Necessity Entrepreneurship: Individual, Environmental and Public Policy-Related Factors Influencing the Process of Opportunity Exploitation under Unfavorable Circumstances

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"Do one thing every day that scares you."
— Eleanor Roosevelt

I dedicate this dissertation to my parents as well as my sister. Thank you for teaching me what's important in life, and being a great source of inspiration.

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Abstract

The topic of entrepreneurship, i.e. the process surrounding the identification and exploitation of opportunities by an individual, has received a great amount of interest from scholars throughout the last decades. Theoretical lenses from disciplines as varied as psychology, economics, strategy and sociology have been successfully employed in entrepreneurship research, greatly increasing our understanding particularly of high-growth businesses funded by venture capital. Yet, surprisingly little is know about the large number of individuals desiring to become self-employed facing less fortunate circumstances than the glamorous fast-growing enterprises dominating the public perception of entrepreneurial activity. This dissertation aims to shed light on three critical research questions surrounding entrepreneurship occurring in unfavorable circumstances, employing individual, environmental, as well as public-policy perspectives.

The first article reviews and reconceptualizes necessity entrepreneurship, suggesting a clear definition of the phenomenon and proposing to differentiate between an absolute versus a relative form of necessity. This perspective allows resolving several inconsistencies in the prior literature and promises a better understanding of the antecedents and outcomes of firm creation under unfavorable circumstances. While absolute necessity is evoked predominantly by certain environmental parameters, relative necessity results from negative situational influences. It is suggested that the entrepreneurial process differs for individuals driven by necessity compared to their non-necessity driven counterparts, as well as between necessity in its absolute- and its relative form.

The second research study focuses on a previously neglected outcome measure of entrepreneurship, the phenomenon of work satisfaction for the self-employed. Self-employment has repeatedly been associated with high rates of work satisfaction in prior studies. Although different explanations for this phenomenon have been offered, the drivers of work satisfaction in entrepreneurship are still largely unknown to date. This study reveals that the individual's psychological makeup as well as the social support that the founder receives when starting his/her company are significant

predictors of entrepreneurial work satisfaction. The implications of these findings for the entrepreneurship and job satisfaction literatures are discussed.

The last research study subsequently changes the focal unit of analysis to the public policy level. The current self-employment support programs within a number of European countries are analyzed and compared, revealing the key policy dimensions with regards to their administrative structure, the program eligibility and admission criteria, the practices related to the provision of financial as well as non-financial support. An examination of contrasting policy approaches led to the discovery of three distinct policy strategies that have been implemented by the governmental institutions studied in this work. Several insights have been revealed by this research project which are likely to be of relevance also for policymakers in places where similar programs are absent thus far.

Keywords: necessity entrepreneurship, self-employment, unfavorable circumstances, unemployment, individual factors, personality traits, environmental influences, theory, conceptual model, work satisfaction, job satisfaction, social support, cofounders, outcome measures, policy support, governmental contribution, political strategy, international comparison

Résumé

Le thème de l'entreprenariat, c'est-à-dire des processus qui accompagnent l'identification et l'exploitation des opportunités par un individu, a bénéficié d'un vaste intérêt académique au cours des dernières décennies. Les points de vue théoriques de disciplines comme la psychologie, l'économie, la stratégie et la sociologie ont été appliqués avec succès en entreprenariat, augmentant beaucoup nos connaissances de ce sujet, en particulier en ce qui concerne les entreprises à croissance rapide financées par le capital-risque. Cependant, on constate que peu de recherches ont été effectuées sur le grand nombre d'individus devenus indépendants à la suite de circonstances fortuites qui contrastent avec les conditions plus enviables dont bénéficient les entreprises à croissance rapide, telles que celles qui sont habituellement associées à l'entrepreneuriat par le grand public. Ce travail de thèse vise à mettre en lumière trois problématiques relatives à l'entrepreneuriat lorsqu'il est soumis à des circonstances défavorables, en utilisant différentes perspectives : individuelle, environnementale, ainsi que relevant de l'action de politique publique.

Le premier article révise et re-conceptualise l'entrepreneuriat de nécessité, en proposant une définition claire du phénomène, et en suggérant de différencier entre une forme absolue et relative de la nécessité. Cette perspective permet de résoudre plusieurs inconsistances dans la littérature et propose une meilleure compréhension des antécédents et résultats de la création d'entreprise en conditions défavorables. Alors que la nécessité absolue est évoquée de manière prédominante par certains paramètres environnementaux, la nécessité relative résulte de l'influence de situations négatives. Il est suggéré que le processus entrepreneurial est différent pour des individus qui sont motivés par la nécessité en comparaison avec leur semblables qui ne le sont pas, de même qu'il diffère s'il s'agit de nécessité absolue ou relative.

Dans la deuxième étude, nous nous focalisons sur une mesure des résultats de l'entrepreneuriat auparavant négligée : le phénomène de satisfaction au travail pour les indépendants. Le travail en tant qu'indépendant a été associé à un haut niveau de satisfaction de manière récurrente dans les études antérieures. Bien que différentes explications de ce phénomène été offertes, les moteurs de la satisfaction au travail

dans l'entrepreneuriat sont encore largement inconnus à ce jour. Nous montrons que la psychologie individuelle de l'entrepreneur ainsi que l'encouragement dont il bénéficie de la part de son entourage en lançant son entreprise sont des facteurs déterminants de la satisfaction au travail. Ces résultats ont plusieurs implications sur la litérature relative à l'entrepreneuriat et à la satisfaction professionnelle.

La dernière étude vise à élargir l'analyse vers une perspective d'action de politique publique. Les programmes actuels d'encouragement aux travailleurs indépendants dans plusieurs pays européens sont analysés, lesquels révèlent les dimensions clés des différents programmes du point de vue de leur structure administrative, de leurs conditions d'éligibilités et critères d'admission, ainsi que de leurs pratiques liées aux offres d'appuis financiers et non financiers. Une étude des différentes approches politiques laisse transparaître trois stratégies distinctes qui ont été implémentées par les différentes institutions gouvernementales. Plusieurs conclusions ressorties de ce projet seront probablement d'intérêt majeur pour les administrations politiques, là où de tels programmes sont encore absents.

Mots clés : entrepreneuriat de nécessité, travailleur indépendant, circonstances défavorables, chômage, facteurs individuels, traits de personnalité, influence de l'environnement, théorie, modèle conceptuel, satisfaction au travail, encouragement social, cofondateurs, mesure de résultats, contribution gouvernementale, stratégie politique, comparaison internationale

Zusammenfassung

Das Thema Entrepreneurship, i.e. der Prozess der Identifikation und Nutzung von Geschäftsmöglichkeiten durch eine Person, hat in den letzten Jahren grosse Aufmerksamkeit in der Forschungsgemeinde erhalten. Theoretische Perspektiven aus verschiedenen Forschungsdisziplinen wie der Psychologie, Soziologie, sowie der Volkswirtschafts- und Strategieforschung haben insbesondere den Wissensstand über mit Wagniskapital finanzierte Hochtechnologie-Gründungen stark erweitert. Überraschend wenig ist hingegen über die grosse Anzahl von Personen bekannt, welche sich in weniger vorteilhaften Umgebungen selbstständig machen als die geringe Anzahl höchst erfolgreicher Unternehmen, welche die öffentliche Wahrnehmung von unternehmerischer Aktivität bestimmen. Diese Dissertation leistet einen Beitrag in Form von drei kritischen Forschungsfragestellungen, wobei das Thema „Unternehmensgründungen unter unvorteilhaften Umständen“ aus theoretischer- und personenbezogener Sicht, sowie aus der Perspektive der involvierten politischen Akteure genauer beleuchtet wird.

Der erste Forschungsaufsatz befasst sich mit dem Phänomen der sogenannten „Notgründungen“ (abgeleitet aus dem englischen Begriff necessity entrepreneurship), wobei zunächst eine klare Definition des Begriffs entwickelt wird und im Anschluss eine Differenzierung zwischen absoluten- und relativen Notgründungen vorgeschlagen wird. Diese neuartige Sichtweise vermag mehrere Widerspüche in der bestehenden Literatur zu erklären und verspricht zudem ein besseres Verständnis der Ursachen und Folgeprozesse von Unternehmensgründungen unter unvorteilhaften Umständen. Während absolute Notgründungen insbesondere durch bestimmte Umweltfaktoren begünstigt werden resultieren relative Notgründungen vorallem durch negative situationspezifische- und personenbezogene Umstände. Demnach unterscheiden sich die Prozesse von Unternehmensgründungen nicht bloss zwischen den typischerweise studierten „freiwilligen“ Gründungen und Notgründungen, sondern zusätzlich zwischen absoluten- und relativen Notgründungen.

Im zweiten Forschungsaufsatz wird ein bisher in der akademischen Forschung vernachlässigtes Ergebnis unternehmerischer Aktivität näher beleuchtet: Das Niveau

der Arbeitszufriedenheit von Selbstständigen. Obwohl zahlreiche Forschungsartikel die hohe Arbeitszufriedenheit von selbstständig tätigen Personen bestätigen und verschiedene Erklärungsansätze diskutiert werden, so sind die Ursachen dieses Ergebnisses bis heute weitgehend ungeklärt. Diese Studie identifiziert einen Zusammenhang zwischen der Gründerpersönlichkeit sowie der Unterstützung durch das soziale Umfeld und der resultierenden Arbeitszufriedenheit der Unternehmensgründer. Im Anschluss werden die Implikationen dieser Ergebnisse für die Unternehmensgründungsforschung sowie für die Arbeitszufriedenheitsliteratur diskutiert.

