

# **Determinants of life satisfaction among early stage entrepreneurs:**

## **The role of opportunity motivation, education, gender and working in the not for profit sector**

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Bachelor Thesis

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### **Abstract**

This paper looks at whether opportunity motive, education, gender and working in the not for profit sector relate to the life satisfaction of entrepreneurs and whether education, gender and working in the not for profit sector cause a difference in life satisfaction levels for opportunity and necessity entrepreneurs. Opportunity entrepreneurs are those that choose self-employment because of an opportunity in the market while necessity entrepreneurs are forced into self-employment because all other options for work are either absent or unsatisfactory. This research was performed to contribute to the field of life satisfaction, both in general and for entrepreneurs. It could help determine whether self-employment would be a good decision for certain individuals and help the government decide which types of potential entrepreneurs they should encourage. Regression analysis was done on data from the Global Entrepreneurship Monitor for the Netherlands in 2012, specifically from the Adult Population Survey. None of the determinants that the study focused on turned out to be significant for life satisfaction among entrepreneurs.

## Table of Contents

<b>1. Introduction.....</b>	<b>4</b>
<b>2. Literature Review .....</b>	<b>7</b>
2.1 Life Satisfaction of Entrepreneurs versus Wage Workers.....	7
2.2 Difference between Life and Job Satisfaction .....	7
2.3 Determinants of Life Satisfaction for Entrepreneurs.....	8
2.4 Life Satisfaction of Opportunity and Necessity Entrepreneurs.....	8
2.5 Life Satisfaction of High and Low Educated Entrepreneurs .....	10
2.6 Life Satisfaction of Male and Female Entrepreneurs .....	11
2.7 Life Satisfaction of Not for Profit and Profit Entrepreneurs.....	13
<b>3. Data &amp; Methodology.....</b>	<b>15</b>
3.1. Data.....	15
3.2. Methodology.....	15
3.2.1. Life Satisfaction .....	16
3.2.2. Motive for TEA .....	16
3.2.3. Education .....	16
3.2.4. Gender .....	16
3.2.5. Not for Profit Sector.....	16
3.2.6. Association Variables.....	16
3.2.7. Age.....	17
3.2.8. Household Income .....	17
3.2.9. Sector .....	17
3.2.10. Regression Analysis .....	17
<b>4. Results .....</b>	<b>19</b>
4.1. Means.....	19
4.2. Correlations .....	19
4.3. Coefficients.....	20
4.4. Results of Hypotheses .....	21
4.5. Multicollinearity.....	22
<b>5. Conclusion.....</b>	<b>24</b>
5.1. Discussion of Main Findings .....	24
5.2. Implications .....	25
5.3. Future Research.....	25
5.4. Limitations .....	26

<b>6. Bibliography</b> .....	<b>27</b>
<b>7. Appendix</b> .....	<b>30</b>
7.1. Descriptive Statistics.....	30
7.2. Model Summaries.....	30
7.3. ANOVA.....	30
7.4. Correlations .....	31
7.5. Coefficients.....	32
7.6. Collinearity Diagnostic.....	33

# 1. Introduction

This paper will examine the difference in life satisfaction between opportunity and necessity entrepreneurs. Specifically, this paper will examine whether opportunity motivation, education, gender and working in the not-for profit industry can determine the life satisfaction of an entrepreneur and how education, gender and working in the not for profit industry will effect the levels of life satisfaction for opportunity and necessity entrepreneurs.

This paper examines life satisfaction as opposed to job satisfaction since there is some evidence that life satisfaction may be a stronger correlate of job performance compared to job satisfaction (Erdogan, Bauer, Truxillo and Mansfield, 2012). Life satisfaction is also more interesting since it is an indicator of overall well-being rather than only looking at the satisfaction found in jobs. Life satisfaction is an important measure to be researched, also when looking at economic growth, since research shows that those who are more satisfied will work harder (Andersson, 2008).

Opportunity entrepreneurs voluntarily choose self-employment to pursue an entrepreneurial opportunity which necessity entrepreneurs are forced into self-employment because they have no other options for work (Allen, Elam, Langowitz and Dean, 2007). These two differing entries into self-employment can greatly affect life satisfaction in the long term. Having previously been unemployed and the method of which you come into self-employment can cause differing life satisfaction in terms of expectations (both financially and intrinsically), autonomy, skill utilisation and the sector entered by the entrepreneur.

Early stage entrepreneurs are individuals who are taking steps to start a business and owner-managers of businesses less than 3.5 years in existence. This research focuses on early stage entrepreneurs since if the research looked at older entrepreneurs it wouldn't be representative of the large number of entrepreneurs that never make it far enough to be considered an older entrepreneur.

The aim of this paper is to contribute to the field of life satisfaction, both in general and for entrepreneurs. This paper should help justify to entrepreneurs whether their education, gender and working in the not for profit sector can affect their life satisfaction. This research could help determine whether self-employment would be a good decision for certain individuals and help the government decide which types of potential entrepreneurs they should encourage. Another aim is to form research that extends on the studies that have been done so far and to form a research that can be extended on in the future. This is one of the first papers to look at life satisfaction for different entrepreneurs. It is also the first paper to look at these specific determinants. Specifically, the not for profit sector has never been researched in combination with life satisfaction of entrepreneurs before.

This paper will look specifically at opportunity motivation, education, gender and working in the not for profit industry and how these affect life satisfaction of entrepreneurs. Opportunity motivation is included in the research since it's interesting to consider whether it is just the fact of being an entrepreneur that leads to higher life satisfaction or whether the reason for becoming an entrepreneur affects it. Education is interesting to include in the

research since education is usually associated with higher financial success (Block and Sandner, 2009), an important determinant of life satisfaction. It is possible that for entrepreneurs this higher education is not necessary, since high education is often seen only as a signaling device. There are far fewer female entrepreneurs than male entrepreneurs (Kalleberg and Leicht, 1991), possibly because of lower life satisfaction. For this reason, it is interesting to include in the research. Entering the not for profit sector is an important determinant for intrinsic expectations (Benz and Frey, 2008) and could be particularly interesting when looking at opportunity and necessity entrepreneurs since financial reward is no longer an effect that will influence the difference in life satisfaction between the two types of entrepreneurs.

The paper will look at two different research questions; first it will be examined whether these specific determinants can predict the life satisfaction of an entrepreneur. The first research question is therefore:

**Can the determinants: opportunity motivation, education, gender and working in the not-for profit industry determine the life satisfaction of an entrepreneur?**

Second, the paper will distinguish between opportunity and necessity entrepreneurs to look at how the determinants influence the life satisfaction of each type of entrepreneur. The second research question is therefore:

**Do the determinants: education, gender and working in the not-for profit industry have a different relationship with life satisfaction for opportunity entrepreneurs than for necessity entrepreneurs?**

Research shows that a worker with a higher job- or life- satisfaction is more economically productive (Saari and Judge, 2004). There is also some evidence that life satisfaction may be a stronger correlate of job performance compared to job satisfaction (Erdogan et al., 2012). People who are more satisfied might want to work harder and are less likely to quit (Andersson, 2008). Since entrepreneurship leads to economic growth (Bhola, Verheul, Thurik and Grilo, 2006) it is important for governments to know what influences life satisfaction so that they can promote the right forms of entrepreneurship. For instance, in the UK presently, the government has schemes to help the unemployed start up businesses (Department of Business, 2012); perhaps research from this paper could prove whether this is an efficient or inefficient use of government resources. For this reason, this paper is socially relevant.

Life satisfaction has only recently become a topic considered worth researching (Erdogan et al., 2012). Narrowing this down further to only opportunity and necessity entrepreneurs, there is even less research so far. How each determinant; tertiary education, gender and working in the not for profit sector relates to entrepreneurs specifically in the context of life satisfaction for opportunity and necessity entrepreneurs is yet to be researched. Considering that this makes this research unique and that these three determinants are important when looking at the different effects contributing to the difference in life satisfaction between opportunity and necessity entrepreneurs, as outlined above, this research is scientifically relevant.

