

UNIVERSITY OF TWENTE.

Master Thesis

Exploring the Stress and Coping Experiences of Early-Stage Entrepreneurs during the Venture Creation Process

Author: Ines Wolf (s1749331)

MSc. in Business Administration

Supervisors:

1st Supervisor: Dr. I. Hatak

2nd Supervisor: R. Singaram

2nd Examiner: Dr. M.L. Ehrenhard

Date: October 13, 2016

Acknowledgements

I want to express my gratitude to my supervisors, Dr. Isabella Hatak and Raja Singaram for their guidance, constructive feedback and motivation throughout the entire process. They supported me whenever they could, were always there to answer any questions and helped me find solutions when I had lost perspective. I would like to thank my husband, Paul Wolf, for his never ending support and patience with me and for his attention to detail. Also, special thanks to Laura Morren for her insights and help, it is greatly appreciated.

Ines Wolf

Executive Summary

The creation of new businesses attracts both scientific and practical interest due to its ability to positively impact the economy and society through innovation. To aspiring entrepreneurs, self-employment offers autonomy and independence from rigid organizational structures. However, being an entrepreneur is not always rewarding but comes with its sacrifices. Literature points to the demanding and stressful work conditions, where entrepreneurs face long work days, and invest personal and emotional resources in an uncertain and risky environment. If entrepreneurs are constantly exposed to stressful situations, they are at risk of experiencing stress reactions, such as burnout.

Despite broad acceptance that stress is a fundamental part of entrepreneurship, there are mixed results of how stress influences and manifests itself in the entrepreneur and what consequences it has on the individual and their ventures. Recently, the role of coping has gained higher interest in understanding the stress experience of entrepreneurs. Therefore, this thesis set out to better understand how early-stage entrepreneurs cope with the stressful experiences during the early start-up phase of a new a business and how they maintain their well-being.

This thesis draws on the Effort-Reward-Imbalance (ERI) model as a guiding framework to explore the effort-reward relationship during the start-up process to better understand how stress arises and how entrepreneurs cope with it. A qualitative approach using semi-structured interviews along with a projective technique and a priming exercise is used to collect the data. By employing an abductive coding strategy, this study results in an enriched effort-reward-imbalance model that is refined for the start-up context.

Results indicate that early-stage entrepreneurs can maintain well-being and only report low levels of burnout, despite the existence of stressors. Entrepreneurs were found to work long hours with many of them sacrificing their personal time. Female entrepreneurs displayed more symptoms of mild burnout than male entrepreneurs. Furthermore, human resource management, acquisition of finance, and administration were identified as potential sources of stress. However, the entrepreneurs also realize rewards, such as having a purposeful job and receiving positive external feedback on their ideas.

Motivation has been found to be an important antecedent to effort and reward perception and expectation, which subsequently influences the appraisal of stress. Other personal resources such

as psychological capital and prior start-up experience could be identified as important stress mitigating resources.

They also employ a wide range of coping techniques including problem-focused coping, time management and recovery experiences that buffer stress and mitigate its negative consequences on health. The qualitative analysis showed that gender could play a role in the experience of stress, in such that female entrepreneurs tend to experience more exhaustion and also make less use of recovery experiences than male entrepreneurs.

Additionally, it shed light on how early-stage entrepreneurs feel about entrepreneurship and how personal motivation and coping helps them stay engaged in the process regardless of the existence of stressors.

The thesis findings contributed to both theory and practice. By exploring the early-stage entrepreneurs' stress experience with the ERI model, findings were able to enrich the model for this particular context and propose an extension considering entrepreneurship-specific variables. The analysis and discussion sourced insights from various research streams, including psychology, organizational behavior, and social sciences. For practice, several coping techniques were recognized, which practicing and aspiring entrepreneurs may take advantage of. Entrepreneurs, particularly female entrepreneurs, should appreciate their autonomy but also need to actively make use of it and incorporate times for recovery into their schedules when needed.

Table of Contents

1	Introduction.....	1
1.1	Problem Background.....	1
1.2	Research Questions	2
1.3	Methods.....	3
1.4	Structure	5
2	Theoretical Background.....	5
2.1	History of the ERI Model.....	8
2.1.1	Efforts	11
2.1.2	Rewards.....	11
2.1.3	Overcommitment	12
2.2	ERI in the Entrepreneurial Context.....	13
2.2.1	Entrepreneurship-specific Efforts	15
2.2.2	Entrepreneurship-specific Rewards	17
2.2.3	Overcommitment in the Entrepreneurial Context.....	18
2.2.4	ERI and Consequences for the Entrepreneur and their Venture	19
2.3	Coping and Personal Resources in the Entrepreneurship Context.....	23
3	Methodology	34
3.1	Data Collection Strategy	35
3.2	Respondents and Procedure	36
3.3	Data Analysis	40
3.4	Ensuring Data Quality	44
4	Findings.....	45
4.1	What efforts are associated with the early-stage venture creation process that pose the risk of becoming stressors?	45
4.2	What rewards does an early-stage entrepreneur perceive and receive in return for their efforts?	48
4.3	How do entrepreneurs cope with the experience of stress in the course of starting a business?	52
4.4	What are the personal and venture-related consequences of a perceived effort-reward-imbalance?	57
5	Discussion	60
5.1	Model Extension	62
5.2	ERI Model and the Entrepreneurial Context.....	64
5.3	Motivation	65
5.4	Coping and Consequences	66
6	Conclusion	68
6.1	Contributions to Theory	68
6.2	Contributions to Practice and Policy	69
6.3	Limitations and Future Research Suggestions	70
7	References.....	73
8	Appendix.....	78
	A.Interview Guide.....	78
	B.Stress Literature Overview.....	84
	C.Well-being Dimensions.....	86
	D.Entrepreneurs Burnout and OVC Rating	87

List of Figures

Figure 1: Systematic Literature Review Steps adopted from Denyer & Tranfield (2009).....	3
Figure 2: Original ERI model	9
Figure 3: Current ERI Model.....	9
Figure 4: Characteristics of Small Business at Each Stage of Development.....	14
Figure 5 Entrepreneurial Efforts and Venture Creation Activities	48
Figure 6: Proposed Model Extension.....	63

List of Tables

Table 1: ERI model rewards	12
Table 2: Venture Creation Activities	14
Table 3: Coping Literature Overview	24
Table 4: Entrepreneurs: Sample Info	39
Table 5: Efforts	42
Table 6: Rewards	43
Table 7: Overcommitment	43
Table 8: Motivations and Rewards	51
Table 9: Findings for Entrepreneurial Reward	52

Abbreviations

Effort-Reward-Imbalance	ERI
Overcommitment	OVC
Positive Affect	PA
Psychological Capital	PC
Job-Demand-Control	JDC
Person-Environment	P-E

1 Introduction

1.1 Problem Background

Entrepreneurial activity has the ability to create innovations and competitiveness, leading the way for new industries and job creation; which is crucial for many economies (Baumol, 1996; Mair & Marti, 2009; Schumpeter, 1934; Badal, 2010, p.1). In addition to economic benefits, ecological sustainability is an increasing concern and is viewed as an inclusive approach to economic health, social equity and environmental resilience (Winn & Kirchgeorg; Cohen & Winn, 2007). Entrepreneurs are believed to be an important driving force of this sustainable business trend as they push environmental conscious innovations that have the ability to disrupt the market and existing industrial standards whereby reducing the overall negative environmental impact of human activity (Schaltegger, 2002; McEwen, 2013; Fong et al., 2014; Hatak et al., 2015a).

However, starting up a business successfully is not an easy task and many young start-ups cease operation within their first 3 years (Baron, 2016). Due to its high risk and uncertain work environment, particularly in the early-stages (Caree & Verheul, 2012; Shepherd et al., 2010), entrepreneurship has been considered a stressful endeavor (Buttner, 1992).

The venture creation process entails many activities and roles (Gartner, 1985) which the entrepreneurs have to perform while facing high risk, uncertainty, intense workloads and high responsibility and financial insecurity (Baron et al., 2016). Immense time and efforts are demanded from the entrepreneur, including the investment of monetary as well as emotional and physical resources (Jamal, 2007, p. 250). This can be a distressing experience for entrepreneurs and can result in physical and mental strain such burnout (Jamal, 2007), where the latter is characterized by exhaustion, cynicism and low work efficacy (Stephan & Roesler, 2010; Cardon & Patel, 2015; Feldt, et al. 2013). A recent study by Hatak et al. (2015c) revealed that stress-related burnout is connected to an entrepreneur's operational performance (Hatak et al., 2015c, p.3) and similarly Wincent et al. (2008) found that role stress influences the proclivity for a venture withdrawal. These findings accentuate that if stress is not managed properly and gets out of hand, it can have detrimental consequences on the entrepreneurs and their ventures.

Nevertheless, literature on entrepreneurial stress has produced mixed findings regarding the entrepreneur's experience of stress. While many scholars argue that entrepreneurship is stressful

and can lead to health issues, very recent findings point to the entrepreneurs' ability to cope with stress in a way that makes them actually experience less rather than more stress (Baron et al., 2016). Additionally, in a study by Stephan & Roesler (2010) conducted in Germany, entrepreneurs were found to show significantly lower levels of overall negative health effects in addition to reporting higher subjective well-being and better behavioral responses to stress than other occupational groups. Hence, some scholars argue that the mere presence of "stressors during the venture creation process should not be assumed to result in higher levels of strain" (Eager et al. 2015, p.225) and that effective coping plays a pivotal role in the entrepreneur's venture process and life and should receive more attention from researchers as it is considered "one of the most perplexing research topics given the inconclusive findings across different contexts" (Uy et al., 2013, p.592).

Therefore, the goal of this paper is to understand how early-stage entrepreneurs maintain their well-being during the challenging phase of starting up a business. It is important to understand how entrepreneurs cope with stress as this enables them to continue their venture efforts to create successful businesses and eventually realize their economic potential.

1.2 Research Questions

In order to better understand the stress and coping experiences of early-stage entrepreneurs, this thesis utilized the effort-reward-imbalance (ERI) model by Siegrist. The ERI model has three main components: effort, reward and overcommitment. Work conditions with high efforts and low rewards (ERI) are considered stressful work situations which in turn can lead to stress reactions and negative health consequences for the individual (Siegrist et al., 2004). In the ERI model, overcommitment is considered an intrinsic effort or personal coping pattern to deal with stress (Siegrist et al., 2004). Individuals high in overcommitment are hypothesized to experience worse stress reactions (Van Vegchel et al., 2005). The ERI model has its roots in the organizational stress literature and has only been scarcely applied in the entrepreneurship context. Therefore, this thesis aims to use the model as a guiding framework to explore the stress and coping experiences of early-stage entrepreneurs. In order to better understand the stress phenomenon during the early phases of starting-up a business, the research questions are formulated as follows:

1. What efforts are associated with the early-stage venture creation process that pose the risk of becoming stressors?

2. What rewards does an early-stage entrepreneur perceive and receive in return for their efforts?
3. How do entrepreneurs cope with the experience of stress in the course of starting a business?
4. What are the personal and venture-related consequences of a perceived effort-reward-imbalance?

In the next subsection, the methods of this thesis are briefly outlined followed by a short overview on the thesis chapter structure.

1.3 Methods

The review of literature was essential to establish a knowledgeable base and starting point for the research in this thesis paper. The systematic review methodology conceptualized by Tranfield, Denyer, & Smart (2003) and further detailed by Denyer & Tranfield (2009) was utilized for this literature review. It was selected for its particular orientation for social sciences and appropriateness for strengthening management and organizational research within established scientific principles (Denyer & Tranfield, 2009, p.687). The structure of this literature review methodology is detailed in a five step process on which this thesis' literature review was based. These five steps are illustrated in Figure 1 and subsequently described in detail to provide transparency and insight into how the process was performed.

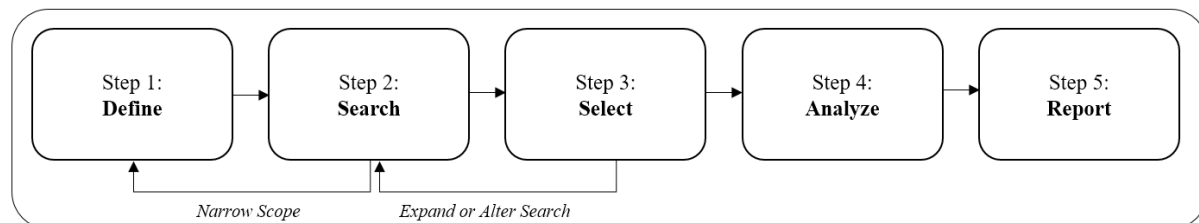


Figure 1: Systematic Literature Review Steps adopted from Denyer & Tranfield (2009)

In accordance with step one of the process, the scope of the review was first defined and fields of research identified by conducting a preliminary search of the literature. This was based on the paper's goal and influenced the development of research questions, given the entrepreneurial context. This was further reviewed by academic supervisors which clarified the existing basis in literature for the literature review, and formed the basis for the qualitative research study.

Therefore, step two was conducted to search for studies that aligned with the research questions. The search predominantly focused on academic publications, but also considered other sources

such as academic books, articles, and conference proceedings. This was in line with suggestions from Denyer & Tranfield (2009) to be inclusive when performing the search with the aim of locating as much relevant research as possible (p.684). The search primarily utilized electronic databases such as EBSCO and Google Scholar, and employed a mixed approach of individual search terms and grouping of keywords by leveraging useful search operators—truncation, proximity, exact phrase, AND, OR, and NOT—as suggested by Denyer & Tranfield (2009, p.684). While EBSCO utilizes a specific truncation operator syntax and separate OR operator for specific synonym searching, Google Scholar automatically does both with a convenient stemming algorithm, and further allows for searching within abstracts, books and other academic works in addition to journal articles. Therefore, Google Scholar was found to be very useful when exploring the appropriate social sciences and management literature where researchers have assembled a rather broad stock in more nascent fields of study (Denyer & Tranfield, 2009, p.677).

In addition to searching in the electronic databases, the methods of cross-referencing—with both forward and backward citations, and expert recommendations were employed to strengthen the search as well as identify seminal research; in line with Denyer & Tranfield (2009, p.684). Examples of the various search terms that were used in order to find relevant literature included: effort-reward-imbalance model, stress, well-being, entrepreneur, coping, health, strain, burnout, work stress, early-stage, venture process. The previously mentioned search operators were employed with these terms to create many different combinations and groups. Furthermore, to aid in the accurate and efficient collection, grouping, and structuring of the sources and workflow, the Citavi reference management software was utilized.

Step three of the literature review was conducted in a more parallel method alongside step two, as the feedback loop suggests in Figure 1 above. The leading literature in the respective fields were identified, and the abstracts, findings and key insights were scanned. This process uncovered other relevant variables and fields that were then included in the search process. The focus of the review encompassed entrepreneurship, coping, and stress literature from social sciences, psychology, managements fields. The final selection criteria for the sources were identified by means of assessing relevance to the research question, and therefore inclusion or exclusion was determined. Consideration was given to the journal ratings, but also to the number of citations. The author aimed to include recent literature no older than 10 years in an effort to utilize literature's progress

in this relatively nascent field. Nevertheless, some older publications were also included as they represented seminal theories and concepts still used in research.

In the subsequent step four, the collected sources were read, analyzed, and coded into knowledge items in the Citavi software to contrast the evidence from one study to another. This supported the interpretation of relevant information and enabled the creation of groups and identification of relationships among them. In the final step five, the literature review was structured, written, and presented in accordance with the ERI model to guide this explorative and qualitative thesis paper.

1.4 Structure

The thesis was divided into six main chapters, including this introduction. Chapter two will provide the theoretical background, which consists of a short history and presentation of the ERI model, followed by the ERI components within the entrepreneurial context, followed by consequences of an ERI or balance, and ends with a literature overview of coping and personal resources. The third chapter will give insights on this thesis methodology and explorative and qualitative research approach. The adaptive theory approach (Layder, 1998) and abductive coding are used, combining both theory and data to enrich the ERI model's use in the entrepreneurial context. Information on the data collection process as well as the sample are also described in this chapter. Next, the findings of the analysis are presented using the research questions as subheadings for guidance.

Before the concluding, a discussion chapter of the ERI model and the thesis main findings are provided. The discussion chapter also includes the author's proposal of the ERI model extension for the entrepreneurial context. Lastly, contributions derived from the results and discussion are provided for theory and practice and ends with important limitations and suggestions for future research.

2 Theoretical Background

Well-being at work is gaining research interest due to the changes in work conditions in recent years. Jobs in the 21st century are not only defined by their physical demands but also by the mental and emotional demands. As a result, well-being at work cannot be determined by simply counting the absence of accidents or occupational diseases as done in the past (Fahlén, 2008, p. 3). Furthermore, job security is not what it used to be anymore which is reflected in higher part-time and fixed-time jobs. Such work conditions and environments have been associated with

occupational health issues (Siegrist, 2010). Given these changes, researchers have noted that work-related stress cannot be identified by physical or biological measurements (Siegrist, 2010) and have called for the creation of improved models of stress in order to capture stressful job characteristics.

The most prominent approach to stress at work is the person-environment (P-E) fit approach and has been widely used to research occupational stress and strain relationships. Although different versions and interpretations exist, the P-E approach is characterized by “a lack of correspondence between characteristics of the person (e.g. abilities, values) and the environment (e.g. demands, supplies). This lack of correspondence is hypothesized to generate deleterious psychological, physiological, and behavioral outcomes, which eventually result in increased morbidity and mortality.” (Edwards & Cooper, 1990, p.293). The assumption of the model is that both the person as well as the organization will be more effective “when the attributes of person and of situational environment match or are at least highly congruent” (Shin, 2004, .726). These could be a congruence between the person’s skills and the organization’s requirements. Compared to a mismatch, a good fit between the person and the work environment predicts job satisfaction, career success and better employee retention (Shin, 2004).

Based on this general P-E fit concept, the transactional model of stress and coping (e.g. Lazarus et al., 1978, Lazarus & Folkman, 1984), the job-demand-control (JDC) model (Karasek, 1979), the effort-reward-imbalance (ERI) model (Siegrist, 1989) and several other models have been created, studied and tested. Before providing reasons for choosing the ERI model as this thesis’ guiding framework, the other models will briefly be described.

The transactional model of stress and coping defines a stressful situation as “a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being” (Lazarus & Folkman, 1984, p.19). Coping is a personal response to manage the demands placed on the individual and can be considered a more “situational approach” and refers to coping strategies “enacted in reference to the *past* (i.e., selected based on the efficacy of previous coping strategies) and the *present* (i.e., in response to the identification of actual stressors)” (Eager et al., 2015, p. 257). The transaction is between the demands and personal resources that either match or exceed a person’s ability to cope with stress. The personal interpretation is a stronger determinant of strain than the stressful situation itself (Lazarus & Folkman, 1984).

The JDC model postulates that “control buffers the impact of job demands on strain and can help enhance employees’ job satisfaction with the opportunity to engage in challenging tasks and learn new skills (Karasek, 1979)” (Kain & Jex, 2010, p.237). The JDC model considers the immediate psychosocial work environment, which is defined by the “interaction between a person’s cognitions, emotions, and behaviors and his or her social environment” (Siegrist et al. 2004, p.1484). It further examines the interplay of the model’s components “‘job demands’, ‘job control’, and ‘social support at work’” (Calnan et al., 2004, p.84). The hypotheses developed through this intricate interrelationship predict that “high demands with low control [...] cause a high state of job strain with the subsequent risk of psychological and physical morbidity.” (Calnan et al., 2004, p.84) and that the condition of low demand with high control on the job is unlikely to cause negative health reactions. Job control is divided into skill discretion and decision authority (Häusser et al., 2010).

Although these models have garnered wide attention and support throughout the occupational and organizational stress literature, this thesis will utilize the ERI model to understand the stress and coping process and consequences during the start-up phase. Siegrist (1996) formulated the ERI conceptual framework based on missing aspects of other theoretical models such as the P-E fit and the JDC model by Karasek. For Siegrist, it was important to add personal characteristics as well as employment conditions into the framework, as these affect the experience of stress. The model’s main components are efforts that are brought forth by the employee, occupational rewards the employee gains, as well as the personal component overcommitment (OVC). In particular, it is this more personal fine-grained approach that sets the ERI model apart from the other models. It considers individual differences in the experience of stress instead of assuming that the presence of stressors alone causes strain (Van Vegchel et al., 2002).

Hence, the reasoning behind choosing this model is based on its ability to capture the experience of the venture creation process of the early-stage entrepreneurs. Entrepreneurs can be characterized as highly motivated individuals who are risk-taking, hard-working and willing to weather the tumultuous stages of starting-up. They are willing to expend efforts in expectations of receiving certain rewards in return. Therefore, a cost and gains relationship is also likely for entrepreneurs. The model’s emphasis on personal perception as an important variable in the stress process offers room to consider the entrepreneurs’ personal dimensions and their unique perceptions of their work environment. Therefore, the ERI model appears very suitable to study the stress process of early-stage entrepreneurs. However, as the model was designed based on an employee-employer

relationship and describes its components in this particular context, it will be used only as a general guideline. Additional entrepreneurship literature will need to be consulted and reviewed to better place the model in the entrepreneurial context. Furthermore, findings from this thesis regarding early-stage entrepreneurial efforts and rewards and their perception of ERI will enrich the understanding and application of the ERI model in the entrepreneurial context.

In the following section, the ERI model's history as well as its components will be described in greater detail.

2.1 History of the ERI Model

The ERI model has been introduced by Siegrist in 1986 (Van Vegchel et al., 2015) and has since gained attention and approval among many scholars. The essence of the model lies in the reciprocity of social exchange in an employee-employer relationship (Siegrist, 1996). The model suggests that strain is caused by a perceived imbalance between the level of effort employees expend and the rewards they receive in return (Kinman & Jones, 2008). A stressful work environment is therefore characterized by prolonged high effort and low rewards. This situation can be intensified by a personal coping pattern of OVC. Although employees could choose to escape this toxic environment by switching the job, some individuals might not even be consciously aware of the negative impacts of an ERI (Van Vegchel et al., 2005). Other reasons why individuals remain in their jobs are “(1) there is no alternative choice on the labor market, (2) for strategic reasons (e.g., expecting future gains), and (3) when the employee is characterized by a motivational pattern of excessive work-related overcommitment.” (Van Vegchel et al., 2005, p. 1118).

This current ERI model (see Figure 2 on the following page) including the intrinsic component OVC is used in this paper. In this revision of the ERI model, Siegrist emphasized the intrinsic personal dimension of OVC, which was previously considered a part of the effort concept (Van Vegchel et al., 2005). According to van Vegchel et al 2005, “reasons for this are not reported in the literature” (p.1119). However, singling out OVC as an independent concept stresses its importance and impact on the individual's experience of stress, efforts, as well as perceived compensation for their efforts. Siegrist (2004) also points out that disentangling the intrinsic from the extrinsic components is beneficial to conceptualizing the complex person-work environment (Siegrist, 2004, p. 1494). Furthermore, some studies were able to find that OVC itself is a predictor

of cardiovascular disease and associated with impaired job well-being (see review by Van Vegchel et al., 2005).

