



The relationship between fear of failure and entrepreneurs' well-being examined through procrastination

Master's thesis

Kasper Suomalainen

Aalto University School of Business

Entrepreneurship and Innovation Management

Fall 2017

Author	Kasper Suomalainen		
Title of thesis	The relationship between fear of failure and entrepreneurs' well-being examined through procrastination		
Degree	MSc		
Degree program	Entrepreneurship and Innovation Management		
Thesis supervisor	Gabiella Cacciotti		
Year of approval	2017	Number of pages 60	Language English

Abstract

The purpose of this thesis is to examine fear of failure, procrastination and well-being in entrepreneurs by studying the relationship between the variables through quantitative research methods. This paper focuses on (1) defining and scoping procrastination and fear of failure and how these relate to well-being, (2) forming 3 hypotheses based on existing literature, and (3) finding out how fear of failure, procrastination and well-being interact with one another. This was done through surveying 71 entrepreneurs through a questionnaire.

The study found out that (1) fear of failure is negatively related to subjective well-being, (2) fear of failure is positively related to procrastination, and (3) procrastination does not moderate the relationship between fear of failure and subjective well-being in a statistically significant way.

The biggest limitation in this domain is that existing literature involves multiple perspectives, definitions and measures of the construct of fear of failure, and the fact that procrastination is only measured on a general level with no real categorization.

Abstrakti

Tämän gradutyön tarkoitus on tutkia epäonnistumisen pelkoa, viivyttelyä (procrastination) sekä hyvinvointia yrittäjissä analysoimalla näiden muuttujien keskenäisiä suhteita kvantitatiivisesti. Työ keskittyy (1) määrittelemällä epäonnistumisen pelon ja viivyttelyn liittämällä nämä hyvinvointiin, (2) kolmen hypoteesin muodostaminen olemassaolevan kirjallisuuden pohjalta ja (3) tutkimalla miten epäonnistumisen pelko, viivyttely sekä hyvinvointi vaikuttavat toisiinsa. Tämä tehtiin kvantitatiivisen tutkimuksen kautta johon osallistui 71 suomalaista yrittäjää.

Tutkimuksen aikana selvisi, että (1) epäonnistumisen pelolla on negatiivinen vaikutus hyvinvointiin, (2) epäonnistumisen pelolla on positiivinen korrelaation viivyttelyn kanssa ja (3) viivyttely ei moderoi epäonnistumisen pelon ja subjektiivisen hyvinvoinnin suhdetta tilastollisesti merkitsevästi.

Suurin haaste tutkimuksen saralla on se, että epäonnistumisen pelkoa tutkitaan monesta eri perspektiivistä eri määritelmillä ja mittareilla, ja viivyttelyä tutkitaan yleisellä tasolla ilman kategorisointia.

Keywords	Entrepreneurship, procrastination, fear of failure, well-being, stress
-----------------	--

TABLE OF CONTENTS

LIST OF TABLES	5
ACKNOWLEDGEMENT.....	6
1 INTRODUCTION	7
1.1 Aim.....	7
1.2 Objectives	7
1.3 Research questions and hypothesis	8
2 THEORETICAL BACKGROUND	10
2.1 Entrepreneurial action.....	10
2.2 Fear of failure and entrepreneurship	10
2.2.1 Fear vs fear of failure	12
2.2.2 Fear of failure – trait vs. state.....	13
2.3 Fear of failure in entrepreneurs vs. non-entrepreneurs.....	18
2.4 Fear of failure limitations in literature	18
2.5 Fear of failure and subjective well-being.....	19
2.5.1 Stress and well-being in entrepreneurs	19
2.6 Procrastination	23
2.6.1 History of procrastination	23
2.6.2 Definition of procrastination	24
2.6.3 Procrastination is everywhere and troubling.....	24
2.6.4 The Causes and Correlates of Procrastination	26
2.7 Fear of failure, procrastination and subjective well-being	33
3. METHODS	33
3.1 Sample	33
3.2 Measures.....	34
3.3 Analysis	35
4. RESULTS	35
4.1 Hypothesis 1.....	37
4.2 Hypothesis 2.....	37
4.3 Hypothesis 3.....	38

5. DISCUSSION	39
5.1 Fear of failure is negatively related to subjective well-being	39
5.2 Fear of failure is positively related to procrastination	41
5.3 Procrastination mediates the relationship between fear of failure and subjective well-being	43
5.4 Further research questions	44
6. LIMITATIONS AND CONCLUDING REMARKS	44
References.....	46
APPENDIX A.....	58

LIST OF TABLES

Table 1: Descriptive statistics	pg. 35
Table 2: Variable correlations	pg. 35
Table 3: Hypothesis 1 analysis	pg. 36
Table 4: Hypothesis 2 analysis	pg. 37
Table 5: Hypothesis 3 analysis	pg. 38

ACKNOWLEDGEMENT

This thesis has truly been a procrastinatory experience of its own and this could act as a more than adequate research sample for any qualitative research on procrastination. Upon (finally) finishing, I would like to give thanks to everyone who supported me.

First and foremost, a most wholeheartedly thank you goes to my thesis supervisor Gabriella Cacciotti who has, despite my outstanding ability to procrastinate, been with me on this journey from the beginning. I would never have graduated without her and she has truly taught me the importance of academic research with excitement and enthusiasm that has, to be honest, been very contagious. In addition, I want to thank the whole entrepreneurship department at Aalto as well as Ewald Kibler through whom I met Gabriella in the first place and started my work.

I would also like to thank Antti Niini and Yrjö Bradshaw from Startup Sauna for kicking my ass and helping me overcome procrastination, Miki Pernu for proof-reading my thesis, and all the entrepreneurs who participated in the sample. Without you, I would still be in school.

And lastly, I'd like to thank my parents for, well, having me in the first place, and my girlfriend for supporting me throughout this journey.

1 INTRODUCTION

“Those Who Procrastinate Are Afraid to Fail.”

– Anonymous

1.1 Aim

Fear of failure and procrastination are prevalent in nearly everyone and entrepreneurs are no exception. The purpose of this study is to examine fear of failure, subjective well-being and procrastination in entrepreneurs to see if there is any link between them. Going through the literature, there will be three hypotheses formed and through a quantitative study this thesis aims to understand and give insight to the relationship between fear of failure, subjective well-being, procrastination, and stress in the field of entrepreneurship.

Most studies in literature regarding entrepreneurship and fear of failure examine the level of fear *before* entrepreneurial action or starting a new venture, and little research has been done on what happens *during* the entrepreneurial process. The lack of critical information on this topic is one reason why I decided to do this study with existing entrepreneurs instead of nascent entrepreneurs.

There are three main goals in this thesis. The first one is to fill in the research gap when it comes to examining new and existing entrepreneurs, providing more information on what happens during the entrepreneurial process. The second aim is to find out whether fear of failure has an effect on entrepreneurs' well-being. Well-being has been researched to be a crucial factor in work-related stress, and the entrepreneurs' environment can be, to say the least, stressful. Lastly, the purpose is to see if procrastination has an effect on the relationship between fear of failure and well-being as there has been evidence that well-being and procrastination are linked. All these points are thoroughly elaborated in the theoretical background section.

1.2 Objectives

The first objective of this thesis is to examine fear of failure in entrepreneurs and shed light on the current state of existing research. This thesis has a special focus on serial

entrepreneurs as they have been studied less than nascent entrepreneurs, and I feel that in order to understand what building blocks world-class entrepreneurs are made of, research should not only focus on entrepreneurs *before* the process of entrepreneurial action but also *during* this process.

I start by firstly looking at entrepreneurial action and defining what it means in literature. After that, I open up fear of failure, distinguish it from fear, and look at different types of fear of failure and how they have been studied in literature. In addition to looking at the causes of fear of failure, one main focus is on the distinction between the personological and motivational approaches to fear of failure, and in the conclusion I give a suggestion as to which direction should the next steps in research be taken. I also, very briefly, examine fear of failure in non-entrepreneurs vs. entrepreneurs noting the differences and suggesting further research.

Furthermore, I continue examining fear of failure and linking it to subjective well-being and another variable that is closely associated with well-being, stress. From here, I come to hypothesis one.

Next, I take a deep-dive into the second main objective of this thesis, procrastination. Procrastination has a long history, so I start by looking at the origins of procrastination as well as the definition current literature has come to accept. After a quick exploration on how prevalent procrastination truly is, I also look at the different causes and correlates of procrastination. I explore research possibilities and different potential focuses of procrastination research in the discussion and conclusion.

Lastly, by combining the literature on fear of failure, procrastination and subjective well-being, I come to hypothesis two and three before analyzing the results.

1.3 Research questions and hypothesis

Fear of failure and procrastination is, more or less, prevalent in everyone, and research suggests both fear of failure and procrastination have mostly a negative effect on both

entrepreneurs and non-entrepreneurs. These negative effects on entrepreneurs have been studied mainly with hard data (i.e. ROI), however, more recently research has also focused on non-financial success factors such as subjective well-being.

There are lots of studies done for nascent entrepreneurs on fear of failure (fear affecting the willingness to start a business) whereas existing entrepreneurs have not been studied as thoroughly. Procrastination, on the other hand, has been studied quite a bit, especially in college students. Nevertheless, when it comes to entrepreneurs, especially serial entrepreneurs, there exists a research gap to be filled. It is important to study fear of failure and procrastination in this setting in order to understand what factors constitute to the success of entrepreneurs and the behavior of people in a stressful environment. This in turn sheds light to the characteristics needed to overcome fear of failure and procrastination, which could then be mirrored to nascent entrepreneurs and non-entrepreneurs for further understanding the human character in general.

Therefore, in the theoretical background of this thesis, I form three hypotheses regarding fear of failure, procrastination and subjective well-being based on what current research seems to indicate by reason, after which I analyze the results of the sample in this thesis both starting to fill in the research gap as well as suggesting which path further research should take. The two initial questions that led to the start of this thesis were

- *Does fear of failure have an effect on entrepreneurs' well-being?*
- *Does procrastination play a role in this relationship?*

Using these questions as well as existing literature as a guide, I formed three hypotheses to be examined.

Hypothesis 1: Fear of failure is negatively related to subjective well-being

Hypothesis 2: Fear of failure is positively related to procrastination

Hypothesis 3: The tendency to procrastinate mediates the relationship between fear of failure and subjective well-being

2 THEORETICAL BACKGROUND

I start by defining the basic concepts used in literature and throughout this thesis. In the following section, I examine the existing literature related to fear, entrepreneurial action, fear of failure, procrastination and well-being as well as formulate the three hypotheses in this thesis.

2.1 Entrepreneurial action

Entrepreneurial action has been defined in literature as the concrete behaviors or actions entrepreneurs take in pursuing different opportunities (Mitchell & Shepherd, 2010; Alvarez & Barney, 2007; Klein, 2008; McMullen & Shepherd, 2006). Alvarez & Barney (2007) suggest that the actions that the individual takes to pursue an opportunity could involve the exploitation of opportunities, the formation of opportunities, or both. No matter the case, there is always a potential opportunity that is worth pursuing (McMullen & Shepherd, 2006). When discussing entrepreneurship in this thesis, I refer to entrepreneurial action.

2.2 Fear of failure and entrepreneurship

Fear, failure, and fear of failure are often heard when it comes to entrepreneurship. This is no surprise as most new ventures end in failure (Knott & Posen, 2005), and there has recently been an increasing amount of research on the topic (eg. Holmberg & Morgan, Wagner and Stenberg, 2004; Arenius and Minniti, 2005; Shepherd, 2003). Fear of failure is especially viewed as a limiting factor in entrepreneurship, emphasizing fear of failure as a psychological factor that restrains, hinders or prevents entrepreneurial behavior (Hatala 2005; Bosma et al., 2007). For example, Minniti has done extensive research and published several studies that confirm fear of failure's negative impact on entrepreneurship and entrepreneurial activity (Arenius and Minniti, 2005; Minniti and Nardone, 2007; Langowitz and Minniti, 2007)

I've talked to over 400 entrepreneurs in the past 4 years, and most of them consider failure as a learning experience and talk about it without a strong negative connotation. Existing

literature, however, generally tends to connect fear, failure and fear of failure towards a negative connotation when it comes to entrepreneurship and entrepreneurial action (eg. Wagner and Stenberg, 2004; Minniti and Nardone, 2007; Arenius and Minniti, 2005) with the exception of Mitchell and Shepherd (2011) who suggest that the different dimensions of fear of failure may have a different interaction with human capital and self-efficacy factors in shaping one's tendency towards entrepreneurial action. They demonstrate that there is potential for both motivating and hindering behavioral outcomes of fear of failure in entrepreneurial actions (see 'personological approach to fear of failure').

