on Employees	1.52 (0.5)	13,188	
Without employees		5,261	39.89 %
Having employees		7,927	60.11 %
Gender		19,742	
Male	1.43 (0.5)	11,250	56.99 %
Female		8,492	43.01 %
Fear of failure		19,742	
No	0.33 (0.47)	13,184	66.78 %
Yes		6,558	33.22 %
Education		19,742	
None		2,373	12.02 %
Some secondary		3,332	16.88 %
Secondary		7,102	35.97 %
Post-secondary		5,989	30.34 %
Graduate degree		946	4.79 %
Income		19,742	
Lowest 33%		5,830	29.53 %
Middle 33%		5,945	30.11 %
Upper 33%		7,967	40.36 %
Country stage		19,742	
Factor driven		1,196	6.06 %
Efficiency driven		12,001	60.79 %
Innovation driven		6,545	33.15 %
Age	41.57 (12.29)	19,742	
Members of household income	3.69 (1.70)	19,742	

Note. Standard deviations are given in parenthesis. For the categorical variables in our sample, the frequency of each category is given, as and the total number individuals.

Table II. Correlation matrix

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1) Happiness	1.00											
(2) Motivation	-.14**	1.00										
(3) Duration	.03 **	.06**	1.00									
(4) Owners	.03**	-.09**	-.11**	1.00								
(5) Employees	.03**	-.12**	-.01	.16**	1.00							
(6) Gender	-.02	.07**	.06**	-.04**	-.11**	1.00						
(7) Age	.07**	.06**	.30**	.11**	.00	-.045*	1.00					
(8) Fear of failure	-.10	.10**	.05**	.02*	-.07**	.06**	.00	1.00				
(9) Education	.07**	-.17**	-.09**	.14**	.14**	-.05**	-.07**	-.06**	1.00			
(10) Income	.15**	-.16**	-.04**	.10**	.14**	-.10**	.02	-.06**	.26**	1.00		
(11) Country stage	.07**	-.10**	-.10**	.06**	.00**	-.12**	.18**	-.03**	.18**	.02**	1.00	
(12) Members of household income	-.01	.02**	-.06**	.06**	.08**	.06**	-.16**	-.00	-.07**	.06**	-.23**	1.00

Notes. * $p < 0.05$, ** $p < 0.01$.

3.5 Methods

Given the nature of the categorical dependent variable, ordered probit regressions are followed to test the hypotheses. Ordered probit is more robust than other econometric techniques for the variables that we examine, since it takes account of the discrete and ordinal nature of the dependent variable. Although, the ordered logit is also suitable for these type of models, the ordered probit model is selected because both formulations give very similar results, especially with large sample sizes. It would be inappropriate to use the multinomial logit, because this model does not account for the ordering of the dependent variable (Wooldridge, 2015). Furthermore, some studies argue that a regression model would be also inappropriate, since it assumes differences between categories of the dependent variable to be equal (Aldrich & Nelson, 1984). However, there are studies that follow ordinary least squares (OLS) regressions to answer a model with a categorical dependent variable, when the distribution of the data is normal.

Since the dependent variable is unobserved, the ordered probit model is express as:

$$Y_i^* = \beta x_i + u_i$$

Where y^* is the dependent variable coded from 1 to 5 measuring the different level of happiness, β the vector of coefficients, x_i the vector of observed non-random independent variables, and u the error term, which is assumed to be normally distributed with zero mean and unit variance.

Y^* is unobserved, but the relationship between y^* and the observed variable y is:

$y=1$ if $-\infty < y^* < \mu_1$, (poor level of happiness)

$y=2$ if $\mu_1 < y^* < \mu_2$, (low level of happiness)

$y=3$ if $\mu_2 < y^* < \mu_3$, (normal level of happiness)

$y=4$ if $\mu_3 < y^* < \mu_4$, (high level of happiness)

$y=5$ if $\mu_4 < y^* < \infty$, (extreme level of happiness),

where the threshold values of $\mu_1, \mu_2, \mu_3, \mu_4, \mu_5$ are unknown population parameters to be estimated.