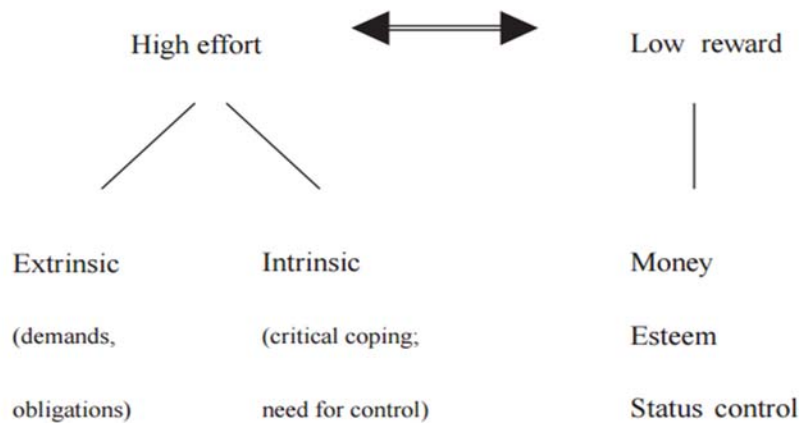


Figure 2: Original ERI model (Siegrist, 1996, p.30. Graphic from (Van Vegchel et al., 2005, p.1119)

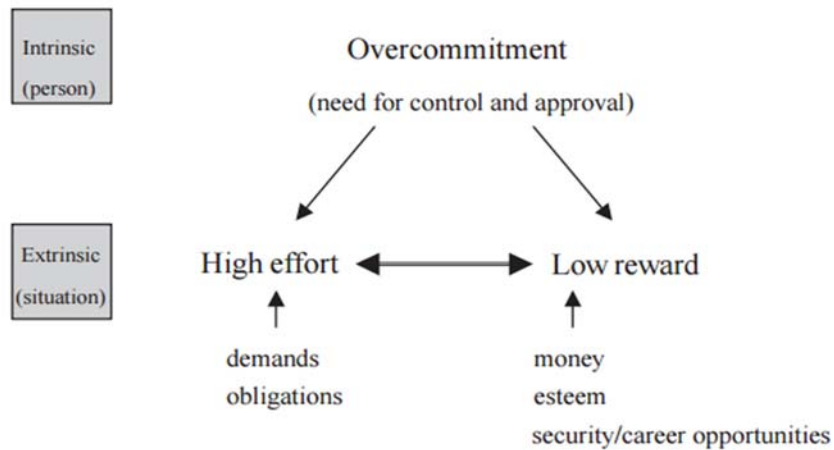


Figure 3: Current ERI Model (SIEGRIST, 1999, P.40).

Siegrist (2004) formulated three assumptions based on the model's components (Van Vegchel et al., 2005).

1. "The extrinsic ERI hypothesis: high efforts in combination with low rewards increase the risk of poor health" (Van Vegchel et al., 2005, p.1117)
2. "The intrinsic overcommitment hypothesis: a high level of overcommitment may increase the risk of poor health" (Van Vegchel et al., 2005, p.1117)
3. "The interaction hypothesis: employees reporting an extrinsic ERI and a high level of overcommitment have an even higher risk of poor health." (Van Vegchel et al., 2005, p.1117)

Since the introduction of the ERI-questionnaire in 1996, the effort-reward-imbalance is usually measured via a standardized, psychometrically validated Likert-scale-based questionnaire using separate scales for effort, reward and overcommitment (OVC). The respondents are asked to rate their personal perception and experience of efforts, rewards and overcommitment. These scores then are compared to outcome measures such as health indicators (Siegrist, 2004, p.1487). So far, the ERI model has gained high approval in literature and many of the studies were able to provide support for the model's assumptions (van Vegchel, et al. 2005).

In their review, Van Vegchel et al. (2005), considered 45 ERI studies and found general support for the usefulness of the ERI model to explain various health related outcomes. The most evidence and support exists for the extrinsic hypothesis, where high effort and low rewards predict strain reactions. The intrinsic hypothesis has also gained support, albeit with mixed results, which provides some support that overly committed individuals are more prone to stress reactions. The interaction hypothesis has not been examined broadly and has not gained acceptable support at that point. A word of caution was offered by the authors as well as de Jonge et al. (2008) in interpreting the ERI indices effort and OVC as they may intermingle in their descriptive representation, which could explain some of the insignificant findings for the interaction theory.

In regards to job related well-being and onset of burnout, most studies were able to proof that “working during ERI was related to poor job-related well-being, especially higher (emotional) exhaustion” (van Vegchel, et al. 2005, p.1124). The authors note that the job-related outcome exhaustion is of particular importance and may be a vital mediator in explaining ERI related cardiovascular diseases.

OVC by itself (intrinsic hypothesis) also appeared to be more influential in context to job-related well-being and burnout and found support in both studies which investigated the intrinsic hypothesis (Van Vegchel et al., 2005).

Lastly, Van Vegchel et al. (2005) point out that the studies they reviewed mainly featured male respondents in regards to cardiovascular diseases and that many studies examined job-related well-being of predominantly human service sector populations. Although the model has been shown to produce robust findings and is able to explain adverse health effects in some occupational groups, its applicability in the entrepreneurial context has been very scarce (see Hatak et al., 2015b). As suggested by literature, it is important to consider the work context when using the ERI model to

investigate the stressful job characteristics and the entrepreneurial work environment differs greatly from that of the often studied human service population. Before going into greater detail on the entrepreneurial context, the ERI model's components will be presented.

2.1.1 Efforts

Efforts can be broadly distinguished into intrinsic and extrinsic efforts. **Intrinsic efforts** describe an individual's personal immersion into work to respond to work demands. They elicit high energy expenditures from the employees even in situations where their efforts remain unrewarded. This frustrated yet continued release of efforts can cause emotionally distressing states, such as prolonged feelings of anger, hopelessness and sleep disturbances (Siegrist, 1996, p.32). Intrinsic efforts compared to extrinsic efforts originate from within the person which are mobilized to cope with certain work conditions.

Extrinsic efforts are often specific to the work context and can therefore vary depending on the occupational group and their work environment (Siegrist, 1996; Van Vegchel et al., 2002; Van Vegchel et al., 2005). Efforts include "constant time pressure due to a heavy workload, a lot of interruptions and disturbances in the job, a lot of responsibility in the job, pressure to work overtime, and increase in job demands over time" (Siegrist et al., 2004, p.1496). These demands are generated from external sources that create work pressures the individual is confronted with at work.

The presence of high efforts is an important precursor for negative impacts on health. Literature suggests, that the effects of high efforts alone could be linked to strain reactions such as exhaustion (Van Vegchel et al., 2002).

As early-stage entrepreneurs or self-employed in general are not part of a larger organization and do not have superiors, set targets or work duties, efforts in the entrepreneurial context are not as well understood and therefore need to be explored.

2.1.2 Rewards

Based on the concept of reciprocity, expended efforts have to be compensated with appropriate rewards. Especially in the employer-employee setting, such reciprocity is reflected in work contracts and social exchange (Siegrist, 1996). However, according to Siegrist (2004), an ongoing feeling of being unappreciated or treated unfairly based on the lack of expected rewards negatively affects an individual's ability to buffer "recurrent reward deficiency" (p.1485). Especially when

an employee continuously faces difficult and demanding work situations and is not credited for it, the individual will start suffering from an ERI. Siegrist included three kinds of societal rewards in his model, namely financial and job promotion rewards, esteem and job security.

Table 1: ERI model rewards (Siegrist, et al., 2004)

Esteem	Job Security	Job Promotion/Financial
<ul style="list-style-type: none"> • Respect from colleagues • Respect from supervisor • Treated Fairly at work • Adequate Support/Help in difficult situations • Efforts receive deserved respect and prestige 	<ul style="list-style-type: none"> • Fear of undesirable change in work situation (-) • Poor job security (-) 	<ul style="list-style-type: none"> • Occupation reflects training and education • Efforts receive adequate work prospects • Efforts are reflected in adequate salary/income

Rewards have usually been measured as a global reward indicator encompassing all three rewards into one (Van Vegchel, 2005). However, a compounded indicator assumes that the rewards are weighted equally, which may not be the case for every occupational group (Van Vegchel et al., 2002). Van Vegchel et al. (2002) found that disentangling the reward composite and analyzing each reward individually, yielded more fine-grained results. In fact, they found that for health care workers, the reward esteem was of particular importance in predicting strain reactions (Van Vegchel et al., 2002). Therefore, they recommend that making a distinction between specific rewards might be a beneficial extension of the ERI model (Van Vegchel et al., 2002, p. 417).

Due to the explorative research design, it is possible to identify certain rewards in the entrepreneurship context that could be of high importance to explain an entrepreneur's effort-reward relationship.

2.1.3 Overcommitment

OVC is the third crucial component of the ERI model and was used to formulate the intrinsic and interaction hypothesis, highlighting its possible significant effects on stress reactions. OVC is a

personal coping pattern and is defined as the “cognitive-motivational pattern of coping with demands” and is characterized by “exaggerated efforts beyond what is formally needed [...] and a high need for approval” and need to be esteemed (p.1485). It has been associated with “poorer self-rated health, higher work-related stress (Rennesund & Saksvik, 2010) and higher burnout” (Feldt et al., 2013, p.66). Overcommitted employees expose themselves more often to high demands at work which could make them more prone to feelings of frustration based on their decreased perception of rewards.

In the latest version of the ERI, OVC is described as an inability to withdraw from work and disproportionate irritability (Van Vegchel et al., 2005). High OVC was found to be related to job-related well-being as well as to (psycho)somatic health outcomes such as depression (Van Vegchel et al., 2005). Although OVC is considered a key distinguishing component of the ERI model, the role of OVC remains ambiguous (Van Vegchel et al., 2005). It is not certain if it is a moderator, a direct influence on health, a direct influence on ERI but not health, or a result of ERI (Van Vegchel et al., 2005).

2.2 ERI in the Entrepreneurial Context

Entrepreneurship is about the creation of new businesses through means of successfully commercializing innovations. The actors are entrepreneurs who work on the realization of identified market opportunities (Baron, 2006). This paper defines an entrepreneur as someone who innovates while creating and taking “full authority and control of the venture (Buttner, 1992, p.223).” This definition is further expanded by Churchill & Lewis growth stages to tailor it to the early-stage context. Therefore, early-stage entrepreneurs are defined as entrepreneurs who are currently in stage 1 or 2 of their growth process which is characterized by activities related to existence and survival (see Figure 4 on the following page).

Characteristics of Small Business at Each Stage of Development

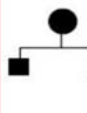
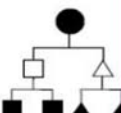
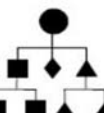
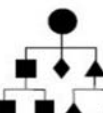
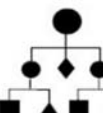
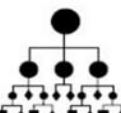






	Stage I Existence	Stage II Survival	Stage III-D Success- Disengagement	Stage III-G Success- Growth	Stage IV Take-off	Stage V Resource Maturity
Management style	Direct supervision	Supervised supervision	Functional	Functional	Divisional	Line and staff
Organization						
Extent of formal systems	Minimal to nonexistent	Minimal	Basic	Developing	Maturing	Extensive
Major strategy	Existence	Survival	Maintaining profitable status quo	Get resources for growth	Growth	Return on investment
Business and owner ²						

Figure 4: Characteristics of Small Business at Each Stage of Development. Graphic from Lewis & Churchill (1982)

This means that they are still looking to find or grow their customer base, are fine-tuning their business model and product or service offering; and are operating either off of savings, initial funding, or first sales.

The creation of new organizations is enacted by the entrepreneur or the founding team and encompasses various activities related to the venture creation process. Table 2 below provides a summary of activities identified by Gartner (1985) and Carter et al. (1996). These activities were used to create the entrepreneurial grid used for this paper's priming exercise during the data collection process.

Table 2: Venture Creation Activities adopted from Gartner (1985) and Carter et al. (1996)

Gartner (1985, p.702)	Carter et al. (1996, p.158)	
Locate business opportunity	Devoted full-time	Asked for funding
Accumulate resources	Organized start-up team	Saved money to invest
Builds an organization		Invested own money
Markets products and services	Prepared plan	Hired employees
Produces the product	Applied for license/ patent	Rented facilities/equipment
Responds to government and society	Formed legal entity	Looked for facilities/equipment

Based on this paper's occupational group and their work context, efforts, rewards as well as the concept of overcommitment could differ from those identified in the ERI model. Entrepreneurs differ from the regular working population (Cardon & Patel, 2015) in terms of personal characteristics, their working environment, motivations, roles and tasks (Baron, 2013). Therefore, the ERI model's components will be enriched by reviewing entrepreneurial literature in order to match the entrepreneurship-specific context.

2.2.1 Entrepreneurship-specific Efforts

Entrepreneurs fulfill various duties and enact different roles necessary to set-up and run a business, e.g. allocating financial and human resources, managing production, business operations and generating sales all the while maintaining personal well-being and work engagement (Sherman et al., 2015). Some of the already identified efforts of the ERI model have similarities to entrepreneurial efforts: "long working hours, high time pressure, role conflicts, [...] reacting to many economic demands and, eventually, to cope with past failures" (Rauch et al., 2007, p.1). Other efforts are associated with loneliness, immersion in business, people problems, and need to achieve (Volery & Pullich, 2010 p.7; previously identified by Boyd & Gumpert, 1983). Again, some of these efforts exhibit great resemblance to Siegrist's components of effort and OVC, therefore lending support for using the ERI model in the entrepreneurial context of this thesis paper.

However, in order to gain a better understanding of early-stage entrepreneurs, this paper will review further efforts associated with entrepreneurship studied in literature to identify any additional entrepreneurial efforts.

Some of the efforts examined in the ERI model are reflected in common **role stressors** (role conflict, role ambiguity, and role overload) (Rizzo et al., 1970; Wincent et al., 2008). Role stressors have recently gained more attention in the entrepreneurship domain and have been used to study an entrepreneur's stress experience (see for example Shepherd et al., 2010; Wincent et al. 2008; Buttner 1992). As entrepreneurial start-up teams are usually small, often even comprised of only one founder, the entrepreneur has to fulfill many different roles and tasks required to operate a business. Looking at the operationalization of role stressors in the entrepreneurial context allows for the identification of additional efforts.

Role conflict reflects efforts such as inconsistent demands or requests by venture stakeholders, where the entrepreneur is unable to tend to both needs equally well (Wincent et al., 2008 p. 239). It also means having to fulfill several roles or identities that are incongruent or incompatible to oneself and personal standards and values (Hoang & Gimeno, 2010; Rizzo et al., 1970). Role conflict might be especially applicable to single entrepreneurs or small teams, where for an example an entrepreneur with an engineering background needs to also fulfill the duties of a salesperson, marketer and business manager. Depending on how well the entrepreneur can identify with these roles, role conflict can result in the experience of stress (Hoang & Gimeno, 2010). Furthermore, demands of these different roles may be placed on the entrepreneur all at once, which could result in role overload (Hoang & Gimeno, 2010).

Therefore, **role overload** is often associated with having to fulfill many demands simultaneously (Buttner, 1992). However, this is usually beyond what an individual can handle at a time, therefore having to start making choices of either neglecting certain tasks or compromising the quality in order to complete all tasks (Buttner, 1992). Especially, the high concern for achieving quality can cause high levels of strain to entrepreneurs (Buttner, 1992).

Role ambiguity deals with uncertainty on how to follow through as an entrepreneur, e.g. knowing what expectations and responsibilities are there to fulfill, how to run the business properly and what tasks are most important to accomplish at any given point (Wincent et al., 2008). Due to a lack of supervision, entrepreneurs need to keep themselves in check, which can wear them out emotionally (Wincent et al., 2008). Therefore, role ambiguity and its dimensions are considered as an effort.

Other important efforts specific to the entrepreneurs' work environment are dealing with uncertainty, ambiguity and novelty as well as with associated failures, set-backs and temporary losses, which can induce stress (Blatt, 2009).

Furthermore, a venture's success is highly dependent on the **entrepreneur's ability to obtain finance** (Denis, 2004; Van Auken & Neeley, 1996). Finance is an especially critical resource for early-stage entrepreneurs who have to expend efforts to stay afloat during the gestation period (Uy et al., 2015; Van Auken & Neeley, 1996). They do this by investing personal resources, attracting venture capital from government sponsored sources or private venture capitalists (Brander et al., 2008), investors or business angels (Denis, 2004). Some early-stage entrepreneurs also seek support from incubation or acceleration programs for initial seed funding and other services

(Grimaldi & Grandi, 2005). Therefore, they have to put themselves up for critique by giving presentations and business pitches. Having to prove yourself over and over again may be a stressful and exhausting experience. Depending on the ease and availability of obtaining funding as well as the experience of decline and rejection, expending efforts to allocate finance could be a source of distress (Blatt, 2009).

Despite the flexibility offered by self-employment, **managing work and life** can be an effortful balancing act (Rehman & Roomi, 2012; Kinman & Jones, 2008) and can come at the cost of less family time and social activities (Cardon & Patel, 2015).

Although some of these efforts can be connected to typical venture creation activities, i.e. acquisition of finance, this thesis also aims to identify additional venture creation activities (Gartner, 1985) and their associated efforts, such as human resource management and the effort people problems. (See Table 5 for Efforts in Section 3.3, and Appendix B for Overview on Stress Literature)

2.2.2 Entrepreneurship-specific Rewards

Although entrepreneurs enter self-employment in expectation of certain rewards, standard occupational rewards may not mirror the reward expectations of early-stage entrepreneurs. Holland & Shepherd (2013) pointed out that entrepreneurs are “not driven solely by extrinsic rewards” (p.335), but also by intrinsic rewards derived from satisfactions gained from running one’s own business, such as “independence, recognition, the welfare of others, autonomy, and family security” (p.335) which in turn could serve as compensation for their efforts. Furthermore, in the case of early-stage ventures, most businesses undergo a gestation period in which they do not obtain positive cash flow until after the third year or even later, due to high initial costs and a steep learning curve (Uy et al., 2015, p.377). Furthermore, most entrepreneurs enter self-employment knowing that starting a business is a high-stress and high-risk endeavor (Baron et al., 2016) – or in terms of the ERI model, expect rather low job security and financial reward. Especially during the early-stages, extrinsic rewards such as financial compensation may be scarce; therefore, the entrepreneur must rely on other sources of rewards to maintain their motivation and balance their efforts.

In fact, Sherman et al. (2015) found that entrepreneurs value work that is meaningful and purposeful. These are important psychological resources to persist with the venture creation process especially when financial and human resources are lacking (Sherman et al. 2015, p.19).

They further found that entrepreneurs who value intrinsic fulfillments perceive a greater level of well-being.

This is in line with Ryan & Deci (2000) self-determination theory and assumption that people strive to fulfill basic psychological needs such as competence, autonomy, and relatedness and that the achievement of such is related to well-being (p.74-75). They argue that individuals who place importance on intrinsic aspiration, instead of extrinsic, “are associated with well-being indicators such as self-esteem, self-actualization, and the inverse of depression and anxiety” (Ryan & Deci, 2000, p.75). Examples for intrinsic aspirations are affiliation, personal growth, and community, which are directly related to fulfilling the basic needs. However, goals such as wealth, fame, and image only indirectly satisfy these needs and hardly influence well-being (p.75). The authors point out that culture, as well as upbringing, may play a role in the interpretation and importance of goals; hence impacting the experience of need satisfaction and well-being (p.75).

Although one could argue that entrepreneurship is pursued based on the hopes to accumulate wealth (extrinsic aspirations), intrinsic aspirations could just be as relevant and important to them (Sherman et al., 2015). (See Table 6 for Rewards in Section 3.3)

2.2.3 Overcommitment in the Entrepreneurial Context

OVC has a negative connotation and involves a more compulsive need to achieve, and is more related to the advent of negative feelings (Van Vegchel et al., 2005). Still, OVC, especially in its dimension of high work immersion could be a highly relevant concept for early-stage entrepreneurs, who are eager to pursue their goals and are willing to invest what it takes to see their venture succeed. Hence, OVC could play an important role in the stress process, especially in the development of (emotional) exhaustion and burnout (Van Vegchel, 2005). More positive concepts of work immersion have been considered in literature that could be relevant for entrepreneurs.

Feldt et al., 2013 define work engagement as “a positive, fulfilling, work-related state of mind that is characterized by vigour (high levels of energy and resilience while working, the willingness to invest effort in one’s work, persistence in the face of difficulties), dedication (sense of significance, enthusiasm, inspiration, pride and challenge at work), and absorption (being fully concentrated and happily engrossed in one’s work)” (p. 68).

This concept of work engagement has some resemblance to the definition of the motivational feeling of entrepreneurial passion given by Gielnik et al. (2015): “[...] intense positive emotions, similar to excitement and elation...” (p.5) that are reflected in the entrepreneur’s efforts such as “working hard on entrepreneurial tasks “(p.3). Entrepreneurial passion similar to OVC, has been linked to effort mobilization or even the results of entrepreneurial efforts, but is associated with positive effects on emotions (Gielnik et al., 2015). Cardon et al. (2009) conceptualized entrepreneurial passion as “consciously accessible, intense positive feelings experienced by engagement in entrepreneurial activities associated with roles that are meaningful and salient to the self-identity of the entrepreneur” (Cardon et al., 2009, p.517).

All concepts could be pertinent to entrepreneurs, although compared to employees, entrepreneurs might not increase their efforts to attain more esteem from superiors or co-workers, but their increased ambitions are more tied to the intrinsic drive to move their business forward.

(See Table 7 for OVC in Section 3.3)

2.2.4 ERI and Consequences for the Entrepreneur and their Venture

During the process of starting up a business, the entrepreneurs’ different efforts are expended and various rewards realized. However, due to uncertainty, ambiguity, and novelty during the early-stages and the associated longer learning curve (Uy et al., 2015), efforts may remain unrewarded for a while, which could cause an imbalance.

This section provides a short overview of effort-reward balance/imbalance and its possible consequences for the entrepreneur and their venture. Venture performance can be assessed in terms of financial and operational dimensions, where financial indicators include measures of growth (e.g. employees, increase in sales, securing funding), and profitability. Operational indicators are market share, new product or service introduction, better quality, or marketing effectiveness (Hatak et al., 2015b). Although the financial performance might be lacking behind for early-stage entrepreneurs, the qualitative assessment of both financial and operational performance could be possible.

(See Appendix B for a collection of relevant theory of entrepreneurial stress)

Balance for Well-being

Although entrepreneurs rarely view their personal health as a valuable contributor of their venture's success (Volery & Pullich, 2010), personal well-being is crucial for fulfilling basic human cognitive and emotional functions that are necessary for an entrepreneur's continued work engagement and enacting the entrepreneurial process (Hatak et al., 2015b; Feldt et al., 2013; Uy et al., 2013). Therefore, maintaining a healthy balance between efforts and rewards is important for an entrepreneur.

Ryan & Deci (2001) described well-being as “a complex construct that concerns optimal experience and functioning” (p.141). Well-being has often been evaluated based on subjective psychological well-being, encompassing “an individual's overall satisfaction with their lives—their overall personal happiness” (Baron et al., 2016 p.18; Sherman et al., 2015; Ryan & Deci, 2001). Therefore, for this paper's purposes well-being is defined in its understanding of “overall life satisfaction and happiness.” In addition, this paper will consider subjective well-being dimension presented by Ryff (1989), who proposed descriptive operationalization of well-being dimensions, such as self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth. (See Appendix D for her dimensions and descriptions).

For entrepreneurs, the importance of maintaining well-being becomes apparent in studies emphasizing the positive influence of well-being on performance. Well-being is related to “higher work productivity, personal income, career success, and job satisfaction, as well as greater breadth and quality of social relationships and social networks (Pinquart & Sorensen, 2000)” (Baron et al., 2016 p.18.).

Effort-Reward-Imbalance

The sustained experience of ERI describes a stressful work situation (Siegrist, 2010). In order to remain close to the ERI model, stress will be defined as the experience of high efforts and low rewards. Experiencing stress can cause “illness (Ivancevich & Matteson, 1980), exhaustion and fatigue (Van Yperen & Janssen, 2002), [...] difficulties falling asleep, restless nights, radical changes in appetite, and irritability (Brody, 1981; Brody, Preut, Schommer, & Schurmeyer, 2002)” (Cardon & Patel, 2015, p.384).