There are two viewpoints, one in which fear of failure impedes entrepreneurial action, and the other where fear of failure motivates it. The conflict between real-life situations and literature is one reason why fear of failure in entrepreneurship is a very interesting research topic and there is much we still do not know.

When researching the relationship between fear and entrepreneurship, academic literature is seen to divide into two distinctive themes (Cacciotti & Hayton, 2015).

- fear vs fear of failure
- trait vs state distinction of fear of failure

When it comes to the study of fear in entrepreneurship, Cacciotti and Hayton (2015) found that a majority (37 of 44) of researched empirical studies have focused on addressing fear of failure instead of just fear in general only to single out a few papers that focus on the more generic meaning and feeling of fear, worry or anxiety (Sigh, 1989; Rahim, 1996; Crane and Sohl, 2004; Grichnick, 2008; Grichnick et al., 2010; Foo, 2011; Fisher et al., 2013).

In entrepreneurship literature, outcomes are often studied as either being a success or a failure (Davidsson, 2003). In a more recent study, Cope (2011) proposes that instead of being zero-sum game, failure can be viewed as a learning experience. Nonetheless, a majority of the literature portrays a negative overtone to the word failure.

I now explain the distinction between ‘fear vs. fear of failure’ and the ‘trait vs state distinction of fear of failure’.

2.2.1 Fear vs fear of failure

Foo (2011) looks at entrepreneurial intent and opportunity recognition and what role fear has in it. He concludes that emotions do indeed play a crucial role in evaluating opportunities. Foo (2011) looks at two types of categories: (1) emotions associated with outcome certainty and control (happiness and anger) and (2) emotions associated with outcome uncertainty and lack of outcome control (fear and hope). As a conclusion, participants’ scores on risk perception will be significantly lower for anger- and happiness-induced participants than for fear- and hope-induced participants for a venture scenario. In addition, an entrepreneur’s preference for an uncertain outcome with higher value positively correlates with scores on trait anger and trait happiness (emotions for certainty and control). This essentially means entrepreneurs’ risk perception in situations that they feel in control of is significantly lower than in situations they don’t feel in control of.

Overall, Foo (2011) found out that irrelevant of being an internal or external factor, fear has influence when an individual is judging an opportunity. This means that fear has an effect on entrepreneurial judgement and that fear can be brought about or obtained from any type of source (Forgas, 2000). It is also interesting to note that the entrepreneurial opportunity evaluated does not need to be the affect-inducing stimulus of fear.

Nevertheless, the study of fear in entrepreneurship is more often than not related to failure. Davidsson (2003) notes that outcomes in entrepreneurial research are often defined as being either a success or a failure. This has lead research to focus on how entrepreneurs can avoid failure by selecting the right opportunities (McGrath, 1999). The fact that failure is almost always viewed in a negative way and is an outcome to be avoided, has swayed entrepreneurial research on fear to focus heavily on fear of failure instead of the general concept and emotion of fear itself.

As fear of failure seems to be the trend when studying entrepreneurs and entrepreneurial intention, this thesis examines entrepreneurial fear of failure instead of fear as a general emotion. This way the outcome can be mirrored and compared to existing research coinciding with the way the academic community and existing studies has previously studied entrepreneurs and entrepreneurial intent.

2.2.2 Fear of failure – trait vs. state

Fear as an emotion aside, fear of failure has been studied for decades. Existing literature divides into two when it comes to fear of failure. Arenius and Minniti (2005) view fear of failure as a stable disposition while Patzelt and Shepherd (2011) treat fear of failure as an emotional state that often arrives from external threats derived from the environment. Helms (2003) takes a personological orientation reviewing fear of failure as a recurring tendency people have while Welpe et al. (2012) argue that fear is an emotional reaction with certain behavioral or psychological responses.

It is important to look at both approaches as entrepreneurs come in all sizes and shapes. Some entrepreneurs might have a tendency to fear failure while others might temporarily fear failure due to either internal or external circumstances of the situation at hand. I examine both the motivational approach as well as the personological approach to fear of failure.

Motivational approach to fear of failure

The rarer approach in research is to view fear of failure as an emotional state (Ekore and Okekeocha, 2012; Welpe et al., 2012). In this approach, fear stems from anticipating possible failure regarding a certain task and is considered a negative emotion experienced by an individual (Li, 2011; Patzelt and Shepherd, 2011). Li (2011) studied different emotions and their effect on value and probability judgement. His sample was taken from China and he found out that hope, anticipated surprise, regret, and fear significantly influence value judgment. On the other hand, his findings suggest that hope, trait sadness, and anticipated surprise, regret, contempt, and anger of failure of the new venture significantly influence an individual's differences in probability judgement. Li (2011)

concludes that fear of failure, as a short-term, passing emotion, decreases an individual's predisposition to start a new venture.

In addition, Li (2011) notes that fear of failure is a feeling about the potential outcome, typically measured as a success or failure of an entrepreneurial venture, and this fear affects the probability of starting a new venture. This was subsequently studied by Patzelt and Shepherd (2011) and Welpe et al. (2012) who arrived to similar conclusions. Therefore, one can say that entrepreneurs who temporarily experience the emotion of failure might have a lower tendency to start a new entrepreneurial opportunity.

In exploiting entrepreneurial opportunities, Welpe et al (2012) state that fear and other experienced emotions have an effect and act as a medium in deciding whether to exploit an entrepreneurial opportunity or not. They show that avoidance-oriented emotions such as fear have a direct negative impact on tendencies to pursue entrepreneurial opportunities while approach-oriented emotions such as joy or anger have a positive effect. Welpe et al. (2012) also show that the cognitive valuation of an opportunity mediated the influence of the opportunities characteristics especially in cases where characteristics of the opportunity (for example perceived profit or success) significantly predict exploitation decisions. Their findings show that success and profit are crucial in one's evaluation of an opportunity, which in turn emerged a pivotal determinant of exploitation.

It is important to note that Li (2011), Welpe et al. (2012), and Patzelt and Shepherd (2011) do not distinguish separate negative emotions from each other (Cacciotti & Hayden, 2015), and therefore has some limitations due to the fact that negative emotions, and emotions in general, each have unique characteristics (Lazarus, 1991). This means that negative emotions such as anger, fear, sadness and shame are not studied individually.

Based on the literature of fear of failure being an emotional state, the consensus seems to be that fear discourages entrepreneurial behavior.

Personological approach to fear of failure

The more common, personological approach in entrepreneurship research and fear of failure examines an individual's own tendencies to be susceptible to fear of failure and how individuals behave differently in indistinguishable situations. Arenius and Minniti (2005) study the disposition to avoid failure in entrepreneurial circumstances and relate it to the recognized risks of starting a business.

Using a vast sample of individuals from 28 different countries, Arenius and Minniti (2005) studied which variables have a high correlation with a person's decision to become an entrepreneur. They look at perceptual variables such as fear of failure, alertness to opportunities and confidence about one's skills and found that perceptual variables significantly correlate with new creation throughout their sample, regardless of country or gender. Their findings conclude that nascent (emerging) entrepreneurs have a strong reliance on subjective perceptions instead of objective expectations of success. This gives ground to the theory that perceptual variables such as fear of failure are increasingly important in pursuing entrepreneurial ventures. Therefore, Arenius and Minniti (2005) suggest that these variables should be included in economic models of entrepreneurial behavior. Nevertheless, their study focuses on the decision of *starting* a new venture and does not examine serial entrepreneurs or fear *during* the process of a venture. An interesting research topic on its own could be the effect that serial entrepreneurship has on fear of failure especially from a personological viewpoint.

Cacciotti and Hayton (2015) note that existing literature using the personological approach to study fear of failure relate it to differences in entrepreneurial behavior between individuals. One example of this is Arenius and Minniti (2005) who in their study included fear of failure as a variable influencing people's occupational choice. Similar to research in the motivational approach, they also conclude that fear of failure has a negative impact, this time on the decision of self-employment rather than taking entrepreneurial action on a new venture. Nevertheless, the negative impact of fear of failure is ubiquitous in both the personological and the motivational research approach.

Continuing on the negative influence of fear of failure, Shinnar et al. (2012) study concluded that the perception of fear of failure decreases individuals' intentions to becoming an entrepreneur. The study was done on three continents, in China, the US and Belgium; and a negative correlation was found for nascent entrepreneurs regardless of the country.

On the other hand, data from the Global Entrepreneurship Monitor (GEM) indicates that the probability of pursuing an entrepreneurial venture *after exit*, or re-engaging in entrepreneurship, is higher for people who have reported lower levels of perceived fear of failure (Hessels et al., 2011). This makes sense as an entrepreneur exiting a company can be called a success and it is hard to imagine that after success there would come a sense of fear of failure. It is good to note, however, that GEM data is utilized by a variety of research (eg. Brixy et al., 2012; Wagner and Stenberg, 2004) and while being a vast database, there is only one, single measure of fear of failure. The question asked is 'Fear of failure would prevent me from starting a business' (Reynolds et al., 2005). Cacciotti and Hayton (2015) bring up a very valid concern about this as it is unclear whether or not disagreeing respondents perceive fear of failure at all, or if they do, they still pursue entrepreneurial action. This measure and data cannot be such heavily relied on, as "asking people whether fear of failure would prevent them from starting a new venture dictates the negative relationship between the perception of fear and the decision to start" (Cacciotti & Hayton, 2015).

Cacciotti and Hayton (2015) note in their analysis of the personological research approach to fear of failure that seven studies in the domain have gone further than just the unidimensional conception of fear of failure as risk aversion. These studies (Klaukien and Patzelt 2009; Mitchell and Shepherd 2010, 2011; Wood and Pearson 2009; Wood and Rowe 2011; Wood et al., 2013, 2014) have separated failure into different components and studied the impact of fears related to those components.

These studies look at Conroy et al. (2002) multidimensional conceptualization of fear of failure, identifying five sources of fear of failure.

- (1) experiencing shame and embarrassment
- (2) devaluing one's self-estimate
- (3) having an uncertain future
- (4) important others losing interest
- (5) upsetting important others (Conroy et al., 2002, 2003).

Mitchell and Shepherd (2010) argue that the level of one's self esteem and fear of failure employ a clear influence on evaluating opportunities. Klaukien and Patzelt (2009) also explore the likelihood of making use of an opportunity. They conclude that high levels of fear of failure lead to a lower likelihood of grabbing an opportunity, and vice versa.

Nearly all studies reviewed in this thesis suggest a negative influence of fear of failure on entrepreneurial motivation. There is one study, however, that indicates this is not always the case. Mitchell and Shepherd (2011) partly look at Conroy et al. (2002) multidimensional conceptualization of fear of failure, examining three dimensions of failure and the effect they have on the propensity for entrepreneurial action. The three dimensions they examine are (1) the fear of devaluing one's self-estimate, (2) fear of upsetting important others, and (3) fear of having an uncertain future. Additionally, they explore what relationship these dimensions have between human capital and self-efficacy as well as the propensity to engage in entrepreneurial action. In their research, the purpose was to disentangle the influence of the opportunity itself from the influence of individual action. Hence, they look at the propensity for entrepreneurial action which means the probability of an individual deciding to act on any opportunity, regardless of what characteristics the opportunity itself holds.

Mitchell and Shepherd (2011) sampled 120 CEOs of firms in the technology sector and found out that "while fear of failure does moderate the effects of specific human capital, general self-efficacy and entrepreneurial self-efficacy on propensity for entrepreneurial action, the nature of these effects differs across fear of failure dimensions." This is especially interesting as it is the first evidence in research that fear of failure can produce behaviors for both avoiding and approaching entrepreneurial behavior. Mitchell and Shepherd (2011) conclude that the sources 'fear of devaluing one's self-estimate and fear

of having an uncertain future' inhibit entrepreneurial behavior while the 'fear of upsetting important others', on the other hand, has a positive correlation when deciding whether to pursue an entrepreneurial opportunity or not.