In the first model, merging TEA entrepreneurs by motivation and established entrepreneurs by motivation creates the variable of *motivation*. Moreover, we recode the variable of *motivation* from three to two categories, since we merged the categories of purely opportunity and partly opportunity to one category. In the second model, we create the independent variable of *based on duration* by giving value 1 to TEA entrepreneurs and value 2 to established entrepreneurs. Therefore, we compare TEA entrepreneurs with established entrepreneurs to examine whether is any difference at the level of happiness among the entrepreneurs that participated in the GEM questionnaire. Similarly, for the third model, we create the categorical independent variable of *based on owners*. A single owner entrepreneur takes value 1, while an entrepreneur that owns a business with other entrepreneurs takes value 2. Lastly, in the fourth hypothesis we want to examine whether there is any difference in happiness between entrepreneurs with employees and entrepreneurs without employees. Therefore, we create the variable *based on employees*. An entrepreneur without employees takes value 1, while an entrepreneur with personnel takes value 2.

In order to examine the three sub hypotheses of the present study, interaction terms with the motivational perspective and the independent variables of venture characteristics are made. Hence for the first sub hypothesis, we create the interaction term of opportunity entrepreneurs and the distinctions of entrepreneurs based on duration of the firm. Similarly for the second and third sub hypotheses, we add the

interaction term of opportunity entrepreneurs and the distinctions of entrepreneurs based on the number of owners and the number of employees, respectively.

The considered significance level in all three models is a 5% ($\alpha=0.05$). In the present study, at this significance level the variables are considered statistically significant when the P values of these variables is lower than 5% ($\alpha=0.05$) or lower than $P > |t| = 0.05$. The statistical analyses are performed in the statistical software package Stata, version 2014.

4. Results

In section 4.1 the main findings regards the association of happiness among different types of entrepreneurs are presented. Therefore, to examine which are the determinants between entrepreneurs for happiness, four models are constructed. In section 4.2, having found the main determinant of happiness among entrepreneurs, extra analysis is described by including interaction terms based on individual's motivation. Lastly in section 4.3, other findings derived from the control variables of our study are presented.

4.1 Main findings

Table III presents our findings including coefficients, standard errors and the level of significance that test our hypotheses. In addition, the Table III shows the number of observations. By running four probit models, these findings enable us to explore the validity of our hypothesis. As mentioned before, these regressions use the variable of happiness as dependent variable. In the first three regressions, are noticed around 18,360 observations, while in the last probit model we have 12,700. The decrease of around 6,000 observations is due to the missing values of the independent variable of employees. In addition, all four probit models use the same control variables, as we want to identify the determinant of happiness in an entrepreneurial field. Results of Hypothesis 1 are presented in column 1 of Table III. The dummy variable of entrepreneurs is the independent variable, which uses the category of being entrepreneur by necessity as base category. Hence, we conclude that on average, entrepreneurs from opportunity, compared to entrepreneurs from necessity, self-report higher level of happiness, as expected. This effect is significant at 1% significance level and confirms Hypothesis 1.

In column 2 of Table III the results of testing Hypothesis 2 are presented. By distinguishing entrepreneurs based on the duration of the company we examine the differences in happiness between TEA entrepreneurs and established entrepreneurs. The base category in this model is established entrepreneurs. However, we find no significance correlation between the duration of the firm and happiness, as the coefficient is insignificant. Hence, Hypothesis 2 is rejected.

For testing Hypothesis 3, we distinguish entrepreneurs based on the number of owners in a company, using as base category when a company has more than one

owner. Similarly with the Hypothesis 2, Hypothesis 3 is rejected, as the coefficient is insignificant. Therefore, we conclude that they are not different level of happiness when a company has at least two owners compared to a company that has only one owner.

Lastly, in Hypothesis 4 we examine the level of happiness based on the number of employees within a company. We compare self-employed entrepreneurs with entrepreneurs with employees, using as base category self-employed entrepreneurs. We conclude, that there is no different level of happiness between these two types of entrepreneurs as the coefficient is insignificant. Therefore, Hypothesis 4 is rejected.