To research this topic the Global Entrepreneurship Monitor data for The Netherlands from the year 2012 will be used. Levels of total early stage entrepreneurship are high in the Netherlands. Of the European countries that can be considered innovation driven, it is the highest. The year 2012 was used since the levels of total early stage entrepreneurship were particularly high, 25% higher than in 2011 in fact (van Stel, Hessels and Span, 2014). This gives us a larger data set to take observations from. Additionally, questions on life satisfaction and on working in the not for profit sector were included in the data of 2012, which are not usually included in the Global Entrepreneurship Monitor.

Linear regression models will be formed to give answers to the hypotheses outlined later in the paper. These models will be run on a set of data, which only includes entrepreneurs. The models will include the independent variables outlined above as well as a number of control variables and association variables. The coefficients found in these models should allow us to form a conclusion on how and to what extent each determinant relates to life satisfaction of opportunity and necessity entrepreneurs.

The paper is structured as follows. In the next chapter, a review of prior research on the subject and the development of the hypotheses are presented. In the third chapter, the data and research methods for the empirical analysis will be explained. In the fourth chapter, the results of the empirical analysis will be presented and in the last chapter a conclusion will be formed of the implications of the results.

## 2. Literature Review

### 2.1 Life Satisfaction of Entrepreneurs versus Wage Workers

An assumption that is often made about the self-employed is that they perceive their jobs to be more stressful and mentally straining. They believe this since they work longer hours, have less free time and have more responsibility for their job and their incomes (Andersson, 2008). However, most research shows that entrepreneurs find these hardships worth it for the intrinsic benefits. Hamilton (2000) found that there are significant nonpecuniary benefits offered from self-employment. He found that many workers are willing to both enter and remain in self-employment despite receiving a much lower income than their alternative wage if they were to be in paid employment (Hamilton, 2000). Andersson (2008) found that the self-employed are more satisfied. Andersson (2008) found that the fact that entrepreneurs are their own boss leads to a number of aspects that increase their life satisfaction. These aspects are that they have higher independence, they have more flexible working hours and that they can choose themselves how much effort to put into the job.

Hundley (2001) found that greater autonomy, more flexibility, skill utilisation and higher (perceived) job security are the main reasons the self-employed are more satisfied with their jobs. Benz and Frey (2009) argue that procedural utility is the cause of this higher job satisfaction. Procedural utility means that the entrepreneur values the procedure that leads to the outcome as well as the actual outcome. While employed workers need to follow orders, the self-employed make their own decisions. The larger the hierarchy, the lower the satisfaction.

Binder and Coad (2013) state that the finding that the self-employed are more satisfied with their jobs has proven to be robust. Even though the self-employed often earn less and work more hours the higher levels of autonomy more than compensate for the hardships otherwise associated with self-employment. Binder and Coad (2013) found that the only domain that entrepreneurs are less satisfied than wage workers in is in leisure hours. Although they wondered whether self-employment would crowd out the other pleasures of life, leading eventually to a lower life satisfaction, they deemed it very unlikely considering their findings that life satisfaction are much higher for entrepreneurs and additionally are increasing over time.

Till now most prior research has compared entrepreneurs to employees, this paper will look at the difference in life satisfaction of different types of entrepreneurs. In section 2.4, the prior literature on this more specific topic is discussed.

### 2.2 Difference between Life and Job Satisfaction

Life satisfaction is one of the three indicators of quality of life the other two indicators are mental and physical health (Veenhoven, 1996). Job satisfaction only looks at the degree to which people like their work (Millan, Hessels, Thurik and Aguado, 2013). Millan et al. (2013) separate job satisfaction

into satisfaction with job security and with the type of work. Satisfaction measures have only recently become a topic of interest since traditionally utility was considered non-measurable. Recently, self-reported satisfaction measures, such as job satisfaction, have received increasing recognition in economics (Benz, 2005). Till now, most research has been done on job satisfaction rather than on life satisfaction. This is because job satisfaction has tended to be considered an adequate statistic to measure the satisfaction of one's job and not much attention has been paid to life satisfaction (Erdogan et al., 2012). Saari and Judge (2004) point out that life satisfaction and job satisfaction tend to spill over so that job satisfaction spills into life satisfaction and vice versa. Therefore, higher levels of job satisfaction for the self-employed should mean finding higher levels of life satisfaction too.

### **2.3 Determinants of Life Satisfaction for Entrepreneurs**

It can be argued that there are certain characteristics that lead to higher life satisfaction for the self-employed. Carree and Verheul (2012) found that entrepreneurs were more able to deal with stress when they are driven by the intrinsic benefits. Binder and Coad (2013) found that the most important determinant associated with satisfaction of entrepreneurs is financial success. Additionally, Block and Koellinger (2009) found that entrepreneurs working more hours per week have a higher level of life satisfaction. Since the self-employed generally have lower pay and a longer working week, this suggests that the self-employed find satisfaction from other sources, such as procedural utility. On the other hand, Carree and Verheul found that when the ventures are doing better financially, the entrepreneur experiences an increase in income satisfaction but at the same time this tends to come at the cost of a lower satisfaction in terms of how much leisure time they have.

Therefore, financial success, hours worked per week and intrinsic motivation are key determinants of life satisfaction for entrepreneurs.

### **2.4 Life Satisfaction of Opportunity and Necessity Entrepreneurs**

Opportunity entrepreneurs are those that become self-employed voluntarily to pursue entrepreneurial opportunities and necessity entrepreneurs are those forced into self-employment because all other options for work are either absent or unsatisfactory (Allen et al., 2007). While expected profits can be one type of motivator for entrepreneurs, previous employment can also be a factor motivating them (Vivarelli, 1991). It can be expected to find differences in life satisfaction for these two different types of entrepreneurs since what they seek from self-employment and what would cause an increase in life satisfaction is different for each type of entrepreneur. Each determinant of life satisfaction can affect them differently which will lead to differences in their life satisfaction.

Binder and Coad (2013) found that opportunity entrepreneurs experience a positive and significant increase in life satisfaction and this continues to increase from the first to second year of self-employment. They



found, however, that necessity entrepreneurs were not better off than the unemployed workers that found work in wage employment. Block and Koellinger (2009), similarly, found that opportunity entrepreneurs are significantly more satisfied than necessity entrepreneurs. They believed this to be because starting a business intentionally and out of free will, as opportunity entrepreneurs do, may lead to higher utility as they have control over their own actions. This is in line with Hundley's (2001) findings that the self-employed are more satisfied mainly because of greater autonomy. Necessity entrepreneurs could be less satisfied than opportunity entrepreneurs due to the absence of this control over their own action. Block and Koellinger (2009) also hypothesize that necessity entrepreneurs are less satisfied because in self-employment they lack the security of a wage contract. Other factors that could decrease the life satisfaction of a necessity entrepreneur are the additional workload, uncertainty, responsibility, risk or perceived lower social status.

Opportunity entrepreneurs tend to have higher performing firms (Vivarelli, 2004). This could be because opportunity entrepreneurs exploit more profitable opportunities, on average (Block and Wagner, 2007). Since Block and Koellinger (2009) found a strong positive association between financial success and start-up satisfaction, as did Binder and Coad (2013), this indicates a higher life satisfaction for opportunity entrepreneurs. Additionally, since opportunity entrepreneurs have a higher opportunity cost, they are quicker to close down their venture if they are disappointed by the intrinsic benefits (Block and Sandner, 2009). This means that the opportunity entrepreneurs who are in the market are the more successful ones and therefore the more satisfied ones. Benz and Frey (2008) found that the reason entrepreneurs have a higher life satisfaction than wage workers is because entrepreneurs have an increase in life satisfaction from the non-monetary benefits of entrepreneurship. Opportunity entrepreneurs tend to have more non-monetary motives than necessity entrepreneurs (Verheul, Thurik, Hessels and van der Zwan, 2010). This is another indicator that opportunity entrepreneurs have higher life satisfaction.