Der letzte Forschungsaufsatz widmet sich dem Thema Unternehmensgründungen aus Sicht des Staates und der Politik. In dieser Studie werden die gegenwärtig bestehenden Unterstützungsprogramme in einer Reihe europäischer Länder auf ihre derzeitige Ausgestaltung hin untersucht. Zentrale Unterscheidungsmerkmale lassen sich demnach in die Dimensionen organisatorische Struktur, Programm-Eintrittsbarrieren und Teilnahme-voraussetzungen, Finanzielle Unterstützung sowie Nichtfinanzielle Unterstützung kategorisieren. Eine vergleichende Gegenüberstellung von politischen- und gesellschaftlichen Strategien zur Unterstützung von Unternehmensgründungen zeigt drei unterschiedliche Unterstützungsformen, welche von den jeweiligen staatlichen Einrichtungen implementiert wurden. Eine Reihe von Erkenntnissen von Bedeutung unter anderem für Länder, welche derzeit noch keine derartigen Unterstützungsprogramme eingeführt haben, bilden das Ergebnis dieser Arbeit.

Schlüsselwörter: Notgründungen, Selbstständigkeit, Unvorteilhafte Umstände, Arbeitslosigkeit, Personenbezogener Einfluss, Persönlichkeitsfaktoren, Umgebungseinflüsse, Theorie, Konzeptionelles Modell, Arbeitszufriedenheit, Berufszufriedenheit, Soziale Unterstützung, Mitgründer, Teamgründungen, Gründungsergebnis, Staatliche Unterstützung, Politische Strategie, Internationaler Vergleich

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1 Introduction

1.1 Motivation

Located at the crossroads of several, typically independently studied disciplines, the field of entrepreneurship represents an inherently interesting topic. Originating from the French verb "entreprendre", meaning "to undertake", the actions of entrepreneurial individuals have caught the interest of scholars at least since Schumpeter's *Theory of Economic Development* (1934), which explained the importance of entrepreneurship in modern economic societies. According to Schumpeter, entrepreneurship is closely related to innovation, involving the recombination of existing resources to create new value. The rise of venture capital and increasing rates of self-employment since the 1970's (Blau, 1987; Devine, 1994) subsequently also lead to heightened scholarly interest, promoting the phenomenon of entrepreneurship from a previously neglected topic to a field of study and scientific investigation.

From a scholarly perspective, entrepreneurship is highly fascinating and intriguing, as it frequently describes how the combination of multiple subjects can turn out to be greater than the sum of its parts. For example, entrepreneurship often involves bridging knowledge from different domains and fields of study, such as theory and practice, engineering and management, or – more broadly – between technology and society. Entrepreneurship also frequently creates bridges between individuals, teams, and different cultures, e.g., when collaborating on entrepreneurial ideas crossing national borders. From this perspective, even this dissertation can be seen as something entrepreneurial, as it required bridging several of the dimensions sketched above to arrive at new insights and discoveries. The scholarly foundations of entrepreneurship theory can be traced back several centuries however.

Historically, the entrepreneur has frequently been regarded as some sort of superior human being: a brave individual bearing risk and uncertainty which others are unwilling to take (Cantillon, 1755; Mill, 1848), efficiently coordinating production factors in order to increase productivity (Say, 1836), and as the central actor driving innovation and technological change (Schumpeter, 1934). More recent contributions

are only slightly more humble, characterizing the entrepreneur as someone taking responsibility (Sutton, 1954; Welsh and White, 1981), leading and motivating others (Leibenstein, 1968) with a desire for freedom and independence (Reynolds and White, 1997; Douglas and Shepherd, 2000). Current entrepreneurship theory widened the focal unit of analysis to incorporate the concept of entrepreneurial opportunities, advocating the usefulness of the individual-opportunity nexus perspective for the study of entrepreneurship (Shane, 2003).

By detaching the notion of entrepreneurship from the formerly depicted superior being of an entrepreneur, modern inquiries have interpreted the phenomenon in a wider and more inclusive sense, describing entrepreneurship as the process surrounding the discovery, evaluation, and exploitation of opportunities to create future goods and services (Ventakaraman, 1997). Coherently, the term entrepreneurship today often designates a fairly common, yet typically episodic activity in the lives of many human beings. Entrepreneurship is thus seen as highly prevalent, as many people engage in entrepreneurial activities at some point in their lives, sometimes without even knowing about it.

The reality that entrepreneurship is a fairly common activity occurring in a variety of contexts also lies at the heart of this doctoral dissertation. *Entrepreneurship* has become the umbrella-term for a range of phenomena revolving around the process of opportunity identification and exploitation, such as high-growth entrepreneurship, corporate venturing, social entrepreneurship as well as necessity-entrepreneurship, which furthermore can be split into two distinct types as will be explained in the first study (Chapter 2). Figure 1.1 depicts this idea visually.

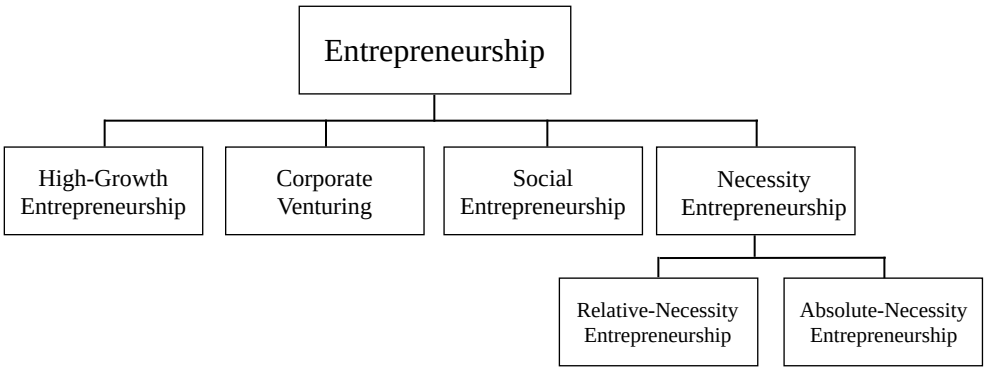

Figure 1.1: General Forms of Entrepreneurship

1.2 Theme & Overview of this Dissertation

The present dissertation focuses on the phenomenon of necessity entrepreneurship, which – as Section 2.2.2 explains – is distinct from other types of entrepreneurial activity as it focuses on entrepreneurs situated in unfavorable circumstances. In contrast to most prior research in entrepreneurship, few scholars have investigated how those engaging in an entrepreneurial activity are influenced and affected by negative external circumstances. This is surprising, as high-growth entrepreneurship only accounts for a small fraction of entrepreneurial activity around the globe, whereas necessity entrepreneurship represents more than 50% of all entrepreneurial activity in some countries, with even many developed countries exhibiting high shares (comp. Section 2.1). The theme "necessity entrepreneurship" thus guided the choice of research questions that are being studied in this dissertation. Three different perspectives are combined in this work in order to improve our knowledge about entrepreneurship in unfavorable circumstances.

The first article develops the theoretical foundation of this dissertation, reviewing the prior literature on the topic of necessity entrepreneurship and proposing a new definition of the phenomenon closely linked to the entrepreneurs situational and environmental circumstances. Subsequently, a group of entrepreneurs suffering from such situational circumstances is investigated using

quantitative analysis techniques. We uncover the determinants of a previously neglected outcome measure of entrepreneurial activity, the level of work satisfaction experienced by the entrepreneur. Finally, the third research study builds upon the two previous contributions by analyzing how prospective entrepreneurs affected by unfavorable circumstances can be supported through governmental policy initiatives specifically developed for this audience. Each component of this dissertation will be briefly introduced below.

1.2.1 Research Study I: Definition and Theory of Entrepreneurship under Unfavorable Circumstances

The first research study points out an insufficient scientific understanding, including a lacking definition, of the types of negative external circumstances that are influencing what others have termed *necessity entrepreneurship*. Coherently, we propose to differentiate between two types of necessity entrepreneurs. Absolute necessity entrepreneurs are defined as facing both negative situational and environmental influences, whereas relative necessity entrepreneurs merely face adverse situational circumstances while being located in a developed environment. This perspective resolves several inconsistencies in the prior literature and allows a systematic comparison not only of entrepreneurs driven by necessity compared with their voluntary counterparts, but also between entrepreneurs perceiving necessity in its absolute compared to its relative form. This work furthermore advances necessity entrepreneurship theory by developing several propositions about how the entrepreneurial process differs between the newly identified groups.

1.2.2 Research Study II: Outcomes of Entrepreneurship under Unfavorable Circumstances – The Topic of Work Satisfaction

In the second research study, a previously neglected, yet highly important outcome measure of entrepreneurial performance – the degree of work satisfaction the entrepreneur attains in his/her profession – is being investigated using a quantitative

analysis. Knowledge about the drivers of work satisfaction in entrepreneurship is important, as it conceivably permits increasing levels of work satisfaction for those currently dissatisfied as entrepreneurs by revealing important determinants pertinent to change. An improved understanding of the determinants of work satisfaction for the self-employed can also prove useful to inform those who are likely to experience low degrees of work satisfaction in entrepreneurship before becoming self-employed, thus preventing false expectations and negative individual consequences. Furthermore, by revealing important determinants pertinent to change, such expertise potentially helps increase levels of work satisfaction for those currently dissatisfied as entrepreneurs. Using data gathered during this dissertation within an international research collaboration, the importance of several psychological as well as social factors is verified using multivariate regression analyses techniques. Results suggest that distinct personality traits and the social support received from people outside of the nascent company are important determinants of work satisfaction for the self-employed. Our findings hold a number of implications for both entrepreneurship- as well as job satisfaction theory.

1.2.3 Research Study III: Public Policy Perspective – Supporting those Starting Businesses under Unfavorable Circumstances

The third research study examines how circumstantially disadvantaged entrepreneurs can be supported from a public-policy perspective, comparing the governmental support programs offered within a broad selection of European countries. Such support programs represent an increasingly important policy instrument within the active labor market policies of many countries as we could observe during this study. The current policy initiatives are systematically analyzed and compared, illuminating the key differentiation criteria with respect to the program structure, the eligibility requirements, the type and level of financial support, as well as the availability of non-financial business support services. A subsequent examination of contrasting policy approaches revealed three distinct policy strategies that have been

implemented by the respective national institutions. Finally, several insights of relevance for both researchers and policymakers are presented.