Table III. Happiness for different types of Entrepreneurs, Ordered Probit Regressions

Happiness	(1)	(2)	(3)	(4)
Motivation				
Opportunity	0.268** (0.018)			
Based on Duration				
TEA		-0.021 (0.017)		
Based on Owners				
Single owner			0.032 (0.017)	
Based on Employees				
No employees				0.010 (0.020)
Gender				
Female	0.050** (0.018)	0.042** (0.016)	0.042** (0.016)	0.045* (0.020)
Age	-0.029** (0.016)	-0.032** (0.004)	-0.030** (0.004)	-0.031** (0.005)
Age2	0.001** (0.000)	0.001** (0.000)	0.001** (0.000)	0.001** (0.000)
Fear of failure				
Yes	-0.183** (0.017)	-0.201** (0.016)	-0.200** (0.017)	-0.240** (0.020)
Education				
Some secondary	0.001 (0.030)	0.014 (0.030)	0.013 (0.030)	0.037 (0.035)
Secondary	0.038 (0.027)	0.065 (0.027)	0.061 (0.027)	0.037 (0.032)
Post-secondary	0.021 (0.029)	0.066 (0.029)	0.058 (0.029)	0.014 (0.035)
Graduate degree	0.097 (0.046)	0.147** (0.047)	0.137** (0.047)	0.117* (0.056)
Income				
Middle 33%	0.091** (0.021)	0.113** (0.021)	0.114** (0.021)	0.093** (0.026)
Upper 33%	0.325** (0.021)	0.362** (0.021)	0.362** (0.021)	0.344** (0.025)
Country stage				
Efficiency	0.203** (0.033)	0.227** (0.033)	0.226** (0.033)	0.205** (0.038)
Innovation	0.265** (0.035)	0.297** (0.035)	0.296** (0.035)	0.289** (0.041)
Members of household income	0.007 (0.005)	0.006 (0.005)	0.006 (0.005)	0.003 (0.006)
Observations	18,363	18,369	18,369	12,700

Note. Cluster-robust errors in parentheses; **p<0.01, *p<0.05.

4.2 Interaction terms

Due to the rejection of three out of four hypotheses, interaction terms with the variable of motivational perspective are created, in order to identify what determines the variable of happiness between opportunity entrepreneurs. In all three sub hypotheses, the distinctions of venture characteristics in respect of opportunity entrepreneurs are compared, in order to combine a perceptual variable with a venture characteristic. For the first sub hypothesis, an established business opportunity entrepreneur is the base category, for the second sub hypothesis the base category is a single owner opportunity entrepreneur and for the third hypothesis, an opportunity entrepreneur with no employees is the base category. All three sub hypotheses regarding any differences in happiness on the comparison with opportunity entrepreneurs by venture characteristics are rejected, since the coefficients are insignificant, as we can see in Table IV. Hence there is no significant different level of happiness among opportunity entrepreneurs, which is the base category in the three probit models of Table IV, and the chosen venture characteristics. Nevertheless, as expected the interaction variables of necessity entrepreneurs compared to opportunity entrepreneurs are significant, as when we distinguish entrepreneurs only by motivation we find significant difference in happiness.

Table IV. Happiness for different types of entrepreneurs by their motivation, Ordered Probit Regressions.

Happiness	H2a	H3a	H4a
Based on Duration			
TEA from opp.	-0.032 (0.020)		
TEA from nec.	-0.301** (0.026)		
EB from nec.	-0.269** (0.026)		
Based on Owners			
Multiple owners from opp.		-0.034 (0.020)	
Single owner from nec.		-0.252** (0.021)	
Multiple owners from nec.		-0.271** (0.032)	
Based on Employees			
Having employees from opp.			0.018 (0.024)
No employees from nec.			-0.298** (0.030)
Having employees from nec.			-0.293** (0.028)
Observations	18,363	18,363	12,700

Note. Cluster-robust errors in parentheses; **p<0.01, *p<0.05. Control variables are not presented. These are available from the author upon request.

4.3 Other findings

Having run the probit regressions, we have also identified some other findings about our control variables. Looking at the variable of gender in Table III, female entrepreneurs report higher-level of happiness than male entrepreneurs, which is significant at 5% significance level. Age has a U-shape relationship with the dependent variable of happiness. The probability of an entrepreneur decreases until a