Furthermore, prolonged ERI can manifest itself in the emergence of burnout which can be detrimental to an entrepreneur's personal health as well as operational firm performance (Hatak et

al., 2015c). Burnout can be the result of prolonged strain reactions and is often measured using the (general) Maslach Burnout Inventory (Maslach et al., 1997; Bakker et al., 2002). Its critical dimensions are emotional exhaustion, reduced personal efficacy, and cynicism. It has been argued that emotional exhaustion is significantly related to the onset of burnout and often considered the first step in developing the syndrome (Shepherd et al., 2010).

Yet, the experience of stress might still differ amongst entrepreneurs. Stressful events and their effect depend on the entrepreneur's designation as being a threat (negative) or a challenge (positive) (Eager et al., 2015; Schwarzer & Taubert, 2002). Exposure to stress therefore does not automatically lead to detrimental results, and instead could also increase "adrenaline (Dienstbier, 1989) [...] heightened performance levels [...]" (p.385) and "toughen up", as repeated exposure to stress increases the entrepreneur's tolerance both behaviorally and physiologically (Cardon & Patel, 2015, p.285).

Stress does not only impact the entrepreneur but could consequently extend to venture performance. There is empirical evidence that stress-related burnout is related to operational performance, but not to financial performance (Hatak et al., 2015c). This is in line with Shepherd et al., 2010, which found that burnout was negatively related to entrepreneur's venture commitment and organizational satisfaction (p.76), which makes burnout a particular threat to early-stage entrepreneurs, whose ventures and their success greatly depend on the entrepreneur continued work engagement. Similarly, Rauch et al. (2007) found that strain negatively affects satisfaction in the long run. Unsatisfied entrepreneurs might consider to withdraw from their ventures as their commitment to their ventures lessons (Shepherd et al., 2010).

Surprisingly, Rauch et al. (2007) also found that strain was a positive predictor of long-term survival. The researchers conclude that "effects of strain on performance are long-term" (p.4) and that although there is a presence of stress, it may not result in negative consequences on the business. This is echoed by Cardon & Patel (2015) whose findings underscore an existence of stress in an entrepreneur's life. Yet, despite the experience of greater stress compared to employees, stress was positively related to income, albeit at the cost of physical health. They also found that positive affect (PA) was a mediator between stress and income and stress and personal health. PA mitigated the negative impact of stress on personal health but reinforced the relationship between stress and income (Cardon & Patel, 2015). When considering the ERI model's component

OVC, an OVC could also explain some of the positive results of stress on venture performance, as entrepreneurs continue to expend efforts in order to elicit rewards.

Findings of mediators between stress and strain reactions such as Cardon & Patel (2015) indicate that coping and personal resources play an influential role in the stress process. As this thesis is interested in exploring how entrepreneurs cope with the experience of stress to understand how entrepreneurs can maintain their well-being, the next section will continue with a literature overview of coping.

2.3 Coping and Personal Resources in the Entrepreneurship Context

Siegrist had already touched upon intrinsic efforts to cope with demands. However, the only component considered in the ERI model is OVC. However, OVC is thought of as an enhancer of an ERI and related to negative health consequences. Therefore, other coping mechanisms apart from overcommitment, are missing, which could mitigate strain reactions instead of enhancing them. Effective coping could help explain why entrepreneurs persist under high levels of stress and continue with their business creation with high work engagement. Therefore, coping is a crucial component for entrepreneurial well-being and venture pursuit (Örtqvist et al., 2007). Hence, coping and other personal resources that protect the entrepreneur from negative health consequences and foster their well-being will be reviewed and later used in the analysis in conjunction with the ERI model.

Coping will be defined as an individual's mental, cognitive, and behavioral (re)actions to conquer stressful internal and external demands detrimental to one's well-being and goal pursuit (see Folkman & Moskowitz, 2004; Patzelt & Shepherd, 2011). There are coping behaviors and mechanisms an entrepreneur can actively engage in to address stress (Drnovsek et al., 2010; Patzelt & Shepherd 2011; Feldt et al., 2013; Uy et al., 2013), as well as individual tendencies and personal characteristics that shield an entrepreneur from the negative effects of stress (Baron et. al., 2013; Ryan & Deci, 2001). Conversely, personal characteristics may increase an individual's vulnerability to stress, such as self-critical perfectionisms or low self-esteem (Dunkley et al., 2003), just as some coping behaviors could result in worsening the effects of stress on health (e.g. smoking, alcohol) (Buttner, 1992; Uy et al., 2013).

Table 3 on the following pages provides an overview of the coping literature reviewed but then will shortly be described to the reader in the subsequent pages.

Table 3: Coping Literature Overview

Author and Title	Theoretical Lens and Important Variables (Coping)	Hypothesis/ Assumptions	Key Findings and Discussion
Buttner, E. H. (1992). Entrepreneurial stress: is it hazardous to your health?	Tension Discharge Rate (TDR): The ability to leave work worries at the office at the end of the day	Entrepreneurs who are able to leave work worries at office report fewer health problems.	The results show that entrepreneurs who are able to leave work -worries at the office experience fewer health problems
Cardon, M. S.; Patel, P. C. (2015): Is Stress Worth it? Stress-Related Health and Wealth Trade-Offs for Entrepreneurs.	<p>Positive Affect (PA) as a mediator of the consequences of stress on personal income and physical health.</p> <p>Positive affect (PA): “the dispositional tendency to experience positive emotions across situations and time (Perrewé & Spector, 2002; Zellars et al., 2006)” that helps individuals to be “lively, sociable and often in a positive mood” (Weiss & Cropanzano, 1996, p. 8). (Cardon & Patel, 2015, p.386). Experiencing high energy, pleasurable engagement, and alertness.</p>	<p>Stress will be positively related to personal income.</p> <p>PA will moderate the relationship between stress and personal health.</p> <p>PA will moderate the relationship between stress and personal income.</p>	<p>Stress is positively related to income.</p> <p>Reinforcing effect of PA on relationship between stress and income. PA mitigates the degree of deterioration of personal health due to the experience of stress.</p> <p>PA appears to be an important aspect to entrepreneurial success (p.403) and stress-buffering resource.</p>
Baron, R. A.; Franklin, R. J.; Hmieleski, K. M. (2013): Why Entrepreneurs Often Experience Low, Not High, Levels of Stress	<p>ASA Theory (Attraction-Selection-Attrition): Entrepreneurs undergo environmental and personal selection processes, favoring entrepreneurs high in psychological capital and high in capabilities to cope with stress.</p> <p>Psychological Capital (PC): A personal resource that reflects four underlying components: self-efficacy, optimism, hope, and resilience.</p> <p>Age of the Entrepreneurs: “meta-cognitive knowledge (e.g., entrepreneurs’ self-knowledge—their understanding of their own capacity to resist stress) tends to increase with age (Kuhn, 2000).” (Baron et al., 2013 p.8)</p>	<p>Entrepreneurs’ level of psychological capital will be negatively associated with their reported level of stress</p> <p>Founding entrepreneurs’ level of psychological capital will be positively associated with their level of subjective well-being.</p> <p>Older entrepreneurs will have a more positive relationship between PC and subjective well-being.</p>	<p>The relationship between PC and stress was significant and negative.</p> <p>PC is in part indirectly (positively) related to subjective well-being through reduced levels of stress.</p> <p>“The indirect effect of psychological capital on subjective well-being (via perceived stress) is contingent on the age of the entrepreneur, such that the indirect effect increases as the age of the entrepreneur increases.” Baron et al., 2013 p.16)</p>

Author and Title	Theoretical Lens and Important Variables (Coping)	Hypothesis/ Assumptions	Key Findings and Discussion
<p>Drnovšek, M. Örtqvist, D., Wincent, J. (2010): The effectiveness of coping strategies used by entrepreneurs and their impact on personal well-being and venture performance.</p>	<p>Analyzing the relationships among the coping strategies (problem-based coping and emotion-based coping) used by entrepreneurs and a set of antecedents influencing the selection of regulatory coping strategies.</p> <p>Problem-based coping: “cognitively-based response behavior that includes efforts to alleviate stressful circumstances. Includes defining the problem, generating alternative solutions, determining the costs and benefits of such solutions, and actions taken to solve the problem.” P.195-196 More Proactive and Action-oriented, personal initiative</p> <p>Emotion-based coping: “involves behavioral responses to regulate the affective consequences of stressful events, which may include avoidance, minimization and distancing oneself from the problem.” P. 196 More passive and using avoidance tactics.</p>	<p>Entrepreneurs’ problem-based coping is positively related to their personal well-being. And venture performance</p> <p>The relationship between entrepreneurs’ problem-based coping and personal well-being is stronger than relationship between entrepreneurs’ emotion-based coping and personal well-being.</p>	<p>Problem-based coping facilitates well-being and venture performance. “ When entrepreneurs engage in emotion-based strategies they seem to increase the self-knowledge they need to start subsequent ventures and facilitate learning from failure.” p.213 Entrepreneurs who started with higher start-up capital were more likely to use emotion-based coping than those who started their ventures with lower initial capital. p.212 Entrepreneurs who had lower perceived role centrality and were part of a larger founding team were more inclined to use emotion-based coping than those who started their venture in smaller teams. p.212</p>
<p>Patzelt, H. & Shepherd, D. A. (2011): Negative emotions of an entrepreneurial career. Self-employment and regulatory coping behaviors</p>	<p>Drawing on the literature on role requirements and role characteristics, the authors developed a model of the regulation of the negative emotions of career pursuit and suggest that the self-employed more readily accept the negative emotional consequences of their career choice and/or learn to cope with these emotional consequences. P.226 Role Characteristic of Self-Employed: Decision Autonomy – freedom to organize the work and their time. Ability to counterbalance work requirements and experience fewer negative emotions from work. Problem-based and Emotion-based Coping Negative Emotions: stress, loneliness, fear of failure</p>	<p>Self-Employed will report fewer negative emotions than those who are employed</p> <p>Using either type of coping style will result in the reporting of fewer negative emotions.</p>	<p>There is a direct and negative influence of being self-employed on the experience of negative emotions. p.233 →Self-employment provides an environment for effectively coping with negative emotions. p. 234 Both, problem-focused coping and emotional-focused coping are negatively related to the reporting of negative emotions. Both types of coping can and is utilized by the entrepreneur to deal with stress.</p>

Author and Title	Theoretical Lens and Important Variables (Coping)	Hypothesis/ Assumptions	Key Findings and Discussion
<p>Uy, M.A.; Foo, M. D.; Ilies, R. (2015):</p> <p>Perceived progress variability and entrepreneurial effort intensity. The moderating role of venture goal commitment</p>	<p>Process Approach to study the predictors of sustaining effort/remaining engaged among early stage entrepreneurs. Focus on the relationship between perception of venture goal progress and entrepreneurial effort intensity and relationship of progress variability over time with effort intensity. →</p> <p>Perceived, subjective progress: self-evaluation or appraisal of an individual's success in pursuing a particular goal. P. 9</p> <p>Experiencing progress on a particular goal is a strong predictor of people's motivation to remain engaged in the goal.</p>	<p>Hypothesis 1: Within entrepreneurs, momentary perceived progress positively predicts entrepreneurial effort intensity across time.</p> <p>Hypothesis 2: Within entrepreneurs, weekly perceived progress variability negatively predicts entrepreneurial effort intensity across time.</p> <p>Hypothesis 3: Venture goal commitment moderates the negative relationship between perceived progress variability and entrepreneurial effort intensity, such that the relationship between perceived progress variability and entrepreneurial effort intensity will become less negative as venture goal commitment increases.</p>	<p>Hypothesis 1 fully supported.</p> <p>Hypothesis 2 supported.</p> <p>Hypothesis 3 supported.</p> <p>Motivation consists of two processes: goal setting and goal striving. P.26</p> <p>The results of our study supported our prediction that perceptions of progress fuel entrepreneurial effort intensity. P.26</p>

Author and Title	Theoretical Lens and Important Variables (Coping)	Hypothesis/ Assumptions	Key Findings and Discussion
<p>Uy, M. Foo, M.D., Song, Z. (2013): Joint effects of prior start-up experience and coping strategies on entrepreneurs' psychological well-being</p>	<p>Drawing from coping and entrepreneurship literature, the relationship between active and avoidance coping on psychological well-being (PWB) is investigated. The moderating role of prior start-up experience is studied.</p> <p>Personal Well-being: equivalent to mental health, overall psychological condition required for effective overall human functioning.</p> <p>Active coping: also called approach coping, problem-focused coping, task-oriented coping</p> <p>Avoidance Coping: emotion-focused coping, temporarily disengagement to seek relief from unpleasantness and stressful situations. Take breaks to rejuvenate</p> <p>Prior start-up experience: can offer a sense of control in times of stress, source of knowledge to help decide and act in moments of uncertainty and time pressure (p.13)</p>	<p>Hypothesis 2: Prior start-up experience will moderate the relationship between the entrepreneur's use of avoidance coping and (a) immediate term</p> <p>Hypothesis 3: The entrepreneur's combined use of active and avoidance coping will be positively related to PWB over the extended period.</p>	<p>H2: Prior start-up experience is positively related to the relationship between avoidance coping's and well-being.</p> <p>H3: Using both coping methods was positive and significant. This suggests that avoidance coping is only positively related to PWB if it is combined with active coping. There needs to be a balance between the two, otherwise too much and solely using avoidance coping will decrease PWB.</p> <p>Number of years of prior start-up experience was not relevant.</p> <p>Entrepreneurs' active coping related positively to PWB (both immediate and extended terms) regardless of previous start-up experience.</p>
<p>Feldt, T., Huhtala, M., Kinnunen, U., Hyvönen, K., Mäkikangas, A., & Sonnentag, S. (2013). Long-term patterns of effort-reward imbalance and over-commitment: Investigating occupational well-being and recovery experiences as outcomes.</p>	<p>ERI Model & Overcommitment (OVC)</p> <p>Investigation of two occupational well-being outcomes (Burnout and work engagement) and investigation of experiences helping recovery from strain.</p> <p>Outcomes:</p> <p>Burnout: "feelings of exhaustion (overstrain, tiredness, fatigue), cynicism (an indifferent and distant attitude towards work, disengagement from work, lack of enthusiasm), and lack of</p>	<p>Research question 1: What kind of long-term patterns of ERI and OVC can be identified in the sample of managers examined in the present study? P.67</p> <p>Research question 2: Do managers who have different long-term ERI-</p>	<p>Identification of 5 long-term patterns of ERI and OVC:</p> <p>Pattern 1: Low ERI and moderate OVC</p> <p>Pattern 2: Low ERI and low OVC</p> <p>Pattern3: High ERI and high OVC</p> <p>Pattern 4: High ERI and moderate OVC (both decreasing)</p>

	<p>professional efficacy (low competence, unsuccessful achievement, low accomplishment) (Maslach, Jackson, & Leiter, 1996).” (p.67-68)</p> <p>Work engagement: “defined as a positive, fulfilling, work-related state of mind that is characterized by vigour (high levels of energy and resilience while working, the willingness to invest effort in one’s work, persistence in the face of difficulties), dedication (sense of significance, enthusiasm, inspiration, pride and challenge at work), and absorption (being fully concentrated and happily engrossed in one’s work) (Bakker, Schaufeli, Leiter, & Taris, 2008; Schaufeli, Salanova, Gonzalez-Roma’, & Bakker, 2002).” (p.68)</p> <p>Recovery Processes: (previously identified by Sonnentag & Fritz (2007)) based on the Effort-Recovery Model (Meijman & Mulder, 1998) and the Conservation of Resources theory (Hobfoll, 1998)</p> <p>psychological detachment: disengaging mentally from work during off-job time. P.68</p> <p>relaxation: low activation (decreased sympathetic activation) and increased positive affect. p.68</p> <p>mastery during off-job time: pursuing mastery-related off-job activities (e.g. taking a language class or learning new sports) that offer an individual challenges or opportunities to learn new skills. P.68</p> <p>control during off-job time: applied to leisure time refers to control over such decisions as which activity to pursue, and when and how to pursue this chosen activity. P.68</p>	<p>OVC patterns differ in regard to their occupational well-being? P.67</p> <p>Research question 3: Do managers who have different long-term ERI-OVC patterns differ with regard to recovery experiences? P.68</p> <p>Thus, with these recovery experiences (or processes) well-being is maintained. These experiences have not been investigated previously in light of the ERI model. P.68</p>	<p>Pattern 5: High ERI (increasing) and moderate OVC (curv.)</p> <p>increasing burnout was found in pattern 5. P.75</p> <p>The highest psychological detachment was reported among those in low-risk pattern 2. P.79</p> <p>whereas the lowest detachment was reported in high-risk pattern 3. P.79</p> <p>Similar observations were made for relaxation, which was highest in pattern 2 and lowest in pattern 3. P.79</p> <p>Control was found to be highest in low-risk pattern 2.</p> <p>No significant differences in mastery experiences emerged between the long-term ERI-OVC patterns.</p>
--	--	---	---

Two dominant styles of coping are **problem-focused and emotion-focused coping** (Patzelt & Shepherd, 2011). **Problem-focused coping**

is also often referred to as active coping, approach coping and task-oriented coping (Uy et al., 2013). It describes an individual's preference to address stressful situations and problems head-on and resolve them as soon as possible. This can be done by talking to a person directly, actively changing the environment or addressing conditions that were

the underlying cause of the stress (Patzelt & Shepherd, 2011). Problem-based coping styles have been found to be positively related to personal well-being as well as venture performance (Drnovesek et al., 2010).

Emotion-focused coping, also commonly known as avoidance-coping addresses an individual's interest in mitigating the negative feelings that arose from the stressful situation, though not fixing the root of the problem. Patzelt & Shepherd (2011) found that entrepreneurs who engage in both problem- and emotion-focused coping were successful in coping and reducing negative emotions.

A slightly different observation was made by Uy et al. (2013) where avoidance-coping was only successful when problem-focused coping was also used. In their study, emotion-focused coping by itself was found to actually decrease personal well-being, especially in novice entrepreneurs. Interestingly, prior start-up experience, being a source of knowledge and perceived control during stressful times, positively influenced the relationship between avoidance-coping and well-being.

The authors' interpretation of this finding was that novice entrepreneurs might be too anxious to take a break "for fear that if they take their eyes off the venture for one moment, problems will worsen" (pp.32-33). More experienced entrepreneurs on the other hand can value the short-term separation between stress and one-self without feeling guilty (Uy et al., 2013).

Örtqvist et al. (2007) tested four coping strategies (structural role redefinition, personal role redefinition, reactive role behavior and passive role behavior) and their relationship to new venture performance (p.227). New venture performance was assessed as a composite construct of financial and nonfinancial measures such as profitability, customer satisfaction and sales volume which were compared to industry averages (p.235).

***Problem-focused
coping***

***Emotion-focused
coping***

Structural role redefinition seeks to confront role senders and addressing the problem directly by negotiating terms and conditions to better the stressful situation (p.230). **Reactive role behavior** describes entrepreneur's enhanced work commitment in order to fulfill requirements and expectation. This process involves planning and organizing the work process, but also working harder and longer (p.230). Structural role redefinition and reactive role behavior were found to be positively related to new venture performance. (Örtqvist et al., 2007). **Personal role redefinition** happens in response to role senders imposed expectations that exceed the entrepreneur's time and resources and involves reducing one's efforts, dismissing tasks, and lowering one's quality standards (p. 230). **Passive role behavior** describes the entrepreneur's intent to just "get away from it all" (Boyd & Gumpert, 1983) and leave overwhelming tasks behind and unresolved (p.233). Personal role redefinition negatively affected new venture performance and no significant impact was found for passive role behavior. (Örtqvist et al., 2007)

***Structural role
redefinition,***

***Reactive role
behavior***

***Personal role
redefinition***

***Passive role
behavior***

Other important coping mechanisms concern the engagement in various **recovery experiences** (psychological detachment, relaxation, mastery in and control of freetime) (Feldt et al., 2013). **Psychological detachment** is actively taking one's mind off of work and **relaxation** refers to a state of low activation and enhanced PA (Feldt et al., 2013). **Mastery during off-job time** describes an individual's active pursuit of alternative hobbies such as sports, reading and learning new skills. **Control** describes the entrepreneurs' freedom of choosing when and how to pursue their leisure time and activities (Feldt et al., 2013).

Recovery

Experiences:

***Psychological
detachment***

Relaxation

***Mastery during
off-job-time***

Control

In this particular study done by Feldt et al. (2013), managers' long term-pattern of ERI and OVC were examined and how occupational well-being (burnout, work-engagement) and the recovery experiences were distributed in these patterns. They found that "high ERI and high OVC" was a typical pattern for higher level management who also showed relatively high burnout over time (p.79). This group also reported the relatively poorest level of recovery experiences during the off-job time, as well as low levels of detachment and relaxation. These combinations make it difficult for the individual to properly recover when away from work due to a low tension discharge rate and are therefore

even more prone to experience health issues. Psychological detachment, relaxation, as well as control, were highest among the long-term pattern “low ERI and low OVC”.

The authors suggest that high OVC may play a strong role in the experience of poor recovery experiences based on the need for control and esteem, which makes it difficult to disengage from work. Interestingly, they found that the occupational well-being dimension of work-engagement, including vigor, dedication, and absorption, was quite high for the “high ERI and high OVC” group of managers. They assume that high work engagement can coexist with burnout which has been supported in a study by Mäkikangas et al., (2012).

Lastly, it is noted that conceptually, OVC and work engagement share similar properties, which could explain the work engagement with high ERI and OVC (Feldt, et al., 2013, p.81). Although Feldt et al. (2013) investigated young Finnish male managers, their findings might still lend insight into the stress process of this thesis’ sample which consists of mostly young entrepreneurs who find themselves in the leading role of their venture, therefore likely experiencing similar situations in their work.

Additional coping mechanism refer to **future oriented coping** (FOC) that aid the entrepreneurs in proactively or preventatively addressing future challenges (Eager et al., 2015), They do this by means of preparing for the worst and accumulate resources to balance future losses (preventative) or by planning ahead and building up capacity and resources to meet and advance future challenges (proactive) (Eager et al., 2015, p. 285; Schwarzer & Taubert, 2002).

***Future oriented
Coping***

***Time
Management***

A study by Misra & McKean (2000) investigated the use of **time management strategies** among undergraduate university students. Although this group is not representative of entrepreneurs, there are similarities in such that starting-up a business is a learning experience (Uy et al., 2013) and requires the entrepreneur to take responsibility for their and their business performance just like a student is responsible for preparing properly in order to achieve a good result.

Therefore, the use of time management skills could be a useful tool to manage the venture tasks and stress. Time management skills include setting goals and priorities, by using mechanics such as making to-do lists, organizing their work space and, therefore, having a perceived control of

time (Misra & McKean, 2000, p.41). Time management strategies were correlated to reducing stress through enhancing problem-solving abilities.

Furthermore, according to Gielnik et al., 2015, setting goals and subsequently achieving goals after expending efforts, leads to positive feelings, which are also felt when attaining sub-goals which are indicators of progress (p.1019).

However, the effectiveness of **coping also depends on the appraisal of the stressful situation** as something harmful and one that can be either managed or controlled or not (Patzelt & Shepherd, 2011). The appraisal depends on the person's own values and resources that determine the stressfulness of a situation (Schiffirin & Nelson, 2010). In addition to several coping techniques, **personal resources** such as personality characteristics and unique backgrounds may affect the interplay of entrepreneurial efforts and rewards, and stress as a result of their imbalance.

Age, meta-cognitive knowledge, prior start-up or prior applicable work experience are important variables that could influence an entrepreneur's tolerance to stress due to their perceived feeling of control based on their knowledge repertoire (e.g. Uy et al., 2013; Baron et al., 2016; Dokko & Rothbard., 2009).