Figure 1.2 below gives an overview of the structure of this dissertation and shows how the different topics are interrelated.

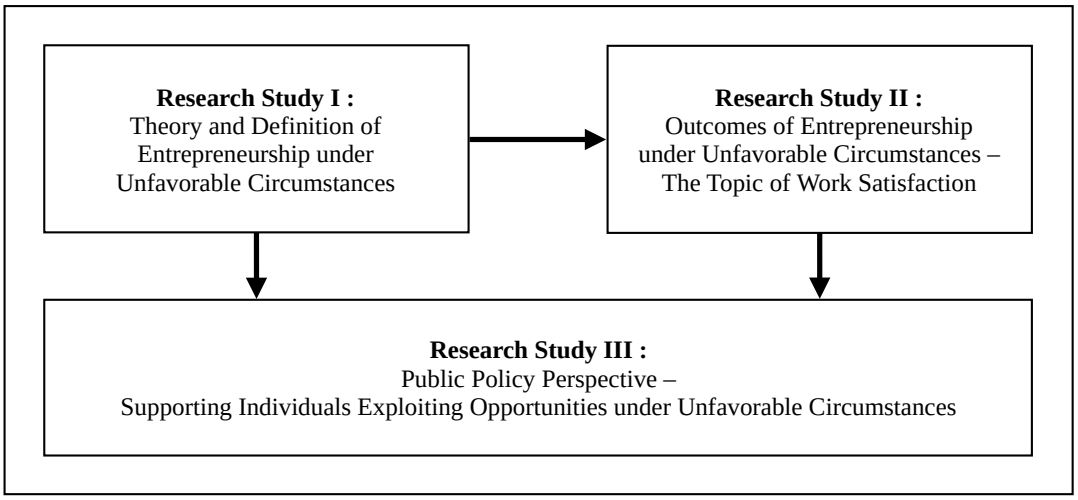

Figure 1.2: Structure of this Dissertation

2 Research Study 1: "Necessity Entrepreneurship" – A Conceptual Model of Opportunity Exploitation under Unfavorable Circumstances

2.1 Introduction

While there is a long history of research on high-growth, venture-capital backed new firms and their founders – representing only a small fraction of entrepreneurial activity around the globe (Autio, 2007) – relatively little is known about the large proportion of necessity entrepreneurship around the world. This is surprising, as several countries have been found to entail more than 50% of "necessity-driven entrepreneurial activity" in recent years (e.g., Bosnia and Herzegovina, 58% in 2012; Pakistan, 53% in 2012; Macedonia, 52% in 2012; Iran, 53% in 2011) (Global Entrepreneurship Research Association, 2013). High shares of necessity entrepreneurship can also be found in many OECD countries (e.g., United States, 21% in 2012; Germany, 22% in 2012; France, 18% in 2012) as well as Russia (36% in 2012) (Global Entrepreneurship Research Association, 2013). Multiple cases of these "accidental, unintended, or forced entrepreneurs" (Meece, 2009) have also been portrayed in greater detail by the general media in recent years (e.g., Spors and Flandez, 2009).

Some evidence indicates that the prevalence of necessity entrepreneurship has been increasing in recent years as a result of the 2008 economic crisis (Fairlie, 2009). Likewise, a number of studies have linked the phenomenon of necessity entrepreneurship to the prevailing unemployment rate (Cowling and Bygrave, 2003; Bergmann and Sternberg, 2007) and the level of economic development in a given country (Maritz, 2004; Wennekers et al., 2005). In contrast to these macroenvironmental determinants, several socio-economic characteristics have also been argued to represent the distinguishing mark of necessity entrepreneurship (Block and Wagner, 2010; Giacomin et al., 2011). Furthermore, the outcomes of necessity-driven entrepreneurial activity have been argued to diverge from many of the positive effects previously ascribed to entrepreneurship. Accordingly, necessity entrepreneurship has been argued to not contribute to technological change and economic development (Acs and Varga, 2005; Acs, 2006), is associated with reduced durations in self-employment (Block and Sandner, 2009), and generates lower self-employment earnings (Block and Wagner, 2010).

However, the limited prior literature on the topic has oftentimes employed differing definitions of necessity entrepreneurship, failing to clearly state just what phenomenon of interest is being studied. As a result of these definitional inconsistencies, it is still unclear to date how necessity entrepreneurship differs from other forms of entrepreneurial activity with regards to its antecedents and consequences. Coherently, several researchers have noted that the concept of necessity entrepreneurship has prevailed in an ill-defined state over the last three decades (Block and Wagner, 2010; Bosma and Levie, 2010; Giacomin et al., 2011). Relatedly, Bergmann and Sternberg (2007) have noted that theoretical predictions of the determinants of necessity entrepreneurship are more difficult compared to other types of entrepreneurship. Further inquiry on the topic is important, as the phenomenon is not just of theoretical relevance but also holds important implications for empiricists and policymakers.

This article seeks to contribute to a better understanding of the phenomenon of necessity entrepreneurship in several ways. We begin by critically reviewing the past literature on the topic, pointing out several inconsistencies in how the construct has been defined and operationalized. Next, we propose a new definition which is able to reconcile these shortcomings, suggesting to differentiate between two distinct types of necessity entrepreneurship. Subsequently, we develop a framework which highlights and describes several previously neglected types of entrepreneurial activity, explaining how three groups of entrepreneurs in less favorable circumstances need to be differentiated from the traditionally studied group of voluntary entrepreneurs.

The framework presented in this article suggests that the different types of necessity entrepreneurship result from distinct combinations of situational- and environmental circumstances. These external influences subsequently impact the way each group experiences and advances through the entrepreneurial process. The article provides a brief description of each of the four groups, highlighting a number of differences and similarities. Our framework can guide future empirical research on necessity entrepreneurship and holds several implications for entrepreneurship theory that will be discussed in further detail.

2.2 Necessity Entrepreneurship Theory

Although few conceptual inquiries about the phenomenon of necessity entrepreneurship can be found in the literature, recent years have brought to light an increasing number of empirical studies focused on increasing our understanding about the phenomenon. A unifying thread linking most prior research represents the individual human being as the focal unit of analysis. Without a person who perceives a necessity to engage in some form of entrepreneurial activity there can be no necessity entrepreneurship. Accordingly, while it is acknowledged that entrepreneurship manifests in many forms, this article follows a frequently encountered definition of entrepreneurial activity by conceptualizing entrepreneurship as the process of opportunity identification and exploitation by an individual seeking to become self-employed (Blanchflower, 2000; Parker, 2004; Gartner et al., 2004).

2.2.1 Prior Research on Necessity Entrepreneurship

Based on research about entrepreneurial motivations, Shapero (1975) provided an important conceptual building block for necessity entrepreneurship theory by subsuming several individual-specific and situation-related influences into his highly parsimonious push-theory of entrepreneurial activity, arguing that negative situational factors can provide an impulse for becoming self-employed. Gilad and Levine (1986) subsequently proposed the opposing conceptual counterpart, describing individuals motivated by a pull-motivation as being alert to attractive and potentially profitable business opportunities. Initial research hence conceptualized push factors as resulting from factors external to the individual, whereas pull factors are seen as originating from person-bound desires and aspirations.

Other scholars subsequently built upon this basic idea, inquiring deeper into the multitude of influences potentially leading some people to become self-employed. In this vein, suffering from current work dissatisfaction (Brockhaus, 1982; Noorderhaven et al., 2004; Schjoedt and Shaver, 2007), experiencing an economic

recession (Mason, 1989) or an unemployment spell (Gilad and Levine, 1986; Ritsilä and Tervo, 2002; Binder and Coad, 2013) have been regarded as major determinants of necessity entrepreneurship. Others studies instead conceptualized those voluntarily entering unemployment before becoming self-employed as opportunity entrepreneurs, whereas prior involuntary unemployment is regarded as the defining characteristic of necessity entrepreneurs (e.g., Block and Sandner, 2009). Contrary to the first definition, some empirical evidence suggests that frustration with one's work and career does not appear to be a significant determinant leading people to engage in an entrepreneurial activity (Cromie et al., 1992). Similarly, although an economic recession might increase the aggregate level of necessity entrepreneurship in an economy, from a theoretical viewpoint such an event can be expected to be of subordinate importance compared to others factors having a more direct influence on the prospective entrepreneur's behavior. Moreover, experiencing unemployment can also lead to entrepreneurial activity not induced by necessity concerns (Wagner, 2005; Block and Sandner, 2009). The sole consideration of job dissatisfaction, economic circumstances, or joblessness thus appears insufficient for explaining who is acting out of necessity or opportunity motives without additional information.

Disregarding situational circumstances, another research paradigm has followed the approach of the Global Entrepreneurship Monitor, which adopted the concepts of necessity- and opportunity entrepreneurship in 2001. Accordingly, necessity entrepreneurs are defined as those labeling themselves as starting a business "because it was the best option available", as opposed to opportunity entrepreneurs, who are taking "advantage of a unique market opportunity" (Reynolds et al., 2002, p.4). The above definition has the appealing advantage of not requiring a profound understanding of the antecedents of necessity entrepreneurship, as simply everyone who felt that starting his/her business was the *best option* among an unknown set of alternatives is considered a necessity entrepreneur. Still, two key arguments suggest the limitations of this approach: most importantly, the two response alternatives are not mutually exclusive but are likely to be simultaneously applicable in many cases. Moreover, despite the clear intention for categorizing opportunity entrepreneurs through the second question, not everyone starting

his/her firm for potential opportunity-related reasons would agree that he is taking advantage of a *unique* opportunity, leaving space for subjective interpretation, thus introducing error. The employed measure can hence be criticized on the grounds of face and construct validity. Not surprisingly, modified variants of the person-centric survey approach have lead to the identification of a hybrid group claiming to be influenced by both motives (e.g., Block and Sandner, 2009; Caliendo and Kritikos, 2009; Dawson and Henley, 2012).