On the other hand, it is also possible to argue that necessity entrepreneurs should have a higher life satisfaction. It is found that higher income aspirations reduce people's satisfaction with life. Subjective well being depends on the gap between income aspirations and actual income and not on the income level as such. The aspiration level itself is substantially increasing with individual's previous income (Stutzer, 2004). Similarly, Ferrer-i-Carbonell (2002) found that individual income perception is dependent on the past as well as their income compared with others. This means that since opportunity entrepreneurs had a higher wage before they became an entrepreneur, they therefore would also have higher aspirations for their business. Having this higher aspiration means that their level of life satisfaction could be lower than that of a necessity entrepreneur.

Research shows that opportunity entrepreneurs have a higher life satisfaction because of the higher levels of autonomy, because they tend to have higher financial success and because they are more likely to decide to become an entrepreneur for the intrinsic benefits. It can also be argued however, that necessity entrepreneurs have a higher life satisfaction because their expectations

are lower. Since there is much more research proving that opportunity entrepreneurs have a higher life satisfaction, the first hypothesis is:

**Ho1: Opportunity entrepreneurs have a higher level of life satisfaction than necessity entrepreneurs.**

## 2.5 Life Satisfaction of High and Low Educated Entrepreneurs

Human Capital Theory suggests that a higher level of education and an education closely matching the requirements of entrepreneurs leads to a more successful venture (Block and Sandner, 2009). Since Block and Koellinger (2009) found a strong positive association between financial success and start-up satisfaction, this indicates a higher level of life satisfaction. Hundley (2001) found that the main reason the self-employed are more satisfied is because of greater autonomy. Ross (1992) points out that at the same level of autonomy the well educated are less satisfied than the poorly educated, but education is a major determinant of doing autonomous work. She argues that education gives workers access to better job conditions that therefore lead to higher levels of job satisfaction.

Looking at a contradictory point of view, however, it could also be argued that very determined entrepreneurs don't consider wage work as a substitute to self-employment. Therefore they don't invest as much in formal education since formal education is often only used as a signaling device for potential employers. In this way, higher education could have a negative impact on the success of the venture (Block and Sandner, 2009).

Millan et al. (2011) found that higher education does not lead to higher job satisfaction for the self-employed since the higher education did not affect their perceived risk of business failure. Those with higher education are less satisfied with their job security as an entrepreneur. This could be because those that have a higher education are more likely to have more demanding jobs with higher expectations. Additionally, the same study found that even when entrepreneurs perceive that their skills are being underutilised they still feel that the advantages of self-employment outweigh the negative effect of the skill underutilisation (Millan et al., 2013). These are surprising findings since Hundley (2001) found the opposite, that some of the reasons why entrepreneurs have higher satisfaction is due to their (perceived) higher job security and skill utilisation.

Ferrante (2009) found similar results. He believes that higher education will decrease life satisfaction since better opportunities are expected and aspirations are raised above what is realistic. This finding was first discussed by Clark and Oswald (1996). This means that those with a higher education level have a high expectation of their life, wage level or success of the business, this could lead to a lower life satisfaction if the actual outcome is lower than their aspiration. Glenn and Weaver (1982) also analysed whether education would lead to dissatisfaction of work, since it would lead to unfulfilled expectations and aspirations. Their research found that, on average, education had little direct effect on job satisfaction. Ross (1992) also found no association between

education and job satisfaction. The null association is found because expectations cancel out the positive effect.

Although there is a small amount of research showing that the well educated have access to better job conditions and therefore, have a higher level of job satisfaction. Most research shows that being highly educated does not lead to higher life satisfaction since those that are highly educated have higher expectations. Therefore, hypothesis 2a is:

**Ho2a: Entrepreneurs that have completed tertiary education have a lower life satisfaction than those that have not.**

Block and Sandner (2009) found that there is no significant difference in the duration of self-employment between necessity and opportunity entrepreneurs when only considering entrepreneurs who have been educated in the specific profession of their start-up. Considering that Block and Koellinger (2009) found a strong positive association between financial success and life satisfaction, these results find that there should be no difference in the life satisfaction between opportunity and necessity entrepreneurs. Bergmann and Sternberg (2007) found that higher education made a big difference to opportunity entrepreneurs in terms of how well their venture did, while for necessity entrepreneurs this was not important. Block and Wagner (2010) additionally find that having experience working as a wage worker increases the earnings of opportunity entrepreneurs but has no effect on necessity entrepreneurs. Specifically being trained for their occupation, however, lead to higher earnings for necessity entrepreneurs but did not impact opportunity entrepreneurs.

Research shows that experience and higher education have a positive effect on the earnings of opportunity entrepreneurs but no effect on necessity entrepreneurs, but other research shows that specific vocational oriented education has a positive effect on the earnings of necessity entrepreneurs but not on opportunity entrepreneurs. The majority of research seems to be in line with that being well-educated is more important for determining the life satisfaction for opportunity entrepreneurs than for necessity entrepreneurs. Therefore, hypothesis 2b is:

**Ho2b: The relation between opportunity motivation and life satisfaction is more positive for entrepreneurs who have completed tertiary education.**

## **2.6 Life Satisfaction of Male and Female Entrepreneurs**

Women's investments in human capital generally has a lower rate of return than that of men; women often have less choice in what kind of job they have and have less promotions and advancement opportunities. For these reasons we would expect to see lower job satisfaction for women (Sousa-Poza and Sousa-Poza, 2000). The results for job satisfaction among women vary greatly across countries. Of the twenty-one countries investigated by Sousa-Poza

et al. (2000), eight had a higher job satisfaction for women than for men. They found that women had a higher level of job satisfaction than men in countries where they had higher levels of work-role outputs such as job security and jobs that are useful to society.

Scott (1986) found that female entrepreneurs tended to be successful, with the majority having incomes that met or exceeded their expectations. Kalleberg and Leicht (1991) found that there is no difference between men and women in terms of how long their businesses lasted. However, Block and Sandner (2009) found that male entrepreneurs survive significantly longer in self-employment and Kalleberg and Leicht (1991) found the mean earnings for men were nearly \$54,000 while for women about \$46,000. Considering that business success is positively correlated with life satisfaction, as found by Block and Koellinger (2009), these findings suggest that although women should be satisfied, they should have a lower life satisfaction than men.

Scott (1986) also noted that men and women have different priorities as entrepreneurs. Men prioritize being their own boss, while women prioritize personal challenge and satisfaction (Scott, 1986). Tait et al. (1989) found that the overlap between life and job satisfaction is lower for women than for men since work is less important to women, although they do see that over time this correlation is becoming stronger for women as well.

Parasuraman et al. (1996) found that being a woman influenced their career success and satisfaction of being an entrepreneur because women are less committed to their ventures and devote significantly more time to family than men do. This could lead to a reduction in life satisfaction, however, since Hundley (2001) found that one of the factors that lead to increased satisfaction for entrepreneurs was more flexibility and Block and Koellinger (2009) found that number of hours worked a week is positively correlated with start-up satisfaction. Both of these determinants would be negatively affected if female entrepreneurs devote more time to their families. Booth and Van Ours (2009) discuss that women may have higher life satisfaction from working part-time since they can then gain self-esteem from working while still also gaining utility from being with and caring for their families. However, although their life satisfaction is higher, their job satisfaction would be lower since part-time workers have less meaningful and satisfying work. Therefore, although Block and Koellinger (2009) found that number of hours worked is positively correlated with satisfaction, perhaps for women this is not the case and women could have a higher life satisfaction from also having time to dedicate to their families.

Again, looking at the point of view of how aspirations may affect life satisfaction; Clark (1997) argues that the reason why women have higher job satisfaction is not because their jobs are better but because their expectations are lower. He claims that the reason for these lower expectations are because in the past women have had much worse jobs. A study conducted by Cooper and Artz (1995) also found that women entrepreneurs had a higher satisfaction level than male entrepreneurs, however, they additionally found that there was no significant difference between the sexes in terms of their initial expectations of their ventures' success. They hypothesized that since women are more likely to have been subject to previous discriminations, they are more accustomed to disappointing results. Additionally, they found women to be more satisfied with

lower financial success. Page et al. (2007) looked at how reference points, such as your parent's level of education, may influence your own aspirations. They found that males and females with high reference points do not react in the same way, males are much more willing to change their behaviour in order to reach a higher reference point.