certain age, which after this age increases. The coefficients of the variable of age and age squared are significant at 5% significance level. As expected from the previous literature, across all regressions, an individual with fear of failure reports lower level of happiness than an individual who does not possess fear of business failure. The effect is significant at 5% significance level across all four probit models. Also from Table III, being in different level of income has different effect on happiness. As expected, higher income increases the probability of an entrepreneur to report higher level of well-being. Having an income that is in the upper 33% among other entrepreneurs, compared to having an income that is in the lower 33% among entrepreneurs, leads to higher level of happiness. We find similarly findings for the variable of country stage development, since an entrepreneur from an innovation driven country reports higher level of happiness compared to an entrepreneur from a factor driven country. Both of the effects of income and country stage development are significant at 5% significance level in all regressions. Regarding the education level of an entrepreneur, we find that education does not affect the happiness besides entrepreneurs that have a graduate level of education, since the coefficients in these categories are insignificant. Hence, an entrepreneur with graduate level of education, compared to those that they do not have education at all, increases the probability of being happier. The effect is significant at all regressions at 5 % significance level, except the first regression, which motivational perspective is used as main independent variable. The reason will be examined in the next section. In this case, having graduate level of education, increases the probability of Lastly, we find no effect of the number of members that contribute in household income, in the dependent variable of happiness since the effects in all regressions are insignificant at 5% level.

5. Discussion and Conclusion

It is notorious difficult to explore the concept of happiness since it is a complex term as much as comprehension and measurement is concerned. This research focuses on finding the determinants of happiness among entrepreneurs. Based on the previous literature, the subjective happiness or well-being of entrepreneurs is explored and measured with a single-time scale. In addition, in order to find the most important determinants of happiness, a distinction has been made based on different types of existing entrepreneurs in today's economy. This distinguish, which is based on their motivation, the duration of the company, the number of employees and the number of owners is made to examine potential differences between but also within these separations. Hence, first purpose of the present research is to examine the different levels of happiness within each of the aforementioned types of entrepreneurs and the second purpose is to find the most vital type of entrepreneur that determines the level of happiness in an entrepreneurial field.

Regards the main purpose of the study and based on a sample of 20,00 entrepreneurs the first hypothesis is accepted and the remaining three are rejected. Therefore, significant differences are found in the level of happiness when entrepreneurs are distinguished by their motivation. However, there is no significant difference when the distinction among entrepreneurs by ventures characteristics and more specific by the duration of the venture, by the number of owners and by the number of employees in a venture is made. As expected, entrepreneurs that decided to perceive a business opportunity are happier than those that became entrepreneurs from unemployment or because they did not have any other option. The results of the distinction by motivational perspective are consistent with the prior literature. Entrepreneurs, who started their business by a positive motive, hence by opportunity, have a significant higher probability to be more satisfied with their income, leisure time and psychological well being (Carree & Verheul, 2012). As expected, and relying on the theories of "freedom of choice" and "pull" and "push" theory, the results are in line with the previous literature. Arenius & Minniti (2005) showed the most important perceptual variables that entrepreneurs possess and as a consequence these variables are analyzed in respect of opportunity and necessity entrepreneurship. Entrepreneurs, who pursue a business opportunity, have a higher feeling of autonomy, independence and also perceive less stress (Arenius & Minniti, 2005). These

perceptual variables are in favor of reporting higher level of happiness, and as the results suggest as well, opportunity entrepreneurs report stating happier than necessity entrepreneurs for their lives in general. The main difference of the present study with other studies that examine the relationship between happiness and entrepreneurship by motivational perspective is how happiness is measured. In the present study happiness is measured as overall life satisfaction and it is not discriminated by job and leisure satisfaction.

In addition with the distinction based on motivational perspective, the present study examines the relationship between happiness and three key venture characteristics; in particular distinctions by the duration of the firm, by the number of owners and the number of employees that a venture has. Significant differences are not found in any of the aforementioned distinctions of venture characteristics. Previous literature about life satisfaction and venture-specific characteristics in an entrepreneurial field is scarce, since happiness is subjective and influenced mainly by perceptual variables (Arenius & Minniti 2005). Furthermore, the venture characteristics of the present study influence happiness indirectly through performance or income (Carree & Verheul, 2012).