To date, no accepted set of factors has evolved out of the prior literature as the defining characteristic of necessity entrepreneurship. As illustrated by the examples above, the employed definitions of the phenomenon are often inconsistent with the empirical evidence, lacking a conceptual underpinning. Expectedly – likely owing to these conflicting operationalizations – partially incompatible findings have been associated with necessity entrepreneurship. For instance, entrepreneurship by formerly unemployed individuals has been linked with lower financial performance (Andersson and Wadensjö, 2007; Block and Wagner, 2010), decreased survival as well as lower to not-existing job creation rates (Santarelli and Vivarelli, 2007; Shane, 2009; Block and Sandner, 2009). Conversely, others instead revealed high survival (Dencker et al., 2009b; Caliendo and Kritikos, 2010) as well as respectable job-creation rates (Dencker et al., 2009a). On a macroeconomic level, in contrast to other forms of entrepreneurial activity, necessity entrepreneurship has been argued to not contribute to technological change and economic development (Acs and Varga, 2005; Acs, 2006).

This article suggests that the prior absence of a theoretically grounded definition of necessity entrepreneurship represents the core dilemma surrounding the inconsistent findings presented above. This reasoning resonates with the conclusions from several of our colleagues, who have pointed out that the concept of necessity entrepreneurship has prevailed in an ill-defined condition over the last three decades (Block and Wagner, 2010; Bosma and Levie, 2010; Giacomin et al., 2011). Further progress on the phenomenon thus foremost requires a conceptually

grounded definition of necessity entrepreneurship, which we seek to develop in the following.

2.2.2 Defining Necessity Entrepreneurship

By refocusing on the very basic meaning of the term *necessity*, the following section begins by uncovering how necessity is being understood in a linguistic sense, deducting that external stimuli represent the decisive criterion the presence of necessity. These necessity-inducing stimuli can furthermore be categorized as linked to the individual's immediate situation or the more distant environment, leading us to differentiate between a relative and an absolute component of necessity entrepreneurship.

Merriam-Webster's dictionary (2013) describes the term *necessity* in the following ways:

1. the quality or state of being necessary
2. (a) pressure of circumstance
   (b) physical or moral compulsion
   (c) impossibility of a contrary order or condition
3. the quality or state of being in need; especially : poverty
4. (a) something that is necessary : requirement
   (b) an urgent need or desire

Figure 2.1: Definition of Necessity (Merriam-Webster, 2013)

According to this definition, the term designates an individual in a state of need, lacking the freedom of acting voluntarily. Importantly, factors *external to the individual* are inducing the perception of being in need, urgently demanding some form of action. The definition also refers to psychological influences, such as feeling morally compelled to engage in some form of action, as being capable of evoking feelings of necessity. While we recognize that some people might also feel morally

obliged to engage in an entrepreneurial activity, we argue that the psychological component of the definition is of minor importance in an entrepreneurial context and will thus refrain from discussing it in more detail.

On the basis of the above definition, we propose that the recognition of negative external circumstances as stimulators for the individual to become self-employed should mark the distinguishing characteristic of necessity entrepreneurship. As this insight is of fundamental importance for the remainder of this work and for differentiating the phenomenon from other types of entrepreneurship, it is worth restating: while traditional entrepreneurship theory focused on the roles of individual attributes as well as opportunity characteristics for explaining entrepreneurial phenomena, necessity entrepreneurship, in contrast, can be seen as driven primarily by *negative external circumstances*. We propose that engaging in an entrepreneurial activity in order *to become self-employed induced by negative external circumstances* as a proper distinctive feature and definition for necessity entrepreneurship. Anyone becoming self-employed for reasons other than negative external circumstances, for instance due to an inner desire for independence or because of a promising opportunity that appears financially rewarding, is thus excluded from the above definition, and instead defined and labeled as a *voluntary entrepreneur*[1].

2.2.3 Two Dimensions of Necessity Entrepreneurship

According to the above definition, the negative external factors can furthermore be divided as resulting from some sort of *situational pressure*, such as suffering from a lack of employment opportunities, or result from *being in a state of need*, such as suffering from conditions of poverty. As will be explained below, these two circumstances can be thought of as describing two essentially distinct and independent dimensions relative to the affected individual.

[1]Note that we decided to deviate from the previously opposing notion of *opportunity entrepreneurship*, which has been defined similarly vague as necessity entrepreneurship in the past, moreover prone to confusion with the concept of an *entrepreneurial opportunity*.

In this article, *situational influences* are regarded as any founder-specific life-circumstances that differentiate individual persons from one another, even if they might be located in similar geographic locations. We argue that situational differences help explain how the entrepreneurial process differs between individuals in similar environmental conditions, albeit facing different degrees of situational hardship. Being unemployed, having to care for a child or the inability to earn a sufficient income from one's profession can be seen as examples of such situational hardship representing a distinct type of necessity.

Situational factors stand in contrast to more wide-ranging *environmental influences*, which operate independently from person-specific life-circumstances and influence larger groups of people in a comparable manner. Focusing on these macro-environmental differences is thus likely to help explain differences in the entrepreneurial process between comparatively less-, and more developed ecological conditions. Examples for environmental influences important for entrepreneurship are the availability of financial support for new firm founders, the current loan interest rates, the availability of childcare offerings in the local community, and the general state of the economy (e.g., Moyes and Westhead, 1990).

Combining these two dimensions subsequently leads to a new perspective on the phenomenon of necessity entrepreneurship, promising to improve our understanding of those seeking to engage in an entrepreneurial activity while facing negative situational and/or environmental circumstances.

2.2.4 Categorization of Four Types of Entrepreneurs

By simultaneously taking both situational and environmental circumstances into account, the previously employed, seemingly one-dimensional distinction between necessity- and opportunity-entrepreneurship reveals itself to be in fact two-dimensional. Depending on the environmental circumstances we distinguish between an absolute form of necessity entrepreneurship, describing those in a state of need due to poor environmental conditions, and a relative form of necessity

entrepreneurship, referring to those living in more developed locations, yet still affected by negative external circumstances. Moreover, each group of necessity entrepreneurs is distinguished from their voluntary entrepreneurial counterparts in both poor and developed environmental circumstances. Accordingly, four types of entrepreneurs can be differentiated from one another: absolute necessity entrepreneurs differ from relative necessity entrepreneurs, and both groups contrast to voluntary entrepreneurs in less and more developed environments, not affected by negative situational circumstances when engaging in entrepreneurship.

Figure 2.2 below shows how four distinct types of entrepreneurs can be differentiated when situational and environmental influences are considered simultaneously:

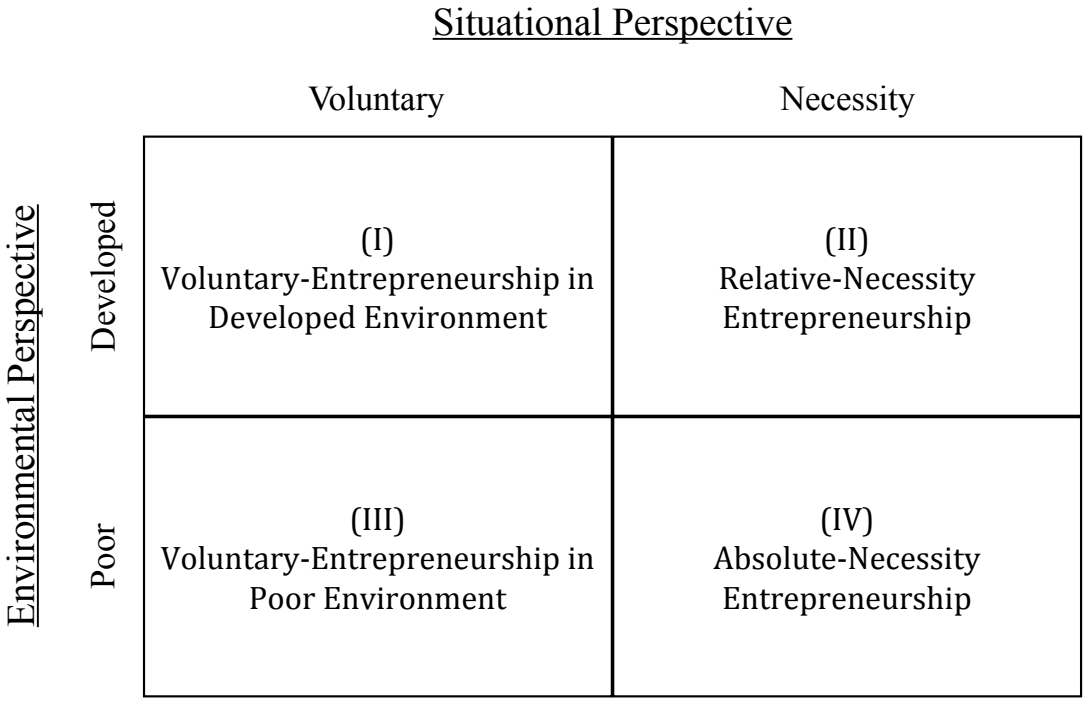

Figure 2.2: Four Types of Entrepreneurs

2.3 Description of the Four Types of Entrepreneurs

Each of the four groups will be studied in further detail below. The various individual, situational and environmental antecedents of each group are discussed, clarifying potential similarities and differences between the four types of entrepreneurs.