Although research shows that men tend to be more successful and are more committed to their venture. More research tends towards women having a higher life satisfaction. Women prefer to have the flexibility to be able to combine self-employment with having a family. It is also possible that women have higher life satisfaction since they have lower expectations or are used to higher levels of discrimination. Therefore, from these results, hypothesis 3a is:

**Ho3a: Female entrepreneurs have a higher life satisfaction than male entrepreneurs.**

Verheul et al. (2010) found that female necessity entrepreneurs have a lower chance of survival than male necessity entrepreneurs. Considering that Block and Koellinger (2009) found a strong positive association between financial success and life satisfaction, these results justify that necessity entrepreneurs would in fact have a higher life satisfaction from being male.

There are higher levels of female necessity entrepreneurs than male necessity entrepreneurs. Allen et al. (2007) found that the fear of failure is higher for women, they hypothesize that this is because women are more likely to be a necessity entrepreneur. Hundley (2001) found that (perceived) job security is an important determinant of job satisfaction. From this it can be concluded that female necessity entrepreneurs have a lower job satisfaction.

Based on the findings described above it can be expected that female necessity entrepreneurs have a lower life satisfaction because of their lower levels of financial success and higher fear of failure. Therefore, Hypothesis 3b is:

**Ho3b: The relation between opportunity motivation and life satisfaction is less positive for female entrepreneurs.**

## **2.7 Life Satisfaction of Not for Profit and Profit Entrepreneurs**

Not for profits are complex and distinctive structures of extrinsic and intrinsic incentives that attract workers who are not predominantly driven by monetary rewards (Borzaga and Tortia, 2006). Benz (2005) found that in both the United States and Great Britain over the 1990's, not for profit workers were generally more satisfied with their jobs than profit workers. The explanation for this is that not for profit organisations offer substantial intrinsic work benefits. Not for profit workers are more likely than profit workers to state that they can accomplish something worthwhile in their job (Benz, 2005). Not for profits have more autonomy, task variety and workers have a greater influence on the job than profit employees (Mirvis and Hackett, 1983). Hundley (2001) found that the

main determinant why the self-employed have a high level of job satisfaction is because of greater autonomy. Mirvis and Hackett (1983) found that not for profit workers are considerably more likely to find that their work is more important to them than the money they earn. Benz (2005) also found evidence supporting the view that not for profit organisations offer substantial non-pecuniary work benefits. Entrepreneurs also have an increase in life satisfaction from the non-monetary benefits of entrepreneurship (Benz and Frey, 2008).

Buelens and Van den Broeck (2007) found that there is also a difference in life satisfaction between higher- and lower-level public sector employees. Higher-level public sector employees have more private sector attributes such as high commitment, high satisfaction and smaller gaps between what they want and what they get. These findings of higher non-monetary incentives could be lost in the future though, in the past 20 years non-profit firms have become more commercialized, using more for-profit like human resource policies. These changes could be detrimental to the non-profit sector, which currently has competitive advantage in motivating and satisfying their workers (Benz, 2005).

Not for profit workers experience intrinsic benefits from their job and are more likely to believe that their job really makes a difference. Intrinsic benefits are a large part of life satisfaction for entrepreneurs (Carree et al., 2012). Mirvis and Hackett (1983) also found that not for profit workers have higher autonomy and task variety, both are aspects of higher life satisfaction for entrepreneurs (Hundley, 2001). Therefore, based on the above findings, hypothesis 4a is:

**Ho4a: Not for profit entrepreneurs have a higher life satisfaction than profit entrepreneurs.**

Necessity entrepreneurs are very unlikely to become an entrepreneur for non-monetary incentives (Verheul et al., 2010). The previous paragraphs explain that life satisfaction is higher for entrepreneurs in the not for profit sector because of the intrinsic benefits of having more meaningful work (Benz, 2005). Since necessity entrepreneurs are looking for monetary rewards in entrepreneurship they won't find these in the not for profit sector, this will lead to lower life satisfaction. Opportunity entrepreneurs on the other hand, find great levels of life satisfaction from the intrinsic benefits of entrepreneurship (Hamilton, 2000), therefore, for opportunity entrepreneurs, their life satisfaction is likely to be higher in the not for profit sector. Therefore, hypothesis 4b is:

**Ho4b: The relation between opportunity motivation and life satisfaction is more positive for not for profit entrepreneurs.**

## 3. Data & Methodology

### 3.1. Data

The Data used for this paper is the GEM data for the Netherlands from 2012. GEM stands for Global Entrepreneurship Monitor and it is the world's foremost study of entrepreneurship. GEM looks at the entrepreneurial behaviour and attitudes of individuals and the national context and how that impacts entrepreneurship. GEM collects primary data and captures data throughout the entrepreneurial process. There are two surveys that comprise their data: the Adult Population Survey and the National Expert Survey. The Adult Population Survey tracks the entrepreneurial attitudes, activity and aspirations of individuals. This survey is administered to minimally 2000 adults in each country per year. The National Expert Survey is administered to 36 experts in each country each year in the field of entrepreneurship. They give their opinion on nine factors considered significant to entrepreneurship. This specific study uses information from the Adult Population Survey for the Netherlands in 2012 and has 612 variables with 2011 participants.

This research focuses on early stage entrepreneurship rather than older entrepreneurs. The Global Entrepreneurship Monitor defines total early stage entrepreneurship as individuals who are taking steps to start a business and owner-managers of businesses less than 3.5 years in existence. This focus on early stage entrepreneurs is since half of new businesses fail within the first five years (van Stel et al., 2014). If the study were to only look at older entrepreneurs, this would be mostly only successful businesses and this could have a large impact on the level of life satisfaction. It also wouldn't be representative of the large number of entrepreneurs that never make it far enough to be considered an older entrepreneur.

The data includes 298 total early stage entrepreneurs. 249 of these have opportunity motive, 25 have necessity motive and 23 have another motive. Once opportunity entrepreneurs are controlled for there are only 249 observations left. However, since the other determinants in the models are controlled for, eventually the data is left with 133 observations.

### 3.2. Methodology

The variables that will be used can be found in Table 3.5.1 below:

**Table 3.2.1: Variables**

LS	Life Satisfaction
OPPMOT	Opportunity Motive for TEA
Edhigh	Tertiary Education
Gender	Gender
NFP	Not for Profit Sector
age	Age
HHIncomeHigh	Household Income of €60,000 or more
BSSEC	Sector: Business Services

### 3.2.1. Life Satisfaction

Life Satisfaction is a scale variable in this data set. It can take a value between 1 and 6, with 6 being the highest possible life satisfaction and 1 being the lowest.

### 3.2.2. Motive for TEA

For the motivations to be an entrepreneur, two dummy variables were made. Originally the variable had three options:

- 0 Opportunity Motive
- 1 Necessity Motive
- 2 Other Motive

The dummy variable 'OPPMOT' was created. The variable had opportunity motive (1) take a value 1 and necessity and other motive (2 and 3) take a value of 0.

### 3.2.3. Education

Education was already the dummy variable Edhigh, which is only tertiary education. This means that tertiary education take a value of 1 and primary or secondary education take a value of 0.

### 3.2.4. Gender

Gender was already a dummy variable, however, it was coded:

- 1 Men
- 2 Women

A new dummy variable was created and coded so that Men (1) would stay the same but Women (2) would now be coded with the value of 0.

### 3.2.5. Not for Profit Sector

Not for Profit was already a dummy variable.

- 1 Not for Profit
- 0 All else

### 3.2.6. Association Variables

Association variables are made to examine whether there could be a significant relationship found only when opportunity entrepreneurship is combined with one of the independent variables. For instance, it could be that only being an opportunity entrepreneur will not relate to life satisfaction and



only being highly educated will not relate to life satisfaction, but if you are both an opportunity entrepreneur and have a high life satisfaction then there is a highly significant relationship with life satisfaction.