Regards the second research question of the present study, and more specific in the distinction of opportunity entrepreneurs based on venture characteristics, we do not find any significant differences in happiness. Hence, there is no different level of happiness between TEA opportunity entrepreneurs and established opportunity entrepreneurs, between single owner opportunity entrepreneurs and multiple owner's opportunity entrepreneurs, and opportunity entrepreneurs without employees and opportunity entrepreneurs with employees. Gries & Naudé (2010) showed the importance of opportunity entrepreneurs in an entrepreneurial field and moreover how they can drive the transformation of the economy. Having found that motivation is a significant determinant of happiness, interaction terms of opportunity entrepreneurs with three different venture characteristics are used, in order to examine differences in the level of happiness among opportunity entrepreneurs.

The fact that all the basic hypotheses and all sub hypotheses are insignificant supports the findings of many studies that the separation by motivational perspective of entrepreneurs is one of the most important distinctions in an entrepreneurial field (Block & Koellinger, 2009; Gries & Naudé, 2010; Feldman & Bolino 2000). That is exactly the reason why this particular separation has gained a lot of attention lately.

Happiness and entrepreneurship is all about perceptions and therefore subjective factors can lead to biased results. In the present study, and in particular in the rejected hypotheses, some effects appear to cancel out. There is an interesting effect of expectations on entrepreneurial satisfaction with different venture characteristics. It seems that fear of business failure affects happiness indirectly through stress; meaning that TEA entrepreneurs can be less happy than established business entrepreneurs. On the other hand, the level of expectations that TEA entrepreneurs have is important, as it appears that they are not high. As a consequence, happiness is affected positively when expectations are reached. Similarly effects can be biased when entrepreneurs are separated based on the number of owners and the number of employees that a venture has. Furthermore, freedom of choice and utility are perceptual variables that affect happiness positively. At the same time, single owners entrepreneurs might increase their expectations due to these variables, which again indirectly can lead to biased results. In addition, the uncertainty of expectations is even higher when only opportunity entrepreneurs are taken into account. The concept of over-optimism appears to the field of opportunity entrepreneurship since its definition relies on the difference between the expectations of an entrepreneur regarding an outcome and the realized outcome. Therefore, in this case satisfaction is based on the extent of optimism an opportunity entrepreneur has.

Two limitation of the study are mentioned. First, as entrepreneurship is an extremely heterogeneous group and happiness a complex term, generalizations are difficult to be made. There are individual characteristics that affect happiness and they differ among entrepreneurs of the same group. For example, not all opportunity entrepreneurs are able to cope similarly with the same level of stress and as a consequence differences in the stated level of happiness may rely on these individual characteristics. As second limitation, the cross-sectional data that is used makes it difficult to test for causality. Despite the fact that the present study uses independent variables that are based upon objective factors, such as motivational perspective and venture characteristics, which limits the problem of causality, there are variables that may affect the answers of the respondents. Therefore, factors such as expectations, confidence and optimism can be biased. For example, entrepreneurs may adjust their expectations ex-post and believe that their performance is satisfactory without taking into account their initial expectations.

Furthermore, it is up to future research to analyze time-series datasets in order to take into account more valid information about the perceptual variables. These variables could lead to incorrect interpretation of the topic, where causality can be investigated easier. By analyzing panel datasets, unobserved personal traits of entrepreneurs can be controlled. Moreover, further research is needed to identify more factors that can determine happiness in an entrepreneurial field. Existing literature on life satisfaction has focused on perceptual variables but it is interesting to examine if there is any difference between entrepreneurs who work in an office (white-collars) and entrepreneurs who work manually (blue-collars). This will give a better insight in the topic of happiness and entrepreneurs, as it is one of the most important distinctions in the economy, which can affect both venture characteristics and the psychological characteristics of entrepreneurs.

By generating these results, this study tries to fill the gap in the existing literature on happiness and venture characteristics. As no evidence that venture characteristics can affect happiness directly is found, the results are in line with the previous literature. Motivation perspective and perceptual variables are the main determinants of happiness among entrepreneurs. Stimulating happiness of entrepreneurs is a key objective, because of their contribution to the society. Policy makers may focus on the specific needs of people that can stimulate happiness not only in the beginning of a business but also during the operation of a business. However, due to the fact that perceptual variables depend on every individual's perception, it is uncertain if and how fast these can change by exogenous factors such as policy makers. It is likely that the same policy may have different results within the same group of entrepreneurs. Therefore, policy makers should focus both on group interventional programs and in customized one on one programs in order to help individuals to understand and recognize how their own perceptual variables can affect happiness.

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