2.3.1 Group I: Voluntary Entrepreneurs in Developed Environment

The first group, voluntary entrepreneurs located in a developed environment (VEDE), is closely related to what can be termed the "classical case" of entrepreneurship that has been the subject of study within much of the prior entrepreneurship literature. The stereotypical entrepreneur belonging to this group has often been depicted as having an internal locus of control, an increased risk-taking propensity, while being driven by a strong need for achievement (e.g., Brockhaus, 1980; Ahmed, 1985; Shane et al., 2003). Several cognitive biases might nevertheless be affecting his/her choices and decisions (Baron, 1998). The choice between working as an employee and becoming self-employed is nevertheless made freely and independently in a utility-maximizing manner based on personal preferences. Due to the absence of any negative situational or environmental influences in the sense of this article, VEDEs can be seen as facing generally neutral-, if not favorable external influences while identifying and exploiting their entrepreneurial opportunities.

For example, most people would intuitively agree that a childless and well-educated general manager, living in a politically and economically stable country, who is readily able to find satisfactory employment opportunities in many places is unlikely to perceive a necessity in the sense of this article, as he is apparently not affected by any environment- or situation-induced negative influences. In case this person deliberately chooses to engage in an entrepreneurial activity in order to optimize his/her income, leisure time and independence, he thus would be classified as a voluntary entrepreneur not driven by any necessity concerns according to our model (group I).

In line with the large existing body of research on traditionally studied forms of entrepreneurial activity, we suggest that individual-related factors, including the entrepreneur's actions and strategies, are of considerable importance for many aspects of the entrepreneurial process characteristic for voluntary entrepreneurship (e.g., Chrisman et al., 1998). Our theorizing predicts that in the absence of negative situational and environmental influences in the sense of this article, it is the individual's characteristics and skills, such as his/her level of human capital, professional experience and social contacts, which best explain how the entrepreneurial process of these individuals unfolds, including the outcomes of the entrepreneur's efforts.

2.3.2 Group II: Relative Necessity Entrepreneurs

In contrast to the previously portrayed group, a relative necessity entrepreneur (RNE) faces some sort of negative situational circumstances, constraining his/her freedom to freely choose between becoming an entrepreneur vs. working as a salaried employee. Importantly, in our theory of relative necessity entrepreneurship, the negative situational circumstances are not only influencing the individual in some undefined way, but they are decisive for the individual's decision to become self-employed by engaging in an entrepreneurial activity.

RNEs are nonetheless situated in comparably developed environmental contexts as the group of VEDEs described before, distinguishing this group from absolute necessity entrepreneurs described further below. The developed context thus assures a certain minimum standard of living, for example through the availability of some sort of welfare scheme, potential private savings or financial support from the individual's family, protecting those concerned from suffering from absolute necessity. The term *environmental munificence*, describing the abundance of critical resources within an environment, has sometimes been used to describe conceptually related ideas to our notion of a developed environment (Tang, 2008). RNE can thus be argued to be the predominant form of necessity in more developed economies, for instance in large parts of Western Europe and North America.

Various situational circumstances can be thought of as invoking relative necessity in the sense of this article. For instance, important events that independently affect the lives of certain individuals only, previously termed "non-normative influences" (Baltes et al., 1980), are likely to induce feelings of relative necessity. Significant life events such as becoming unemployed, experiencing burn-out or a sudden illness, getting divorced as well as the termination of important relationships in general are examples of these influences (Latack and Dozier, 1986; Rossi et al., 2006). An illustrative case of a negative non-normative influence is given by a long-term housewife getting divorced at a higher age without prospects of financial support – a scenario still very common in many regions exhibiting less developed legal systems today.

Instead of being linked to a discrete event, feelings of necessity can also build up and advance over a period of time. For instance, the "working poor" (e.g., Newman, 2009) – employees with a non-life-sustaining salary – as well as those having to care for a child as a single parent can be seen as individuals at risk of increasingly perceiving relative necessity in the sense of this article in case the negative circumstances persist long than expected, or over an extended period of time.

However, it is important to note that not all of these individuals are perceiving necessity in such circumstances, as individual differences such as demographic factors and the educational attainment can both increase or weaken perceptions of necessity. For instance, older workers and employees with high degrees of occupational specialization threatened by unemployment can similarly form part of this group, as they tend to face declining employment opportunities over time due to the formerly current state of knowledge depreciating in value, gradually becoming outdated over time (Argote and Epple, 1990; Darr et al., 1995; Benkard, 1999). Although such high-skilled employees might be able to find some kind of employment position elsewhere, any change would occur at the great cost of acknowledging that much of what they have learnt has been rendered unusable in the new position. This group thus faces only limited opportunity costs to engaging in potential entrepreneurial opportunities, where their prior knowledge and skills might

be purposefully applied. As these individuals are becoming self-employed due to their specific life circumstances, they are also considered as relative necessity entrepreneurs. Generalists can thus be seen as having an advantage over specialists in this regard, as broadly applicable managerial skills can be employed widely across industries and within companies of different sizes, while scientists focused on a narrow technological field are confronted with significantly less work options matching their skills and experience (Romanelli, 1989; Wahl, 2002). As illustrated by the above examples, membership in this group is influenced by various parameters – some of them dynamic in nature – which needs to be taken into account in future research.

While individual-related factors are still important determinants of the entrepreneurial process characteristic of RNEs, the entrepreneurial freedom of action is significantly reduced by the specific life-situation of the entrepreneur in this case. Accordingly, in comparison to their voluntary counterparts, the individual's effectiveness as an entrepreneur is likely to be reduced in the case of RNEs compared to voluntary entrepreneurs, as the negative situational circumstances place additional demands on the cognitive abilities and the amount of work that can be invested into the individuals entrepreneurial project. Even before the new firm is created, the individual-specific life-circumstances can be expected to impede the stage of opportunity identification. For instance, resource constraints have been found to direct the attention of the concerned individuals towards opportunities related to the constraints they are experiencing, thus limiting the person's access to opportunities lying outside of the constrained domain (van Burg et al., 2012). Conversely, resource constraints have also been shown to increase the likelihood of coming up with innovative solutions when trying to solve creative problems (Moreau and Dahl, 2005), suggesting that constraints can also have a positive effect. The prospective entrepreneur might thus be forced to settle for a suboptimal compromise, diverging from how a voluntary entrepreneur might have acted. Still, situational duties are limiting the financial resources available to relative necessity entrepreneurs for the development of their entrepreneurial project, potentially undermining the individual's credibility as a serious entrepreneur in front of potential investors and

business partners. As a result, RNEs can be expected to demonstrate reduced entrepreneurial performance compared to VEDEs at different stages of the entrepreneurial process.

2.3.3 Group III: Voluntary Entrepreneurs in Poor Environment

The third group, termed voluntary entrepreneurs located in a poor environment (VEPE) in this article, is distinct from the previously presented types as it is affected by negative environmental circumstances that are significantly impacting the entrepreneurial process of this group. Similar to the first group (VEDE), these entrepreneurs are nevertheless engaging voluntarily in their entrepreneurial activity, unrestricted from negative situational influences as in group II (RNE). Compared to their fellow citizens in the same environment, these individuals can be seen as somewhat privileged, as their situational circumstances enable them to still enjoy substantial maneuverability and control over their professional careers, despite being embedded in an unfavorable ecological setting. For instance, members of a wealthy family living in a developing country are facing living conditions similar to many middle-class residents in more developed nations, suggesting that private wealth can offset adverse environmental influences to some extent, marking an important parameter determining membership of this group. The M-PESA system in Kenya described in more detail by Hughes and Lonie (2007) represents an example of this type of entrepreneurial activity, despite being founded by two British expats instead of local nationals. A host of challenges distinct from those found in more developed environments – e.g., requiring the development of a proprietary mobile banking software suited to the specific circumstances – needed to be overcome to successfully realize this entrepreneurial project. Without a doubt, the entrepreneurs benefitted from relatively favorable situational circumstances compared to many other entrepreneurs located in the same geographic environment however.

Our theory suggests that individual-related factors are again very important for many aspects of the entrepreneurial process for VEPEs. The case study of serial-entrepreneurs among Sri Lankan villagers illustrates this idea (Kodithuwakku

and Rosa, 2002). Coherent with our theoretical arguments, individual differences are shown to be important determinants influencing many aspects of the entrepreneurial process of this group. Accordingly, the key to success of these individuals laid in their more skillful creative skills and persistence in finding ways to recombine scarce resources, their ability to use their social networks as well as manage their operations (Kodithuwakku and Rosa, 2002). Members of this group thus share many characteristics with voluntary entrepreneurs located in a developed environment (group I), however the unfavorable environmental circumstances differentiate the entrepreneurial process characteristic for this group in several aspects. We argue that the *pool of entrepreneurial opportunities* available for exploitation by this group is different from the opportunity pool in other places: for example, there are a number of opportunities available for exploitation in the undeveloped environment that are already occupied by other incumbents in more developed milieus. Moreover, the market structure is likely to differ between the two settings as consumers might not have the same available disposable income, as well as with regards to the intensity of competition among market incumbents.

2.3.4 Group IV: Absolute Necessity Entrepreneurs

Individuals experiencing both negative situational and environmental influences simultaneously while seeking to become self-employed are termed absolute necessity entrepreneurs (ANE). We use the term *absolute* to emphasize that this group is disadvantaged vis-à-vis other prospective entrepreneurs in a significant manner as they can be regarded as being doubly affected by negative external influences from two dimensions. Not only their individual life circumstances pose an immediate burden on their forces, but additionally they are located in a challenging environmental setting. For instance, poor environmental circumstances can be characterized by a scarcity of critical resources, lacking valuable entrepreneurial opportunities, featuring high unemployment and crime rates, a nonfunctioning legal system, low capital availability or high taxation (Staw and Szwajkowski, 1975; Fuduric, 2008; Tang, 2008). Scarcity and poverty are thus essential circumstances for this

group; patterns which are not only still present in many developing countries today, but also exist in certain milieus in many western economies (for instance in the case of individuals seeking asylum, elderly without sufficient pension savings, some tribal groups of native Americans, or generally in the absence of a functioning welfare system for specific societal groups). The group of ANEs can thus be related the concepts of absolute vs. relative-poverty (Foster, 1998), yet entails only the subgroup of those individuals seeking to escape poverty through the exploitation of an entrepreneurial opportunity. Individuals seeking to identify and exploit entrepreneurial opportunities while struggling to meet their basic needs – portrayed in the literature about those living at the bottom-of-the-pyramid (e.g., Mair and Marti, 2009) – exemplify the case of absolute necessity entrepreneurship.