Psychological capital (PC) was tested by Baron et al., 2016 in regards to entrepreneurs' subjective well-being and perceived stress and was found to be negatively related to stress. This stress-reducing effect of PC was stronger for older entrepreneurs compared to younger ones (Baron et al., 2016 p.742). PC reflects the underlying variables: self-efficacy, optimism, hope, and resilience. These variables have been associated with many positive personal and work-related outcomes. Overall, PC provides the entrepreneur with an "I can do it" attitude and a "mental hardiness to cope with job-related demands" (Baron et al., 2016, p.747).

Positive Affect (PA) is another stress mitigating personal disposition. Individuals high in PA remain positive throughout various situations and time and describes people as being "lively, sociable and well-tempered" (Cardon & Patel, 2015 p. 386). As mentioned earlier in the ER (im-)balance section, PA was found to be negatively related to stress but positively related to income

Personal Resources:

***Age, meta-
cognitive
knowledge***

***Prior start-up
experience***

***Psychological
capital***

Positive affect

Perfectionism

(Cardon & Patel, 2015). Therefore, PA appears to be an important personal characteristic in the entrepreneurial stress process.

Perfectionism, especially self-critical perfectionism has been related to negative feelings and impaired well-being (Dunkley et al., 2003). Individuals with self-critical perfectionism are more prone to stressors and have tendencies to adopt poor coping styles which can threaten their personal performance and cause high negative affect and low PA (p.249).

In addition to personal characteristics or traits, **personal values and motives** have been found to influence individual behavior and decision making (Wiklund & Shepherd, 2003). Several researchers have studied the effect of motivation or personal values on entrepreneurial cognition and behavior (e.g. Hatak et al., 2015c; Holland & Shepherd 2013). In social psychology, motivation has long been a topic of interest, especially in regards to need fulfilment and personal well-being (Ryan & Deci, 2000; Ryan & Deci, 2001).

***Personal Values
and Motives***

***Opportunity-
driven***

Rationality-driven

Necessity-driven

Intrinsic motives

Hatak et al., 2015c studied the different motives to start a business (opportunity-, rationality-, and necessity-driven) in relationship to the experience of burnout symptoms and business performance. Opportunity-driven entrepreneurs pursue self-employment based on an identified business opportunity and are more likely to grow larger businesses later on whereas necessity-driven entrepreneurs start a business due to unavailability of other employment options and are likely to work by themselves (Hatak et al., 2015c). Rationality-driven entrepreneurs enter self-employment in order to match current needs such as being better able to manage household and work (Hatak et al., 2015c). They argued that motivations can impact an entrepreneur's efforts, perceived work conditions and consequently influence the emergence of burnout (Hatak et al., 2015c, p.3). They found some indication that "motives affect the relationship between working conditions and burnout, and between burn-out and impaired operational performance" (p.16).

Holland & Shepherd (2013) investigated the role of values or motivated choice (p.338) and their relationship to entrepreneur's persistence policy under adversity. They tested four different value systems based on the degree of internal or external aspirations, which influence an entrepreneur's priorities and subsequent decision policy. They found that the decision to persist depended on the level of adversity in the environment as well as the entrepreneur's personal-held values (p.331).

Carree & Verheul (2012) found in their study on “what makes entrepreneurs happy?” that intrinsic motives enhances psychological well-being and that intrinsically motivated entrepreneurs are better able cope with stress (Carree & Verheul, 2012, p. 381).

Overall, these studies stress the importance of considering moderating or mediating variables such as an individual’s motivation and values and their indirect influence through personal characteristics on entrepreneurial outcomes. In this paper context, motivations and personal values may influence the entrepreneur’s reward expectations and also their attitude towards expending efforts to achieve their goals and rewards (Cardon & Patel, 2015), therefore influencing the effort-reward relationship as well as coping. This is line with Benz & Frey (2008) who found that the self-employed have higher job satisfaction than their employed counterparts and get much satisfaction from having an interesting job. They suggested that entrepreneurs simply “like what they are doing” and are not only interested in instrumental (economic) rewards, but value the process itself (Benz & Frey, 2008). Therefore, these additional rewards will be considered and coded to analyze the interviews.

3 Methodology

This paper sets out to understand the stress and coping experiences of early-stage entrepreneurs and aims to further enrich and conceptualize the ERI model for the entrepreneurial context. However, this thesis does not intend to test the ERI model but rather use it as a guiding framework to infer more about how entrepreneurs experience and cope with stress. The ERI model’s components will be used to approach the data, but the author will incorporate knowledge from extant entrepreneurial literature as well as insights gained during the interview in order to extend or adapt the understanding of the ERI model in the entrepreneurial context.

In order to find answers to this paper’s research questions, an explorative qualitative approach is especially useful in this context as it aims to understand the individual's standpoint and reality behind their emotions and behaviors. Each entrepreneur and their startup is unique and therefore requires an empathetic look at their personal experience with stress.

However, due to the subjective nature of qualitative research progress during the interviews, generalizations to the entire population of entrepreneurs cannot be made from observations and findings of this particular data set may not be reproducible due to constant change in human

activity (Saunders et al., 2012). Nevertheless, the abductive approach (see chapter 3.3) helps to curtail some of the observer bias, as many codes were deducted from ERI model and relevant theories will provide traceability and some validity.

3.1 Data Collection Strategy

In order to gain a deeper understanding of the entrepreneurs' experience and reasons behind them, it is important to the author to have some sort of interaction with them (Saunders et al., 2012). According to Siegrist (2012) "self-report data are of core importance for studying the stress process. These data can be acquired through qualitative interviews, ecological momentary assessments, standardized questionnaires or structured interviews" (p.4).

Semi-structured interviews provide the opportunity to dive deeper into topics of interest and receive wider explanations from the entrepreneurs about certain aspects of stress and coping experience. Furthermore, conducting personal interviews provides more certainty in interviewing the actual intended participant unlike with questionnaires, which may be completed by another person (Saunders et al., 2012).

As interviews took only place once and at one particular point in time, it reflects a cross-sectional time horizon. All interviews were completed within two months' time. Although a longitudinal approach would generate more robust results and offer the ability to investigate change over time, the cross-sectional approach is used due to time and resource constraints.

The total interview was split into three main parts: (1) a priming exercise in shape of an entrepreneurial activity grid to anchor the conversations, (2) a projective technique, and lastly (3) the semi-structured interview.

The entrepreneur was primed for the subject through the use of a grid, created based on Gartner's (1989) venture creation processes, enriched by a few additional topics relevant for this sample. The entrepreneur was asked to circle activities that require effort in red and those activities that are rewarding in green. Afterwards, the entrepreneurs were asked to briefly explain their choices to gather qualitative insight.

Following the priming, the entrepreneur was asked to tell a story based on a 7-picture story board. Two storyboards were created, depicting a female or male entrepreneur, respectively. The photos were taken and arranged by Laura Morren and were supplied to this researcher for further use. The use of a storyboard falls under projective techniques. Projective techniques are a

“structured-indirect way of investigating the whys of situations” (Donoghue, 2000, p.47). The entrepreneurs were prompted to tell a story from the perspective of “Anne” or “Ben”. This way, the entrepreneur may “project their covert feelings to the third party or object” (Donoghue, 2000, p.48). The aim of projective technique is to bypass the respondent’s “defensive” reactions (Donoghue, 2000). The data of this techniques will be interpreted by the researchers using the code book and will be used to enrich the researcher’s understanding of the entrepreneur’s value and behavior system.

The semi-structured interview questions were based on the ERI model’s components and further inquired about coping techniques and well-being. Prior the interview, the questions were assigned codes to make sure sufficient data on important concepts of interest are covered. Appendix C includes the interview questions and supporting documents.

Additional data was collected to assess the state of burnout. Results from this questionnaire will aid in the interpretation of the observed findings from the interviews. Lastly, some general data such as age, prior start-up experience and educational background is gathered. This data will help identifying possible patterns and induce further insights into the data.

3.2 Respondents and Procedure

The sample consists of 15 ecopreneurs pursuing business ideas that either offer environmental friendly technology solutions or services. Only one founder per start-up was interviewed if there were more than two. The researcher scheduled a 1-hour time slot for each of the participants and recorded and later transcribed the entire interview. In the end, the interviews lasted between 45min and 1 hour. The main data is collected from non-standardized semi-structured interviews with 15 entrepreneurs, who started ecologically-minded ventures.

The ecopreneurs were contacted directly by the researcher via phone call or e-mail. The author contacted 22 start-ups, 16 agreed to an interview, three responded and declined an interview due to busy schedules, the three others never responded. Most of the ecopreneurs were identified on a green start-up website called start-green.net, one via Facebook and five via the Climate-KIC green start-up network. This website provided initial contact and company information including age and stage of the start-up. This reflects a selective, in particular purposive sampling and partially the convenience sampling (Saunders et al., 2012).

All entrepreneurs can be categorized as early-stage start-up founders and have not been founded prior to 2013. Some have already entered the market with a minimum viable product whereas others have not entered the market yet, but possess working prototypes and concepts and are trying to gain the first customers. In order to represent both genders equally, 7 female entrepreneurs were interviewed and 8 male entrepreneurs. Table 4 on page 39 provides an overview of the sample and their characteristics.

As this research sample solely consists of entrepreneurs active in the green economy sector, it is necessary to provide a short overview of the characteristics of this particular group of entrepreneurs.

The expression **“ecopreneurship”** is composed of the words ecological and entrepreneurship who are commonly labeled as green entrepreneurs (Isaak, 1998; Schaper, 2002) or ethical entrepreneurs (Taylor & Walley, 2003; McEwen, 2013). Cohen & Winn (2007) suggest that the emergence of sustainable entrepreneurship has the potential to “resolve environmental challenges with innovative business solutions” (p.30) and that according to Anderson (1998) “entrepreneurs not only recognise opportunity but construct real organisations to capture and fix change in society “(p.136).

A fitting delineation of ecopreneurs is given by Volery (2002), which will provide the basic understanding of the research sample group and the term ecopreneur. Volery (2002) distinguishes between two categories of ecopreneurs. The first category is the “environment-conscious entrepreneur” whose focus is more business-centered, but have environmental dimensions such as eco-efficiency. This type of entrepreneur can be found in any industry and create businesses that provide products or services that use less resources and have a more positive impact on the environment whereby “improving both their environmental performance and bottom line.” (Volery, 2002, p. 547).

The second category of ecopreneurs are the “green entrepreneurs” who are “both aware of environmental issues and whose business venture is in the environmental marketplace” (Volery, 2002, p.248). Their main incentive is to pursue environmental-centered opportunities which at the same time will generate adequate returns. Since the studied sample includes entrepreneurs from both categories, the overarching term ecopreneur will be used to describe both categories by Volery (2002).

In regards to the early-stage entrepreneurs and their activities related to existence and survival, an ecopreneur's self-transcendent motivation may increase their willingness to expend efforts to start-up a company that can survive (Isaak, 1998).

Table 4: Entrepreneurs: Sample Info

R1 - OPP.- RATIONALITY Founded: Oct., 2015 1 male co-founders Age:31 Male Industry: Renewable Energies Dipl.-Ing. Entrepr. Experience: 4 years (2 prior ventures)	R8 - OPPORTUNITY Founded: Aug. 2016 Age: 33 No co-founders (5 volunteers) Female MSc. Industry: Retail, Food Service Entrepr. Experience: 1 year
R2 - OPPORTUNITY Founded: Feb., 2016 Age: 30 1 male co-founder Male 1 employee Dipl.-Ing. Industry: Financial Entrepr. Experience: 1 year	R9 - OPPORTUNITY Founded: July 2014 Age: 38 No co-founders Female 1 employee PhD Industry: OnlineRetail Entrepr. Experience: 2 years
R3 - OPPORTUNITY Founded: Jan., 2015 Age: 28 3 male co-founders Female 5 employees MSc. Industry: Retail, Food Service Entrepr. Experience: 2,5 years	R10 - OPP.-RATIONALITY – OPPORTUNITY Founded: Nov. 2014 Age: 29 3 male co-founders 8 employees + 20 students Female Industry: Renewable Energies MSc. Entrepr. Experience: 10 years (part-timefree-lancing)
R4 - OPPORTUNITY 1 male co-founder Age:34 Founded: Jan. 2013 Female Industry: Architectural Services Dipl.-Ing. Entrepr. experience: 3 years	R11 - OPPORTUNITY Founded: Dec. 2014 Age: 27 3 male co-founders, 1 female co-founder Male 1 Intern Msc. Industry: Renewable Energies Entrepr. Experience: 2 years
R5 - OPPORTUNITY No co-founder Age: 33 Founded: April 2016 Male 10 employees MBA Industry: Recycling Entrepr. Experience: 16 years (3 prior venutres)	R12 - OPPORTUNITY Founded: Jan. 2016 Age: 32 1 male co-founder Female 1 intern Msc. Industry: Apparel & Textile Entrepr. Experience: 1 year
R6 - OPPORTUNITY Founded: Oct. 2014 Age: 26 2 male co-founders Male Industry: Renewable Energies MSc. Entrepr. experience: 2 years	R13 – OPP.-RATIONALITY Founded: Feb., 2013 Male 1 male co-founder Dipl.-Mgmt 1 employee Entrepr. Experience: 17 years (~6 prior ventures) Industry: Agriculture

R7 - OPPORTUNITY	Founded: Aug., 2016	R14 - OPPORTUNITY	Founded: April 2014
Age: 46	4 male co-founders, 1 female	Age: 26	1 male co-founder
Male	co-founder,	Male	3 Collaborating Partners
High School Diploma	(6 volunteers)	MSc.	Industry: Manufacturing &
Entrepr. Experience: 20 years (2 prior ventures)	Industry: Food Service	Entrepr. Experience: 2 years (1 prior venture)	Retail
R15 – OPP.- RATIONALITY	Founded: Oct. 2015		
Age: 27	1 male co-founder		
Female	50+ mix between employees		
BSc.	+ volunteers		
Entrepr. Experience: 4 years (1 prior venture)	Industry: Food Service		

There are some limitations associated with this sample. First limitation concerns the sampling techniques, which resulted in participants who only appear in the sample based their availability (Saunders et al., 2012). In addition to that, due to the fact that some entrepreneurs declined or never responded, some bias is already introduced into the sample. Furthermore, in regards to this particular thesis topic, it could be questioned if stress was responsible for their decision to not participate. Hence, valuable data about stress and coping could have gone missing. Also, if the entrepreneurs who agreed to an interview drastically differed from the ones who declined, it could render results from this paper flawed at best (Saunders et al., 2012).

Furthermore, this sample of ecopreneurs might not be representative of entrepreneurs in general. Therefore, findings could at most be generalized to ecopreneurs but not the wider population. With this limitation in mind, however, there is still qualitative insights to be gained about stress and coping experiences from the interviewed pool of entrepreneurs and nonetheless provide implications.

3.3 Data Analysis

Layder (1998) is an advocate of adaptive theory approach and pointed to the interdependence between theory construction and research (Bessant & David, 2005). This approach appreciated empirical phenomena, but acknowledges the importance of relevant existing theories. Unlike the grounded theory approach, adaptive theory attempts to enrich theory by integrating data and with extant theory (Layder, 2005). By following this approach, this paper will use abductive coding (Hatak et al., 2015a) for the analysis and generation of findings. The abductive approach lends to

the advancement of theory by leaving room for creativity and abductive reasoning in order to incorporate unexpected observations and patterns into the analysis, which theory cannot explain (Kovács & Spen, 2005, p.136-137). It enables to enrich the ERI model in the entrepreneurial context without “locking it into its predefined conceptual boxes” (Tavory & Timmermans, 2014, p.4).

Although the ERI model has been measured using the ERI questionnaire, an explorative approach of the variables in the entrepreneurial context, allows for identification of specific efforts and rewards that are predominantly mentioned and appear in the data (Van Vegchel et al., 2005). Such identified patterns can provide the basis for better formulation of intervention tools, as specific efforts and low rewards were identified in the data.

The data is analyzed by codes generated from existing theories and concepts. Specifically, the ERI model and its components are used to help make sense of the findings (Saunders et al., 2012). In addition to codes based on entrepreneurial literature and the ERI model, further codes were identified in the data which did not previously match concepts provided in theory (abductive approach). Basing most of the codes in theoretical concepts, will provide some stability and common ground when analyzing the interviews.

The figures and tables below illustrate the understanding of all important core concepts in this paper. The qualitative descriptions were utilized as codes to analyze the interviews. To better suit the entrepreneurial context, some of the traditional effort and reward descriptions are given a suggested adjustment. For a comprehensive list of codes, see Appendix E.

Table 5: Efforts

Efforts according to the original ERI model	Some adjustments to match Entrepreneurial context	NEW Entrepreneurial Efforts
Constant time pressure due to a heavy work load	Constant time pressure due to a heavy work load → quality concerns	People problems and trust (Volery & Pullich, 2010)
	Heavy work load → role overload (Buttner, 1992)	Adversity, loss, failure (Blatt, 2009; Rauch et al., 2007)
Many interruptions and disturbances in the job	Responsibility for business, employees	Role Ambiguity (Job demands are unclear, ambiguous, uncertainty about duties, allocation of time (Rizzo, et al., 1970, p.156; Wincent et al., 2008)
A lot of responsibility in my job		Role conflict (conflict between several roles and required behavior not compatible, conflict between internal standards or values and the required role bahavior) (Rizzo, et al., 1970, p.155)
Pressure to work overtime		Dealing with newness, uncertainty and risk (Blatt, 2009)
Job has become more demanding over time		Invest Personal resources (such as own savings)
		Managing a work-life balance (family)
		Trying to/ Having to prove their business (very relevant for early-stage)

Table 6: Rewards

Rewards according to the original ERI model	Some adjustments to match entrepreneurial context	NEW Entrepreneurial Rewards
Esteem	Esteem	Esteem
Respect from colleagues	Respect/ Recognition from co-founders	Feedback and Recognition from customers and community
Respect from supervisor	and employees	Fame & Image (Ryan & Deci, 2000)
Treated Fairly at work	Respect/Recognition from	
Adequate Support/Help in difficult situations	investors/VCs/ incumbents	Efforts generate adequate progress (Uy et al., 2015)
Efforts receive deserved respect and prestige		Efforts generate adequate sales/ external funding/ financing (Blatt, 2009)
Job Security		
Fear of undesirable change in work situation (-)		Independence, autonomy (Holland & Shepherd, 2013)
Poor job security (-)		Meaning & Purpose (Sherman et al., 2015)
Job Promotion/Financial		Welfare of others (Holland & Shepherd, 2013)
Occupation reflects training and education		
Efforts receive adequate work prospects		Affiliation (Ryan & Deci, 2000)
Efforts are reflected in adequate salary/income		Personal Growth & Development (Ryan & Deci, 2000)
		Work itself rewarding (Benz & Frey, 2008)

Table 7: Overcommitment

Overcommitment (Siegrist et al., 2004)
Thinking about work problems in the morning
Unable to relax and switch off work at home
People say I sacrifice too much for my job
Thinking about work when going to bed
Trouble sleeping at night when I had to postpone something I had to do today

3.4 Ensuring Data Quality

Qualitative data analysis has some pitfalls to keep in mind. According to Robson (2002) there are four threats to reliability. The subject or participant error asserts that there are more biased-laden moments and that those should be avoided at best and that conditions for each test should be equal. This could be a problem for this particular thesis due to the heterogeneity of the sample. Due to varying geographical proximity, some interviews were conducted via remote telecommunication conferencing.

The second threat is subject or participant bias, which deals with the difficulty of receiving honest answers from the participants. Participants may have different motives and will fashion their answers in line with their motives. To mitigate this threat, the participants were ensured anonymity by the author, who also took on the role of active and empathetic listener in order to make the participant feel welcome and comfortable to tell their truth.

The third and fourth threat are concerned with the author herself, namely the observer error and bias. Having a semi-structured interview will counter some of the possible elicitation effect a regular conversation might bring on and will increase reliability to conduct the interviews in similar manners. Furthermore, the author conducted three mock interviews to get sensitive to avoid leading questions or eliciting answers. The bias is concerned with the interpretation of the replies, which depending on the mood or sympathy towards the participant could vary greatly. However, it is of the observer's interest to remain as objective as possible in order to extract meaningful and fruitful information. To ensure ethical standards, all interview recordings are kept confidential and no access has been provided to a third party. Furthermore, names of the participants and their ventures will remain anonymous.

Threats to validity include recent events that could affect findings and mislead the author's interpretations. Ambiguity about causal direction is an important threat to validity. In order to increase validity of the data, objective information about the entrepreneurs is collected and a separate test assessing burnout is being conducted. This also serves as a form of data triangulation, where different sources of information are being drawn on to compare content.

4 Findings

This chapter will present the main findings for each of the research questions and will be followed by the author's proposal for an ERI model extension based on the findings. The first subsections present the findings on efforts and rewards, which will be illustrated with quotes from the entrepreneurs for traceability. The findings for OVC are presented throughout the subsections when applicable. Before providing results of personal and venture-related consequences of stress, findings on how coping and personal resources influence the effort-reward relationship will be described. The reader is guided through the findings with additional sub headings within the subsections to address the various variables.

4.1 What efforts are associated with the early-stage venture creation process that pose the risk of becoming stressors?

The qualitative analysis uncovered some efforts that pose the risk of becoming stressors. Most of the efforts can be linked to certain venture activities the entrepreneurs have to carry out (see Figure 5 at the end of this subsection), whereas others are more specific to the overall experience of being self-employed and starting-up, such as:

High workload, demands, people problems, and having to prove or capitalize on the idea.

Most of the efforts identified as stressors appeared to be short-lived, apart from working long hours, and rather are spurs of stressful situations, such as a sudden deadline or some unforeseen circumstances that quickly have to be dealt with: *"I think a stressful situation, when mainly something doesn't work out."* (R3)

"Of course we are only doing this for the first time so a lot of unplanned things will happen and continue to happen ...at the moment no stress is prolonged" (R8).

In general, all the entrepreneurs reported to *work long hours* and invest personal time into their businesses; some even work more than 50 hours a week. Most of the entrepreneurs are dedicated full-time to their ventures, whereas only a few are currently working a second job or are still students. Those entrepreneurs, who end up working long hours throughout the day more often mentioned being physically exhausted and tired. This also appeared to be more true for female entrepreneurs and who have been with their ventures for more than 2 years. *"If you can just imagine, it is Friday evening, [worked] 6am- 10pm, I can't imagine to go out with friends and have fun, because you are just exhausted"* (R3),

Closely related to working long hours, is the concept of *work overload* which is a result of the multitude of tasks associated with the early-stage venture process. The entrepreneurs seem to agree that starting up involves many tasks: *“It is just the sheer amount of all the things I believe I want to do and the actual time I have.”* (R7), and that therefore, it is necessary to prioritize to not lose sight: *“And you have to distinguish between the important things. Once you are in tornado you cannot do everything which comes your way. Learn to ignore things.”* (R13)

Being confronted with a whole range of activities required to manage a business, gives rise to *ambiguity* – determining which activity to pursue but also how much time needs to be allocated to accomplish the tasks. This was more difficult for some first time as well as some entrepreneurs whose startups are less than two years old.

“At the start-up you can lose yourself totally in focusing on different things. We need solar projects, we need to build up our cloud, build finance, strong team, admin stuff, funding a company and so on and it is pretty... you have to do everything at the same time and ASAP and it’s sometimes a bit stressful to decide what to go for and what to do first.” (R2)

Moreover, since the entrepreneurs are no experts in each field, but usually have a specialized skill-set, some tasks require more focus, energy and time than others. Especially the *administrative tasks* are a nuisance for many entrepreneurs. To them, it is something that needs to be done, but that is also rather “boring”, “not so much fun”, “complicated”, “non-value adding”, “too time consuming”, and has “nothing to do with the business” and therefore “annoying” and unrewarding to the entrepreneur. A few entrepreneurs with prior start-up experience handled the administration by outsourcing this activity to a third party, delegating the tasks to a team member, or simply not worrying” *about stuff, especially the admin....it will always work out.”* (R1). Nevertheless, the entrepreneurial nature of having to fulfill many roles and perform many activities is a stressor for some entrepreneurs, especially for those in smaller teams, teams that are alike in their skill-sets, or are first-time entrepreneurs: *“I have done [working on the product], only this for about a week and that means I have neglected accounting, marketing, doing applications for doing a pitch. And then even people come and ask me “oh why don't you do that?” And I am just like, “yes, but when? I have to schedule to sleep”*(R12)

“The other problem is that we are five people and we are five engineers, and we don't have a lot of business skills, marketing skills. And so this is the big problem.” (R11).