2.3 Fear of failure in entrepreneurs vs. non-entrepreneurs

Brixy et al. (2012) provide evidence that the level of fear of failure varies between entrepreneurs and non-entrepreneurs, separating the entrepreneurs from the rest of the population. Arenius and Minniti (2005) also present that fear of failure, among non-entrepreneurs, is higher. When looking at gender differences, Noguera et al. (2013) conclude that compared to men, women have a higher degree of fear of failure. Various research (Koellinger et al. 2013; Langowitz and Minniti 2007; Minniti and Nardone 2007; Noguera et al. 2013; Wagner 2007; Wagner and Stenberg 2004) have noticed differences between fear of failure in men and women, accrediting discrepancies in venture creation to differences in fear of failure. A noteworthy research topic would be to examine does such a male-dominated technology entrepreneur industry moderate fear of failure in female respondents, and is it the same for males in female-dominated industries. This is relevant in order to understand how the characteristics of certain industries may partly affect the selection process of individuals before entering an industry. This would potentially shed light to why some industries male-female ratio changes faster than others, for example.

2.4 Fear of failure limitations in literature

Apart from the limitation of the GEM data mentioned early on there is another, even bigger, limitation as well. Cacciotti et al. (2016) note that existing literature involves multiple perspectives, definitions and measures of the construct of fear of failure. Therefore, the "measures are potentially in conflict and characterized by a static approach, thereby limiting the validity of existing findings about the relationship between fear of failure and entrepreneurship".

This dichotomy makes entrepreneurship and fear of failure an interesting research topic as there are multiple views and potentially conflicting research outcomes. In addition, fear of failure has been studied in psychology (eg. Atkinson, 1966; Atkinson and Litwin, 1973;

McGregor and Elliot, 2005; Elliot, 1999; Conroy, 2001a/b; Conroy et al., 2002) and entrepreneurship (eg. Arenius and Minniti 2005; Wagner 2007; Gómez-Araujo et al. 2015), which both bring interesting further research questions and perspectives to light, however, the study methods are not unified as well as they could be.

2.5 Fear of failure and subjective well-being

As we have seen, entrepreneurship literature on fear of failure has been, to a great degree, investigated as a barrier to entrepreneurship and research shows fear of failure influences entrepreneurs' decisions and actions during the entrepreneurial process. Cacciotti et al. (2016) conclude that fear of failure can lead to both approaching or avoiding action depending on the characteristics of the task at hand. Therefore, it is important to note that fear of failure can have both positive and negative effects, and there is already plentiful of research on the negative effects especially in nascent entrepreneurs. Understanding the positive effects, however, has not been researched as thoroughly as the negative ones. Nevertheless, in one way or another, fear of failure has an influence in the entrepreneurial process and should be examined in relation to other factors such as stress and well-being.

2.5.1 Stress and well-being in entrepreneurs

If we look at what characterizes the entrepreneurial process and entrepreneurs' environment, it is an environment susceptible to conditions that generate high levels of stress (Baron et al., 2016). These can be, for example, the unpredictability or rapid changing of the environment, a work overload, financial constraints or having personal responsibility over others' lives.

There has been extensive research done to find causes of work-related stress and the unfavorable effects it has on employees (Jex & Beehr, 1991; Xie, Schaubroeck, & Lam, 2008). When looking at the work environment entrepreneurs navigate, one might conclude that entrepreneurs experience high levels of stress as their surroundings have characteristics that generate high levels of stress. Buttner (1992), for example, suggests

that entrepreneurs do experience high levels of stress though this has not yet been systematically investigated in academic literature.

However, a theory in the fields of industrial-organizational psychology and organizational behavior points to another possibility. Attraction-Selection-Attrition (ASA) theory (Schneider, 1987; Schneider, Goldstein, & Smith, 1995) suggests that people who are “attracted by, selected into, and persist in entrepreneurship may be relatively high in the capacity to tolerate or effectively manage stress” (Baron et al. 2016). On the flipside, people who have a low capacity to manage stress tend to either voluntarily or involuntarily exit from entrepreneurship. Hence, entrepreneurs as a group of individuals are predicted to experience low instead of high levels of stress compared to others while pursuing a new venture.

Originally, ASA theory was formulated to find a reason for organizations becoming increasingly homogenous with regard to skills, abilities, knowledge and other employee characteristics (Bretz, Ash, & Dreher, 1989; Ployhart, Weekley, & Baughman, 2006). Recently, it has also been used to understand why some people choose a certain occupation or career path and choose to stay there. Schaubroeck, Ganster, and Jones (1998) note that ASA theory may be applied to choosing a career in addition to the choice of employer or organization. This makes it a very interesting theory to relate to entrepreneurship.

Attraction comes from people choosing a career, since they perceive their characteristics, motives and skills coincide with the requirements of the career or occupation. *Selection* describes that only those who perceive they fit a certain career choose to enter a that career. Lastly, *attrition* happens when individuals realize that they’re skills are not suitable for a certain career and they choose to drop or withdraw from it either voluntarily or involuntarily. Ployhart et al. (2006) suggest that this process plays a crucial role in career selection and retention and being an entrepreneur is, after all, a career selection of a sort.

As a conclusion, an entrepreneur’s environment can be viewed, on average, more stressful than being an employee as the responsibilities coming with it have been noted to affect

stress. Stress, in turn, affects entrepreneurs well-being and well-being has been recently used to measure success in entrepreneurship as well.

In the past, research on entrepreneurial success has focused almost exclusively on hard data (such as profits, ROI, growth in sales) which can be considered as financial outcomes (Baron et al., 2016). These measures are truly important indicators of success as they are easily measurable and comparable. However, there has been increasing research in entrepreneurship examining entrepreneurs' who seek other goals than just financial success; goals that are guided by gaining nonfinancial benefits during their entrepreneurial activities (Gimeno, Folta, Cooper, & Woo, 1997; Hmieleski & Corbett, 2008). Baron (2010) and Cassar (2007) find out that entrepreneurs strive not only for financial success but also have a strong motive to engage in work they find meaningful and can achieve greater independence and autonomy.

Therefore, Rindova, Barry, and Ketchen (2009) suggest that the reason people become entrepreneurs is that they are looking for emancipation from social structures and certain conditions they find restricting. This recent research would suggest that entrepreneurial success is not only financial and may also include an individual's subjective well-being. This is why this thesis looks at subjective well-being as well as fear of failure in entrepreneurs.

It can be concluded that that entrepreneurs work in a stressful environment and a measure of their success can be affected not only by financial success but also subjective well-being. Therefore, it is important to look at what effects stress has on entrepreneurs' subjective well-being.

Research has for decades found intense and prolonged stress to be related to a variety of harmful outcomes (Ganster & Rosen, 2013; Ganster & Schaubroeck, 1991; Sullivan & Bhagat, 1992) such as having a negative effect on personal health (DeLongis, Folkman, & Lazarus, 1988) and task performance (Ganster & Rosen, 2013). In addition, and crucial for the topic of this thesis, Srivastava et al. (2001) found that stress was negatively related to subjective well-being. It has been shown that entrepreneurs are exposed to many stressors

and these can reduce an entrepreneur's subjective well-being. Therefore, the connection of stress to well-being is important to grasp in entrepreneurship in order to understand what constitutes a successful entrepreneur. Furthermore, a reduction in subjective well-being, on the other hand, relates to negative work-related attitudes, low task performance and reduced personal health (Hunter & Thatcher, 2007).

When looking at subjective well-being and work, there is quite some evidence that subjective well-being is strongly linked to many different aspects of work in a positive way as well. Wright & Cropanzano (2000), for example, show a positive relation with subjective well-being and job satisfaction as well as work productivity, career success (measured by speed of promotions), and personal income. Other positive relations have been found to both physical and psychological health (Xu & Roberts, 2010) and the quality and depth of social relationships (Pinquart & Sorensen, 2000).

As can be seen, subjective well-being is a crucial variable both negatively and positively related to multiple different aspects of entrepreneurial work and is therefore a very interesting research topic. It is important to understand the mechanisms that help entrepreneurs protect their well-being as this will contribute to understanding the reasons behind their entrepreneurial success.

When looking at fear of failure, it is critical to understand its effects on subjective well-being as subjective well-being has such a crucial effect on entrepreneurs. Studying, researching and measuring not only the financial success factors of entrepreneurs but also the nonfinancial factors will give us a better idea of what variables affect entrepreneurial success and furthermore, give us a better understanding on what characterizes the successful entrepreneur.

Therefore, I come to hypothesis 1.

H1: Fear of failure is negatively related to subjective well-being

2.6 Procrastination

2.6.1 History of procrastination

The first analysis examining the history of procrastination was written by Milgram (1992). Milgram (as cited in Steele, 2007, p. 66) stated that societies with numerous commitments and deadlines, i.e. technically advanced societies, give rise to procrastination as the number of opportunities to procrastinate increase while underdeveloped societies are not as much effected. Ferrari, Johnson and McCown (1995) challenged that procrastination has been prevalent throughout history but only during the industrial revolution in the mid-18th century negative connotations started to gain ground. Before this, it was viewed and considered as an intelligent and wise thing to do; a wise (in)action. Procrastination may well be an increasing problem in developed societies as there is evidence that it may be on the rise (Kachgal et al., 2001)

“One of the general weaknesses, which, in spite of the instruction of moralists, and the remonstrances of reason, prevail to a greater or less degree in every mind.”

- Samuel Johnson, 1751

Procrastination is described as early as ~500 BC in the 700-verse Hindu Sanskrit scripture called *Bhagavad Gita* or *Gita*, as part of the Hindu epic Mahabharata (chapters 23–40 of the 6th book of Mahabharata). It is considered the most known, read, and influential spiritual text of Hinduism and in it, Krishna notes “Undisciplined, vulgar, stubborn, wicked, malicious, lazy, depressed, and procrastinating; such an agent is called a Taamasika agent”. It is good to notice that Taamasika people in Bhagavad Gita are considered of such low value that mortal rebirth is denied to them; rather, they go to hell. (Gandhi, Strohmeier, & Nagler, 2000)

As we can see, procrastination has been present throughout human history from the Bhagavad Gita to 21st century academic literature. The view of procrastination has been nearly unanimously concurring among different cultures and through different ages. One

reason why procrastination was chosen for this was the fact that it is as universal and ubiquitous as a characteristic or feeling can get.

2.6.2 Definition of procrastination

To postpone, to delay or to put off a task or decision is prevalent in literature when characterizing and defining procrastination. The origins come from Latin word *pro*, meaning “forward, forth, or in favor of,” and *crastinus*, meaning “of tomorrow”. (Klein, 1971)

Procrastination is different from decision avoidance. In decision avoidance, the original intention is to delay (Anderson, 2003) while in procrastination one delays, without intent, the starting or completing of a certain course of action (Silver & Sabini, 1981; Milgram, 1991; Beswick & Mann, 1994; Lay & Silverman, 1996). This is in accordance with Ellis & Knaus (1977), Burka & Yuen (1983), and Akerlof (1991) where procrastination is mostly considered to be an irrational delay of behavior.

2.6.3 Procrastination is everywhere and troubling

Procrastination is widespread, prevalent and ubiquitous and has been studied in literature for decades. A considerable amount of studies has been done on students, how they view procrastination and how much they consider themselves procrastinating. Most studies on procrastination have focused on college students. Based on Ellis and Knaus (1977) and O’Brian (2002) research, the amount of college students engaging in procrastination is at a level of 80%-95%. In addition, approximately 75% consider themselves as procrastinators (Potts, 1987) and nearly 50% problematically procrastinate on a consistent basis. (Solomon & Rothblum, 1984; Haycock, 1993; Day, Mensink, & O’Sullivan, 2000; Onwuegbuzie, 2000).