This variable was made by creating a new variable and using the formula  $OPPMOT * \text{Independent Variable} = (OPPMOT - \text{mean}) * (\text{Independent Variable} - \text{mean})$ . The mean for each variable is subtracted from that variable in this formula, to account for multicollinearity. This formula was used to make the association variables  $OPPMOT * Edhigh$ ,  $OPPMOT * Gender$  and  $OPPMOT * NFP$ . These association variables were used to test hypotheses 2B, 3B and 4B.

### 3.2.7. Age

Age is also a scale variable and can take a value from 18 to 64.

### 3.2.8. Household Income

Household Income was split into two dummy variables in this case. Originally, the variable had five options:

- 1 Refused
- 0 Don't Know
- 1 Less than 30,000 euro
- 2 30,000 euro
- 3 30,000-60,000 euro
- 4 60,000 euro
- 5 More than 60,000 euro

The dummy variable, 'HHIncomeHigh' was made. The variable had those with income 60,000 euro and above (4 and 5) take a value of 1 and those with under 60,000 euro (1,2 and 3) took a value of 0. This means that 'Refused' (-1) and 'Don't Know' (0) were not included in the dummy variables.

### 3.2.9. Sector

The sector variable was also split into two dummy variables. Originally the variable had five options:

- 2 Not classified/Missing
- 1 Extractive
- 2 Transforming
- 3 Business Services
- 4 Consumer Oriented

The dummy variable 'BSec' had Business Services (3) take a value of 1 and everything else take a value of 0.

### 3.2.10. Regression Analysis

Using the above variables, five linear regression models will be made. Life Satisfaction will always be the dependent variable. Age, Household Income and the Sector are the control variables and so therefore will be included in each model. Tertiary Education, Gender and the Not for Profit Sector are the main independent variables and so therefore will also be included in all five models. One model will then be made without any association variables, then three models to individually test each association variable and then a final model where all association variables are included.

Table 3.5.2 below clearly indicates which variables were used to form the five models.

**Table 3.2.2: Variables used in each model**

	Model 1	Model 2	Model 3	Model 4	Model 5
<i>Independent Variables</i>					
Opportunity Entrepreneurship	X	X	X	X	X
Tertiary Education	X	X	X	X	X
Gender	X	X	X	X	X
Not for Profit Sector	X	X	X	X	X
Opportunity Entrepreneurship * Tertiary Education		X			X
Opportunity Entrepreneurship * Gender			X		X
Opportunity Entrepreneurship * Not for Profit				X	X
<i>Control Variables</i>					
Age	X	X	X	X	X
Household Income of €60,000 or more	X	X	X	X	X
Business Services Sector	X	X	X	X	X

From these five models, an analysis can be formed to answer the hypotheses that were mentioned in the literature review. This analysis can be found in the results section.

## 4. Results

### 4.1. Means

Table 4.1 shows the means for the variables used.

**Table 4.1: Means**

<i>Dependent Variable</i>	Mean
Life Satisfaction	5.0671
<i>Independent Variables</i>	
Opportunity Entrepreneurship	0.8344
Tertiary Education	0.1302
Gender	0.7243
Not for Profit Sector	0.1405
<i>Control Variables</i>	
Age	39.6
Household Income of €60,000 or more	0.3442
Business Services Sector	0.1515

Looking at the table it can be seen that the mean for life satisfaction for entrepreneurs is relatively high at 5/6. There are quite a few more opportunity entrepreneurs than necessity entrepreneurs in the sample, 83% have opportunity motivation. Only 13% of the entrepreneurs have reached tertiary education. There are relatively many more male entrepreneurs than female, 72% are male. Only 14% of entrepreneurs are in the not for profit sector. For the control variables, the average age of entrepreneurs in our sample is 39.6. 34% of entrepreneurs have a household income of €60,000 or more and only 15% of entrepreneurs work in the business service sector.

### 4.2. Correlations

In Table 4.2 the correlations of the variables can be found.

**Table 4.2: Correlations**

<i>Dependent Variable</i>	Life Satisfaction	Opportunity Entrepreneurs	Tertiary Education	Gender	Not for Profit	Age	Household Income	Sector
Life Satisfaction	1	-0.083	0.075	0.076	-0.076	-0.026	0.267***	0.136
<i>Independent Variables</i>								
Opportunity Entrepreneurship	-0.083	1	0	-0.068	0.045	-0.169*	0.175*	0.013
Tertiary Education	0.075	0	1	-0.047	0.038	0.061	0.116	0.086
Gender	0.076	-0.068	-0.047	1	-0.348***	-0.148*	0.21**	0.006
Not for Profit Sector	-0.076	0.045	0.038	-0.348***	1	0.174*	-0.2**	-0.117
<i>Control Variables</i>								
Age	-0.026	-0.169*	0.061	-0.148*	0.174*	1	0.134	-0.057
Household Income of €60,000 or more	0.267***	0.175*	0.116	0.21**	-0.2**	0.134	1	-0.04
Business Services Sector	0.136	0.013	0.086	0.006	-0.117	-0.057	-0.04	1

\* significance of 0.05

\*\* significance of 0.01

\*\*\* significance of 0.001

The correlations show the strength of the linear relationship between two variables, the values can range from -1 to 1. Looking at the significant relationships from Table 4.2 it can be seen that life satisfaction is positively

correlated to household income, signifying that entrepreneurs are happier with a higher income. Now looking at each independent variable: opportunity entrepreneurship is negatively correlated to age and positively correlated to household income. This signifies that opportunity entrepreneurs tend to be younger and have a high income. Tertiary education is not significantly correlated to any other variable. Gender is positively correlated to household income, positively correlated to age and negatively correlated to the not for profit sector. This signifies that male entrepreneurs tend to have a higher income and are older than female entrepreneurs. The Not for Profit sector is negatively correlated to gender, positively correlated to age and negatively correlated to household income. Women are more likely to be not-for profit entrepreneurs. Not for profit entrepreneurs are likely to be older than those working in the profit sector and are also likely to have a lower income than profit entrepreneurs. Noticeably, sector is also not significantly correlated to any other variable.

### 4.3. Coefficients

In Table 4.3 the results for the five models can be found. All the models include life satisfaction, as the dependent variable, opportunity entrepreneurship, education, gender and not for profit as independent variables and age, household income and sector as control variables. The second model also includes the association between opportunity entrepreneurship and education as an independent variables. The third model also includes the association between opportunity entrepreneurship and gender as an independent variables. The fourth model also includes the association between opportunity entrepreneurship and the not for profit sector as an independent variables. Finally, the fifth model includes all three associations as independent variables.

**Table 4.3: Coefficients**

	Model 1	Model 2	Model 3	Model 4	Model 5
(Constant)	5.449***	5.451***	5.435***	5.415***	5.409***
<i>Independent Variables</i>					
Opportunity Entrepreneurship	-0.394	-0.394	-0.377	-0.371	-0.362
Tertiary Education	0.083	0.083	0.081	0.063	0.064
Gender	-0.011	-0.011	-0.007	-0.004	-0.002
Not for Profit Sector	0.065	0.066	0.06	0.042	0.041
Opportunity Entrepreneurship * Tertiary Education		-0.029			0.014
Opportunity Entrepreneurship * Gender			-0.39		-0.254
Opportunity Entrepreneurship * Not for Profit				0.756	0.671
<i>Control Variables</i>					
Age	-0.008	-0.008	-0.009	-0.008	-0.008
Household Income of €60,000 or more	0.615**	0.616**	0.632**	0.621**	0.631**
Business Services Sector	0.377	0.375	0.363	0.377	0.369
N	133	133	133	133	133
Adjusted R2	0.07	0.063	0.067	0.072	0.059

\* significance of 0.05

\*\* significance of 0.01

\*\*\* significance of 0.001

As can be seen in Table 4.3, the variables included in the models do not seem to explain much of the variance in life satisfaction since the adjusted  $R^2$  is quite low in all five models. Additionally, household income is always the only significant variable and has a strong, positive relationship to life satisfaction. Although the other variables are not significant, it is still possible to look at whether the relationship is positive or negative but not to use these results to pass judgment.