During the early-stages, setting up a business is about existence and survival and the entrepreneurs invest long hours and try to perform all activities required because they want to *prove their idea*: or even have to *start capitalizing on it* due to financial reasons. Tied to the concept of proving the idea, is the *acquisition of finance*. After all, entrepreneurs pursue business ideas that they think have market potential and are supposed to generate income at one point.

“I think at the moment [most effort is put into] realizing the showroom and everything else that is connected to it in order to get the customer.” (R4)

“The most stress is financial. In the moment I am investing so much, so all my savings are at the zero line, if something goes wrong, I really have a problem.” (R13)

The goal for many entrepreneurs was to get investors, especially for those who pursue more businesses involving high-tech products. Although feedback is welcome, some entrepreneurs reported to have to deal with negative comments and adversity when talking to investors: *“When I get negative feedback from someone I thought would actually support me on what I am going. That goes back to the whole vision thing. I run into the problem, although he should know better says, your system will not work. And it gets very annoying” (R6)*

“He didn't really understand or not agreeing with the way I was thinking. He was making fun of this book. Because for a lot of people this is a new way of thinking. They don't believe this is a money maker. They think it sounds too hippy.” (R15)

Moreover, some entrepreneurs looking for funding expect that once more money is involved in the business, either due to external investors or revenue, money could become a stressor and could bring along *higher demands* or *people problems*: *“If there is not a lot of money around, it doesn't stress you. But I guess once that rolls around it could become more stressful...At the moment it is not a problem at all to be five people, but I think if there is money in the system it may become one. No-one tells anybody what to do, but when it gets more serious it could be more of an issue.” (R11)*

Another effort and entrepreneurial activity is associated with *human resource management* which encompasses the efforts of *working long hours*, *work overload*, *people problems*, and *responsibility pressure*. Due to the complexity of starting and running a business, additional support is wanted and welcome. However, trust is important to establish well-functioning partnerships and maintain a good work atmosphere: *“To trust is the number 1! If you don't trust*

your partners, then you can't do business.” (R1). But problems between co-founders or team members pose as stressor that exhausts some entrepreneurs emotionally.

“It is annoying when someone doesn’t do their part and feels responsible, although it is their responsibility. It is not good for a company like us...I can’t be the mama of everybody and track everything.” (R3)

“Probably if you disagree with your cofounder. If you don't have the same opinion on something. In our case so far it's all good. But of course you have to put your heads together to find solution, because I mean founding a company with someone is like a having a partnership” (R1)

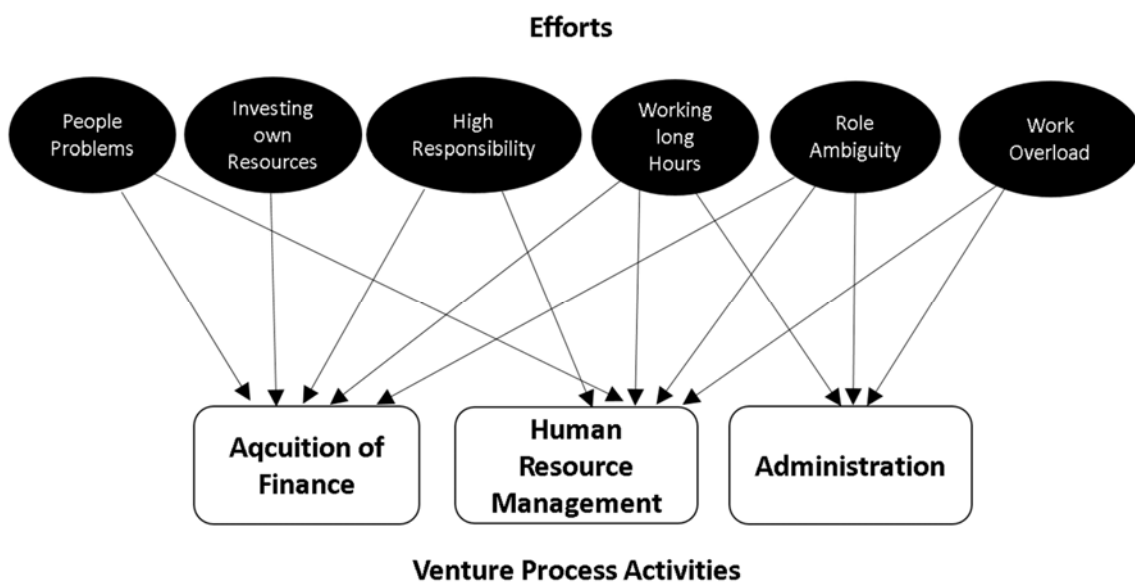


Figure 5: Entrepreneurial Efforts and Venture Creation Activities

4.2 What rewards does an early-stage entrepreneur perceive and receive in return for their efforts?

The results show that entrepreneurs receive and perceive many rewards: mostly *esteem* and having a *purposeful and meaningful job*. These sorts of rewards materialized as a clear pattern of enjoying work for its own sake and that the opportunity to work on their start-up is reward enough and compensates for much of their efforts: *“I feel like the work itself gives me satisfaction and I feel pretty good that I can do what I think is actually fun.” (R14).*

“Like the progress we make is rewarding enough.” (R1)

“We started in October of last year. It is growing very quickly, also learning so much. When I look back I was so young. But I think that it is a very cool indication.” (R15)

Learning and experiencing personal growth and development means a lot to the entrepreneurs and these rewards fuel their intrinsic motivation to continue with their venture creation process: *“The idea came first, let's give it a try first. Now I learn a lot every day, very intriguing what I learned, that keeps me motivated.” (R11)*

Entrepreneurs who have worked in corporate jobs before echo this mindset, and explained that doing something for yourself is very different than working for a big company. *“I think in a corporate environment you think “why am I doing it?” you have a decent salary but you work 60 hours a week and you just wonder why am I doing it? In a start-up environment, it is your own environment. First of all, it is very rewarding to just work on your own company, can control, you can manage it and create it and decide things.” (R1)*

Furthermore, the entrepreneurs gained satisfaction from knowing that their businesses have purpose and will have a positive impact on society and the environment: *“I think the most important thing is when I have impact through the things I do. A wider impact which is greater than my own space. Not only earning money, but doing something with it.” (R13)*

Additionally, compared to employees, who are command takers, entrepreneurs are their own “bosses” and feel rewarded by having this autonomy and *“being able to steer your own ship” (R1)*. *“For me it's like very rewarding, it feels super good to be your own boss, to do what you think is right. Get up when you need is right, work hard some days, and then the next day work less, go to the park, go eat. That is very rewarding “(R11).*

ERI Model Rewards

In regards to Siegrist's rewards: *financial reward, esteem and job security*, esteem appeared to be most prominent while the financial reward and job security were either lacking or not mentioned by the entrepreneurs. This is perhaps no surprise as early-stage entrepreneurs are likely more concerned with creating a viable product or service that is only beginning to enter the market. Hence, they may have lower expectations for monetary returns and are aware of the uncertainty in new venture success. Esteem appeared in the shape of positive feedback from external sources or support from team members and was a frequently mentioned reward and driver for intrinsic motivation. Feedback presents a valuable learning experience for the entrepreneurs who are working on innovative products and services and therefore, helps them improve their business. External feedback also provides them with the reassurance that what

they are doing is needed and worthwhile: *“Like you get good feedback, that basically means you probably must be doing something good, like somebody believes in you and that’s when the rewarding part comes in.” (R1)*

“The feedback is the best in the end. Knowing what I am doing it for the right cause – the social impact and sustainability. Have an impact on the people around you.” (R12)

For these early-stage entrepreneurs, the analysis showed that the financial reward is job security. Although no one can fire them from their job as an entrepreneur, their work is only secured as long as they can stay financially afloat. Funding resembles job security in the sense that it allows the entrepreneurs to continue working on their idea and venture: *“We are still in a comfortable situation, we are not running out of money for the next 9 months...so that obviously helps to cover basic needs, so that takes away some of the stress.” (R1).*

Although a few entrepreneurs are generating some cash flow, most of the entrepreneurs are not able to live off of their businesses yet and right now are using personal savings, income from their second jobs, or are funded by either private investors or received financial aid from incubation or venture programs. Furthermore, the slight lack of financial reward is reflected in some entrepreneurs’ desire to finally reap the fruits of their labor or wish to start employing people and start paying their volunteers.

“We also invested 3-4 years just in the development phase and now we also want to finish it together ...but at the moment I cannot say that financially it has paid off yet.” (R4).

“It would be great to employ and pay them once that financial revenue comes in more.” (R8)

Not being able to live off of their venture’s yet and having to occasionally invest one’s savings was viewed differently by the entrepreneurs. Some were more comfortable with investing their own money given the risks, whereas others were more hesitant as they were more concerned about current obligations and taking care of their families.

“I invested my own money and it felt good to do that. To be able to do that. I didn't have to ask for anything” (R9).

“I invest my savings into the job I do now. I think it is good, because I love what I do.” (R11)

“If we didn't get stage 2 funding we would have been at a crossroads, then we maybe would have to do some freelancing in order to pay our monthly bills or we might have said okay, let's make a pause but at least get some income.” (R2)

“We also have to pay mortgage and family, so sure that puts the pressure on.” (R13)

Therefore, the financial reward is important as it also indicates success and progress. However, this reward still insufficient for most early-stage entrepreneurs.

However, many entrepreneurs felt that for continued satisfaction and motivation, the financial reward is not as important as the other rewards that were mentioned above. Those entrepreneurs who are already generating some revenue with their businesses, viewed community and affiliation and the welfare of others (such as their own employees/volunteers or society) as very rewarding: *“I don't really believe in this financial reward...I prefer that people just do it because they like it. it's not like you earned it kind of, but you just do it because it feels right and that is what you need at this point.” (R15)*

Moreover, often the motivations to start a venture mirrored what they thought was rewarding in their role as an entrepreneur. Especially in this sample of ‘ecopreneurs’ the environmental or social impact was rewarding to the majority of the entrepreneur. Table 8 below illustrates a few examples:

Table 8: Motivations and Rewards

	Motivation	Reward Expectation
Statements	„Environmental impact it the mission the drive, without that I wouldn't be doing it. I want to do something to give back.” (R7)	“Getting recognized as such, not as an entrepreneur, but the business and that people understand and value what we do. The impact it has on the forests and also the farmers.” (R7)
	“For me personally the environmental impact was the reason to join really, if it was some engine building company I would not have joined.” (R10)	“The motivations that I joined for really, I can repeat them, but basically the same thing.” (R10)
	“At first there was the big topic about food waste and I wanted to do something about it.” (R8)	“the interest in the topic, and i can feel that the topic that is important to me is becoming important to other people as well. Getting them to act as well. See the impact.” (R8)

The main finding for rewards applicable to early-stage entrepreneurship is that the work itself must be rewarding to the entrepreneurs. Intrinsic motivation is considered the source of energy and venture commitment. One female entrepreneur wanted to point this out during the interview: *“I think your motivation you have to find out about your own motivation and I think it's one of the most complicated things in your startup to find out about your own motivation and as well about the motivation about your team. How can you achieve that everyone likes their job and work responsibly on their tasks. Because that gives me motivation again.” (R3)*

To summarize the entrepreneurs' overall reward situation, the Table 9 below illustrates high rewards, but also some low rewards associated with this sample of early-stage entrepreneurs.

Table 9: Findings for Entrepreneurial Reward

Financial Reward	Job Security	Esteem	Purposeful & Meaningful Job
Revenue,	Fear of undesirable change	Feedback,	Welfare of others
Income,	in work situation (-)	Support/ respect from Team/	Personal growth &
Funding,	Poor job security (-)	external parties	Development (learning)
Investments			Work itself is rewarding
Low-Medium	Low-Medium	Medium-High	High

4.3 How do entrepreneurs cope with the experience of stress in the course of starting a business?

It was found that entrepreneurs expend high efforts in the course of starting a business. Findings from 4.2 showed that the entrepreneurs perceived and received rewards in return, but also that some of the ERI model's traditional rewards such as financial or job security were lower. These findings hint at a "high effort, medium reward imbalance" and therefore suggest a somewhat stressful work situation. In addition to the ERI, some entrepreneurs' statements reflect the underlying items of the coping pattern OVC, which could increase the risk for stress reactions. Still, at the same time most of the entrepreneurs expressed "feeling rewarded by the work itself", "being able to learn a lot", "looking forward to working full time on the venture", that working on their venture is what they "want to do" and that being an entrepreneur gives them "fulfillment". One entrepreneur even said "*there is no stress if you can handle it*" (R5).

Despite some situations of ERI and signs for OVC, strong negative reactions to stress were found to be rather minimal in this sample: nine out of the fifteen entrepreneurs had no burnout whereas the remaining six experienced symptoms of a mild burnout. (See Appendix D for burnout results and OVC rating). Therefore, these low burnout results, despite the existence of stressors and medium ERI, indicate that coping might play an important role in mitigating the effects of stress on the entrepreneur. This also helps to understand why the entrepreneurs said to be happy and satisfied with their current situation and still invested time and energy into their start-ups. However, the entrepreneurs differed slightly in their use of personal coping techniques, and their personal resources, which played a role in their appraisal of stress. OVC also appeared to be a relevant concept in some entrepreneurs that could have influenced their stress reactions, such as exhaustion.

In regards to common coping techniques, the most common coping techniques utilized by the entrepreneurs were emotion-focused and problem-focused, recovery experiences and time management skills. Recovery experiences sometimes were coupled with seeking or getting social support.

Coping and Personal Resources

The *emotion-focused coping* was used to alleviate stress in particular moments. *“I would probably, during the day get out, sit in the sun for a couple of minutes, take a break on a daily basis.” (R1)*

“Sometimes it can get a little stressful when things don't quite work out, take a short break, like coffee or a glass of water, short break.” (R6)

Taking a short break helps to detach themselves physically from the stressful situation. The physical separation between the stressor and the entrepreneur further allows for detaching mentally. However, emotion-based coping was often reported to facilitate *problem-focused coping*. Being able to think more clearly and take on a difference perspective, enabled the identification of solutions to the problem. *“I just go downstairs or on the balcony, it is like getting away from the problem/ situation physically. I continue to think about the problem or the stress that I have, but somehow from a different perspective.” (R3)*

“If you cannot make any progress any more, realistic to the effort you put into it, that you really pause and find a better strategy. Go run, play piano, or do something different. Afterwards get back to it with a different perspective and then you'll see you solve it like it was never a problem.” (R13).

The entrepreneurs still preferred to really solve the root of the problem and therefore often combined these two coping techniques. *“Some stress situations arise but I like to face them directly, because even within our team. We had a team meeting and we addressed stressful events and things that may not be planned and can come up and give people a chance to bring them up and not quietly live with them.” (R8)*

Recovery coping was expressed to be important for the regeneration process and necessary to refuel energy and was thought of by one entrepreneurs of something that is neglected by many entrepreneurs *“I think many entrepreneurs work too much and getting way too little free time to relax, or read a nice book, hang out with your friends. It is the most important thing. You need to have a life.” (R7)* Similarly to emotion-focused coping, recovery experiences facilitated getting a clear mind. Also listening to your body and knowing when to stop and take a break is

important to mitigate stress reactions. It appeared that male entrepreneurs as well as entrepreneurs with prior start-up experience took special care to plan and schedule recovery times. Recovery experiences also helped gain some separation and see things from a different perspective. Similarly, to getting a new perspective, reflecting on themselves as well as their ventures can be achieved during these recovery times. Reflection appeared to be an important activity for many entrepreneurs, regardless of personal characteristics, but the entrepreneurs with no burnout appeared to engage in this process more actively: *“It's important to reflect, and ask yourself if that is what you want to do and if you are happy with that. Be clear to be what you want to do.”* (R8)

Overall, recovery experiences included doing sports, pursuing other activities with a friend or simply relaxing at home. *“I have been training karate for 16 years and apart from the physical aspects, it is very helpful to clear your mind to help think from a different perspective.”* (R6)

“On the weekly basis it is definitely sports. It is for me the number one stress killer.” (R1)

However, accepting the need for breaks and knowing when stress is getting overwhelming was viewed as a personal learning experience. One example for this is a female entrepreneur, who after working very hard for years, actively decided to start making changes to her schedule. *“Yes, I think you have to learn yourself.... At the beginning you might feel like you have to, but for 2.5 years it's too much, you cannot work every day and night. You have to learn to accept that and just manage it. Actively decide to that this is enough and being okay with it.... I turn my phone off at the weekend, the email function notification. Meeting some friends, going out and enjoy the free time. And I don't get push notifications, I switch them off.”* (R3)

Facilitative for recovery and reflection for some entrepreneurs is having a supportive environment. Social support helped them to step away from working too much and find time to recover: *“Having a partner who is consequent, I could really just work though. But a partner who keeps you grounded, no it's the weekend, let's take a break, you of course feel it physically and know you should take it off.”* (R12) and some even said that you should never give up your social life for entrepreneurship: *“Trying to talk as much to friends and trying to get their support, meet friends, have that, don't give up your social life. It is probably the number one.”* (R1)

Another important coping technique is *time management*, which is a little more future-oriented. It helps the entrepreneurs schedule sub-goals, make priorities and structure their days in order to reduce some uncertainty. *“Organize and structure your stuff. I don't like if it is not organized*

on the table, then that gives me stress.” (R11). All entrepreneurs engaged in some kind of planning and organization process. Self-created to-do-lists not only give a higher peace of mind, but also served as a reward function (seeing progress) for many. Checking items off of their lists and achieving sub-goals are rewarding to them and intrinsically motivating. *“Check off the to-do list at the end of the week. And then we know we are track we are doing the right things efficiently. Like if we set a target and achieve it, close it off, that is great.” (R1)*

Personal Resources

The use of coping techniques as well as the appraisal of stress was found to be influenced by the entrepreneurs personal characteristics, personal held values and motives. Personal resources were also found to be influential on personal reward expectations and continued work engagement. In addition to personal resources, the work high decision latitude enabled many entrepreneurs to take time off when needed or pursue another activity during regular working hours. Being your own boss and therefore in charge of your time, was viewed as important enabler for coping and also not stressing themselves out. Although female entrepreneurs all greatly appreciated their autonomy, their ambitiousness and sense of responsibility appeared to hinder them, more often than male entrepreneurs, to fully take advantage of their independence. Male entrepreneurs mentioned more frequently that *“stress is what you make yourself” (R1)* and that *“I don’t stress myself as long as I am the boss. (R11)*

In similar fashion, being clear on your personal goals and where you want to be with your venture was mentioned by a few entrepreneurs as an effective stress deterrent. Interestingly, one of the younger entrepreneurs appeared to be very clear on this concept and was a good example of actively taking care of personal well-being. He expressed that once you know what you want there should be no stress. *“Yea, I think it is important and healthy. Should take care of yourself. Don’t try to please others, just stick to yourself and goals and don’t let yourself be impressed by others who push and only want to make money fast. In the end you are doing the work and you should like it.” (R14)*

More female entrepreneurs were identified to have medium or high OVC, which maybe explains why they appeared less likely to take breaks and personal time.

Motivations and Values

The entrepreneurs’ *motivations* were found to be a decisive component in their stress experiences and coping processes.

All entrepreneurs could be identified as opportunity-driven or a mix between opportunity and rationality-driven. Most of them never intended to become an entrepreneur, but had identified an opportunity or had an idea they were passionate about and wanted to pursue. For some it was also clear that working in an organization as an employee was not their ideal work situation and, therefore, had even more reason to follow their ideas. Pursuing entrepreneurship out of choice, and not out of necessity, appeared to help cope with stress. *“And if you make that decision to get that pay cut and kind of have a student life again, then you have different motivation! We all could have jobs without a problem, we all quit our jobs to do this. But this is it, when it comes to stress, we all see it a bit differently.” (R1)* This is also reflected in some of the entrepreneurs relaxed view on possible failure. Since there is not a lot of money involved in the beginning for many, they have a nothing-to-lose attitude and feel rewarded by the learning process of starting a business. *“The idea came first, let’s give it a try. Now I learn a lot every day, very intriguing what I have learned that keeps me motivated. I don’t have children, don’t have many obligations, so I can give it a try. I don’t lose a lot of money don’t lose a lot time. So if I fail, it’s fine.” (R11)*

For many entrepreneurs it felt good to be in sync with their personal values and starting a business that had environmental impact or a product that is sensible. Those were strong motivational drivers for the entrepreneur to pursue their ideas and persist during difficult times. It even appears that in the presence of high motivation common stressors are overlooked. *“I don’t see it as work I rather see it as an opportunity to create something. I am not bothered putting in 60 - 70 hours...”. “Do something that you are really passionate and excited about because you need those, you will have those days, when it is crappy when you don’t know if it’s gonna work then you need that extra layer of motivation.” (R1)*

This seems to be especially true for these entrepreneurs or ecopreneurs, who pursue businesses that not only serve the purpose to make money, but also to have a positive impact on the environment and greater society, which gives them an extra layer of motivation.

“Environmental impact is the mission, the drive, without that I wouldn’t be doing it. I want to do something to give back.”(R7)

Psychological Capital and Positive Affect

Many entrepreneurs could further be identified as being high in *PC* and *PA*, based on their underlying items that could be noticed in the entrepreneurs’ statements. These traits were expressed through optimism and high self-efficacy even in the face of adversity. *“When I get*

stupid feedback, and know that I will not convince everybody all the time, so it's fine.... If I am convinced I can do something, I am doing it.” (R6)

While another co-founder commented on one of the respondents (R15): *“She is not a manic pessimist. She is manic positive. Super energy and super positive.”*

Additionally, PC appeared to be high for those entrepreneurs who have already had prior start-up experience. In particular, one entrepreneur really stuck out in his personal way of coping with the challenges of starting a business. He has been an entrepreneur since he graduated from college and was one of the “older” entrepreneurs in this sample. During the interview it was obvious that he has really put a lot of effort into building his venture all while managing another job and family life. However, he expressed great control and self-regulation abilities that ensured his personal well-being. He also had the lowest burnout score. *“Like in sports, you have to commit to take the ramp, 100%. If you are out of luck, then walk the other way. It’s like a lot of learning from sports actually, **playing but not too eagerly**. So you are relaxed enough but concentrated. You get yourself into the tornado and basically luck is when preparation meets opportunity and you try to meet as many opportunities as you are prepared to do that.” (R13)*

“Only if you feel well and energized you can move things more than anybody else, even any other team. So know your limits, you have to know them, or get to know them by failing.... But getting a balance is very important and nobody really talks about it. But [well-being] is the most important driver in delivering this energy.” (R13)

These findings indicated that the entrepreneurs are aware of stressors but based on their personal resources and coping mechanisms are able to cope with stress. Nevertheless, this sample of entrepreneurs was also heterogeneous and not everyone appeared to cope with stress as well as others. The next subsection will present the findings on personal and venture-related consequences of ERI.