Procrastination can occur in many different ways. Students describe the act of procrastination often happens through sleeping, playing or watching TV, and that it typically takes up to one third of their daily commotion and activities (Pychyl, Lee, Thibodeau, & Blunt, 2000). In addition to being regularly found among college students,

procrastination within the general population isn't rare either. Harriott & Ferrari (1996) conclude that it chronically affects about 15%-20% of adults.

Continuing with the general population and not just college students, over 95% of procrastinators hope to reduce procrastination (O'Brien, 2002, as cited in Steele, 2007, p. 65) and people characterize procrastination as being harmful, foolish and bad (Briody, 1980). In literature, there are several studies that have been able to link procrastination to poor overall performance (Beswick, Roth-blum, & Mann, 1988; Wesley, 1994; Steel, Brothen, & Wambach, 2001). The link between individual well-being and procrastination has also been examined (Knaus, 1973; Lay & Schouwenburg, 1993; Tice & Baumeister, 1997) concluding that in the long term, procrastination results to being more miserable.

Economic and political study-fields also concur with the theme of procrastination having a negative effect and being dangerous. In the political realm, Farnham (1997) and Kegley (1989) look at presidential decisions and Holland (2001) examines the banking practices of different nations with regard to procrastination resulting in disastrous delays of important decisions. Retirement savings behavior has been studied in economics (Akerlof, 1991; O'Donoghue & Rabin, 1999) with the lack of a retirement savings plan being attributed to procrastination.

Procrastination has seldom been viewed in a positive manner in literature. Several studies have examined it as avoiding rush or being a practical, purposeful delay (eg. Bernstein, 1998; Chu & Choi, 2005) but for the purpose of this thesis, procrastination shall be viewed primarily as an outcome having a negative effect.

As procrastination is prevalent throughout history and can be found, to some degree, in everyone, it is crucial to understand the effect it has on entrepreneurs.

2.6.4 The Causes and Correlates of Procrastination

What actually causes procrastination and what aspect could affect entrepreneurs? Steel (2007) comprehensively gathers together the causes and correlates of procrastination in literature. Causes and correlates are divided into four main sections.

- (1) task characteristics
- (2) individual differences
- (3) outcomes
- (4) demographics, which we'll go through in the next few pages.

Task characteristics - Possible environmental causes of procrastination

When procrastinating, one has a voluntary choice in choosing between tasks and a person cannot delay all tasks at once but can choose to favor certain ones or do them in a preferred order (Steele, 2007). Therefore, the nature of the task has to have an effect on their decision process unless people procrastinate completely randomly. Briody (1980) concludes that about 50% of study-respondents said procrastination was related to the characteristic of the task at hand. Literature has suggested two predictable environmental factors: timing of rewards and punishments (example of saving inadequately for retirement), and task aversiveness (avoid tasks that one finds unpleasant).

When looking at task nature and procrastination, Steele (2007) found out that two task characteristics affect procrastination. For one, people tend to favor tasks that are more pleasurable and pleasant especially in the short term even when the task at hand can be damaging to themselves in the long term. Second, the more naturally unpleasant the task, the more individuals are trying to procrastinate and avoid it. Let's examine both timing of rewards and punishments as well as task aversiveness.

Schouwenburg & Groenewoud (2001) as well as Strongman & Burt (2000) have studied students and asked them about procrastination and the amount they procrastinate under various conditions. Both research indicates that when a student's task (eg. homework, exam) deadline approaches (rewards and punishments get closer) or comes near completion, the amount of procrastination would reduce and decline. Procrastination has

also been studied on animals. Two noteworthy studies by Mazur (1996, 1998) studied pigeons and found out that they will postpone or procrastinate a small amount of work now for a delayed reward rather than choosing the other option of doing more work later for the same result.

With regard to task aversiveness being a trigger for procrastination, there is lots of research supporting this using a variety of research methodologies (Kachgal et al., 2001; Peterson, 1987; Rawlins, 1995; Solomon & Rothblum, 1984, Anderson, 2001; Briody, 1980; Froehlich, 1987; Haycock, 1993). Solomon & Rothblum (1984) formulated the Procrastination Assessment Scale which has been used by Kachgal et al. (2001) and Rawlins (1995), for example. They used the scale to ask respondents, giving them 26 different reasons, why they would procrastinate when writing a term paper (with a deadline). Using factor analysis for the responses, they found out that students consistently generated a dimension that they best describe as “aversiveness of task”, i.e. “Really dislike writing papers” that was reported to be the case by 45% of respondents (Solomon & Rothblum, 1984; Peterson, 1987; Rawlins, 1995; Kachgal et al., 2001). Briody (1980), Froehlich (1987) and Haycock (1993) provide evidence that the top two reasons for procrastination regarding a task are (1) that the task is unpleasant and (2) that the task is boring and uninteresting.

Task aversiveness has been studied with various different tasks as well. Some examples are personal projects, academic projects (eg. publications), behaviors when searching jobs or general daily tasks. Steele (2007) used a variety of research methods, daily logs and time sampling, among others, concluding that “the more people dislike a task, the more they consider it effortful or anxiety producing, the more they procrastinate”. There are two moderators found in existing literature having an effect, conscientiousness and the length of the task (short-term vs. long-term).

According to Lay & Brokenshire (1997), low conscientiousness increases the effect of task pleasantness on procrastination and Steele (2007) argues, based on Lay & Brokenshire (1997) correlation, that one potential reason why individuals procrastinate can plainly be

that some people simply view life's general duties and chores aversive. In addition, the effect of task aversiveness is proved to intensify with short-term projects (Lay 1987, 1990).

Multiple research has come to the conclusion that when a task increases in boringness and difficulty, there is a higher probability of delaying that particular task (eg. Ackerman & Gross, 2005; Blunt & Pychyl, 2000; Briody, 1980; Senécal, Lavoie, & Koestner, 1997; Sigall, Kruglanski, & Fyock, 2000). Lonergan & Maher (2000) showed that task significance, feedback and lower autonomy increase decisional procrastination. Behavioral procrastination, on the other hand, has had a strong relation with other dimensions of task aversiveness such as frustration, resentment, and especially boredom (Briody, 1980; Haycock, 1993; Ackerman & Gross, 2005).

When applying this to entrepreneurship and more specifically *during* the process of entrepreneurial activity (when the decision for entrepreneurial action has already been made), entrepreneurs have to often choose between, and prioritize, tasks. Therefore, when entrepreneurs procrastinate it might be due to the fact that they simply have to choose and prioritize between two different tasks weighing the opportunity costs of both.

Individual differences - Relevant personality traits using five-factor model

Studies have tried to specify the relationship between individual differences, personality and procrastination. Researchers have used the traditional five-factor model of openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism (Digman, 1990).

Steel (2007) considers openness to experience and agreeableness only on a trait level while neuroticism and extraversion are considered with their respectable facets; irrational beliefs, self-efficacy and self-esteem, self-handicapping, and depression for neuroticism and positive affect, impulsiveness, and sensation seeking for extraversion. Conscientiousness in literature is studied with several constructs related to one's ability of self-regulation: distractibility, organization, achievement motivation, and intention-action gap.

Outcomes - Proximal effects of procrastination

Outcomes mean the presumed effects on a poorer or more negative mood and worse performance (Steele, 2007), however, it is crucial to remember that some outcomes can represent eluding causes of procrastination such as decreased self-efficacy and a possible increase in depression.

Literature has focused on two main outcomes of procrastination; mood and performance. Procrastination has a strong link to consciousness, which is in turn consistently linked to increased performance (Barrick & Mount, 2003; Hurtz & Donovan, 2000). Steele (2007) argues that “procrastinators should tend to be worse off in terms of both how they feel and what they achieve”.

Introduced in the mid-1940's by Mayers (1946), procrastination has been seen as a way of momentarily avoiding anxiety that later on, and most often unfortunately, becomes compounded resulting in increased anxiety (Mayers, 1946; Solomon & Rothblum, 1984). Therefore, procrastination may at first be a mood improvement but should consequently worsen at a later point in time. Lindsley, Brass, & Thomas (1995) look at this through a depression spiral, given that depression may lead to the act of procrastination as it can be defined as an extended period of negative affect on one's behavior. Therefore, a poor mood itself may also be a creating factor of procrastination and not only a result. A practical example would be that a deeply depressed person cannot get themselves to do anything, while the act of getting nothing done (procrastinating) deepens the depression.

Previously, procrastination and poor performance has been mentioned in this thesis but it is also good to note that some individuals report using procrastination as a performance-enhancing tool or strategy as it aids them to marshal resources in order to cope with an oncoming deadline (Chissom & Iran- Nejad, 1992; Tice & Baumeister, 1997).

Nonetheless, if the act of procrastination is irrational and depicts low conscientiousness, a last-minute rush should be less successful than efforts made in good time. Similar to mood, poor performance permits the potential of mutual relationships such as failure spirals related to self-efficacy (Lindsley et al., 1995). In layman's terms, this means that procrastination may lead an individual to poorer performance, which decreases self-

efficacy, which again leads to more procrastination, similar to the metaphor of mood and a deeply depressed person.

Mood changes as an outcome have been studied since the early 1990's although still missing strong empirical evidence. When there is no evidence otherwise on procrastination, Steele (2007) notes that a relationship between mood and procrastination may be present. Stainton, Lay, & Flett (2000) and Steel et al. (2001), among others, come to a conclusion that despite an individual's actual behavior, a person with a poorer mood is more likely to procrastinate. It is common knowledge that moods change over time with every one of us, and therefore it would be a great research topic for a longitudinal study rather than studying only an academic semester, for example.

One theory is that procrastination could be decreased by mood repair (Tice & Bratslavsky, 2000; Tice, Bratslavsky & Baumeister, 2001). These studies examined students, one of the most commonly researched individuals when it comes to procrastination, deliberately putting one group of students in an unhappy mood. Those that were unhappy were increasingly likely to put effort into lifting their mood up again before starting to study for an informal math test. More studies on students has been done as well, following students throughout a full academic course (Rothblum, Solomon, & Murakami, 1986) where they concluded that student-procrastinators are more susceptible to having more overall stress during the semester, and Tice & Baumeist, (1997) found that student-procrastinators have less stress in the beginning and more stress towards the end of the semester. Assur (2003, as cited in Steele, 2007, p. 79) and Lay & Schouwenburg (1993) reported an increase of anxiety (state agitation) towards the end of the course while Towers & Flett (2004, as cited in Steele, 2007, p. 79) noticed a decrease in anxiety in the beginning of the course. Therefore, Tice & Baumeist (1997) research has not fully been replicated. On the other hand, Lay, Edwards, Parker & Endler (1989) and Lay & Silverman (1996) conclude there has been no relationship detected between procrastination and anxiety. In addition, Lay and Schouwenburg (1993) also concluded they found no significant relationship between procrastination and mood on the last day of class.

Overall, examining students, the negative relationship towards procrastination is strong. Haycock (1993) and Froelich (1987) asked students about how they feel after the act of procrastination, with over four-fifths of responses being categorized as negative. On a similar note, the Procrastination research group (2005) having a large sample size of over 11000, come to the conclusion that 19% reported an extremely negative effect and 94% found procrastination had a negative effect on their mood, in this case the variable was happiness.

These abovementioned studies show a relationship between mood and procrastination, however, no other studies have been able to show a significant relationship between the two. For example, Pychyl et al (2000) did not find a significant relationship between negative mood and procrastination in their five-day period using experience-sampling methodology. For further research on procrastination, studying moods is a topic worth further exploring.

When switching focus to performance and procrastination, Steele (2007) found a similar, yet opposite, strength than with conscientiousness and procrastination. There was a weak negative relationship between performance in academics and procrastination. Based on his research, we can conclude that procrastination is never helpful, usually harmful and sometimes harmless.

When looking at performance criteria such as GPA in students, the dangers of procrastination are evident. Steele (2007) analysis shows negative correlations between procrastination and course GPA, overall GPA, final exam scores and assignment grades. Elliot (2002) has also reported a negative correlation that procrastination has with people's health that are from outside academics (as cited in Steele, 2007, p. 80). This can be attributed partly to the fact that procrastinators often postpone going to the doctor and getting medical treatment and diagnostic tests (Colman, Brod, Potter, Buesching, & Rowland, 2004; White et al., 1994). This should not come as a surprise due to the nature of procrastination. Elliot (2002) also found strong evidence of a negative relationship between financial well-being and procrastination. Mehrabian (2000) notes similar results

finding a significant correlation between career/financial success and procrastination, however, evaluation of success was not based on self-report but on peer evaluation.