The results show that tertiary education and the not for profit sector has a positive relationship to life satisfaction while gender and being an opportunity entrepreneur has a negative relationship to life satisfaction.

The association between opportunity entrepreneurship and tertiary education has a negative relationship to life satisfaction, so does the association between opportunity entrepreneurship and gender. The association between opportunity entrepreneurship and the not for profit sector has a positive relationship to life satisfaction.

As for the control variables, age has a negative relationship, working in the business service sector has a positive relationship and household income also has a positive relationship, as already discussed above.

#### **4.4. Results of Hypotheses**

**Ho1: Opportunity entrepreneurs have a higher level of life satisfaction than necessity entrepreneurs.**

Although there is no significant relationship between life satisfaction and opportunity motive, the relationship seen is negative. This would mean that necessity entrepreneurs have a higher life satisfaction. However, since this relationship is insignificant we cannot draw this conclusion.

**Ho2a: Entrepreneurs that have completed tertiary education have a lower life satisfaction than those that have not.**

Again, the relationship is not significant between tertiary education and life satisfaction. The relationship shown is positive, meaning that being highly educated would lead to higher life satisfaction but the relationship is insignificant.

**Ho2b: The difference in life satisfactions between necessity and opportunity entrepreneurs is smaller for entrepreneurs that have completed tertiary education.**

The association variable between opportunity motive and tertiary education is negative, implying that an opportunity entrepreneur will have a higher life satisfaction with a lower education. However, yet again this relationship is found to be insignificant so a conclusion cannot be drawn.

**Ho3a: Female entrepreneurs have a higher life satisfaction than male entrepreneurs.**

Gender has a negative relationship to life satisfaction; this would mean that women entrepreneurs have a higher life satisfaction. Again, this is not a significant relationship.

**Ho3b: The difference in life satisfaction between necessity and opportunity entrepreneurs is smaller for males than for females.**

The association variable between opportunity motive and gender is negative; this would imply that opportunity entrepreneurs have a higher life satisfaction if they are female. Since this relationship is insignificant though, this conclusion cannot be drawn.

**Ho4a: Not for profit entrepreneurs have a higher life satisfaction than profit entrepreneurs.**

The relationship between the not for profit sector and life satisfaction is positive, meaning that an entrepreneur has a higher life satisfaction when they work in the not for profit sector as opposed to the profit sector. Yet again, this relationship is not significant though so no conclusion can be drawn.

**Ho4b: The difference in life satisfaction between necessity and opportunity entrepreneurs is smaller for not for profit entrepreneurs than for profit entrepreneurs.**

The association variable between opportunity motive and the not for profit sector is positive, meaning that an opportunity entrepreneur has a higher life satisfaction when they work in the not for profit sector. However, since this variable is also insignificant, this conclusion cannot be drawn.

## 4.5. Multicollinearity

Multicollinearity is a problem that occurs with regression analysis when there is a high correlation of at least one independent variable with a combination of the other independent variables. This can increase the variance of the coefficients of the variables with multicollinearity and make them very sensitive to minor changes in the model, meaning that they are difficult to interpret.

**Table 4.4: Multicollinearity**

	Model 1		Model 2		Model 3		Model 4		Model 5	
	Tolerance	VIF	Tolerance	VIF	Tolerance	VIF	Tolerance	VIF	Tolerance	VIF
<i>Independent Variables</i>										
Opportunity Entrepreneurship	0.902	1.109	0.899	1.112	0.893	1.12	0.894	1.118	0.886	1.129
Tertiary Education	0.968	1.033	0.968	1.033	0.968	1.033	0.963	1.039	0.962	1.039
Gender	0.83	1.204	0.83	1.205	0.83	1.205	0.83	1.206	0.828	1.207
Not for Profit Sector	0.818	1.222	0.812	1.231	0.817	1.223	0.813	1.231	0.806	1.241
Opportunity Entrepreneurship * Tertiary Education			0.899	1.112					0.877	1.14
Opportunity Entrepreneurship * Gender					0.95	1.052			0.874	1.144
Opportunity Entrepreneurship * Not for Profit							0.972	1.029	0.89	1.124
<i>Control Variables</i>										
Age	0.874	1.144	0.854	1.171	0.872	1.147	0.873	1.145	0.849	1.178
Household Income of €60,000 or more	0.831	1.204	0.813	1.23	0.817	1.223	0.83	1.205	0.797	1.254
Business Services Sector	0.97	1.031	0.909	1.1	0.963	1.038	0.97	1.031	0.897	1.115

Multicollinearity is found when the Tolerance is below 0.2 or when the Variance Inflation Factors (VIF) are above 5. As can be seen, there is no multicollinearity found in these results, so therefore they are valid and stable.

## 5. Conclusion

This paper has examined the difference in life satisfaction between opportunity and necessity entrepreneurs, taking education, gender and working in the not for profit sector into account. This research is one of the first studies to look at life satisfaction differences of entrepreneurs. This could potentially make a big difference to government policies to do with entrepreneurs.

Entrepreneurship is known to lead to increases in economic growth (Bhola, 2006) and for this reason; governments implement different policies to encourage entrepreneurship. Research like this can aid governments in which policies are most effective for economic growth, since those who are more satisfied also work harder. (Andersson, 2008) Also to lead to a more satisfied population, another factor which is important to governments.

Linear regression models were made to answer the hypotheses that will be outlined below. Age, household income and sector were also controlled for, and the association between each determinant and being an opportunity entrepreneur was also investigated. Each model only found household income to be significant, which means that a concrete conclusion cannot be made from the models; however, a hypothesis can be formed for the reason why insignificant results were found.

### 5.1. Discussion of Main Findings

Insignificant results could have been found, since as demonstrated in the literature review, there are very conflicting theories on how each determinant will impact the life satisfaction of an opportunity or necessity entrepreneur.

In prior literature it was found that many aspects of choosing to become an entrepreneur could lead to higher life satisfaction. Some of these aspects included higher autonomy (Hundley, 2001), having found a better opportunity to exploit leading to more success (Block and Wagner, 2007) and the fact that opportunity entrepreneurs have more options, so if their venture is not a success they can move back into paid employment, leaving only the successful and satisfied opportunity entrepreneurs in the market (Block and Sandner, 2009).

On the other hand, opportunity entrepreneurs could be earning more in wage employment than a necessity entrepreneur, whose other option is unemployment and no wage. For this reason, opportunity entrepreneurs will need higher financial success before they are satisfied (Ferrer-i-Carbonell, 2002).

This means that although opportunity entrepreneurs have the good fortune of enjoying many non-pecuniary benefits from self-employment, their venture needs to be very successful before they can reap the benefits of an increased life-satisfaction.

The same confliction exists when looking at tertiary education. Even hypothesis 2a and 2b are conflicting, more research showed that entrepreneurs in general were likely to have *lower* life satisfaction when having completed tertiary education while when differentiating between opportunity and necessity entrepreneurs, opportunity entrepreneurs were likely to have a *higher* life



satisfaction when having completed tertiary education (Block and Sandner, 2009)(Block Koellinger, 2009).

Although some research shows that men would be more satisfied since they have higher financial success (Block and Sandner, 2009) and are more dedicated to their ventures (Parasuraman et al., 1996). There is also research showing women to have a higher life satisfaction despite being less dedicated, since they gain life satisfaction from being able to combine work with having a family. When looking at the argument of expectations, some research show that women have lower expectations or are used to higher levels of discrimination (Clark, 1997) but also show that when measuring female and male expectations before opening their venture, there was no difference in expectations. With this conflicting research it is not surprising that the results are also non-conclusive.

Most research concentrated on how the intrinsic benefits of opening a not for profit organisation led to entrepreneurs having a higher life satisfaction (Benz, 2005). However, much research also demonstrated that financial success was an important indicator of life satisfaction (Block and Koellinger, 2009). This is represented in the results even; the fact that household income was the only variable to be statistically significant speaks volumes on how strong this positive correlation is.