4.4 What are the personal and venture-related consequences of a perceived effort-reward-imbalance?

Personal Consequences

Some of the entrepreneurs—mostly those who had mild burnout symptoms—mentioned being exhausted and tired at times, especially when working long hours. This could be due to the entrepreneurs’ strong personal commitment to their ventures where OVC makes them work

hard and long and increase their efforts, which may explain their stress reactions and burnout assessment score. Furthermore, regardless of the rewards received in return, high efforts and work immersion may become too overwhelming after a while, especially when coping such as recovery times were missing: *“Well, roughly a year [we have been working near the limit], I would say. It is just that you have to get everything lined up. There are a some more annoying things that take time, not only for one project.”* (R4)

“And it is really hard, because you lose that feeling. You always think if I work longer, stuff is getting done, but you don't even see, like you lose that feeling of “oh you are not productive anymore.” (R3)

Interestingly, the entrepreneurs in this sample had varying ideas of what work-life balance is. Despite a few exceptions, who do not work full-time on their ventures, the remaining entrepreneurs all spend considerable amounts of hours at their ventures at the expense of their private lives. *“Right now [work-life balance] is not so good. At the moment I have basically two topics in my life. One is being an entrepreneur. And one is being a father. So but for me that can be a bit hard to still have the contact with all the friends, so the social life besides... [I] need to take an exam so I also have to study during the weekend to pass that exam. So yeah I am actually currently longing for July when the exam is done. And then it should be a little more relaxed”* (R2)

[Stress affects personal life] because my personal life is strongly connected to my entrepreneurial life, my girlfriend is involved in the start-up and most people that work there, I know and are connected with the idea. (R7)

However, for some, this sacrifice is not as apparent to them as it is to their private environment. They are also content with this situation in this point in time: *“Maybe for me, I have a different perspective than the outside world. The outside world would think he is always working. My wife for example, she thinks I am always working.”* (R13)

“The most annoying thing as when friends and family come around to tell him stop working all the time.” (R6)

Whereas the other entrepreneurs make or want a clear distinction between their ventures and their private life. Those who currently achieve a good balance were mostly male entrepreneurs with no indication of burnout symptoms. However, some are still struggling to find a proper balance. *“I want to work and I also want to have time off and think of something else, I have*

many interest and hobbies and I knew exactly what I would like to do if I had more free time, but right now it's not possible.” (R9)

These findings could be related to the concept of OVC and some entrepreneurs’ strong ambition to move their ventures ahead. However, OVC makes it difficult for some entrepreneurs to switch off work completely. This appeared to be more true for those with mild burnout symptoms and female entrepreneurs, although some male entrepreneurs also mentioned that work problems stay in the back of your minds sometimes.

So far I work so much and was so focused until my private environment forced me to take time off.” (R12)

“I keep thinking about it, and yes sometimes it is hard to turn these thoughts off.” (R10)

Personal Performance

On the personal performance level, some entrepreneurs reported that stress does not affect them very much: *“Actually it doesn't, I just get very focused. Maybe I have to take a minute and relax for a bit but then I can keep going for whatever is next.” (R6)*

Some stress is even encouraging, “fun” or helps in situations such as pitching or negotiations: *“When the meeting with the agricultural minister, it was very positive, it was also a big opportunity, so I went for it and did my utmost best in this situation “(R13)*

“But the work is also fun, that is the good thing about it. It is like when you are in school, you like going if you are good at it and then it is fun.” (R4)

Nevertheless, if stress became too much and could not be translated into energy, common answers related to the negative effects of stress included “low creativity”, “more mistakes”, “forgetful”, or “low productivity”.

Venture -Related Consequences

On the venture level, most entrepreneurs expressed that they do not think that having negative stress affects their performance: *“No, so far stress was never a concern.” (R6)* Although their personal performance may suffer for a moment, the entrepreneurs felt that they don’t let stress affect their business performance, at least not in the short term as they can effectively cope with it: *“I also think I am good at handling it and knowing when I am really too stressed.” (R15)* Furthermore, they think that being at an early stage does not provide them with enough metrics to see any relationships. *“I think we are too early stage to really see direct links between*

business performance. Because we don't make any money yet, so you don't have correlation yet.” (R2)

On the other hand, some entrepreneurs felt that maybe it does affect their performance when talking to customers: *“And you are not at all in the mood for it and you are so stressed, then actually you shouldn't do that. You won't achieve that people will buy it, because they can feel the stress.” (R3)*

Also, some said that it may affect their processes: they are slower, take more time figuring things out, or while trying to solve a problem for one aspect of the business, another part is being neglected. *“Right now we are experiencing stress maybe, because we are testing the product right now with customers, and they call with operational problems and you are starting to see that it interferes with product development, because now, we have to spend more time on the operational side.” (R1)*

The author was able to identify some positive operational and financial performance metrics within the data, such as improvements of the product, increase in the team size, and expanding on their product and service offering. *“But we need to talk more to the government, we want to grow more, like have a kitchen and cook the food and need more organization to that.” (R8)* However, negative impacts could not be assessed nor identified by the author apart from the statements provided by the entrepreneurs.

5 Discussion

This thesis set out to understand early-stage entrepreneurs' stress and coping experiences during the process of starting up a business. The results from the qualitative data indicated that entrepreneurs are able to maintain well-being during the venture creation process despite the existence of stressors. In line with recent findings in entrepreneurial stress literature, the process of starting-up can be stressful (e.g. Cardon & Patel, 2015), but that the entrepreneurs are capable of coping with it (Baron et al., 2016).

The process of starting a business requires the entrepreneur to tend to many activities and fulfill different roles (Wincent et al., 2008). The highest efforts demanded from entrepreneurs are working long hours, managing a variety of tasks and dealing with ambiguity, which reflects recent findings in entrepreneurial stress literature (e.g. Volery & Pullich, 2010). Most demanding venture creation activities were found to be acquisition of finance and human resource management. Although administrative tasks were viewed as a necessary activity to

support the business, they were also found to be unrewarding. Still, the entrepreneurs also realized certain rewards that kept them motivated to continue their venture building process. Highly valued rewards were positive feedback, autonomy and having a purposeful and meaningful job. The financial rewards and job security were found to be lower for early-stage entrepreneurs, which is understandable as they are only in the initial stages of creating a venture and are undergoing the gestation period (Uy et al., 2015; Van Auken & Neeley, 1996).

Furthermore, all entrepreneurs could be identified as having high intrinsic motivation, which may help explain their overall relative low levels of burnout. This observation is in line with Ryan & Deci (2000), who argued that intrinsic motivation enhances well-being. Other personal resources favorable for mitigating the effects of stress during the venture creation process were prior start-up experience, psychological capital and having positive affect. These personal resources have been identified throughout literature as being helpful in buffering the negative effects of stress by providing the entrepreneurs with a source of hope and resilience (Baron et al., 2016; Cardon & Patel, 2015; Uy et al., 2013; Jensen, 2012). Moreover, the entrepreneurs utilized a variety of coping techniques, although male entrepreneurs appeared to make use of recovery experiences more often. Therefore, findings of this thesis rather support the notion that entrepreneurs' unique coping capabilities and motivations explain why they experience less stress rather than more stress; in line with Baron et al. (2016).

Almost all male entrepreneurs showed no symptoms of burnout, whereas the majority of female entrepreneurs had mild burnout. This indicates that there is a gender difference in the experience of stress and stress reactions, where female entrepreneurs appear to be more affected by stress as they expressed more signs of exhaustion. This finding is in line with Purvanova & Muros (2010), who found that female employees are more likely to suffer emotional exhaustion than men. Previously, it has been suggested by Maslach et al. (2001) that "burnout is more of a female experience" (as cited in Purvanova & Muros, 2010, p. 168).

An explanation why female entrepreneurs appear to suffer more from exhaustion than men is provided by social and organizational psychological research. There, data suggests that women experience "unique pressures, conflicts, prejudices and isolation" when working in more male-dominated industries and hence, are more vulnerable to stress (Beatty, 1996, p.234). Furthermore, literature found some evidence that women cope with working in male-dominated organizations by working harder or "impose pressures on themselves to perform to a higher degree than expected of their male counterparts" (Leiter et al. 1994, p.65). Entrepreneurship is still a more male-dominated field, and although none of the female entrepreneurs have

expressed concerns about such pressures based on their gender, they all articulated high work dedication, feelings of responsibility and high ambition.

The next paragraphs will further present the ERI model extension based on the findings and discuss the ERI model's use for this thesis and its components in the entrepreneurial context. These subsections are then followed by a more detailed discussion of motivation, coping techniques and consequences.

5.1 Model Extension

Based on this thesis' findings, the author proposed an extension of the ERI model to reflect the early-stage entrepreneurship context (see Figure 6 on the following page). Entrepreneurial efforts, rewards, personal resources, and coping techniques were considered and integrated into the model. Personal resources include personal characteristics and motivations and values. The model shows that ERI is possible, but that an ERI does not necessarily lead to stress reactions depending on how well the entrepreneurs cope with the stressful situation. The role of the personal resources is highlighted. They influence the entrepreneurs' perception of efforts, while affecting which rewards are viewed as valuable gains that compensate for efforts.

Therefore, the subsequent appraisal of an ERI depends on the individual's perception, which could be influenced by prior start-up experience, personal positive affect, or also age or gender. In case of a perceived ERI, entrepreneurs may use various coping techniques to deal with the stressful situation. Brief moments of stress may effectively be addressed with problem-focused or emotion-focused coping, whereas time management skills also help with immediate stressors but also aid in diminishing future stressors.

Recovery coping and social support are techniques that may be used on a frequent basis to maintain a balance and tend to personal well-being. Depending on the effectiveness as well on the entrepreneur's tendency to overcommit, either strain reactions or well-being can be the result. The addition of coping in this model is illustrated as a mechanism to mitigate the effects of stress on the person.

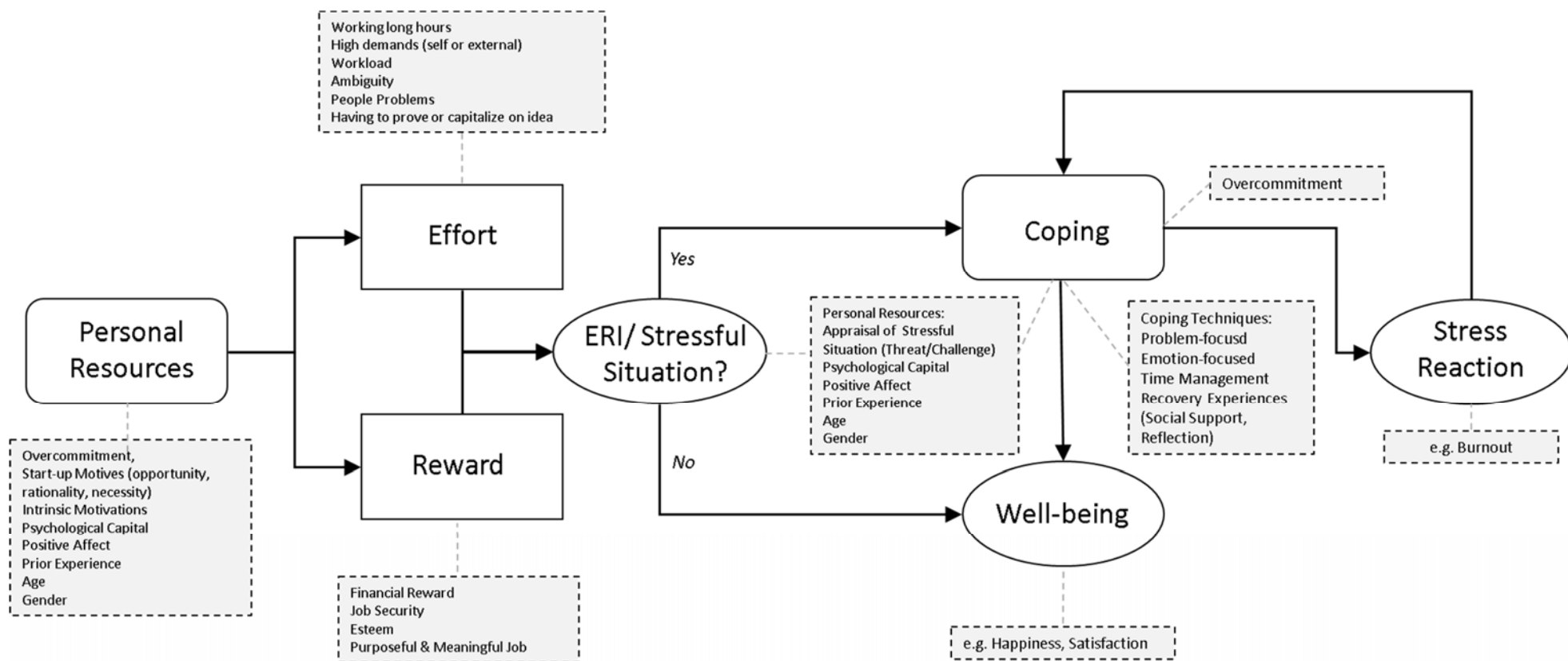


Figure 6: Proposed Model Extension

5.2 ERI Model and the Entrepreneurial Context

Overall, the ERI model served as a very useful framework to study the stress experience of entrepreneurs. However, it became clear that the ERI model needed to be adjusted for the entrepreneurial context and that the descriptions of the components needed to include entrepreneurship specific items. The traditional occupational efforts as well as rewards are not perfectly congruent with those of entrepreneurs. As previously suggested by Holland et al. (2013), entrepreneurs are not solely driven by extrinsic financial rewards, and was found to be especially true for this particular sample of entrepreneurs. Additionally, this is in line with Amit et al. (2000), who found that wealth attainment was the least important reason to start a business (p.130). The reward expectations also appeared to be strongly linked to personal values and motivations. Therefore, in order to better understand the experience of stress in the early-stage entrepreneurial context, it is also very important to consider personal characteristics beyond the ERI model's intrinsic component—OVC. Although various levels of OVC were identified for the entrepreneurs, differentiating between high OVC and other concepts such as passion and work engagement was challenging.

Furthermore, although the ERI model was helpful in mapping out and identifying stressors and possible stressful situations, it was difficult to precisely assess prolonged periods of ERI. This shortcoming is likely due to the cross-sectional research design and explorative nature of the thesis. Furthermore, the entrepreneurs' statements indicated that they mostly experienced spurs of stressful situations and are not exposed to unfavorable work conditions over longer periods of time. This differs from the intent of the ERI model to assess more prolonged feelings of distress that lead to negative health outcomes such as coronary heart disease (Siegrist et al., 2004). Furthermore, the ERI model seems to be better designed to explain adverse health effects and therefore, may not be perfectly suited to understand positive outcomes as observed in this sample. Although the ERI model considers personal dimensions in the shape of OVC and self-assessed efforts and rewards, other personal aspects, such as motivations and values, have not been considered in this model. However, the findings indicated that motivations and values are of high importance in understanding the stress experiences.

It seemed that for early-stage entrepreneurs, high efforts are part of the experience, however as the entrepreneurs have ownership and see their efforts create outcomes directly related to themselves and their venture, stressors and stress are appraised differently. Although the variety of tasks can be seen as a stressor, the ability to engage in different tasks and being able to use

and learn various skills enables coping and builds resilience. This finding is in line with Stephan & Roesler (2010) who suggested that entrepreneurs' active jobs compared to other occupational groups provide conditions favorable for positive health.

The influence of OVC on the assessed stress reaction of burnout appeared to be most strongly linked to exhaustion, which is in line with prior findings in occupational stress literature (Van Vegchel et al., 2005). Especially some of the female entrepreneurs who appeared to be very dedicated and ambitious expressed being tired and exhausted more often. As already mentioned, these female entrepreneurs also were found to have mild burnout symptoms.

5.3 Motivation

In particular, the entrepreneurs' motivations and personal reasons for being an entrepreneur shaped the experience of stress. Furthermore, it was found to be a crucial component of being able to maintain well-being, while entrepreneurs' personal resources played an important role in influencing the effort-reward perception and coping mechanisms. As suggested by Rahim (1996) many entrepreneurs are "internalizers" and were found to better handle pressures and uncertainties at work.

Moreover, the entrepreneurs simply enjoy the opportunity to work on their ideas and are highly motivated, which deflates the negative effects of stressors. This is in line with Benz & Frey (2008), stating that the "procedural utility" the entrepreneurs get from being self-employed provides them with much satisfaction. Furthermore, Foo et al. (2014) also pointed to learning goal orientation as a source for coping with stress, especially during the early-stages of starting up.

Although motivation has not been very extensively studied as a variable in many traditional stress models (Bakker & Demerouti, 2006) it has been studied in the context of job satisfaction and work engagement (Lu, 1999; Van den Broeck et al., 2010). Although employees are also likely to enjoy their jobs, their motivations to go to work may not be for the sake of the work itself but for the need to provide for themselves. It therefore appears that early-stage entrepreneurs are more driven by intrinsic rewards and motivation whereas employees more often receive external rewards for their efforts, e.g. in the shape of bonuses, which could undermine employees' intrinsic motivations (Gagne & Deci, 2005). Lu (1999) found that "intrinsic motivations contributed positively to overall job satisfaction, whereas extrinsic motivations contributed positively to depression" (p.70). They also observed that "a poor fit

between motivations of the person and the supplies of the job to meet goals and preferences induced by these motives, did produce a decrement in employees' well-being" (p.70).

The interplay of motivation, rewards, and well-being is at the core of the self-determination theory by Ryan & Deci (2000) and work by Gagne & Deci (2005) and seems to be very applicable in the context of early-stage entrepreneurship. The focus on autonomous motivation, control and work motivation does reflect entrepreneurial work conditions. The entrepreneurs in this sample pursued their ventures out of choice and engaged in the activities volitionally (Gagne & Deci, 2005, p.334). Conversely, employees are often more controlled by organizational norms and standards and "act with a sense of pressure, or a sense of having to engage in the action" (Gagne & Deci, 2005, p.334). Moreover, the fact that entrepreneurs have decision autonomy and control compared to regular employees gives them the unique opportunity to not only avert certain stressors but also cope with them more effectively (Patzelt & Shepherd, 2011).

Lastly, early-stage entrepreneurs might differ from entrepreneurs in later stages of the process. Those entrepreneurs who have been in the market for a longer period of time, and have experienced growth, might differ in their stress experience and motivations. Some entrepreneurs in this sample pointed out that once more money is involved and the "seriousness" of their business is higher and their start-up becomes more corporation-like, more stress could be the result. At later stages, an entrepreneur's motivation to continue may also differ from their initial motivations which in turn could affect their stress and coping experience.

5.4 Coping and Consequences

The findings showed that entrepreneurs are intrinsically motivated and that stress reactions among the entire sample are well contained. This finding is in line with Carree & Verheul (2012) who suggested that founders appear to be better able to cope with stress when intrinsically motivated. Furthermore, this thesis findings indicated that entrepreneurs resort to various types of coping mechanisms which is in line with Drnovsek et al. (2010).

Problem- and emotion-focused coping were frequently used coping mechanisms, especially for day-to-day stressful situations. As previously found by Drnovsek et al. (2010), most entrepreneurs use problem-focused coping when they faced controllable problems and emotion-focused coping when the solution did not appear as salient, or when the entrepreneurs' capacity to immediately address the issue was insufficient (p.196). Time management was another

commonly used technique to structure the seemingly chaotic start-up process. Misra & McKean (2000) found that time management helps alleviate stress in college students. As entrepreneurs have much control of their schedule compared to employees, effective time management helped entrepreneurs stay relaxed. All entrepreneurs regardless of gender, age or other personal characteristics utilized these coping techniques.

On the other hand, recovery experiences were most prominently used by entrepreneurs with no burnout and were also frequently mentioned by male and more experienced entrepreneurs. Similar to the findings by Feldt et al. (2013), those entrepreneurs who expressed more symptoms of exhaustion did not engage in many recovery experiences but had high work engagement. Predominantly female entrepreneurs were found to have mild burnout symptoms, whereas only one male respondent had signs for it. Carree & Verheul (2012) found that women have more difficulty when coping with stress (p.384). As suggested by Uy et al. (2013), nascent entrepreneurs might feel they fall behind or lose valuable time when they spend too much time away from their ventures and indulge in relaxing activities.

The findings regarding positive affect and psychological capital are in line with findings in recent entrepreneurial literature (Jensen, 2012). The entrepreneurs in this sample all expressed positive emotions when talking about their ventures and appeared hopeful when talking about their future paths. Cardon & Patel (2015) found that PA “helps entrepreneurs harness the productive aspects and mitigate the unproductive aspects of stress” and extenuate the negative effects of stress on the entrepreneurs’ health (p.386). Baron et al. (2016) found that psychological capital is positively related to well-being, which in turn is related to both physical and psychological health (p.765). Some entrepreneurs reported such experiences when they were able to convert stress into positive energy to be more productive and alert.

Findings for venture performance were rather scarce, but indicated that entrepreneurs do not suffer from a lot of performance impairment due to stress. As most stress was considered short-lived, the entrepreneurs were able to deal with it and not let it affect their performance and subsequent venture performance significantly. The author agrees with the entrepreneurs’ notion that during the early-stages direct correlations between stress and performance is difficult to establish, also when considering the short time frame of the interview. However, the author was able to identify mostly positive indicators for venture performance within the qualitative data. Based on the entrepreneurs’ overall good well-being this suggest that being well enables entrepreneurs to do well (Hatak et al., 2015b).

6 Conclusion

This final section highlights this thesis paper's contributions to theory and how the knowledge may also be considered for application in practice as well as policy. Lastly, it addresses the limitations of this thesis paper in an effort to provide further transparency and clarity to the study, and derives several insights for future research.

6.1 Contributions to Theory

By following the adaptive theory approach and using the ERI as a guiding framework, yet staying open to emerging data, and combining them with other existing theories and findings from other research streams, allowed for a better understanding of the stress and coping experience of early-stage entrepreneurs. Previous research has addressed stress in the entrepreneurial context, but findings whether entrepreneurs experience high or low stress and how they cope with stress remained inconclusive (Baron et al., 2016). Furthermore, antecedents to why some entrepreneurs are able to cope with stress better than others has only been scarcely examined. Findings of this explorative study on early-stage entrepreneurs' individual perceptions of the experience of stress contributed to entrepreneurship literature and also supported some recent findings in literature. It further demonstrated that personal motivations should be considered as an important variable in regards to the stress experience and health consequences, and deserve continued attention from research scholars. Motivations appeared to be an antecedent to the entrepreneurs' effort and reward perceptions and expectations and therefore indirectly influenced the stress experience.

The findings also indicated that there is a gender difference in the experience of stress reactions and also that coping mechanisms appear to slightly differ amongst the genders. By providing additional insight on the stress experience of early-stage entrepreneurs, this thesis expanded the ERI model's application in the entrepreneurship context, albeit not having tested the model. It supported previous assumptions that it appears necessary to adjust efforts and rewards to the given occupational context in order to better understand emergence of ERI. Additionally, the discussion showed that combining several research streams, e.g. psychology, organizational behavior, and social sciences is helpful in creating a greater understanding of how stress arises. Furthermore, this thesis paper provided insight into which venture activities pose the risk of becoming stressors and which efforts are underlying those activities. However, future research is needed to check their validity and to find out more what exactly is the reason behind them becoming stressors.

6.2 Contributions to Practice and Policy

The findings are also relevant for practice. For practicing but also aspiring entrepreneurs, it is good to know that self-employment offers sufficient control to effectively address stress before it can have a negative impact on well-being and health (Cardon & Patel, 2015). Entrepreneurs can also benefit from exploring and understanding their wants and needs and finding their personal but also team's intrinsic motivations. This can greatly enhance their ability to cope with stressors and stress and remain engaged and excited about their ventures.

Although entrepreneurs have the benefit of being their own boss, one needs to actively take advantage of such decision autonomy and take actions to take care of one's well-being. Well-being should not be taken for granted but instead should be viewed as a necessary resource, and therefore the entrepreneurs should try to actively find time to properly recover and recharge their batteries. Especially first-time as well as female entrepreneurs could try to better incorporate times of recovery into their schedule. As one experienced entrepreneurs suggested: like in sports, one must play and commit to the challenge but at the same time control the eagerness to stay relaxed.