Demographics - Possible physical and cohort moderators

Existing literature and research provides information mainly on three possible demographic moderators of procrastination: gender, age, and year (Steele, 2007).

When it comes to age, people procrastination decreases with age and learning.

O'Donoghue and Rabin (1999) say that "Many people who procrastinate only moderately do so not because of intrinsic self-control, but because they have developed schemes to overcome procrastination". This means that people can learn to avoid procrastination.

Various research gone through by Ainslie (1992) and Baumeister et al. (1994) has shown that individuals tend to procrastinate less with repeated practice. Therefore, it is not far-fetched to say that the more experience an entrepreneur has, the less they procrastinate.

The relationship, effect and influence of gender to procrastination is hard to predict.

Studies looking at self-control and gender differences have found mixed results (Feingold, 1994). Men have scored lower, higher and the same as women depending on the measure used. It has nonetheless been shown that girls score higher on effortful control than boys (Else-Quest, Hyde, Goldsmith, & Van Hulle, 2006). Based on these results, one could think that procrastination would be weakly associated with males if one had to choose the more susceptible gender.

As mentioned in the history of procrastination, Kachgal et al. (2001) deduct that procrastination is on the rise, which would be consistent with other findings (Sivy, 2000; Griffiths & Parke, 2002; Wadden, Brownell, & Foster, 2002) considering the increase of alternative forms of self-regulatory failure such as obesity, considerable debt or gambling. They have been on the rise in the last 25 years, which is not hard to believe because grouping and compound effects in personality appear to exist (Roberts, Walton, & Viechtbauer, 2006) and because procrastination may be affected by environmental changes (eg. task aversiveness). Therefore, such an increase is a valid possibility.

Currently, self-reports provide the best data for studying the historical prevalence of procrastination (Steele, 2007). Due to this, it is important to note that any studied theme or trend can possibly represent changes in cultural responses, such as a willingness to admit the level of procrastination than actually looking at the true change in underlying behavior.

2.7 Fear of failure, procrastination and subjective well-being

Since the outcomes of procrastination are known to affect both students and the general population without too much research geared towards entrepreneurs, it is interesting to see how procrastination affects entrepreneurs or does it moderate a relationship in variables that affect entrepreneurs. One of these variables can be fear of failure, as there is slight evidence in literature that it can be related to stress and, in turn, subjective well-being. Does procrastination play a role in this relationship?

Combining the relevance of fear of failure in entrepreneurship and the ubiquitousness of procrastination along with the importance of subjective well-being in order to achieve entrepreneurial success, we get to Hypothesis 2 and 3:

H2: Fear of failure is positively related to procrastination

H3: The tendency to procrastinate mediates the relationship between fear of failure & subjective well-being

3. METHODS

3.1 Sample

The data for this thesis was collected through a survey. The questionnaire measured the variables fear of failure, procrastination and subjective well-being. The questionnaire can be found in Appendix A.

The entrepreneurs for this study were selected through a Finnish accelerator named Startup Sauna. The survey participants were selected from the coach pool of the Startup Sauna accelerator program which constitutes individuals that give coaching to the startups during the accelerator program. Initially, 100 entrepreneurs were contacted to take part to the survey. Only 71 valid responses were considered for the study, representing a 71% response rate. The final sample includes 88.7% male and 11.3% female. The mean for age was about 30 years old and 47.9% have got a graduate degree (i.e. MSc, MA, MBA) while 21.1% have an undergraduate degree (i.e. BSc, BA).

One important note in the data collection process with entrepreneurs is the considerable amount of time taken to collect data and get the survey answered. This required multiple reminders, calls, face-to-face meetings and emails, and this challenging aspect can also be seen from the limited number of respondents with months of contacting.

3.2 Measures

Entrepreneurial fear of failure

I used the measured developed by Cacciotti et al. (2015) which contained 18 items rated through a 5-point scale format (1= strongly disagree; 5= strongly agree). Cronbach alfa is .88.

Subjective well-being

Subjective well-being was measured with Diener's (1984) 'satisfaction with life' scale with a 5-point scale format (1= strongly disagree; 5= strongly agree). Cronbach alfa is .80.

Procrastination

Procrastination was measured with the Decisional Procrastination Questionnaire (DPQ; Mann, Burnett, Radford, & Ford, 1997) with a 5-point scale format (1= strongly disagree; 5= strongly agree). Cronbach alfa is .90.

Controls

I used age, gender, and education as control variables applied in entrepreneurship studies (e.g. Cardon et al., 2013).

3.3 Analysis

To test my hypotheses, I used hierarchical regression analysis with IBM SPSS Statistics version 24. For all hypothesis and throughout my analysis, I used age, gender and education as controls.

To test hypothesis 1, I looked at the direct effect of fear of failure (independent variable) to subjective well-being (dependent variable) forming two different models. Model 1 included only the independent control variables with respect to the dependent subjective well-being while in Model 2, I added fear of failure to the independent variables. These can be found in Table 3.

A similar analysis was done for hypothesis 2 where subjective well-being was replaced by procrastination with 2 similar models presented in Table 4.

For hypothesis 3, I looked at the mediation effect procrastination has on fear of failure and subjective well-being. I started by forming Table 5 with 2 different models. Model 1 has the controls and fear of failure as independent variables with respect to dependent variable subjective well-being. In Model 2, I added procrastination with the controls and fear of failure.

4. RESULTS

Table 1 shows the mean, standard deviation, range and variance of the variables in this thesis. The correlations between variables can be seen from Table 2.

Table 1: Descriptive statistics

Variables	M	SD	Range	var(X)
Education	3.96	1.367	5	1.870
Gender	1.11	.318	1	.101
Age	2.89	.820	3	.673
Fear of failure	2.963	.745	3.61	.555
Procrastination	2.656	.994	4	.988
Subjective well-being	3.797	.743	4	.551

Table 2: Variable correlations

Variables	1	2	3	4	5	6
1. Education	1	.044	.378**	-.179	-.101	-.110
2. Gender		1	-.115	.178	.043	-.144
3. Age			1	-.272*	-.272*	-.043
4. Fear of failure				1	.359**	-.320**
5. Procrastination					1	.098
6. Subjective well-being						1

*Note: ** correlation is significant at the 0.01 level*

** correlation is significant at the 0.05 level*

4.1 Hypothesis 1

Fear of failure is negatively related to subjective well-being

The first hypothesis tested was the link between fear of failure and subjective well-being. In Table 3, subjective well-being is the dependent variable for both models. Model 1 has only the controls while Model 2 has fear of failure added.

Table 3: Hypothesis 1 analysis

Variables	Model 1			Model 2		
	B	SE	β	B	SE	β
Education	-.052	0.071	-.095	-.072	.067	-.132
Gender	-.331	.283	-.142	-.200	.272	-.086
Age	-.021	.119	-.023	-.090	.115	-.099
Fear of failure				-.355	.120	-.356*
(Constant)	4.431	.493		5.615	.615	
F	.734			8.747		
Adjusted R ²	-.012			.093		
Change in Adjusted R ²	.032			.113		

Note: dependent variable is subjective well-being

From Table 3 we can see that the unstandardized beta is -.355 and standardized beta -.356 with a P-value of .04 ($p < .05$).

Therefore, hypothesis one is confirmed.

4.2 Hypothesis 2

Fear of failure is positively related to procrastination

The second hypothesis tested was the link between fear of failure and procrastination. In Table 4, procrastination is the dependent variable for both models. Model 1 has only the controls while Model 2 has fear of failure added.

Table 4: Hypothesis 2 analysis

Variables	Model 1			Model 2		
	B	SE	β	B	SE	β
Education	.001	.093	.001	.025	.089	.034
Gender	.036	.371	.012	-.120	.360	-.038
Age	-.329	.155	-.271	-.247	.152	-.204
Fear of failure				.422	.159	.316*
(Constant)	3.563	.645		2.155	.814	
F	1.795			7.055		
Adjusted R ²	.033			.113		
Change in Adjusted R ²	.074			.089		

Note: dependent variable is procrastination

From Table 4 we can see that the unstandardized beta is .422 and standardized beta .316 with a P-value of .010 ($p < .05$).

Therefore, hypothesis 2 is confirmed.

4.3 Hypothesis 3

The tendency to procrastinate mediates the relationship between fear of failure & subjective wellbeing

For the third hypothesis, I tested whether procrastination functions as a mediator between fear of failure and subjective well-being. In Table 5, subjective well-being is the dependent variable for both models. Model 1 has the controls and fear of failure while in Model 2 the mediator, procrastination, has been added.

Table 5: Hypothesis 3 analysis

Variables	Model 1			Model 2		
	B	SE	β	B	SE	β
Education	-.072	.067	-.132	-.076	.066	-.140
Gender	-.200	.272	-.086	-.180	.267	-.077
Age	-.090	.115	-.099	-.048	.115	-.053
Fear of failure	-.355	.120	-.356*	-.426	.124	-.427*
Procrastination				.169	.091	.226
(Constant)	5.615	.615		5.252	.636	
F	8.747			3.403		
Adjusted R ²	.093			.125		
Change in Adjusted R ²	.113			.043		

Note: dependent variable is subjective well-being

From Table 5 we can see that in adding procrastination, fear of failure is still significant with an increase in $\beta = -.356$ to $\beta = -.427$. In addition, significance increased from $p=.004$ to $p=.001$.

Procrastination has a P-value of .07 ($p>.05$) which points to procrastination having somewhat of a mediating effect on the relationship between fear of failure and subjective well-being, although there is not full mediation present and the hypothesis is not confirmed.

5. DISCUSSION

5.1 Fear of failure is negatively related to subjective well-being

As the results suggest, the increase in an entrepreneur's fear of failure has a statistically significant negative impact on their subjective well-being. This has a variety of

implications and brings lots of further research questions to light, especially from the viewpoint of existing entrepreneurs instead of nascent ones.

For starters, subjective well-being has been demonstrated to have a strong link to many different aspects of work in a positive way with Xu and Roberts (2010) finding positive links to psychological and physical health while Wright & Cropanzano (2000) showed a positive relation with career success and subjective well-being. Therefore, well-being is something entrepreneurs should be very conscious of, and understanding the variables that affect well-being is detrimental in understanding what constitutes a successful entrepreneur. Therefore, fear of failure should continue to be studied when measuring entrepreneurs' success.

However, before doing this, it is important to understand the difference between the state distinction (Arenius & Minniti, 2005; Welpe et al. 2012) versus trait distinction (Patzelt & Shepherd, 2011) of fear of failure in existing entrepreneurs and decide which one to look at for which group of entrepreneurs (nascent vs serial). Since research (eg. Shinnar et al. 2012; Arenius & Minniti, 2005) suggests, and has mainly focused on, that the tendency for nascent entrepreneurs to start a company is affected by the trait or personological approach to fear of failure, it can be suggested that serial entrepreneurs would have a smaller degree for the trait perspective of fear of failure as they have continued setting up companies over and over again. Nevertheless, they may have fear of failure as a passing emotion, as a state they have to deal with; not a predisposition that inherently follows them throughout life. Therefore, before further studying existing entrepreneurs, I suggest research moves to look at the state distinction of fear of failure instead of the trait distinction as it is studied less and seems to fit existing entrepreneurs' environment better.

Making a clear distinction on fear of failure is crucial. For example, if we found out that the state (motivational) approach to fear of failure characterizes serial entrepreneurs better than the trait distinction, this would have great implications. This would mean that serial entrepreneurs could focus on improving their well-being by focusing on tools to overcome the emotional, temporary state that fear of failure is for them. This, in turn, would contribute to the overall understanding of entrepreneurial success.

In addition, since stress is negatively related to subjective well-being (Srivastava et al., 2001), as is fear of failure, and entrepreneurs' lives are to say the least, stressful, understanding the dynamics behind fear of failure contributes to understanding stress as well and its combined effects with fear of failure on entrepreneurs.