We argue that the entrepreneurial process of those experiencing absolute necessity is distinct from the previous types in multiple ways: the number of opportunities available to these individuals can be assumed to be highly limited, as only project ideas involving a minimal level of capital investment, which can be feasibly exploited in a relatively short time period, are accessible. The very low opportunity costs and performance thresholds are likely to lead to the perseverance in self-employment despite limited financial returns (Gimeno et al., 1997).

Table 2.1 below gives an overview of the antecedents of the four types of entrepreneurs previously discussed, revealing the meaningful dimensions of differentiation.

	(I) Voluntary Entrepreneurship in Developed Environment	(II) Relative Necessity Entrepreneurship	(III) Voluntary Entrepreneurship in Poor Environment	(IV) Absolute Necessity Entrepreneurship
Situational Conditions	favorable	unfavorable	favorable	unfavorable
Environmental Conditions	favorable & developed; general absence of poverty, welfare benefits available	favorable & developed; general absence of poverty, welfare benefits available	unfavorable & undeveloped; characterized by poverty, poor economic conditions	unfavorable & undeveloped; characterized by poverty, poor economic conditions
Role and Importance of Individual Differences	more important: differences in skills & education determine income alternatives & performance	more important: individual life-events and work experience determine income alternatives	more important: differences in wealth & skills determine income alternatives & performance	less important: everyone has the same fundamental needs
Main Causal Factors	individual's education & professional experience, personal preference for entrepreneurship	local labor market demand matching the individual's skills and experience; age- and age-related factors such as personal health; non-normative influences and adverse life-events	individual's education & professional experience; private savings & family wealth that offset adverse environmental conditions	poor institutional environment / complete lack of alternative employment opportunities
Example Entrepreneur	general manager seeking to become self-employed to have more time for his family, university graduate starting a high-tech business	single parent becoming self-employed after getting divorced; highly-specialized technician laid off in recession	heir of a wealthy family in a developing country seeking to become self-employed instead of being employed in the family firm	unskilled day laborer lacking alternative employment opportunities seeking to feed his family
Example Opportunity	commercializing a technological invention, realizing a social business	unemployed chef opening a restaurant businesses, uniquely skilled employee threatened by underemployment	internet cafe chain owner expaning his existing business, mobile payment in Kenya (M-PESA)	personal service- & simple trading businesses, e.g., shoe cleaning stand, personal travel operator

Table 2.1: Antecedents of the Four Groups of Entrepreneurs

2.4 Discussion of the Model

Several contributions arise out of the framework presented in this article, which explained how the differentiation between situational and environmental factors permits increasing our understanding of the opportunity identification and exploitation processes of four distinct types of entrepreneurs. Our theorizing suggests that the groups are likely to differ with regards to both antecedents and consequences of their respective entrepreneurial processes. By differentiating between four types of entrepreneurs, our model permits a systematic analysis and comparison not only between entrepreneurs driven by necessity compared with their voluntary counterparts, but also between entrepreneurs perceiving necessity in its absolute compared to its relative form. In the following paragraphs, we will highlight several suggestions for future theoretical and empirical enquiries into the phenomenon and discuss the implications and significance of our conceptual model for contemporary entrepreneurship theory.

2.4.1 Clarifying Equivocal Findings from Prior Research

A major contribution arising out of this work can be described as the provision of a new lens, permitting the interpretation of the equivocal findings revealed by prior research from a novel angle. Prior studies have classified those perceiving necessity in different, partially conflicting ways: past research frequently considered anyone facing some sort of hardship while starting a business as a necessity entrepreneur, ranging from those starting a firm in an economic recession (Mason, 1989) or while being unemployed (Gilad and Levine, 1986; Ritsilä and Tervo, 2002; Binder and Coad, 2013), to those suffering from current work dissatisfaction (Brockhaus, 1982; Noorderhaven et al., 2004). Others instead classified those agreeing to the question of having started their business because it was the "best option available" as necessity entrepreneurs (Reynolds et al., 2002). The perspective developed in this article suggests differing degrees of overlap between each of these definitions and the conceptually "pure" types

of relative and absolute necessity entrepreneurs as defined in this work. Figure 2.3 below presents these insights in the style of a VENN diagram.

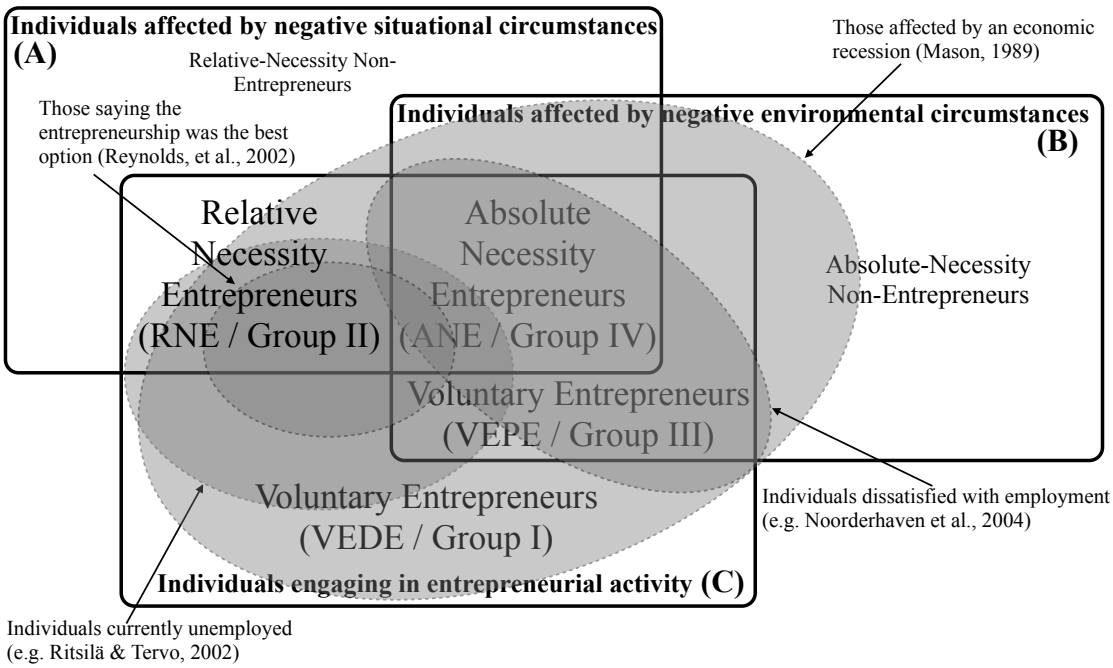

Figure 2.3: Types of Individuals, Necessity and Entrepreneurship

The three square fields describe the entire populations of individuals affected by either negative situational circumstances (A), those affected by negative environmental circumstances (B), and those engaging in entrepreneurial activity (C), i.e. seeking to become self-employed. The overlap between these three populations form the four types of entrepreneurs described in this article: RNEs at the intersection of A and C, VEPEs at the intersection of B and C, ANEs at the intersection of A, B and C and lastly VEDEs as the remaining, non-intersecting segment of C. The remaining, non-intersecting segments of A and B entail the proportion of individuals sensing relative and absolute necessity without engaging in entrepreneurial activity, respectively.

In contrast to the theoretically conceptualized types as depicted in the above diagram, empirical examinations naturally need to make compromises when

investigating the entrepreneurial processes within a given sample, which can be depicted in form of the overlaid ellipses visible in the above figure. The framework developed in this article suggests that the previously employed, heterogeneous approaches to defining necessity entrepreneurship correspond to differing degrees with the theoretically derived entrepreneurial archetypes described by the four groups. The definitions and methodologies moreover differ with regards to their selectiveness and inclusiveness, visualized by the size and diameter of the ellipsis, as well as with respect to their capability to differentiate between those suffering from relative vs. absolute necessity, visualized by the proportions of the ellipses overlapping between the four groups. Ambivalent findings about what others have declared as necessity entrepreneurship thus appear to result from the study of different populations of entrepreneurs.

2.4.2 Suggestions for Future Empirical Research on Necessity Entrepreneurship

The perspective advocated by this article highlights the importance of developing more discriminating and internationally comparable operationalizations of the concept of necessity entrepreneurship in future empirical studies. The lack of an accepted, theoretically grounded definition of the phenomenon has impeded the advancement of research in the past, yet this condition must not prevail in case appropriate measures are developed to facilitate future studies on the topic. Our framework suggests that researchers interested in necessity entrepreneurship first need to develop an understanding of which form of necessity is being perceived by the subjects in the population of interest.

Studies utilizing samples from a homogeneous environmental context have an advantage over those sampling more environmentally heterogeneous entrepreneurs in this regard, as the latter risks combining individuals perceiving both relative and absolute necessity into a single group, potentially confounding their results in case these environmental differences are not controlled for. Samples spanning multiple

types need to be disentangled through selective differentiation criteria, which take the relevant situational and environmental influences into account. Future scholars are thus encouraged to develop reliable and practical ways for assessing into which group different samples need to be categorized.