Although accepting the need for recovery was often mentioned to be a personal learning experience, entrepreneurs should still try to make an effort to take action early on. Perhaps there is still a sense of having to meet societal expectations; entrepreneurs may feel they have to work very hard and invest long hours to deserve being titled an entrepreneur and not just being self-employed.

Time management practices appear to be indispensable for an entrepreneurs' pursuit of starting-up a business. Staying structured, prepared and organized as possible can provide guidance, a peace of mind and serve as a self-assessment tool to the entrepreneur. Making clear, challenging but attainable sub-goals further serve as reward and motivation mechanism. As recently suggested by Jensen (2012), trainings that enhance psychological capital to build up emotional and cognitive resilience are available and could be considered for both entrepreneurs and incubator programs as a source to support entrepreneurs' personal abilities to cope with stress.

Incubation programs may want to consider to provide guidance in how to cope with stress while starting-up and encourage the entrepreneurs to also consider their well-being as an important resource and offer more means of attaining a better balance. This could allow young entrepreneurs and teams to better harness their energy and use it for creating successful businesses. One entrepreneur suggested that incubators should provide facilities near their co-working space, where entrepreneurs can relax or visit a sports class in order to take a break but

not waste too much time travelling for far to do so. The fact that administrative tasks were found to be a burden for the entrepreneurs could help tailor education programs towards teaching techniques on how to handle these tasks better, as well as provide better access to tools and best-practice databases concerning these activities.

Additionally, knowledge on how entrepreneurs deal with stress is also interesting for other occupational groups, human resource management departments and job designers. Stephan & Roesler (2010) suggested that due to employee jobs transitioning into active or more 'entrepreneurial' jobs, information on how entrepreneurs maintain their well-being and health can assist in designing these future jobs to foster fruitful outcomes (Stephan & Roesler, 2010, p.733). Therefore, organizations could benefit from creating work environments for their employees that are more intrinsically motivating and help employees better attain personal and career-related goals. Furthermore, the use of extrinsic rewards, such as financial bonuses, should happen in a way that enhances personal intrinsic motivation and not undermine it (Gagne & Deci, 2005).

6.3 Limitations and Future Research Suggestions

Despite the insights gained from this work, this thesis paper has several limitations. First, this paper used a cross-sectional approach, which does not allow to draw any definite conclusions on how coping impacts their well-being. Furthermore, establishing causality between coping and well-being is not possible. It could be that entrepreneurs who have high well-being are better able to cope as their physical and mental health allows them to effectively address issues. Next, aside from the assessment of burnout symptoms and the author's interpretation of subjective well-being, no objective health indicators were used to confirm that the entrepreneurs were indeed in all-around good health.

Furthermore, the author wants to emphasize the fact that conceptually it is difficult to distinguish between OVC, work engagement, and entrepreneurial passion on the basis of their descriptions provided in literature. Although their effects on physical health may be similar, it seems that their psychological well-being is affected differently. That is, working long hours might become strenuous and cause exhaustion, regardless of being labeled as OVC or rather having passion—but where the former implies negative feelings while the latter encourages positive thoughts. Future research is needed to better distinguish between these concepts. That perhaps would also shed some light on the role of OVC in the ERI model.

Despite semi-structured interviews allowing for deeper insights into the subjective world of the entrepreneurs, bias was a big concern—both in regards to the author but also the entrepreneurs. Although it is possible that the entrepreneurs state their experiences truthfully, they might be influenced by societal stigmas or imagines on how an entrepreneur should act and behave. Admitting to stress may mean weakness to some, and therefore will be played down during the interview, which greatly impacts the results.

Further limitations are connected with the sample of this thesis. Since only a small sample, and a specific kind of entrepreneur, the ecopreneurs, were studied, generalizing the results to the greater population of entrepreneurs is not possible. Although starting-up a business involves similar processes no matter which industry or focus, the motivations behind starting the business could influence the experience of the start-up process in several different ways. It would be interesting to compare how motivations, such as the pursuit of wealth or the pursuit of more self-transcendent goals, such as impact on the environment, impact the experience of stress and the effects of stress.

Furthermore, the findings pointed to a difference in the experience of stress between female and male entrepreneurs. In order to better establish if this finding is representative, further research is required. Although the entrepreneurs were all early-stage, they differed in their product maturity level, which could make a difference for the perceived stress. In fact, the female entrepreneurs who had mild burnout had all entered the market. This could indicate that, on top of managing all the duties of a young start-up, they are already having responsibility to their customers and need to manage financing accordingly. Similarly, for those entrepreneurs for whom revenues are less of a concern—since their idea is not market ready yet—they may experience less stress than entrepreneurs who already entered the market. Therefore, this might indicate the point in time when early-stage entrepreneurs start to experience more stress and are more affected by it. Further research is required.

This thesis was not focusing on venture performance outcomes per se and could not assess if the sample ventures will be successful in the end. Despite some positive indicators, such as employee growth and portfolio expansion, it is difficult to say if low levels of stress are positive for venture outcomes. As suggested by research, creating disequilibrium between the present and future state might increase stress, but it also implies the striving for growth, which in turn is positive for both venture and society (Gielnik et al.,2015).

7 References

- Achtziger, A., & Bayer, U. C. (2013). Self-control mediates the link between perfectionism and stress. *Motivation and Emotion*, 37(3), 413–423.
- Amit, R., MacCrimmon, K. R., Zietsma, C., & Oesch, J. M. (2000). Does money matter? Wealth attainment as the motive for initiating growth-oriented technology ventures. *Journal of Business Venturing*, 16, 119–143.
- Andreas Rauch, Jens Unger, & and Nina Rosenbusch. (2007). Entrepreneurial stress and long term survival: is there a causal link? *Frontiers of Entrepreneurship Research*, 27(4), 1–10.
- Badal, S. (2010). Entrepreneurship and job creation: leveraging the relationship.
- Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: state of the art. *Journal of Managerial Psychology*, 22(3), 309–328.
- Baron, R. A., Franklin, R. J., & Hmieleski, K. M. (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.
- Benz, M., & Frey, B. S. (2008). The value of doing what you like: Evidence from the self-employed in 23 countries. *Journal of Economic Behavior & Organization*, 68(3-4), 445–455.
- Bessant, J., & Francis, D. (2005). Transferring soft technologies: Exploring adaptive theory. *International Journal of Technology Management & Sustainable Development*, 4(2), 93–112.
- Blatt, R. (2009). Resilience in entrepreneurial teams: Developing the capacity to pull through. *Frontiers of Entrepreneurship Research*, 29(11), 1–15.
- Buttner, E. H. (1992). Entrepreneurial stress: Is it hazardous to your health? *Journal of Managerial Issues*, 4(2), 223–240.
- Calnan, M., Wadsworth, E., May, M., Smith, A., & Wainwright, D. (2004). Job strain, effort-reward imbalance, and stress at work: Competing or complementary models? *Scandinavian Journal of Public Health*, 32(2), 84–93.
- Cardon, M. S., & Patel, P. C. (2015). Is stress worth it? Stress-related health and wealth trade-offs for entrepreneurs. *Applied Psychology*, 64(2), 379–420.
- Carree, M. A., & Verheul, I. (2012). What makes entrepreneurs happy? Determinants of satisfaction among founders. *Journal of Happiness Studies*, 13(2), 371–387.
- Carter, N. M., Gartner, W., & Reynolds, P. D. (1996). Exploring start-up event sequences. *Journal of Business Venturing*. (151-166).
- Cohen, B., & Winn, M. I. (2007). Market imperfections, opportunity and sustainable entrepreneurship. *Journal of Business Venturing*, 22(1), 29–49.
- de Jonge, J., Bosma, H., Peter, R., & Siegrist, J. (2000). Job strain, effort-reward imbalance and employee wellbeing: a large-scale cross-sectional study. *Social Science & Medicine*, 50, 1317–1327.
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology*, 86(3), 499–512.
- Denis, D. J. (2004). Entrepreneurial finance: An overview of the issues and evidence. *Journal of Corporate Finance*, 10(2), 301–326.
- Denyer, D., & Tranfield, D. (2009). Producing a Systematic Review. In D. A. Buchanan & A. Bryman (Eds.), *The SAGE handbook of organizational research methods* (pp. 671-689). Los Angeles, CA: SAGE.
- Diener, E., & Seligman, M. E. (2004). Beyond money: Toward an economy of well-being. *Psychological Science in the Public Interest*, 5(1), 1–31.
- Dokko, G., Wilk, S. L., & Rothbard, N. P. (2009). Unpacking prior experience: how career history affects job performance. *Organization Science*, 20(1), 51–68.

- Dunkley, D. M., Zuroff, D. C., & Blankstein, K. R. (2003). Self-critical perfectionism and daily affect: Dispositional and situational influences on stress and coping. *Journal of Personality and Social Psychology*, 84(1), 234–252.
- Eager, B., Grant, S., Maritz, A. (2015). Entrepreneurs and the stress-coping-strain process: how relevant are existing theoretical frameworks? *Australian Centre for Entrepreneurship Research Exchange Conference 2015*. Adelaide, South Australia. 3-6 February, 2015.
- Edwards, J. R., & Cooper, C. L. (1990). The person-environment fit approach to stress: Recurring problems and some suggested solutions. *Journal of Organizational Behavior*, 11(4), 293–307.
- Fahlén, G. (2008). *Aspects of the effort reward imbalance model of psychosocial stress in the work environment*. Mid Sweden University, Sundsvall, Sweden.
- Feldt, T., Huhtala, M., Kinnunen, U., Hyvönen, K., Mäkikangas, A., & Sonnentag, S. (2013). Long-term patterns of effort-reward imbalance and over-commitment: Investigating occupational well-being and recovery experiences as outcomes. *Work & Stress*, 27(1), 64–87.
- Fong, N., Wolfgramm, R., & Shepherd, D. (2014). Ecopreneurs as change agents; opportunities, innovations and motivations. *Quarterly Journal of Economics*, 84(3), 488–500.
- Foo, M.-D., Uy, M. A., & Chan, E. (2014). Learning and performing: effects of learning goal orientation and stress on entrepreneurial motivation and perceived ability to overcome obstacles. *Frontiers of Entrepreneurship Research*, 34(6), 1–2.
- Gagné, M., & Deci, E. L. (2005). Self-determination theory and work motivation. *Journal of Organizational Behavior*, 26(4), 331–362.
- Gardiner, M., & Tiggemann, M. (1999). Gender differences in leadership style, job stress and mental health in male-and female-dominated industries. *Journal of occupational and organizational psychology*, 72(3), 301–315.
- Gartner, W. (1989). Who is an entrepreneur? Is the wrong question. *Entrepreneurship Theory and Practice*, 47–67.
- Gartner, W. B. (1985). A conceptual framework for describing the phenomenon of new venture creation. *Academy of Management Review*, 10(4), 696–706.
- Gielnik, M. M., Spitzmuller, M., Schmitt, A., Klemann, D. K., & Frese, M. (2015). "I put in effort, therefore I am passionate": Investigating the path from effort to passion in entrepreneurship. *Academy of Management Journal*, 58(4), 1012–1031.
- Goldsby, M. G., Kuratko, D. F., & Bishop, J. W. (2005). Entrepreneurship and fitness: An examination of rigorous exercise and goal attainment among small business owners. *Journal of small business management*, 43, 78–92.
- Grant, S., & Ferris, K. (2012). Identifying sources of occupational stress in entrepreneurs for measurement. *International Journal of Entrepreneurial Venturing*, 4(4), 351.
- Grimaldi, R., & Grandi, A. (2005). Business incubators and new venture creation: An assessment of incubating models. *Technovation*, 25(2), 111–121.
- Hang-yue, N., Foley, S., & Loi, R. (2005). Work role stressors and turnover intentions: A study of professional clergy in Hong Kong. *The International Journal of Human Resource Management*, 16(11), 2133–2146.
- Hatak, I., Floh, A., & Zauner, A. (2015a). Working on a dream: Sustainable organisational change in SMEs using the example of the Austrian wine industry. *Review of Managerial Science*, 9(2), 285–315.
- Hatak, I., Rauch, A., Fink, M., & Baranyi, A. (2015b). Doing well by being well: the interplay of physical well-being, burn-out symptoms and firm performance of necessity- and opportunity-driven entrepreneurs. *Babson College Entrepreneurship Research Conference*. Boston Park, USA, 10.06.-13.06.
- Hatak, I., Rauch, A., Baranyi, A. (2015c). Entrepreneurial motives, working conditions, burn-out symptoms and firm performance. *2015 AoM Annual Meeting*. Vancouver, Canada, 07.08.-11.08.

- Häusser, J. A., Mojzisch, A., Niesel, M., & Schulz-Hardt, S. (2010). Ten years on: A review of recent research on the Job Demand–Control (–Support) model and psychological well-being. *Work & Stress*, 24(1), 1–35.
- Hoang, H., & Gimeno, J. (2010). Becoming a founder: How founder role identity affects entrepreneurial transitions and persistence in founding. *Journal of Business Venturing*, 25(1), 41–53.
- Holland, D. V., & Shepherd, D. A. (2013). Deciding to persist: Adversity, values, and entrepreneurs' decision policies. *Entrepreneurship Theory and Practice*, 37(2), 331–358.
- Jamal, M. (2007). Burnout and self-employment: a cross-cultural empirical study. *Stress and Health*, 23, 249–256.
- Jensen, S. (2012). Psychological capital: Key to understanding entrepreneurial stress? *Economics & Business Journal: Inquiries & Perspectives*, 4(1), 44–55.
- Jonge, J. de, Dollard, M. F., Dormann, C., Le Blanc, P. M., & Houtman, I. L. D. (2000). deJonge-et-al-2000 JDC. *International Journal of Stress Management*, 7(4), 269–287.
- Jonge, J. de, van der Linden, S., Schaufeli, W., Peter, R., & Siegrist, J. (2008). Factorial invariance and stability of the Effort-Reward Imbalance Scales: a longitudinal analysis of two samples with different time lags. *International journal of behavioral medicine*, 15(1), 62–72.
- Jonge, J. de, van der Linden, S., Schaufeli, W., Peter, R., & Siegrist, J. (2008). Factorial invariance and stability of the effort-reward imbalance scales: a longitudinal analysis of two samples with different time lags. *International journal of behavioral medicine*, 15(1), 62–72.
- Kain, J., & Jex, S. (2010). Karasek's (1979) job demands-control model: A summary of current issues and recommendations for future research. *New developments in theoretical and conceptual approaches to job stress*, 8, 237–268.
- Kinman, G., & Jones, F. (2008b). Effort-reward imbalance and overcommitment: Predicting strain in academic employees in the United Kingdom. *International Journal of Stress Management*, 15(4), 381–395.
- Kinman, G., & Jones, F. (2008a). Effort-reward imbalance, over-commitment and work-life conflict: Testing an expanded model. *Journal of Managerial Psychology*, 23(3), 236–251.
- Latack, J. C. (1981). Person/Role Conflict: Holland's model extended to role-stress research, stress management, and career development. *Academy of Management Review*, 6(1), 89–103.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*: Springer publishing company.
- Lewis, V. L., & Churchill, N. C. (1983). The five stages of small business growth. *Harvard business review*, 61(3), 30–50.
- Luo, L. (1999). Work motivation, job stress and employees well-being. *Journal of Applied Management Studies*, 8(1), 61–72.
- Maslach, C., Jackson, S. E., & Leiter, M. The Maslach burnout inventory manual.
- Mateja Drnovšek, Daniel Örtqvist, Joakim Wincent. (2010). The effectiveness of coping strategies used by entrepreneurs and their impact on personal well-being and venture performance. *Journal of economics and business*, 28, 193–220.
- McEwen, T. (2013). Ecopreneurship as a solution to environmental problems: Implications for college level entrepreneurship education. *International Journal of Academic Research in Business and Social Sciences*, 3(5), 264–288.
- Misra, R., & McKean, M. (2000). College students' academic stress and its relation to their anxiety, time management, and leisure satisfaction. *American Journal of Health Studies*, 16(1), 41–53.
- Örtqvist, D., Drnovsek, M., & Wincent, J. (2007). The influence of coping strategies on new venture performance. *CTECHNICA*, 227.
- Patzelt, H., & Shepherd, D. A. (2011). Negative emotions of an entrepreneurial career: Self-employment and regulatory coping behaviors. *Journal of Business Venturing*, 26(2), 226–238.
- Purvanova, R. K., & Muros, J. P. (2010). Gender differences in burnout: A meta-analysis. *Journal of Vocational Behavior*, 77(2), 168–185.

- Rahim, A. (1996). Stress, strain, and their moderators: An empirical comparison of entrepreneurs and managers. *Journal of small business management*, 34(1), 46.
- Rizzo, J. R., House, R. J., & Lirtzman, S. I. (1970). Role Conflict and Ambiguity in Complex Organizations. *Administrative Science Quarterly*, 15(2), 150–163.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68–78.
- Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology*, 52(1), 141–166.
- Schaltegger, S. (2002). A framework for ecopreneurship. *Greener Management International*, 2002(38), 45–58.
- Schiffrrin, H. H., & Nelson, S. K. (2010). Stressed and happy? Investigating the relationship between happiness and perceived stress. *Journal of Happiness Studies*, 11(1), 33–39.
- Schindehutte, M., Morris, M., & Allen, J. (2006). Beyond achievement: Entrepreneurship as extreme experience. *Small Business Economics*, 27(4-5), 349–368.
- Schwarzer, R., & Taubert, S. (2002). Schwarzer, R., & Taubert, S. (2002). Tenacious goal pursuits and striving toward personal growth: Proactive coping. in *Beyond Coping: Meeting goals, visions and challenges*, 19–35.
- Shane, S., Locke, E. A., & Collins, C. J. (2003). Entrepreneurial motivation. *Human Resource Management Review*, 13(2), 257–279.
- Shepherd, C. D., Marchisio, G., Morrish, S. C., Deacon, J. H., & Miles, M. P. (2010). Entrepreneurial burnout: Exploring antecedents, dimensions and outcomes. *Journal of Research in Marketing and Entrepreneurship*, 12(1), 71–79.
- Sherman, C. L., Randall, C., & Kauanui, S. K. (2015). Are you happy yet? Entrepreneurs' subjective well-being. *Journal of Management, Spirituality & Religion*, 13(1), 7–23.
- Shin, Y. (2004). A person-environment fit model for virtual organizations. *Journal of Management*, 30(5), 725–743.
- Siegrist, J. (1996). Adverse health effects of high-effort/low-reward conditions. *Journal of Occupational Health Psychology*, 1(1), 27–41.
- Siegrist, J. (2010). Effort-reward imbalance at work and cardiovascular diseases. *International journal of occupational medicine and environmental health*, 23(3), 279–285.
- Siegrist, J., Starke, D., Chandola, T., Godin, I., Marmot, M., Niedhammer, I., & Peter, R. (2004). The measurement of effort–reward imbalance at work: European comparisons. *Social Science & Medicine*, 58(8), 1483–1499.
- Smith, H. JSIS 8(1) Master.
- Stephan, U. & Roesler, U. (2010). Health of entrepreneurs vs. employees in a national representative sample. *Journal of Occupational Health Psychology*, 83(3), 717–738.
- Tetrick, L. E., Slack, K. J., Da Silva, N., & Sinclair, R. R. (2000). A comparison of the stress-strain process for business owners and nonowners: Differences in job demands, emotional exhaustion, satisfaction, and social support. *Journal of Occupational Health Psychology*, 5(4), 464–476.
- Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a Methodology for Developing Evidence-Informed Management Knowledge by Means of Systematic Review. *British Journal of Management*, 14(3), 207–222.
- Ucbasaran, D., Shepherd, D. A., Lockett, A., & Lyon, S. J. (2012). Life After Business Failure: The Process and Consequences of Business Failure for Entrepreneurs. *Journal of Management*, 39(1), 163–202.
- Ucbasaran, D., Westhead, P., Wright, M., & Flores, M. (2010). The nature of entrepreneurial experience, business failure and comparative optimism. *Journal of Business Venturing*, 25(6), 541–555.
- Uy, M. A., Foo, M.-D., & Ilies, R. (2015). Perceived progress variability and entrepreneurial effort intensity: The moderating role of venture goal commitment. *Journal of Business Venturing*, 30(3), 375–389.

- Uy, M. A., Foo, M.-D., & Song, Z. (2013). Joint effects of prior start-up experience and coping strategies on entrepreneurs' psychological well-being. *Journal of Business Venturing*, (28), 583–597.
- van Auken, H. E., & Neeley, L. (1996). Evidence of bootstrap financing among small start-up firms. *The Journal of Entrepreneurial Finance*, 5(3), 235–249.
- van den Broeck, A., van Ruysseveldt, J., Smulders, P., & Witte, H. de. (2011). Does an intrinsic work value orientation strengthen the impact of job resources?: A perspective from the Job Demands–Resources Model. *European Journal of Work and Organizational Psychology*, 20(5), 581–609.
- van Hoek, R., Kovács, G., & Spens, K. M. (2005). Abductive reasoning in logistics research. *International Journal of Physical Distribution & Logistics Management*, 35(2), 132–144.
- van Vegchel, N., Jonge, J. de, Bakker, A., & Schaufeli, W. (2002). Testing global and specific indicators of rewards in the Effort-Reward Imbalance Model: Does it make any difference? *European Journal of Work and Organizational Psychology*, 11(4), 403–421.
- van Vegchel, N., Jonge, J. de, Bosma, H., & Schaufeli, W. (2005). Reviewing the effort-reward imbalance model: drawing up the balance of 45 empirical studies. *Social science & medicine* (1982), 60(5), 1117–1131.
- Volery, T., & Pullich, J. (2010). Healthy entrepreneurs for healthy businesses: An exploratory study of the perception of health and well-being by entrepreneurs. *New Zealand Journal of Employment Relations*, 35, 4–16.
- Wiklund, J., & Shepherd, D. (2003). Aspiring for, and achieving growth: The moderating role of resources and opportunities *Journal of Management Studies*, 40(8), 1919–1941.
- Wincent, J., Örtqvist, D., & Drnovsek, M. (2008). The entrepreneur's role stressors and proclivity for a venture withdrawal. *Scandinavian Journal of Management*, 24(3), 232–246.

8 Appendix

A. Interview Guide

Interview guide 'Entrepreneurial well-being'

Using Effort Reward Imbalance Model

Welcome participant, explain goal of the research (entrepreneurial well-being), getting consent.

Step 1. Explain structure of the interview (Grid, story-telling, followed by semi-structured interview questions, followed by a survey)

Step 2. Priming the subjects using a grid of entrepreneurial activities

<START THE RECORDING>

Use this Script: The job of an entrepreneur is associated with both efforts and rewards. Could you circle **red** the areas which require most effort by you (i.e. are most demanding) and circle **green** those that you feel are the most rewarding ones (in terms of e.g. esteem, money, etc.)?

ENTREPRENEURIAL ACTIVITY GRID (Entrepreneur's first name)

ORGANIZATION/ VENTURE BUILDING	RESOURCE MANAGEMENT	MARKETING	PRODUCTION	RESPONDING TO GOVERNMENT AND SOCIETY
Business Opportunity Development	Finance: saved money to invest, Asking for funding, Invested own money	Social Networking (customers, other businesses, suppliers)	Building Prototypes	Applied patent/license
Devoted Full-time	Human: hiring employees, organizing start-up team	Customer Outreach	Development of models, services	Environmental Impact and Sustainability
Prepared a Business Plan	Building + Equipment: bought facilities, looked for facilities, rent/lease	Establishing Partnerships	Outsourcing / Managing Production Process	Dealing with competition
Formed Legal Entity				

Step 3. Story-telling exercise: a day in the life of a start-up entrepreneur

- Show the panel of pictures and ask the entrepreneur to narrate a story based on the pictures
- A separate print out of the pictures on a single page would be recommended. Also use the one with male model for male entrepreneurs and vice versa.
- Use the panel with male and female model for the interview subject appropriately.