Furthermore, the results for hypothesis 1 strengthen the need to fill the void in existing literature when it comes to studying entrepreneurial success and the non-financial variables (such as subjective well-being) as it proves that non-financial factors also significantly affect entrepreneurs. Most often, entrepreneurial success has been studied focusing on hard data such as ROI, profits and growth in sales, which can be considered as financial outcomes (Baron et al., 2016). Nevertheless, it is equally important to understand what non-financial factors contribute to entrepreneurial success, and in general what type of other success than financial success are entrepreneurs after. There has been only little research done on the non-financial motivation and success of entrepreneurs (i.e. Hmieleski & Corbett, 2008; Gimeno, Folta, Cooper & Woo, 1997), and it could turn out that the non-financial factors may have a bigger effect than we realize.

5.2 Fear of failure is positively related to procrastination

In the results, fear of failure was positively related to procrastination with a .01 significance, which essentially means that the higher the degree of fear of failure in an entrepreneur, the more an entrepreneur procrastinates. As procrastination is prevalent, in one way or another, in everyone, understanding the affecting variables behind procrastination shines light on how to avoid its negative effects.

Similar to the discussion related to hypothesis 1, and before exploring the potential implications of the results, it is important to understand that procrastination has different causes and correlates (Steele, 2007). Just like fear of failure and the state vs. trait nature described in this thesis, the academic and scientific community needs to find out what type of procrastination affects entrepreneurs the most; whether it is task characteristics, individual differences, outcomes or demographics.

For demographics, Steele (2007) reports mainly three possible demographic moderators; gender, age and year. I used gender and age as controls, and the fact that they were not significant points to demographics not being the most common cause in entrepreneurs. When looking at individual differences (personality traits related to procrastination) in entrepreneurs that have started multiple successful companies, it goes to reason that they don't have strong personality traits that relate to procrastination, otherwise they wouldn't have been as successful or tried as many times as they have.

This leaves outcomes and task characteristics. With outcomes, procrastination is firstly a mood improvement only later on worsening the situation. Lindsay, Brass & Thomas (1995) look at a depression spiral with the thought that depression may lead to procrastination. Prosperous serial entrepreneurs, although they might be depressed or have a poor mood at times, don't procrastinate on the important things that move the company forward (keeping in mind their multiple successes). This leaves task characteristics, which mean that procrastination occurs when they are deciding voluntarily between two tasks. This is basically deciding to favor certain tasks over others or do them in a preferred order (Steele, 2007). Having a busy working life, it is not too far a stretch to think that serial entrepreneurs have lots of tasks they need to do but don't have the time to do them all. Hence, they need to choose those which are of highest priority and most important to the company.

Looking at the strong positive relationship ($p=.01$) between fear of failure and procrastination, entrepreneurs are now able to distinguish one factor that affects their procrastination. This further contributes to the existing academic results stating that fear of failure is viewed as a limiting factor in entrepreneurship, hindering, restraining or preventing entrepreneurial behavior (Bosma et al., 2017; Hatala, 2015).

When looking at the first two hypotheses together, fear of failure has an effect on both subjective well-being and procrastination. In order for entrepreneurs to understand how to procrastinate less and have a higher degree of subjective well-being (which in turn relates

to entrepreneurial success), understanding which characteristics of fear of failure and procrastination affect them as entrepreneurs is crucial.

When it comes to both fear of failure and procrastination, I suggest future research focuses on the state or motivational approach to fear of failure, and relates them to the task characteristics of procrastination, since the variables measured in this thesis are of a more general level and don't break down fear of failure or procrastination. One could say that the results from the hypotheses in this thesis are only the first level of many in understanding this topic.

5.3 Procrastination mediates the relationship between fear of failure and subjective well-being

The significance of procrastination mediating the relationship between fear of failure and subjective well-being was not statistically significant ($p=.07$). Therefore, there is no full mediation present. Nevertheless, there can be partial mediation as procrastination does account for some, but not all, of the relationship between fear of failure (independent) and subjective well-being (dependent) variables. Partial mediation implies that there is not only a significant relationship between the mediator and the dependent variable, but also some direct relationship between the independent and dependent variable (hypothesis 1).

Nevertheless, even though hypothesis 3 is not confirmed, it is important to note that non-financial factors affect an entrepreneur's well-being and contributes to their success and therefore, they should be studied further. Procrastination is just one factor but one's entrepreneurial journey is a combination of many. For further research, I suggest focusing on stress as it has only recently been studied affecting an entrepreneur's environment (Baron et al., 2016). There is plenty of research on how work-related stress affects employees (eg. Jex & Beehr, 1991; Xie, Schaubroeck & Lam, 2008) and it should be equally important to understand how stress is affecting those who hire the employees. This way we could examine if the work-related stress of entrepreneurs (employers) has an effect on the stress employees feel, for example.

5.4 Further research questions

In addition to the above-mentioned stress, there are lots of research questions that would bring valuable insight in understanding the successful entrepreneur. For example, what other variables than fear of failure have a significant effect on well-being in existing and serial entrepreneurs? How do the significant variables place among each other? Is fear of failure, despite its significance in this thesis, truly a crucial factor or are there other states or emotions which would have deeper implications?

When further examining procrastination, one branch to study is moods, how procrastination affects one's mood and in what mood do entrepreneurs procrastinate. Both Froelich (1987) and Haycock (1993) as well as the Procrastination research group (2005) report a negative mood in subjects after procrastination with over 80% categorized as negative. As procrastination seems to tip the scales of one's mood into the negative, this may have an astounding effect on the decisions one makes after procrastinating. Nevertheless, no other studies than these have been able to show a significant relationship between negative mood and procrastination even though it has been tried (Pychyl et al., 2000).

Continuing on procrastination, my suggestion is that research needs to focus on different types of procrastination instead of addressing the phenomena as a general concept. Steele's (2007) causes and correlates of procrastination would be a logical start. Considering the prevalence of procrastination, research should not unify the phenomena into one generalization.

6. LIMITATIONS AND CONCLUDING REMARKS

One of the biggest limiting factors to my research is the sample size. Only 71 entrepreneurs responded to the questionnaire. A possible next step would be to expand the sample size to hundreds of entrepreneurs. In addition, all entrepreneurs were from Finland, which means that there is no global validity of my results. Therefore, for the next study,

taking either European, North/South American or Asian entrepreneurs from multiple countries would shed a stronger and more meaningful light on this topic.

Another limitation of my research relates to the fact that this study has been quantitative only. Procrastination is hard to measure by solely numbers and numerical figures as each entrepreneur is unique in its own way. It is more about the journey than the destination, and in order to understand procrastinatory experiences thoroughly, they can't be simply reduced to numbers and figures. Therefore, a simple quantitative survey to study procrastination may not be enough. In addition, I feel that Steele's (2007) four causes and correlates of procrastination may not be the best model and qualitative research interviews that are analyzed with hypothesis coding, based on Steele's work, would give further insight on the validity of his model and on procrastination in entrepreneurs in general.

As a last note, I would like to stress the importance of continuing to study procrastination in entrepreneurship research. Procrastination is ubiquitous and troubling and its effects can be seen throughout cultures and the world. The causes of procrastination have yet to be classified and identified and now is the time to start doing this as procrastination is on the rise (Kachgal et al., 2001). In addition, businesses are a crucial part of society as they create jobs, and therefore, understanding such a phenomena and its negative effects in entrepreneurs will contribute to the economic development and sustainability of our planet for future generations to come.

References

- Ackerman, D. S., & Gross, B. L. (2005). My instructor made me do it: Task characteristics of procrastination. *Journal of Marketing Education, 27*, 5–13.
- Ainslie, G. (1992). *Picoeconomics: The strategic interaction of successive motivational states within the person*. New York: Cambridge University Press.
- Akerlof, G. A. (1991). Procrastination and obedience. *American Economic Review, 81*(2), 1–19.
- Alvarez, S., Barney B. (2007). Discovery and creation: alternative theories of entrepreneurial action. *Strategic Entrepreneurship Journal, 1*(1-2), 11–26.
- Anderson, C. J. (2003). The psychology of doing nothing: Forms of decision avoidance result from reason and emotion. *Psychological Bulletin, 129*, 139–167.
- Arenius, P., & Minniti, M. (2005). Perceptual variables and nascent entrepreneurship. *Small Bus. Econ. 24*, 233–247.
- Atkinson, J.W. and Feather, N.T. (1966). *A Theory of Achievement Motivation*. New York: Wiley.
- Atkinson, J.W., & Litwin, G.H. (1973). *Achievement motive and test anxiety conceived as motive to approach success and motive to avoid failure*. In: McClelland, D.C., Steele, R.S. (Eds.), *Human Motivation: A Book of Readings*. New Jersey: General Learning Press, 145–163.
- Baron, R. A. (2010). Job design and entrepreneurship: Why closer connections = mutual gains. *Journal of Organizational Behavior, 30*, 1-10.
- Baron, R., Franklin, R., & Hmieleski, K. (2016). Why Entrepreneurs Often Experience Low, Not High, Levels of Stress: The Joint Effects of Selection and Psychological Capital. *Journal of Management, 42* (3), 742–768.
- Barrick, M. R., & Mount, M. K. (2003). Impact of meta-analysis methods on understanding personality-performance relations. In K. R. Murphy (Ed.), *Validity generalization: A critical review*, 197–221.
- Baumeister, R. F., Heatherton, T. F., & Tice, D. M. (1994). *Losing control: How and why people fail at self-regulation*. San Diego, CA: Academic Press.
- Bernstein, P. (1998). *Against the gods: The remarkable story of risk*. New York: Wiley.

- Beswick, G., & Mann, L. (1994). State orientation and procrastination. *In J. Kuhl & J. Beckmann (Eds.), Volition and personality: Action versus state orientation*, 391–396.
- Beswick, G., Rothblum, E. D., & Mann, L. (1988). Psychological antecedents of student procrastination. *Australian Psychologist*, *23*, 207–217.
- Blunt, A. K., & Pychyl, T. A. (2000). Task aversiveness and procrastination: A multi-dimensional approach to task aversiveness across stages of personal projects. *Personality and Individual Differences*, *28*, 153–167.
- Bosma, N., Jones, K., Autio, E., & Levie, J. (2007). *Global Entrepreneurship Monitor: 2007 Executive Report*. London: London Business School.
- Bretz, R. D., Ash, R. A., & Dreher, G. F. (1989). Do people make the place? An examination of the attraction-selection-attrition hypothesis. *Personnel Psychology*, *42*, 561-581.
- Briody, R. (1980). An exploratory study of procrastination (Doctoral dissertation, Brandeis University, 1980). *Dissertation Abstracts International*, *41*, 590.
- Brixy, U., Stenberg, R., & Stuber, H. (2012). The selectiveness of the entrepreneurial process. *Journal of Small Business Management*, *50*, 105–131.
- Burka, J. B., & Yuen, L. M. (1983). *Procrastination: Why you do it, what to do about it*. Reading, MA: Addison-Wesley.
- Buttner, E. H. (1992). Entrepreneurial stress: Is it hazardous to your health? *Journal of Managerial Issues*, *4*, 223-240.
- Cacciotti, G., Hayton, J., Mitchell J., & Giazitzoglu, A. (2016). A reconceptualization of fear of failure in entrepreneurship. *Journal of Business Venturing*, *31*, 302–325
- Cacciotti, G., & Hayton, J. C., (2015). Fear and entrepreneurship: a review and research agenda. *International Journal of Management Reviews*, *17*, 165–190.
- Cacciotti, G., Hayton, J. C., Mitchell, J. R., & Allen, D. G. (2015) Entrepreneurial fear of failure: scale development and validation (summary). *Frontiers of Entrepreneurship Research*, *35* (4), article 4.
- Cardon, M., Grégoire, D., Stevens, C., & C. Patel, P. (2013). Measuring Entrepreneurial Passion: Conceptual Foundations and Scale Validation. *Journal of Business Venturing*, *28*, 373-396.