For instance, instead of simply declaring every unemployed person a necessity entrepreneur, future studies investigating how unemployed individuals engage in entrepreneurial activities could consider additional information such as the mode of entry into unemployment (voluntary vs. involuntary; Block and Wagner, 2010), the availability of public subsidies and how these might have affected the entrepreneurs in their sample, the state of development of the environment including the current labor market situation, as well as the individual's perception of his/her re-employment chances in other positions when assigning the respondent into one of the four groups. Although we acknowledge the added complexity that an accurate classification requires compared to the previously employed methodologies, we argue that such rigor is necessary to in order to improve our understanding of this important phenomenon and how it relates to previously studied forms of entrepreneurial activity.

Further complicating quantitative attempts for investigating the phenomenon of interest is the potentially dynamic nature of some necessity-evoking conditions. As perceptions of necessity are resulting from a complex function of situational, environmental and individual influences, some of them potentially altering during even short periods of time, the membership within the different groups is likely to be somewhat dynamic and fluctuating. The presumably dynamic group membership thus represents another important insight about necessity entrepreneurship which needs to be taken into account in future research.

Lastly, empirical investigations have thus far largely neglected relative necessity-antecedents other than unemployment, yet other circumstances – such as a lack of adequate alternative employment opportunities due to high degrees of professional specialization – can be thought of as being similarly capable of evoking perceptions of relative necessity. Moreover, still very little is known about those

seeking to engage in an entrepreneurial activity due to negative situational circumstances while simultaneously facing resource-deprived environmental settings – lacking the security and opportunities offered by modern welfare systems as for example in many European countries (comp. Chapter 4). Additional research is needed in order to investigate which situational and environmental contexts are evoking different forms of necessity entrepreneurship, and with what consequences.

2.4.3 Implications for Entrepreneurship Theory

In the most general sense, the model proposed in this article highlights the importance of three types of previously neglected and underresearched forms of entrepreneurial activity influenced by necessity concerns, explaining how these groups differ from most of the previously studied forms of entrepreneurial activity, e.g., the small fraction of high-growth entrepreneurship around the globe (Autio, 2007). Prior entrepreneurship theory has thus far mostly ignored the large proportion of necessity entrepreneurs around the world (comp. Section 2.1), resulting in a lack of conceptual understanding of the phenomenon.

Two competing theoretical lenses describing how opportunities are formed and exploited are currently discussed intensively in the entrepreneurship literature. On the one hand, *opportunity discovery theory* employs a critical realist perspective linked to Austrian economics (Mises, 1949; Hayek, 1945), separating the presence of entrepreneurial opportunities from the entrepreneurs identifying and exploiting them throughout the entrepreneurial process (Shane and Venkataraman, 2000; Shane, 2003). Accordingly, opportunities are conceptualized as objective phenomena waiting to be discovered and exploited by especially alert individuals (Alvarez and Barney, 2007; Alvarez et al., 2013). Sarasvathy's (2001) notion of causation represents an alternative term for the opportunity discovery research paradigm.

Opportunity creation theory on the other hand can be traced back to evolutionary realist and social constructivist perspectives (e.g., Campbell, 1960), views opportunities and the individuals exploiting them as inseparably linked to one

another (Alvarez and Barney, 2007; Alvarez et al., 2013). Consequently, creation theory sees opportunities as subjective phenomena requiring human agency to be brought into existence. The concepts of effectuation (Sarasvathy, 2001; Perry et al., 2012), entrepreneurial bricolage (Baker and Nelson, 2005) and structuration (Sarason et al., 2006) all fall into this category, although each focuses on separate aspects of the opportunity creation process.[2]

In the following, the relationship between the model developed in this work and the two theoretical lenses discussed in contemporary entrepreneurship theory will be explained in further detail. Each perspective typically makes different predictions with regards to the origins and types of entrepreneurial opportunities, the role and importance of individual differences, as well as regarding the decision making context and the outcomes of the opportunity exploitation process. Lastly, we examine the implications of these predictions for entrepreneurship theory.

Origins and Types of Entrepreneurial Opportunities

Opportunity discovery theory argues that opportunities exist objectively and independently of the individuals which are discovering them, resulting from exogenous shocks such as technological change (Tushman and Anderson, 1986), social and political changes (Schumpeter, 1939) or changes in consumer preferences (Shane, 2003). From this perspective, the four groups differentiated by our model can be seen as being surrounded by different types of entrepreneurial opportunities, regardless if they actually identify these opportunities or not. While many opportunities for becoming self-employed have already been exploited in more developed economies, numerous comparatively less developed environments might still be accessible to imitating 'copycat' companies and franchise businesses by entrepreneurs in these settings (e.g., Kaufmann and Dant, 1999; Shenkar, 2010). For

[2] Bricolage theory describes how entrepreneurs approach challenges imposed by penurious environments (Baker and Nelson, 2005), whereas effectuation theory focuses on the internal decision making processes of entrepreneurs (Sarasvathy, 2001). Structuration theory instead illustrates the complex interplay between the entrepreneur and the surrounding social system (Sarason et al., 2006). Fisher (2012) provides a comparison and evaluation of the similarities and differences between these theories.

example, Facebook's limited initial market penetration in countries outside of the United States represented an opportunity for the entrepreneur's of Russia's "VKontakte", Germany's "StudiVZ" or Brazil's "Orkut". The introduction of the M-PESA mobile banking solution in Kenya (comp. Section 2.3.2) similarly illustrates how discoverable opportunities can vary across different environmental contexts. Contrarily, venture capital financing is available only to a narrow set of geographically concentrated firms, hindering those located outside of such environments from exploiting entrepreneurial opportunities requiring this type of financing. The examples above suggest that the more developed environment of VEDEs and RNEs (group I and II) offers a different set of opportunities than the less developed environment of VEPEs and ANEs (group III and IV).

Opportunity creation theory instead suggests that opportunities do not exist objectively but are enacted upon endogenously by entrepreneurs themselves based on their socially constructed beliefs and the resources and abilities they possess (Weick, 1979; Alvarez and Barney, 2007; Alvarez et al., 2013). From this perspective, opportunities are thus mainly a function of the individual entrepreneur and his/her social context, suggesting that the entrepreneur's situational circumstances equally influence which entrepreneurial opportunities each of the four groups are able to enact upon. Both necessity and voluntary entrepreneurs can thus be expected to identify and exploit entrepreneurial opportunities based on the opportunity creation logic, although the relative proportion of opportunities that are discovered vs. created by each group may differ nevertheless.

Role and Importance of Individual Differences

The two theoretical lenses moreover make differing assumptions and predictions about the role and importance of individual differences for the entrepreneurial process. Individual differences with regards to the ability to see and identify entrepreneurial opportunities ("entrepreneurial alertness") form an integral assumption of opportunity discovery theory (Gaglio and Katz, 2001; Ardichvili et al., 2003; Shane, 2003). According to the framework developed in this article, individual

characteristics vary in importance within each group of entrepreneurs, while being especially important for voluntary entrepreneurs (comp. Section 2.3). Opportunity discovery logic thus predicts that voluntary entrepreneurs (group I and III) are more capable, and hence more likely, to identify and move on to exploit discovery opportunities than necessity entrepreneurs (group II and IV). Similarly, discovery logic frequently distinguishes between Kirznerian opportunities (Kirzner, 1979) – merely requiring heterogeneously distributed information among economic actors – and more innovative and rare Schumpeterian opportunities (Schumpeter, 1934), relying on new information resulting from exogenous shocks (Shane, 2003). As the typically higher levels of human capital and available resources facilitate the access to to new information (Shane, 2000; Shepherd and DeTienne, 2005), voluntary entrepreneurs are presumably also more capable in identifying and exploiting the more innovative Schumpeterian opportunities compared to necessity entrepreneurs.

On the contrary, while acknowledging the presence of individual differences, opportunity creation theory does not rely on such differences to be internally consistent (Alvarez and Barney, 2007; Alvarez et al., 2013). In principle, entrepreneurs from each of the four groups can thus be expected to rely on the opportunity creation approach in their entrepreneurial projects. While still little is known about the ex-ante conditions for engaging in each type of opportunity exploitation, Alvarez et al. (2013) have suggested that close ties to one's prior industrial sector of employment may make it difficult to engage in an opportunity creation process. Those without such ties might thus even have an advantage when seeking to exploit a creation opportunity, whereas prior industry experience is generally expected to have a positive influence with regards to the exploitation of discovery opportunities (e.g., Shane, 2000; Dencker et al., 2009b). Although Alvarez et al. (2013) explained that the role of prior industry experience for the identification and exploitation of discovery and creation opportunities is still unclear to date – making it difficult to formulate specific propositions about the mode of opportunity identification and exploitation by each group – presumably different opportunity identification and exploitation processes are characteristic for necessity and voluntary entrepreneurs. Accordingly,

individuals perceiving absolute vs. relative necessity are likely to differ in how each group manages to identify and exploit entrepreneurial opportunities.

The framework developed in this work also challenges the assumption about the generally similar importance of individual vs. environmental influences for explaining variance in entrepreneurship. As Shane (2003, p.3) explains: "neither the environment-centric nor the individual-centric approach toward entrepreneurship is more 'correct' than the other. Both probably explain equal amounts of the variance in entrepreneurial activity." Since external influences represent a key determinant of group membership within our model, VEDEs can be seen as facing comparably favorable circumstances in contrast to the three other groups. Individual differences are likely to be more important predictors of entrepreneurial activity and performance for these comparably fortunate entrepreneurs, as cognitively daunting additional demands resulting from negative situational circumstances are largely absent in this case (comp. Section 2.3.2). Negative external circumstances instead partly occupy the entrepreneurs within each of the other three groups, limiting the amount of personal and financial resources that can be devoted to their entrepreneurial projects. Our framework thus predicts that situational and environmental influences overshadow individual-level influences for necessity entrepreneurs, rendering them comparatively less important in these cases. Put differently, instead of being generally equal for all types of entrepreneurs as previously assumed, the relative importance of individual- vs. environmental influences appears to be context-specific.