Script: Story-Telling Technique: I am now going to present you a picture story. It shows the daily life of an entrepreneur. Please be so kind as to tell me (the story of) what happens in each of the pictures, and how you think the entrepreneur feels throughout the day – to make it a real story, please give the entrepreneur in the story a name.

Show the entrepreneur the panel of pictures in the next page.

1



2



3



4



5



6



7



1



2



3



4



5



6



7



Step 4. Semi-structured interview questions:

Script: Thank you for telling me such an exciting story. Finally, I would like to ask you a few more concrete questions. There is no right or wrong in terms of answers. I just want to get a better impression of the way you perceive your work as an entrepreneur.

Question	Coding
1. What attracted you to entrepreneurship/what motivated you to become an entrepreneur?	(necessity vs opportunity)
2. What are the work tasks that you put most of your energy/ focus into? Why?	Effort (Extrinsic and Intrinsic)
3. How would you describe stress/a stressful situation in your work as an entrepreneur?	Effort- Extrinsic – Demands, Obligations
4. In which work situations do you feel emotionally exhausted?	Effort- Intrinsic – Need for Control, Coping, over-commitment?)
5. How does a successful day look like for you? What makes you feel accomplished at the end of the work day? (How often does “feeling accomplished” happen?)	Reward/ to some extent Overcommitment <u>Outcome – probe directly for balance/imbalance</u>
6. What is rewarding to you in your position as an entrepreneur?	Reward, well-being
7. What does work-life balance mean to you? What do you do to achieve it?/ In which situations/cases do you think you cannot achieve it?	Effort (Extrinsic: e.g. time pressure) Reward, well-being
8. a) How do you reward yourself after accomplishing your entrepreneurial goals? 8. b) How do you cope with stress at work?	Coping

<p>9. a) When you feel stressed, how does this affect your performance at work?</p> <p>9. b) How does the stress you experience at work affect your business performance (financial metrics such as sales, turnover), operational (product/process innovation)? When?</p> <p>9. c) How does stress within your work as an entrepreneur affect your personal life?</p>	Outcome
<p>10. Given your experience as an entrepreneur, what advice would you give to other entrepreneurs in terms of managing stress?</p>	Coping

B. Stress Literature Overview

Author and Title	Theoretical Lens and Important Variables (Potential Stressors)	Hypothesis/ Assumptions	Key Findings
Wincent, J., Örtqvist, D., & Drnovsek, M. (2008). The entrepreneur's role stressors and proclivity for a venture withdrawal.	<p>Role Theory</p> <p>Role Conflict: When expectations and requirements of stakeholders are incompatible and when it is difficult or impossible to perform their roles.</p> <p>Role Ambiguity: A perceived lack of information with respect to stakeholder's priorities, expectations, and evaluation criteria. Ambiguity on how to behave and perform role tasks and being unclear about ambiguous demands and responsibilities</p> <p>Role Overload: Occurs when expectations are impossible to perform and fulfill within the given limitations (demands exceed resources, including time)</p>	Testing the relationship between the various role stressors with exhaustion and reduced perception of compensation for one's efforts , (PCOE) which in the long run could lead to a proclivity for early venture withdrawal (VW) .	<p>There is an indirect influence of role stressors and a direct effect of exhaustion and reduced (PCOE) on VW.</p> <p>Exhaustion and PCOE are mediators, transferring effects of role stressors to a proclivity to VW.</p> <p>Exhaustion has immediate effects on early VW, while PCOE is lagged and evident in the long-run.</p>
Buttner, E. H. (1992). Entrepreneurial stress: is it hazardous to your health?	<p>Role Theory</p> <p>Stress Sources:</p> <p>Role Ambiguity, Role Conflict, Role Overload, Job vs. Non-Job Conflict, Responsibility Pressure, Quality Concern</p> <p>Moderators:</p> <p>Personality Types</p> <p>Type A : Aggressive, hostile, sense of urgency, impatience, achievement orientation.</p> <p>Type B: More relaxed, slower paced and less harried disposition</p> <p>Outcomes:</p> <p>Job Satisfaction, Frequency of Health Problems</p>	<p>Role stressors are positively related to entrepreneurial health problems and influence job satisfaction.</p> <p>Type A entrepreneurs may be of higher risk for health problems and report more problems than Type B.</p>	<p>Entrepreneurs concerned about quality of their decisions report more health problems.</p> <p>Weightiness of decisions related to suffering more health problems.</p> <p>Entrepreneurs with high levels of role ambiguity reported higher stress and marginally lower job satisfaction.</p> <p>Type A appears to be better at managing role ambiguity more effectively and with less stress than Type B. Type B correlates with role ambiguity and frequency of health problems.</p>
Van Vegchel, N. , de Jonga, J., Bosma, H., Schaufeli, W. (2005) Reviewing the effort–reward imbalance model:drawing up the balance of 45 empirical studies	<p>Effort-Reward-Imbalance Model:</p> <p>Overcommitment: Some individuals display overcommitment in order to cope with high work demands and are characterized by their need for achievement and being unable to withdraw from work, causing them to work harder and longer hours to accomplish the task.</p>	<p>"1) the extrinsic ERI hypothesis: high efforts in combination with low rewards increase the risk of poor health,</p> <p>(2) the intrinsic overcommitment hypothesizes a high level of overcommitment may increase the risk of poor health, and</p> <p>(3) the interaction hypothesis: employees reporting an extrinsic ERI and a high level of overcommitment have an even higher risk of poor health." p.1117</p>	<p>-"Extrinsic ERI hypothesis has gained considerable empirical support." p.1117</p> <p>- "Results for overcommitment remain inconsistent and the moderating effect of overcommitment on the relation between ERI and employee health has been scarcely examined." p.1117</p>

C. Ryff (1989) Well-being Dimensions –

Definitions of Theory-Guided Dimensions of Well-Being

Self-acceptance

High scorer: Possesses a positive attitude toward the self; acknowledges and accepts multiple aspects of self including good and bad qualities; feels positive about past life.

Low scorer: Feels dissatisfied with self; is disappointed with what has occurred in past life; is troubled about certain personal qualities; wishes to be different than what he or she is.

Positive relations with others

High scorer: Has warm, satisfying, trusting relationships with others; is concerned about the welfare of others; capable of strong empathy, affection, and intimacy; understands give and take of human relationships.

Low scorer: Has few close, trusting relationships with others; finds it difficult to be warm, open, and concerned about others; is isolated and frustrated in interpersonal relationships; not willing to make compromises to sustain important ties with others.

Autonomy

High scorer: Is self-determining and independent; able to resist social pressures to think and act in certain ways; regulates behavior from within; evaluates self by personal standards.

Low scorer: Is concerned about the expectations and evaluations of others; relies on judgments of others to make important decisions; conforms to social pressures to think and act in certain ways.

Environmental mastery

High scorer: Has a sense of mastery and competence in managing the environment; controls complex array of external activities; makes effective use of surrounding opportunities; able to choose or create contexts suitable to personal needs and values.

Low scorer: Has difficulty managing everyday affairs; feels unable to change or improve surrounding context; is unaware of surrounding opportunities; lacks sense of control over external world.

Purpose in life

High scorer: Has goals in life and a sense of directedness; feels there is meaning to present and past life; holds beliefs that give life purpose; has aims and objectives for living.

Low scorer: Lacks a sense of meaning in life; has few goals or aims, lacks sense of direction; does not see purpose of past life; has no outlook or beliefs that give life meaning.

Personal growth

High scorer: Has a feeling of continued development; sees self as growing and expanding; is open to new experiences; has sense of realizing his or her potential; sees improvement in self and behavior over time; is changing in ways that reflect more self-knowledge and effectiveness.

Low scorer: Has a sense of personal stagnation; lacks sense of improvement or expansion over time; feels bored and uninterested with life; feels unable to develop new attitudes or behaviors.

D. Entrepreneurs Burnout and OVC Rating

Entrepreneur Info		Result	Overcommitment Score (Qualitative Assessment)
R1 - OPPORTUNITY Age:31 Male Dipl.-Ing. Entrepr. Experience: 4 years (2 prior ventures)	Founded: Oct., 2015 1 male co-founders Industry: Renewable Energies	No Burnout (medium exhaustion, low cynicism, high efficacy)	Low
R2 - OPPORTUNITY Age: 30 Male Dipl.-Ing. Entrepr. Experience: 1 year	Founded: Feb., 2016 1 male co-founder 1 employee Industry: Financial	Weak burnout (high exhaustion, low cynicism, medium efficacy)	Medium
R3 - OPPORTUNITY Age: 28 Female MSc. Entrepr. Experience: 2,5 years	Founded: Jan., 2015 3 male co-founders 5 employees Industry: Retail, Food Service	Weak burnout (high exhaustion, medium cynicism, high efficacy)	High
R4 - OPPORTUNITY Age:34 Female Dipl.-Ing. Entrepr. experience: 3 years	1 male co-founder Founded: Jan. 2013 Industry: Architectural Services	Weak burnout (high exhaustion, medium cynicism, medium efficacy)	High
R5 - OPPORTUNITY Age: 33 Male MBA Entrepr. Experience: 16 years (3 prior ventures)	No co-founder Founded: April 2016 10 employees Industry: Recycling	No burnout (low exhaustion, low cynicism, high efficacy)	low
R6 - OPPORTUNITY Age: 26 Male MSc. Entrepr. experience: 2 years	Founded: Oct. 2014 2 male co-founders Industry: Renewable Energies	No burnout (low exhaustion, medium cynicism, high efficacy)	Medium
R7 - OPPORTUNITY Age: 46 Male High School Diploma Entrepr. Experience: 20 years (2 prior ventures)	Founded: Aug., 2016 4 male co-founders, 1 female co-founder, (6 volunteers) Industry: Food Service	No burnout (low exhaustion, medium cynicism, high efficacy)	Medium
R8 - OPPORTUNITY	Founded: Aug. 2016		

Age: 33 Female MSc. Entrepr. Experience: 1 year	No co-founders (5 volunteers) Industry: Retail, Food Service	No burnout (low exhaustion, low cynicism, high efficacy)	Medium
R9 - OPPORTUNITY Age: 38 Female PhD Entrepr. Experience: 2 years	Founded: July 2014 No co-founders 1 employee Industry: OnlineRetail	No burnout (medium exhaustion, low cynicism, high efficacy)	Medium
R10 - RATIONALITY – Opportunity Age: 29 Female MSc. Entrepr. Experience: 10 years (part-time/free-lancing)	Founded: Nov. 2014 3 male co-founders 8 employees + 20 students Industry: Renewable Energies	Weak burnout (medium exhaustion, high cynicism, high efficacy)	Medium
R11 - OPPORTUNITY Age: 27 Male Msc. Entrepr. Experience: 2 years	Founded: Dec. 2014 3 male co-founders, 1 female co-founder 1 Intern Industry: Renewable Energies	No Burnout (low exhaustion, medium cynicism, high efficacy)	Low
R12 - OPPORTUNITY Age: 32 Female Msc. Entrepr. Experience: 1 year	Founded: Jan. 2016 1 male co-founder 1 intern Industry: Apparel & Textile	Weak burnout (medium exhaustion, low cynicism, medium efficacy)	Medium
R13 – OPPORTUNITY Rationality Age: 40 Male Dipl.-Mgmt Entrepr. Experience: 17 years (~6 prior ventures)	Founded: Feb., 2013 1 male co-founder 1 employee Industry: Agriculture	No burnout (low exhaustion, low cynicism, high efficacy)	Medium
R14 - OPPORTUNITY Age: 26 Male MSc. Entrepr. Experience: 2 years (1 prior venture)	Founded: April 2014 1 male co-founder 3 Collaborating Partners Industry: Manufacturing & Retail	No Burnout (low exhaustion, medium cynicism, high efficacy)	Low
R15 – OPPORTUNITY - Rationally Age: 27 Female BSc. Entrepr. Experience: 4 years (1 prior venture)	Founded: Oct. 2015 1 male co-founder 50+ mix between employees + volunteers Industry: Food Service	Weak burnout (medium exhaustion, medium cynicism, medium efficacy)	Medium

E. Lists of Codes

Effort
Working long hours (Patzelt & Shepherd, 2011 p.227)
screening for, and recognition of new business opportunities (Patzelt & Shepherd, 2011 p. 227} customer acquisition
acquisition of financial and non-financial resources (Patzelt & Shepherd, 2011 p. 227}
managing and leading employees (Patzelt & Shepherd, 2011 p. 227}
(Creative) problem solving (Patzelt & Shepherd, 2011 p. 227}
Quick decision making in situations characterized by high levels of uncertainty and change (Patzelt & Shepherd, 2011 p. 227}
Responsibility for their business and employees is a burden (Boyd and Gumpert, 1983). (Patzelt & shepherd (2011), p.227} Responsibility Pressure (cf. House et al., 1979) (Buttner, 1992)
Extrinsic source demands on the job e.g. tight deadlines, many tasks (Siegrist, 1996, p.30) External demands & conflicting expectation of stakeholders (Patzelt & shepherd (2011), p.227; Wincent et al. (2008) p.235)
Managing personal and work life actively

Role Conflict (Wincent et al., 2008) When expectations and requirements of stakeholders are incompatible and when it is difficult or impossible to perform their roles.
Role Ambiguity (Wincent et al., 2008) A perceived lack of information with respect to stakeholder's priorities, expectations, and evaluation criteria. Ambiguity on how to behave and perform role tasks and being unclear about ambiguous demands and responsibilities
Role Overload (Wincent et al. 2008) Occurs when expectations are impossible to perform and fulfill within the given limitations (demands exceed resources, including time) perceived deficiency of skills and/or talents required to successfully complete task (Wincent et al. (2008), p.235)
Financial Insecurity - Early Stage - own funding, savings are at risk, next funding is source not secured
People Problems: Start-up Team Doesn't Agree/ Interteam Conflict / Interpersonal Conflicts (Lu, 1999)
Managing Home and Work - Private Life as stress source
Failure, Set-back, Loss, Adversity

Reward
<p>Intrinsic rewards/ Intrinsic success measures/personal rewards: "intrinsic motivation, the inherent tendency to seek out novelty and challenges, to extend and exercise one's capacities, to explore, and to learn" (Ryan & Deci (2000), p. 70). (Baron et al, 2013) "Sheldon and Kasser (1998) found in a longitudinal study that well-being was enhanced by attainment of intrinsic goals, 'whereas success at extrinsic goals provided little benefit' (Ryan & Deci, 2000, p.75)</p>
Socialization with alike people and other entrepreneurs, VC, etc. industry professionals
Personal Growth and Development (Schwarzer & Taubert, 2002)
Meaning in their work (Amit, et al., 2000; Sherman, et al., 2015)
<p>work itself is rewarding perks such as networking, traveling, learning</p>
<p>task accomplishment (Goldsby et al., 2005) "Perceived, subjective progress" (Uy, et al., 2015) self-evaluation or appraisal of an individual's success in pursuing a particular goal" Experiencing progress (Uy et al., 2015) (Satisfying need for achievement??)</p>
<p>independence, freedom. satisfaction of being one's own boss, being in control of own destiny, ultimate responsibility for success of venture. (Goldsby et al., 2005) Control</p>
Satisfying need for achievement
Extrinsic rewards
<p>Esteem (Siegrist et al., 2004)</p>
<p>Job security or promotional prospects (Siegrist et al., 2004)</p>
<p>Financial reward (Siegrist et al., 2004)</p>
Other extrinsic?

Effort-Reward Outcomes and Consequences
Job Satisfaction (Buttner, 1992)
Health Problems (e.g. Siegrist, 1996; Cardon & Patel, 2015)
Strain, Exhaustion & drained energy "An entrepreneur's exhaustion is defined as 'feelings of being emotionally overextended and drained' and is an important component of burnout (Leiter & Maslach, 1988, p. 297)." (Wincent et al., 2008 p.235) (e.g. Siegrist, 1996; Wincent et al, 2008)
Feelings of loneliness & Isolation (Patzelt & Shepherd, 2011)
"...Elevated levels of frustration (Du Toit, 1980) and grief (Shepherd, 2003)". (Patzelt & shepherd (2011), p.227; Wincent et al. (2008), p. 234)
Well-being self-efficacy, enhances individual's use of cognitive and emotional capabilities, could influence entrepreneur's productivity and performance. (Uy, et al. 2013)
Burnout – (exhaustion, cynicism, self-efficacy) (Maslach, 1988) (Feldt et al., 2013)
work-engagement "Work engagement is defined as a positive, fulfilling, work-related state of mind that is characterized by vigour (high levels of energy and resilience while working, the willingness to invest effort in one's work, persistence in the face of difficulties), dedication (sense of significance, enthusiasm, inspiration, pride and challenge at work), and absorption (being fully concentrated and happily engrossed in one's work " (p.68). (Feldt et al., 2013) Continued Engagement is a predictor of entrepreneurial business success (Sherman et al., 2015)
heightened performance levels (Cardon & Patel, 2015 p.385)
"repeated exposure to stress "toughens up" people (Miller, 1980) and increases tolerance for stress; not only behaviorally, but also physiologically)" (Cardon & Patel (2015), p.285).
Proclivity for a venture withdrawal (Wincent et al., 2008)
Personal Performance (Hatak et al., 2015)
Venture Performance, employee growth, new product/service offering, turnover, innovation.etc. (Hatak et al., 2015; Wincent et al, 2008)

Coping
Problem-based coping/ Active coping/ Approach coping/ task-oriented coping (Drnovšek et al., 2010; Patzelt & Shepherd, 2011; Uy et al., 2013) defining the problem, generating alternative solutions take action and solve problems personal initiative, action-oriented
Emotion-based coping/ Avoidance coping (Drnovšek et al., 2010; Patzelt & Shepherd, 2011; Uy et al., 2013) behavioral responses to regulate the affective consequence avoidance, distancing, temporarily disengagement, take breaks to rejuvenate
Decision Autonomy (Patzelt & Shepherd, 2011) freedom to organize the work and their time. – enables the use of several coping mechanisms, entrepreneurs have advantage of being able to structure their schedule
Future Oriented Coping (FOC) - proactive coping and preventative coping (Eager et al., 2015) Preventative: taking stock, accumulation of resources to offset future losses (stressors are threats) Proactive: "efforts to build up resources that facilitate promotion towards challenging goals and personal growth" (Schwarzer & taubert, 2002, p.9). (stressors are viewed as challenges) (Eager, et al. (2015), p. 258)
Reducing ambitious goals into manageable progress markers (increases perception of progress and fosters engagement) (Uy et al., 2015)
Exercise (Goldsby et al., 2005) (can help attain personal satisfaction, independence, autonomy) (moderates impact of stress on health)
Recovery Experiences: Empirical evidence that recovery experiences promote well-being (Feldt et al., 2013) (previously identified by Sonnentag and Fritz 2007) Psychological detachment: engaging mentally from work during off-job time (roots in Effort-Recovery (ER)model by Meijman & Mulder, 1998)) relaxation: a low activation (decreased sympathetic activation) and increased positive affect (roots in ER model) mastery during off-job time: pursuing mastery-related off-job activities that offer an individual challenges or opportunities to learn new skills. (roots in Conservation of resources(COR) theory by Hobfoll, 1998) control during off-job time: applied to leisure time refers to control over such decisions as which activity to pursue, and when and how to pursue this chosen activity. (roots in the COR model)
Social Support (Tetrick et al., 2000; Van Ypern & Hagedoorn, 2003)
Time Management Skills (setting goals and priorities, lists, organized workplace, and perceived control of time taken from Maxan, et al., 1991) (Misra, McKean, 2000)
Appreciate the little successes and celebrate a job well done. Acknowledgement of achieving milestones and other important tasks or goals. Important for work engagement, seeing progress....
Personal role redefinition. The personal role redefinition coping strategy is activated when an entrepreneur changes his or her personal perceptions of role senders' expectations (Hall 1972). This strategy involves changing priorities and dismissing some already-planned activities (Lang & Markowitz 1986) and declining additional responsibilities. Yet personal role redefinition does not imply only reduced tasks; it can also involve reduced effort, such as offering a lower quality of products or services (Hall 1972). Examples include pragmatisms, cutting corners, and compromising quality in accordance with given time and resources.
Structural role redefinition. the entrepreneur tries to alter external, structurally imposed expectations of the role by negotiating those expectations with role senders (Hall 1972). Thereby, this coping strategy involves confronting stakeholders (role senders) to negotiate with role senders either role expectations or tasks to be performed (Hall 1972, Lang & Markowitz 1986).
Reactive role behavior corresponds to behavioral changes that result in increased role performance in the eyes of the stakeholders (Hall 1972). In this mode, an entrepreneur focuses more on carrying out tasks by working longer hours to meet stakeholder expectations (Lang & Markowitz 1986). Therefore, execution of such a strategy includes activities such as scheduling, organizing, and planning in an attempt to structure tasks so as to complete them in a timelier manner.
Passive role behavior results in diversions when unable to alter expectations. Although an entrepreneur realizes that expectations must be met, they cannot be met only through increased role performance (Hall 1972, Lang & Markowitz 1986).

Personal Resources
Happiness preceeds successful outcomes by creating positive affect --> among others: effective coping with challenge and stress
Positive Affect (Cardon & Patel, 2015) dispositional tendency to experience positive emotions across situations and time. be lively, sociable and often in a positive mood Experiencing high energy, pleasurable engagement, and alertness
Overcommitment (Siegrist, 2004) need for achievement and being unable to withdraw from work working long hours (Feldt et al., 2013) need for control and gain esteem (Siegrist, 2004)
Psychological Capital (Baron et al., 2016) personal resource reflecting: Self-efficacy, optimism, hope, resilience As Peterson et al. (2011: 428) note, psychological capital provides individuals with the confidence to undertake challenging tasks, to persevere in performing them, to redirect their efforts when necessary, to make positive attributions about succeeding now and in the future, and to show resilience after failures.
Age and meta-cognitive knowledge (Baron et al., 2013) entrepreneur's self-knowledge, their understanding of their own capacity to resist stress --> tends to increase with age
Tension Discharge Rate (Buttner, 1992) ability to leave work stress at work
Being clear on personal goals. not losing sight of what is important to oneself. not setting goals too high or goals that the person does not even want to achieve. Conflict with what they want and think an entrepreneur should be like?
Appraisal of stressor as threat (negative) or challenge (Positive) (Eager, Grant, Ferris 2015, p. 256)
Perfectionism (Dunkley et al., 2003): self-critical perfectionistic individuals experience both high levels of negative affect and low levels of positive affect: they have maladaptive tendencies: emotionally reactive to stressors that threaten personal performance, loss of control, and criticism from others (p.249)
Not afraid of failure (entrepreneurial trait) – Optimistic? Tenacious? (Schwarzer & Taubert 2002)
Prior start-up experience (Uy et al., 2013) source of knowledge, can offer a sense of control Learning from Experience Accepting Failure/ a Loss and learn from it.
Motivations and motivational patterns
Opportunity-drive, rationality-driven, necessity-driven (e.g. Hatak et al., 2015)
Venture goal commitment (regulates the perception of variability in progress, feeling less discouraged - continue their engagement Uy et al., 2015)
Viewing motivations as rewards and falling back on them --> tenacity to move forward during difficult times. (Sherman et al., 2015) p.9
Intrinsic motivation "...the inherent tendency to seek out novelty and challenges, to extend and exercise one's capacities, to explore, and to learn." (Ryan & Deci, 2000, p.70)
Extrinsic motivation "...refers to the performance of an activity in order to attain some separable outcome and, thus, contrasts with intrinsic motivation..." Ryan & Deci, 2000, p.71).