- Cassar, G. (2007). Money, money, money? A longitudinal investigation of entrepreneur career reasons, growth preferences, and achieved growth. *Entrepreneurship & Regional Development, 19*, 89-107.
- Chissom, B., & Iran-Nejad, A. (1992). Development of an instrument to assess learning strategies. *Psychological Reports, 71*, 1001–1002.
- Chu, A. H. C., & Choi, J. N. (2005). Rethinking procrastination: Positive effects of “active” procrastination behavior on attitudes and performance. *Journal of Social Psychology, 14*, 245–264.
- Colman, S. S., Brod, M., Potter, L. P., Buesching, D. P., & Rowland, C. R. (2004). Cross-sectional 7-year follow-up of anxiety in primary care patients. *Depression and Anxiety, 19*, 105–111.
- Conroy, D. E., Elliot, A. J., & Hofer, S. M. (2003). A 2 × 2 Achievement Goals Questionnaire for Sport: evidence for factorial invariance, temporal stability, and external validity. *Journal of Sport & Exercise Psychology, 25*, 456– 476.
- Conroy, D.E., Metzler, J.N., & Willow, J.P. (2002). Multidimensional fear of failure measurement: the performance failure appraisal inventory. *Journal of Applied Sport Psychology, 14*, 76–90.
- Conroy, D.E. (2001a). Fear of failure: an exemplar for social development research in sport. *Quest, 53*, 165–183.
- Conroy, D.E. (2001b). Progress in the development of a multidimensional measure of fear of failure: the Performance Failure Appraisal Inventory (PFAI). *Anxiety, Stress, & Coping, 14*, 431–452.
- Crane, F.G. & Sohl, J.E. (2004). Imperatives for venture success: entrepreneurs speak. *International Journal of Entrepreneurship and Innovation, 5*, 99– 106.
- Cope, J. (2011). Entrepreneurial learning from failure: an interpretative phenomenological analysis. *Journal of Business Venturing, 26*, 604–623.
- Davidsson, P. (2003). The domain of entrepreneurship research: some suggestions. In Katz, J.A. and Shepherd, D.A. (eds), *Advances in Entrepreneurship, Firm Emergence and Growth, 6*, 315–372.
- Day, V., Mensink, D., & O’Sullivan, M. (2000). Patterns of academic procrastination. *Journal of College Reading and Learning, 30*, 120 –134.

- DeLongis, A., Folkman, S., & Lazarus, R. S. (1988). The impact of daily stress on health and mood: Psychological and social resources as mediators. *Journal of Personality and Social Psychology*, *54*, 486-495.
- Digman, J. M. (1990). Personality structure: Emergence of the five-factor model. *Annual Review of Psychology*, *41*, 417-440.
- Ekore, J.O. and Okekeocha, O.C. (2012). Fear of entrepreneurship among university graduates: a psychological analysis. *International Journal of Management*, *29*, 515-524.
- Ellis, A., & Knaus, W. J. (1977). *Overcoming procrastination*. New York: Signet Books.
- Elliot, R. (2002). *A ten-year study of procrastination stability*. Unpublished master's thesis, University of Louisiana, Monroe.
- Elliot, A.J. (1999). Approach and avoidance motivation and achievement goals. *Journal of Educational Psychology*. *34*, 149-169.
- Else-Quest, N. M., Hyde, J. S., Goldsmith, H. H., & Van Hulle, C. A. (2006). Gender differences in temperament: A meta-analysis. *Psychological Bulletin*, *132*, 33-72.
- Farnham, B. R. (1997). *Roosevelt and the Munich crisis: A study of political decision-making*. New Jersey: Princeton University Press.
- Feingold, A. (1994). Gender differences in personality: A meta-analysis. *Psychological Bulletin*, *116*, 429-526.
- Ferrari, J. R., Johnson, J. L., & McCown, W. G. (1995). *Procrastination and task avoidance: Theory, research, and treatment*. New York: Plenum Press.
- Fisher, R., Maritz, A. and Lobo, A. (2013). Obsession in Entrepreneurs – towards a conceptualisation. *Entrepreneurship Research Journal*, *3*, 207-237.
- Foo, M. (2011). Emotions and entrepreneurial opportunity evaluation. *Entrepreneurship: Theory and Practice*, *35*, 375-393.
- Forgas, J. (2000). *Feeling and Thinking: Affective Influences on Social Cognition*. New York: Cambridge University Press.
- Froehlich, R. A. (1987). A descriptive study of general procrastination in a group-oriented treatment setting (Doctoral dissertation, United States International University, 1987). *Dissertation Abstracts International*, *48*, 1151.
- Gandhi, M. K., Strohmeier, J., & Nagler, M. N. (2000). *The Bhagavad Gita according to Gandhi*. California: Berkeley Hills Books.

- Ganster, D. C., & Rosen, C. C. (2013). Work stress and employee health: A multidisciplinary review. *Journal of Management*, 39, 1085-1122.
- Ganster, D. C., & Schaubroeck, J. (1991). Work stress and employee health. *Journal of Management*, 17, 235-271.
- Gimeno, J., Folta, T. M., Cooper, A. C., & Woo, C. Y. (1997). Survival of the fittest? Entrepreneurial human capital and the persistence of underperforming firms. *Administrative Science Quarterly*, 42, 750-783.
- Gómez-Araujo, E., Lafuente, E., Vaillant, Y., Gómez Núñez, L.M., 2015. The differential impact of self-confidence, reference models and the fear of failure in young entrepreneurs. *Innovar*, 25 (57), 157–174.
- Grichnik, D. (2008). Risky choices in new venture decisions – experimental evidence from Germany and the United States. *Journal of International Entrepreneurship*, 6, 22–47.
- Grichnik, D., Smeja, A. and Welpe, I. (2010). The importance of being emotional: how do emotions affect entrepreneurial opportunity evaluation and exploitation? *Journal of Economic Behavior & Organization*, 76, 15–29.
- Griffiths, M. D., & Parke, J. (2002). The social impact of Internet gambling. *Social Science Computer Review*, 20, 312–320.
- Harriott, J., & Ferrari, J. R. (1996). Prevalence of procrastination among samples of adults. *Psychological Reports*, 78, 611–616.
- Hatala, J.P., 2005. Identifying barriers to self-employment: the development and validation of the barriers to entrepreneurship success tool. *Performance Improvement Quarterly*, 18, 50–70.
- Haycock, L. A. (1993). The cognitive mediation of procrastination: An investigation of the relationship between procrastination and self- efficacy beliefs (Doctoral dissertation, University of Minnesota, 1993). *Dissertation Abstracts International*, 54, 2261.
- Helms, M.M. (2003). Japanese managers: their candid views on entrepreneurship. *Competitiveness Review*, 13, 24–34.
- Hessels, J., Grilo, I., Thurik, R. & van der Zwan, P. (2011). Entrepreneurial exit and entrepreneurial engagement. *Journal of Evolutionary Economics*, 21, 447–471.

- Hmieleski, K. M., & Corbett, A. C. (2008). The contrasting interaction effects of improvisational behavior with entrepreneurial self-efficacy on new venture performance and entrepreneur work satisfaction. *Journal of Business Venturing*, 23, 482-496.
- Holland, T. (2001). The perils of procrastination. *Far Eastern Economic Review*, 164, 66–72.
- Holmberg, S. R., & Morgan, K. B. (2003). Franchise turnover and failure: New research and perspectives. *Journal of Business Venturing*, 18(3), 403.
- Hunter, L. W., & Thatcher, S. M. B. (2007). Feeling the heat: Effects of stress, commitment, and job experience on job performance. *Academy of Management Journal*, 50, 953-968.
- Hurtz, G. M., & Donovan, J. J. (2000). Personality and job performance: The Big Five revisited. *Journal of Applied Psychology*, 85, 869–879.
- Jex, S., & Beehr, T. (1991). Emerging theoretical and methodological issues in the study of work-related stress. *Research in Personnel and Human Resource Management*, 9: 311-365.
- Kachgal, M. M., Hansen, L. S., & Nutter, K. J. (2001). Academic procrastination prevention/intervention: Strategies and recommendations. *Journal of Developmental Education*, 25, 14–24.
- Kegley, C. W. (1989). The Bush administration and the future of American foreign policy: Pragmatism, or procrastination? *Presidential Studies Quarterly*, 19, 717–731.
- Klaukien, A. & Patzelt, H. (2009). Fear of failure and opportunity exploitation. *Frontiers of Entrepreneurship Research*, 29 (5), article 11.
- Klein, E. (1971). *A comprehensive etymological dictionary of the English language*. New York: Elsevier.
- Klein, P. (2008). Opportunity discovery, entrepreneurial action, and economic organization. *Strategic Entrepreneurship Journal*, 2(3), 175–190.
- Knaus, W. J. (1973). Overcoming procrastination. *Rational Living*, 8(2), 2–7.
- Knott, A. M., Posen, H. E. (2005) Is failure good? *Strategic Management Journal*, 26(7), 617–641
- Koellinger, P., Minniti, M., & Schade, C. (2013). Gender differences in entrepreneurial propensity. *Oxford Bulletin of Economics and Statistics*, 75, 305–9049.

- Langowitz, N. & Minniti, M. (2007). The entrepreneurial propensity of women. *Entrepreneurship Theory and Practice*, 31, 341–364.
- Lay, C. H., & Silverman, S. (1996). Trait procrastination, anxiety, and dilatory behavior. *Personality and Individual Differences*, 21, 61–67.
- Lay, C. H., & Schouwenburg, H. C. (1993). Trait procrastination, time management, and academic behavior. *Journal of Social Behavior and Personality*, 8, 647–662.
- Lay, C. H., & Brokenshire, R. (1997). Conscientiousness, procrastination, and person-task characteristics in job searching by unemployed adults. *Current Psychology: Developmental, Learning, Personality, Social*, 16, 83–96.
- Lay, C. H., Edwards, J. M., Parker, J. D., & Endler, N. S. (1989). An assessment of appraisal, anxiety, coping, and procrastination during an examination period. *European Journal of Personality*, 3, 195–208.
- Lazarus, R.S. (1991). *Emotion and Adaptation*. New York: Oxford University Press.
- Li, Y. (2011). Emotions and new venture judgment in China. *Asia Pacific Journal of Management*, 28, 277–298.
- Lindsley, D. H., Brass, D. J., & Thomas, J. B. (1995). Efficacy-performance spirals: A multilevel perspective. *The Academy of Management Review*, 20, 645–678.
- Lonergan, J. M., & Maher, K. J. (2000). The relationship between job characteristics and workplace procrastination as moderated by locus of control. *Journal of Social Behavior and Personality*, 15, 213–224.
- Mayers, A. N. (1946). Anxiety and the group. *Journal of Nervous and Mental Disease*, 103, 130–136.
- Mazur, J. E. (1996). Procrastination by pigeons: Preferences for larger, more delayed work requirements. *Journal of the Experimental Analysis of Behavior*, 65, 159–171.
- Mazur, J. E. (1998). Procrastination by pigeons with fixed-interval response requirements. *Journal of the Experimental Analysis of Behavior*, 69, 185–197.
- McGrath, R.G. (1999). Falling forward: real options reasoning and entrepreneurial failure. *Academy of Management Review*, 24, 13–30.
- McGregor, H.A., & Elliot, A.J. (2005). The shame of failure: examining the link between fear of failure and shame. *Personality and Social Psychology Bulletin*, 31, 218–231.