## **5.2. Implications**

The implications of these results are that being an opportunity or necessity entrepreneur, the level of education, the gender or whether the venture is in the not for profit sector, does not necessarily relate to life satisfaction. What is noticeable is that household income does strongly relate to life satisfaction. This means that in terms of government policies, policies should concentrate on helping entrepreneurs to build ventures that will lead to high levels of profit. Although this study hasn't investigated what these determinants would precisely be, this would be something for future research. In the introduction it was suggested that this study could answer whether government spending on encouraging the unemployed to become an entrepreneur could be a waste of government financing, this study shows that there is no significant difference in the life satisfaction between opportunity and necessity entrepreneurs so that spending is not necessarily a waste. Finally, the implication for entrepreneurs is that having lower education or being a woman should not hold someone back from entrepreneurship since this study has found no significant difference between the life satisfaction of either.

## **5.3. Future Research**

Clearly life satisfaction is a complicated topic in the sense that there are so many factors influencing the dependent variable. There are certainly factors that have not been considered in this research. Variables that could be researched in the future are whether the new venture is innovative, whether it is

entering an up and coming market, whether it is a family run business, whether the entrepreneur is in good health, where the venture found its funding (e.g. venture capitalist or a loan from a family member), whether they are an immigrant and how much experience they already have in the sector of their venture. All of the above mentioned factors could affect the dynamics and financial success of a start-up. These are just a few of the many other factors that could be influencing the results. Additionally, as mentioned in the previous paragraph, in terms of consequences for government policies, future research should determine which variables lead to the financial success of a venture since this is a key determinant to increased life satisfaction.

It is also important to keep in mind that many factors that influence life satisfaction for entrepreneurs could be different from the factors that would influence people generally. Noticeably, research showed that there was a positive correlation between the amount of time spent on the venture and life satisfaction, in general for wage workers, more time spent at work is likely not correlated with life satisfaction.

#### **5.4. Limitations**

Limitations of this research could be that there were not enough observations, which could lead to non-significant results since certain effects could be missed. It is also possible that since opportunity entrepreneurs are more likely to leave entrepreneurship if their venture is not doing well, the results could be looking mostly at the effect of opportunity entrepreneurs with an inflated life satisfaction. This could affect the results. Another limitation is that the data was from the year 2012, this year was exceptional in the number of entrepreneurs, perhaps this would have affected the life satisfaction since there was higher competition, additionally, 2012 falls within the crisis which could also majorly influence the results, in that entrepreneurs could have had lower financial success and there could have been necessity entrepreneurs that in normal circumstances would not be what is typically found as a necessity entrepreneur. Therefore, another limitation could be that cross-sectional data was used as opposed to time series, looking at life satisfaction over the period of many years would be more reliable and would take away this limitation that one specific year could have different results from another. Finally, another limitation could be that there is a control variable missing that could severely affect the results, such as perhaps, having a family.

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## 7. Appendix

### 7.1. Descriptive Statistics

#### Descriptive Statistics

	Mean	Std. Deviation
Life Satisfaction	5.0671	0.92994
Opportunity Entrepreneur	0.8344	0.37309
Tertiary Education	0.1302	0.33783
Gender	0.7243	0.44854
Not for Profit	0.1405	0.34878
Age	39.6	10.314
Household income of 60,000 euros or more	0.3442	0.47689
Sector: Business Services	0.1515	0.35993

### 7.2. Model Summaries

#### Model Summaries

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.346	0.12	0.07	0.8966
2	0.356	0.12	0.063	0.90020
3	0.352	0.124	0.067	0.89813
4	0.359	0.129	0.072	0.89561
5	0.361	0.13	0.059	0.90208

### 7.3. ANOVA

#### ANOVA

		Sum of Squares	dF	Mean Square	F	Sig.
Model 1	Regression	13.664	7	1.952	2.428	0.023
	Residual	100.469	125	0.804		
	Total	114.134	132			
Model 2	Regression	13.666	8	1.708	2.108	0.04
	Residual	100.468	124	0.81		
	Total	114.134	132			
Model 3	Regression	14.127	8	1.766	2.189	0.033
	Residual	100.007	124	0.807		
	Total	114.134	132			
Model 4	Regression	14.687	8	1.836	2.289	0.025
	Residual	99.446	124	0.802		
	Total	114.134	132			
Model 5	Regression	14.873	10	1.487	1.828	0.062
	Residual	99.26	122	0.814		
	Total	114.134	132			

## 7.4. Correlations

		Correlations									
Dependent Variable	Life Satisfaction	Opportunity Entrepreneurship	Tertiary Education	Gender	Not for Profit	Opportunity Entrepreneurship * Tertiary Education	Opportunity Entrepreneurship * Tertiary Education * Gender	Opportunity Entrepreneurship * Not for Profit	Age	Household Income	Sector
<b>Pearson Correlations</b>											
<i>Independent Variables</i>											
Life Satisfaction	1										
Opportunity Entrepreneurship	-0.083	1									
Tertiary Education	0.075	0	1								
Gender	0.076	-0.068	-0.047	1							
Not for Profit Sector	-0.076	0.045	0.038	-0.348	1						
Opportunity Entrepreneurship * Tertiary Education	0.003	0.001	0.009	-0.006	0.009	1					
Opportunity Entrepreneurship * Tertiary Education * Gender	0.003	-0.001	-0.006	-0.006	0.005	-0.008	1				
Opportunity Entrepreneurship * Not for Profit	0.019	-0.089	0	-0.077	0.103	-0.095	-0.276	1			
<i>Control Variables</i>											
Age	-0.026	-0.169	0.061	-0.148	0.174	-0.09	-0.052	0.011	1		
Household Income of €60,000 or more	0.207	0.175	0.116	0.21	-0.2	0.199	0.194	-0.069	0.194	1	
Business Services Sector	0.198	0.013	0.088	0.069	-0.177	-0.257	-0.082	0	-0.079	-0.079	1
<b>Dependent Variable</b>											
<i>Life Satisfaction</i>											
Opportunity Entrepreneurship		0.17	0.195	0.191	0.192	0.485	0.321	0.152	0.383	0.001	0.059
Tertiary Education		0.17	0.498	0.222	0.303	0.497	0.068	0.153	0.026	0.022	0.441
Gender		0.195	0.296	0	0.332	0.472	0.071	0.192	0.244	0.091	0.152
Not for Profit Sector		0.192	0.303	0	0.214	0.214	0.228	0.138	0.022	0.001	0.091
Opportunity Entrepreneurship * Tertiary Education		0.485	0.497	0	0.472	0.472	0.228	0.138	0.152	0.001	0.091
Opportunity Entrepreneurship * Tertiary Education * Gender		0.323	0.323	0	0.228	0.228	0.33	0.001	0.152	0.001	0.091
Opportunity Entrepreneurship * Not for Profit		0.152	0.153	0.112	0.12	0.138	0.001	0.001	0.448	0.216	0.256
<i>Control Variables</i>											
Age		0.383	0.026	0.045	0.022	0.152	0.275	0.448	0.001	0.063	0.256
Household Income of €60,000 or more		0.001	0.022	0.008	0.01	0.106	0.03	0.216	0.001	0.323	0.256
Business Services Sector		0.059	0.441	0.474	0.091	0.001	0.173	0.499	0.059	0.323	0.256
<b>Dependent Variable</b>											
<i>Life Satisfaction</i>											
Opportunity Entrepreneurship		133	133	133	133	133	133	133	133	133	133
Tertiary Education		133	133	133	133	133	133	133	133	133	133
Gender		133	133	133	133	133	133	133	133	133	133
Not for Profit Sector		133	133	133	133	133	133	133	133	133	133
Opportunity Entrepreneurship * Tertiary Education		133	133	133	133	133	133	133	133	133	133
Opportunity Entrepreneurship * Tertiary Education * Gender		133	133	133	133	133	133	133	133	133	133
Opportunity Entrepreneurship * Not for Profit		133	133	133	133	133	133	133	133	133	133
<i>Control Variables</i>											
Age		133	133	133	133	133	133	133	133	133	133
Household Income of €60,000 or more		133	133	133	133	133	133	133	133	133	133
Business Services Sector		133	133	133	133	133	133	133	133	133	133