- McMullen, J., & Shepherd, D.A. (2006). Entrepreneurial action and the role of uncertainty in the theory of the entrepreneur. *Academy of Management Review*, 31, 132–142.
- Mehrabian, A. (2000). Beyond IQ: Broad-based measurement of individual success potential or “emotional intelligence.” *Genetic, Social, and General Psychology Monographs*, 126, 133–239.
- Milgram, N. A. (1992). El retraso: Una enfermedad de los tempos modernos [Procrastination: A malady of modern time]. *Boletín de Psicología*, 35, 83–102.
- Milgram, N. A. (1991). *Procrastination*. In R. Dulbecco (Ed.), *Encyclopedia of human biology*, 6, 149–155. New York: Academic Press.
- Mitchell, J.R., & Shepherd, D.A. (2010). To thine own self be true: images of self, images of opportunity, and entrepreneurial action. *Journal of Business Venturing*, 25, 138–154.
- Mitchell, J.R., & Shepherd, D.A. (2011). Afraid of opportunity: the effects of fear of failure on entrepreneurial decisions. *Frontiers of Entrepreneurship Research*, 31(6), article 1.
- Minniti, M., & Nardone, C. (2007). Being in someone else’s shoes: the role of gender in entrepreneurship. *Small Business Economics*, 28, 223–238.
- Noguera, M., Alvarez, C. & Urbano, D. (2013). Socio-cultural factors and female entrepreneurship. *International Entrepreneurship and Management Journal*, 9, 183–197.
- O’Brien, W. K. (2002). *Applying the transtheoretical model to academic procrastination*. Unpublished doctoral dissertation, University of Houston.
- O’Donoghue, T., & Rabin, M. (1999). Incentives for procrastinators. *Quarterly Journal of Economics*, 114, 769–816.
- Onwuegbuzie, A. J. (2000). Academic procrastinators and perfectionistic tendencies among graduate students. *Journal of Social Behavior and Personality*, 15, 103–109.
- Patzelt, H. & Shepherd, D.A. (2011). Negative emotions of an entrepreneurial career: self-employment and regulatory coping behaviors. *Journal of Business Venturing*, 26, 226–238.

- Peterson, K. E. (1987). Relationships among measures of writer's block, writing anxiety, and procrastination (Doctoral dissertation, Ohio State University, 1987). *Dissertation Abstracts International*, 48, 1505.
- Pinquart, M., & Sorensen, S. (2000). Influences of socioeconomic status, social network, and competence on subjective well-being in later life: A meta-analysis. *Psychology and Aging*, 15, 187-224.
- Ployhart, R. E., Weekley, J. A., & Baughman, K. (2006). The structure and function of human capital emergence: A multilevel examination of the attraction-selection-attrition model. *Academy of Management Journal*, 49, 661-677.
- Potts, T. J. (1987). Predicting procrastination on academic tasks with self-report personality measures. (Doctoral dissertation, Hofstra University, 1987). *Dissertation Abstracts International*, 48, 1543.
- Procrastination Research Group. (2005). *PRG quick poll*. Retrieved August 21, 2017, from <http://pollwizard.com/poll.cgi?action=results&poll=390>
- Pychyl, T. A., Lee, J. M., Thibodeau, R., & Blunt, A. (2000). Five days of emotion: An experience sampling study of undergraduate student procrastination. *Journal of Social Behavior and Personality*, 15, 239– 254.
- Rahim, A. (1996). Stress, strain, and their moderators: an empirical comparison of entrepreneurs and managers. *Journal of Small Business Management*, 34, 46– 58.
- Reynolds, P. *et al.* (2005). Global Entrepreneurship Monitor: data collection design and implementation 1998–2003. *Small Business Economics*, 24, 205–231.
- Rawlins, D. R. (1995). A study of academic procrastination in middle-school aged children (Doctoral dissertation, University of New York, 1995). *Dissertation Abstracts International*, 56, 1708.
- Rindova, V., Barry, D., & Ketchen, D. J., Jr. (2009). Entrepreneurship as emancipation. *Academy of Management Review*, 34, 477-491.
- Roberts, B. W., Walton, K. E., & Viechtbauer, W. (2006). Patterns of mean-level change in personality traits across the life course: A meta-analysis of longitudinal studies. *Psychological Bulletin*, 132, 1–25.
- Rothblum, E. D., Solomon, L. J., & Murakami, J. (1986). Affective, cognitive, and behavioral differences between high and low procrastinators. *Journal of Counseling Psychology*, 33, 387–394.

- Schaubroeck, J., Ganster, D. C., & Jones, J. R. (1998). Organization and occupation influences in the attraction- selection-attrition process. *Journal of Applied Psychology, 83*, 869-891.
- Schneider, B. (1987). The people make the place. *Personnel Psychology, 40*, 437-453.
- Schneider, B., Goldstein, H. W., & Smith, D. B. (1995). The ASA framework: An update. *Personnel Psychology, 48*, 747-773.
- Schouwenburg, H. C., & Groenewoud, J. T. (2001). Study motivation under social temptation; effects of trait procrastination. *Personality and Individual Differences, 30*, 229-240.
- Senécal, C., Lavoie, K., & Koestner, R. (1997). Trait and situational factors in procrastination: An interactional model. *Journal of Social Behavior and Personality, 12*, 889-903.
- Shepherd, D.A. (2003). Learning from business failure: propositions of grief recovery for the self-employed. *Academy of Management Review, 28*, 318-328.
- Shinnar, R.S., Giacomini, O., & Janssen, F. (2012). Entrepreneurial perceptions and intentions: the role of gender and culture. *Entrepreneurship: Theory and Practice, 36*, 465-493.
- Sigall, H., Kruglanski, A., & Fyock, J. (2000). Wishful thinking and procrastination. *Journal of Social Behavior and Personality, 15*, 283- 296.
- Sigh, S. (1989). Personality characteristics, work values, and life styles of fast- and slow-progressing small-scale industrial entrepreneurs. *Journal of Social Psychology, 129*, 801-805.
- Silver, M., & Sabini, J. (1981). Procrastinating. *Journal for the Theory of Social Behavior, 11*, 207-221.
- Sivy, M. (2000). On borrowed time. *Time Europe, 155*(2), 50.
- Solomon, L. J., & Rothblum, E. D. (1984). Academic procrastination: Frequency and cognitive-behavioral correlates. *Journal of Counseling Psychology, 31*, 503-509.
- Srivastava, A., Locke, E. A., & Bartol, K. M. (2001). Money and subjective well-being: It is not the money, it is the motives. *Journal of Personality and Social Psychology, 80*, 959-971.
- Stainton, M., Lay, C. H., & Flett, G. L. (2000). Trait procrastinators and behavior/trait-specific cognitions. *Journal of Social Behavior and Personality, 15*, 297-312.

- Steel, P., Brothen, T., & Wambach, C. (2001). Procrastination and personality, performance, and mood. *Personality and Individual Differences, 30*, 95–106.
- Steel, P. (2007). The nature of procrastination: A meta-analytic and theoretical review of quintessential self-regulatory failure. *Psychological Bulletin, 133*, 65-94.
- Strongman, K. T., & Burt, C. D. B. (2000). Taking breaks from work: An exploratory inquiry. *Journal of Psychology, 134*, 229–242.
- Stainton, M., Lay, C. H., & Flett, G. L. (2000). Trait procrastinators and behavior/trait-specific cognitions. *Journal of Social Behavior and Personality, 15*, 297–312.
- Sullivan, S. E., & Bhagat, R. S. (1992). Organizational stress, job satisfaction and job performance: Where do we go from here? *Journal of Management, 18*, 353-374.
- Tice, D. M., & Baumeister, R. F. (1997). Longitudinal study of procrastination, performance, stress, and health: The costs and benefits of dawdling. *Psychological Science, 8*, 454–458.
- Tice, D. M., Bratslavsky, E., & Baumeister, R. F. (2001). Emotional distress regulation takes precedence over impulse control: If you feel bad, do it! *Journal of Personality and Social Psychology, 80*, 53–67.
- Wadden, T. A., Brownell, K. D., & Foster, G. D. (2002). Obesity: Responding to the global epidemic. *Journal of Consulting and Clinical Psychology, 70*, 510–525.
- Wagner, J. (2007). What difference a Y makes – female and male nascent entrepreneurs in Germany. *Small Business Economics, 28*, 1–21.
- Wagner, J. & Stenberg, R. (2004). Start-up activities, individual characteristics, and the regional milieu: lessons for entrepreneurship support policies from German micro data. *Annual Regional Science, 38*, 219–240.
- Welpe, I. M., Spörrle, M., Grichnik, D., Michl, T., & Audretsch, D.B. (2012). Emotions and opportunities: the interplay of opportunity evaluation, fear, joy, and anger as antecedent of entrepreneurial exploitation. *Entrepreneur-ship Theory and Practice, 36*, 69–96.
- Wesley, J. C. (1994). Effects of ability, high school achievement, and procrastinatory behavior on college performance. *Educational and Psychological Measurement, 54*, 404–408.

- Wood, M.S., McKelvie, A., & Haynie, J.M. (2014). Making it personal: opportunity individuation and the shaping of opportunity beliefs. *Journal of Business Venturing, 29*, 252–272.
- Wood, M.S., McKinley, W., & Engstrom, C.L. (2013). Endings and visions of new beginnings: the effects of source of unemployment and duration of unemployment on entrepreneurial intent. *Entrepreneurship Research Journal, 3*, 171–206.
- Wood, M.S. & Pearson, J.M. (2009). Taken on faith? The impact of uncertainty, knowledge relatedness, and richness of information on entrepreneurial opportunity exploitation. *Journal of Leadership & Organizational Studies, 12*, 117–130.
- Wood, M.S. & Rowe, J.D. (2011). Nowhere to run and nowhere to hide: the relationship between entrepreneurial success and feelings of entrapment. *Entrepreneurship Research Journal, 1*, article 4.
- Wright, T. A., & Cropanzano, R. (2000). Psychological well-being and job satisfaction as predictors of job performance. *Journal of Occupational Health Psychology, 5*, 84-94.
- Xie, J. L., Schaubroeck, J., & Lam, S. S. K. (2008). Theories of job stress and the role of traditional values: A longitudinal study in China. *Journal of Applied Psychology, 93*, 831-848.
- Xu, J., & Roberts, R. E. (2010). The power of positive emotions: It is a matter of life or death—Subjective well-being and longevity over 28 years in a general population. *Health Psychology, 29*, 9-19.

APPENDIX A

Gender

What is your gender?

1. Male
2. Female
3. Other

Age

How old are you?

1. <20 years
2. 20-29 years
3. 30-39 years
4. 40-49 years
5. 50-59 years
6. >59 years

Education

What is your highest educational achievement?

1. High school or equivalent
2. Some university study (including current students)
3. Undergraduate degree or equivalent (BSc, BA, etc)
4. Some post graduate study (including current students)
5. Graduate degree (MSc, MA, MBA, etc)
6. Terminal degree (PhD, MD, LLD/JD)

Entrepreneurial fear of failure

SCALE:

1= Strongly disagree

2= Disagree

3= Neither agree nor disagree

4= Agree

5= Strongly agree

99=Don't know

Read the following statements and indicate the level of agreement or disagreement.

Over the past few months, I have been afraid...

...that running the business is taking my time away from other activities

...of missing important events of my life because of my business

...of running out of money

...of losing all my savings

...of not being able to spend enough time with my family and friends

...of losing all I have invested in the business

...of not being able to manage people effectively

...of not being able to manage the business effectively
...of not getting enough funding to move the company forward
...of not being able to fulfil all the roles that this job requires
...of not being able to finance the business
...of not being able to get the required funding for the business
...that no one will be interested in the product/service
...of other people's expectations of me
...that this is not a valuable business idea .
...that there is no need for our product/service out there
...of disappointing the people who are important to me
...of losing the trust of people who are important to me

Over the past few months, I have been afraid of the venture's capability to...

...deliver upon promises
...meet client expectations
...overcome technical challenges

Procrastination (Decisional Procrastination Questionnaire)

SCALE:

1= Strongly disagree
2= Disagree
3= Neither agree nor disagree
4= Agree
5= Strongly agree
99=Don't know

In the past few months...

1. I have been delaying making decisions until it's too late
2. Even after I make a decision I have been delaying acting upon it
3. I have been putting off making decisions
4. I have been wasting a lot of time on trivial matters before getting to the final decisions
5. I haven't been making decisions unless I really had to

Subjective wellbeing

SCALE:

1= Strongly disagree
2= Disagree
3= Neither agree nor disagree
4= Agree
5= Strongly agree
99=Don't know

On a scale from 1 to 5, indicate how strongly you agree or disagree with the following statements, with 5 being strong agreement.

1. In most ways my life is close to my ideal.
2. The conditions of my life are excellent.
3. I am satisfied with my life.
4. So far I have gotten the important things I want in life.
5. If I could live my life over, I would change almost nothing.