## 7.5. Coefficients

		Coefficients								
		Unstandardized Coefficients		Standardized Coefficients		t	Sig.	Collinearity Statistics		
		B	Std. Error	Beta				Tolerance	VIF	
Model 1	Constant	0.5449	0.443			12.303	0.000			
	<i>Independent Variables</i>									
		Opportunity Entrepreneurship	-0.394	-0.394	-0.158		-1.787	0.076	0.902	1.109
		Tertiary Education	0.083	0.083	0.235		0.354	0.724	0.968	1.033
		Gender	-0.011	-0.011	0.191		-0.059	0.953	0.830	1.204
		Not for Profit Sector	0.065	0.065	0.247		0.263	0.793	0.818	1.222
	<i>Control Variables</i>									
		Age	-0.008	0.008	-0.094		-1.042	0.300	0.874	1.144
		Household Income of €60,000 or more	0.615	0.615	0.315		3.426	0.001	0.831	1.204
		Business Services Sector	0.377	0.377	0.146		1.714	0.089	0.970	1.031
	Model 2	Constant	5.451	0.449			12.151	0.000		
		<i>Independent Variables</i>								
		Opportunity Entrepreneurship	-0.394	0.221	-0.158		-1.779	0.078	0.899	1.112
		Tertiary Education	0.083	0.236	0.030		0.353	0.725	0.968	1.033
		Gender	-0.011	0.192	-0.006		-0.060	0.952	0.830	1.205
		Not for Profit Sector	0.066	0.249	0.025		0.265	0.791	0.812	1.231
		Opportunity Entrepreneurship * Tertiary Education	-0.029	0.658	-0.004		-0.044	0.965	0.899	1.112
<i>Control Variables</i>										
		Age	-0.008	0.008	-0.094		-1.032	0.304	0.854	1.171
		Household Income of €60,000 or more	0.616	0.182	0.316		3.382	0.001	0.813	1.230
		Business Services Sector	0.375	0.228	0.145		1.642	0.103	0.909	1.100
Model 3		Constant	5.435	0.444			12.242	0.000		
	<i>Independent Variables</i>									
		Opportunity Entrepreneurship	-0.377	0.222	-0.151		-1.699	0.092	0.893	1.120
		Tertiary Education	0.081	0.235	0.030		0.346	0.730	0.968	1.033
		Gender	-0.007	0.191	-0.003		-0.035	0.972	0.830	1.205
		Not for Profit Sector	0.060	0.248	0.022		0.240	0.811	0.817	1.223
		Opportunity Entrepreneurship * Tertiary Gender	-0.390	0.515	-0.065		-0.757	0.450	0.950	1.052
	<i>Control Variables</i>									
		Age	-0.009	0.008	-0.097		-1.073	0.285	0.872	1.147
		Household Income of €60,000 or more	0.632	0.181	0.324		3.488	0.001	0.817	1.223
		Business Services Sector	0.363	0.221	0.141		1.641	0.103	0.963	1.038
	Model 4	Constant	5.415	0.443			12.214	0.000		
<i>Independent Variables</i>										
		Opportunity Entrepreneurship	-0.371	0.221	-0.149		-1.679	0.096	0.894	1.118
		Tertiary Education	0.063	0.235	0.023		0.268	0.789	0.963	1.039
		Gender	-0.004	0.191	-0.002		-0.022	0.983	0.830	1.206
		Not for Profit Sector	0.042	0.248	0.016		0.170	0.865	0.813	1.231
		Opportunity Entrepreneurship * Not for Profit	0.756	0.669	0.096		1.129	0.261	0.972	1.029
<i>Control Variables</i>										
		Age	-0.008	0.008	-0.091		-1.015	0.312	0.973	1.145
		Household Income of €60,000 or more	0.621	0.179	0.319		3.461	0.001	0.830	1.205
		Business Services Sector	0.377	0.220	0.146		1.713	0.089	0.970	1.031
Model 5		Constant	5.409	0.451			11.992	0.000		
	<i>Independent Variables</i>									
		Opportunity Entrepreneurship	-0.362	0.224	-0.145		-1.620	0.108	0.886	1.129
		Tertiary Education	0.064	0.237	0.023		0.271	0.787	0.962	1.039
		Gender	-0.002	0.192	-0.001		-0.010	0.992	0.828	1.207
		Not for Profit Sector	0.041	0.251	0.015		0.162	0.872	0.806	1.241
		Opportunity Entrepreneurship * Tertiary Education	0.014	0.667	0.002		0.021	0.983	0.877	1.140
		Opportunity Entrepreneurship * Tertiary Gender	-0.254	0.539	-0.043		-0.472	0.638	0.874	1.144
		Opportunity Entrepreneurship * Not for Profit	0.671	0.705	0.085		0.952	0.343	0.890	1.124
	<i>Control Variables</i>									
		Age	-0.008	0.008	-0.093		-1.015	0.312	0.849	1.178
		Household Income of €60,000 or more	0.631	0.184	0.324		3.423	0.001	0.797	1.254
	Business Services Sector	0.369	0.230	0.143		1.601	0.112	0.897	1.115	



# 7.6. Collinearity Diagnostic

**Collinearity Diagnostic**

Dimension	Eigenvalue	Condition Index	Constant	Opportunity	Entrepreneurs	Tertiary Education	Gender	Net for Profit	Opportunity	Entrepreneurs*	Tertiary Education	Opportunity	Entrepreneurs*	Gender	Opportunity	Entrepreneurs*	Net for Profit	Age	Household Income €(50,000 euros or more)	Sector: Business Services
<b>Model 1</b>																				
1	4.511	1.000	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01
2	1.210	1.931	0.00	0.00	0.00	0.01	0.00	0.05	0.01	0.00	0.06	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.20
3	0.980	2.146	0.00	0.00	0.00	0.01	0.01	0.49	0.01	0.00	0.02	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.843	2.311	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.658	2.818	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.208	4.658	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.130	5.901	0.02	0.44	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.020	14.856	0.98	0.29	0.00	0.00	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
<b>Model 2</b>																				
1	4.511	1.000	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01
2	1.210	1.931	0.00	0.00	0.00	0.01	0.00	0.05	0.01	0.00	0.06	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.20
3	0.980	2.146	0.00	0.00	0.00	0.01	0.01	0.49	0.01	0.00	0.02	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.843	2.311	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.658	2.818	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.439	3.208	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.208	4.660	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.127	5.960	0.02	0.45	0.00	0.01	0.16	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.020	14.864	0.98	0.29	0.00	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
<b>Model 3</b>																				
1	4.513	1.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01
2	1.313	2.007	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.982	2.144	0.00	0.00	0.00	0.00	0.00	0.33	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.845	2.311	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.745	2.461	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.439	3.208	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.208	4.660	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.127	5.960	0.02	0.45	0.00	0.01	0.16	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.020	14.864	0.98	0.29	0.00	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
<b>Model 4</b>																				
1	4.513	1.000	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01
2	1.125	2.003	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.942	2.189	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.819	2.348	0.00	0.00	0.00	0.00	0.00	0.01	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.800	2.375	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.444	3.142	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.208	4.660	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.129	5.917	0.01	0.44	0.00	0.00	0.16	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.020	14.897	0.98	0.29	0.00	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
<b>Model 5</b>																				
1	4.516	1.000	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01
2	1.125	2.003	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	1.201	1.937	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.907	2.231	0.00	0.00	0.00	0.00	0.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.853	2.301	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.786	2.397	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.574	2.806	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.431	3.237	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.207	4.666	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.126	5.976	0.02	0.45	0.00	0.01	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.020	13.071	0.98	0.29	0.00	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01