Decision Making Context and Outcomes of the Entrepreneurial Process

Additional core differences between the two theoretical lenses concern the decision making logic used by the entrepreneur and the outcomes resulting from the opportunity exploitation process. Opportunity discovery theory views the entrepreneur as facing a risky decision making context in the sense of Knight (1921), i.e., the entrepreneur is at least theoretically able to assess the level of risk associated with discovery opportunities by collecting objective information about all possible

outcomes of his/her actions and and their associated probabilities (Alvarez et al., 2013). Those exploiting discovery opportunities are thus able to use various risk-based data collection and analysis techniques (e.g., customer surveys and archival data) to navigate the opportunity exploitation process (Miller, 2007). The stereotypical voluntary entrepreneur, engaging in a planned process of opportunity discovery and exploitation, therefore requires a profound understanding of how a new technological invention can be best commercialized in order to reduce the risk inherent in his/her entrepreneurial project and to increase his/her chances of success.

In contrast, opportunity creation theory assumes that information about alternative outcomes and their probabilities does not exist ex ante in a Knightian (1921) sense. The decision making context that opportunity creation entrepreneurs finds themselves in is thus merely characterized by uncertainty as opposed to risk (Alvarez et al., 2013). Similarly, opportunity discovery logic suggests that entrepreneurs are aware of their opportunity costs (Amit et al., 1995), whereas creation logic proposes that entrepreneurs have difficulty calculating their opportunity costs, instead employing an "acceptable-losses" logic (Sarasvathy, 2001). Some scholars have suggested that opportunity costs are not a major constraint for necessity entrepreneurs (Block et al., 2013), thus raising the question if necessity entrepreneurs are more likely to follow an opportunity creation approach to entrepreneurship. The aforementioned highly skilled technician threatened by unemployment (comp. Section 2.3.2) seeks to optimize how his/her currently available means can be best exploited in a self-employed position as opposed to being unemployed or underemployed elsewhere, thus engaging in an opportunity creation logic with ex-ante unknown and uncertain results. Accordingly, necessity entrepreneurs can be seen as facing somewhat different decision making contexts compared to voluntary entrepreneurs: while the former are focused on best employing their existing resources to improve their current situation, the latter concentrate on a desired outcome while trying to gain control of the resources required to achieve that outcome. This perspective suggests that necessity and voluntary entrepreneurs can be seen as requiring distinct outcome measures which

take the respective opportunity exploitation approach into account. Lastly, the distinct circumstances of each group are moreover likely to result in a number of differences with regards to the likelihood of remaining self-employed and the subsequent growth rates that can be expected from the four types of entrepreneurs.

Our theorizing efforts hence suggest that opportunities positively evaluated by each of the four groups not only depend on the respective entrepreneur's opportunity costs (or lack thereof), but also on the *type of opportunity* that has been identified by the entrepreneur. To the extend that necessity entrepreneurs differ from voluntary entrepreneurs in identifying and exploiting discovers vs. creation opportunities, these individuals appear to be facing a differing set of problems than those previously identified as relevant for voluntary entrepreneurs. For instance, prior research about resolving moral hazard and information asymmetry problems (Amit et al., 1998; Denis, 2004) appears primarily beneficial for voluntary entrepreneurs exploiting discovery opportunities – and thus less relevant to necessity entrepreneurs. This perspective suggests that voluntary entrepreneurs require a different set of tools and planning processes for maximizing their chances of success than necessity entrepreneurs. A recent study by Block et al. (2013) lends some support to this idea, revealing how startups of necessity entrepreneurs are more likely than others to pursue a generic cost leadership strategy, as opposed to pursuing a differentiation strategy. Additional research is needed however in order to clarify how the two theoretical lenses lead to differential opportunity identification and exploitation outcomes for entrepreneurial activity under unfavorable circumstances.

Table 2.2 presents an overview of the proposed similarities and differences in how the four groups of entrepreneurs are likely to experience the entrepreneurial process, as well as its hypothesized outcomes. These propositions can serve as a starting point for additional theoretical and future empirical inquiries about the four theoretically derived entrepreneurial archetypes. We invite others to help verify and investigate these propositions in order to shed light on the underlying mechanisms of how those influenced by negative external circumstances differ from their less impeded counterparts when identifying and exploiting entrepreneurial opportunities.

	(I) Voluntary Entrepreneurship in Developed Environment	(II) Relative Necessity Entrepreneurship	(III) Voluntary Entrepreneurship in Poor Environment	(IV) Absolute Necessity Entrepreneurship
Oportunity pool available to this group	opportunities available in developed settings, including those requiring more time & larger amounts of resources not currently under control	opportunities available in developed settings, opportunities that can be harvested in comparatively short periods of time	Wider choice of opportunities is accessible to this group, including opportunities which have already been exploited in more developed economies	opportunities available in undeveloped settings, often involving commodity products and the sale of the entrepreneur's labor force
Predominant opportunity identification mode	opportunity discovery	opportunity creation	opportunity discovery	opportunity creation
Opportunities typically identified by this group	opportunities related to the entrepreneur's interests, aspirations & social exposure; "discovery opportunities"	opportunities related to existing resources such as skills and experience, opportunities with low barriers to entry; "creation opportunities"	opportunities related to the entrepreneur's interests, aspirations, social & environmental context; "discovery opportunities"	opportunities promising quick relief to situational pressures in undeveloped environments; "creation opportunities"
Opportunities positively evaluated & exploited by this group	highest threshold of perfomance, if increased thresholds aren't met, opportunity is abandoned for more attractive income alternatives	lowered threshold of performance, situational pressure leads to perseverance even in case of underperformance	increased threshold of performance, if thresholds aren't met, opportunity is abandoned for more attractive income alternatives	very low threshold of performance, high pressure leads to perseverance even in case of underperformance
Likelihood of remaining self-employed / firm survival	low, due to high thresholds of performance and alternative income options	high, due to lack of alternatives and decreased thresholds of performance	low, due to high thresholds and alternative income options	high, due to lack of alternatives and low thresholds of required performance
Growth of newly established entrepreneurial entity	low to high, depending on the potential of the identified opportunity & entrepreneur's motivation	typically nonexisting to low	low to high, depending on the potential of the identified opportunity & entrepreneur's motivation	typically nonexisting to low
Meaningful entrepreneurial success measures	financial performance, firm survival, jobcreation, founders life-satisfaction	efficient use of employed resources, ability to relieve situational pressure, firm survival, founder's life-satisfaction	financial performance, firm survival, jobcreation, founders life-satisfaction	ability to relieve situational pressure, ability to increase living conditions, firm survival, founders life-satisfaction

Table 2.2: Propositions about the Entrepreneurial Process of the Four Groups

2.5 Conclusions

The present article proposed a definition and built a theoretical foundation around the concept of necessity entrepreneurship. Our argument began by the observation that the seemingly uniform population which has been associated with necessity entrepreneurship is in fact far from homogeneous. We pointed out the need to differentiate between situational and environmental factors influencing prospective entrepreneurs, suggesting to discriminate between four groups. While absolute necessity entrepreneurs are facing both negative situational and environmental parameters, relative necessity entrepreneurs merely face adverse situational circumstances while being located in a developed environment. Besides helping to clarify some of the equivocal findings from prior research, the current research article derives a number of suggestions for future empirical studies about necessity entrepreneurs and discusses the implications of the proposed model for contemporary entrepreneurship theory. Accordingly, the four groups differ with regards to the theoretically available opportunity pool, the predominant opportunity identification mode, the type of opportunities typically identified, positively evaluated and exploited by each group, the subsequent likelihood for remaining self-employed and for achieving growth, as well as regarding the choice of meaningful entrepreneurial success measures.

Future research can build upon the newly established definition and framework developed in this article, as well as in finding ways to empirically test the conceptual model and its propositions. The systematic study of entrepreneurial phenomena occurring under unfavorable circumstances is still in its infancy and there are many unanswered questions to date. In conclusion, we hope that the present contribution will motivate researchers to strengthen our knowledge about this important topic in order to help alleviate some of the adverse circumstances that this previously largely overlooked group of individuals is faced with while engaging in their entrepreneurial projects.

3 Research Study 2: Who's the Happy Entrepreneur? Exploring the Drivers of Work Satisfaction in Entrepreneurship

3.1 Introduction

Philosophers dating back as far as Socrates and Aristotle contended that well-being and happiness represent the ultimate goal of human activity. Happiness has been linked to numerous individual-level benefits, such as improving people's health (Diener, 2008), positive organizational outcomes, such as increased productivity and better decision-making (Boyd, 1997), and – on a societal level – to an improved quality of life (Shin and Johnson, 1978). Surprisingly, still little is known about the psychological consequences of an important activity in the lives of many people, *entrepreneurship*, such as the degree of work satisfaction of the self-employed.

An improved understanding of the drivers of entrepreneurial work satisfaction is important for several reasons: first, such information is relevant for entrepreneurship theory as it might reveal potential goal conflicts vis-à-vis some of the traditionally studied outcome measures of entrepreneurial performance (e.g., firm survival or financial turnover). Second, such knowledge contributes to job satisfaction theory, which hitherto predominantly focused on those employed within larger organizations. Third, a clear understanding of the critical determinants could be used to inform those likely to experience low degrees of professional satisfaction in entrepreneurship before becoming self-employed, thus preventing false expectations and negative individual consequences. Furthermore, by revealing important determinants pertinent to change, such expertise conceivably permits increasing levels of work satisfaction for those currently dissatisfied as entrepreneurs.

Traditionally, scholars have examined job satisfaction in the context of those employed within larger organizations, providing numerous insights into the question of which factors contribute to an individual's level of professional satisfaction. Person-specific, task-related and social aspects are suggested as critical for employees in prior research, yet it is still unclear whether these influences are similarly relevant for the self-employed. Although some studies have begun to analyze the importance of different task-related factors for the self-employed, several factors of potential relevance have not been researched to date. This article investigates the role of

psychological and social influences in a self-employment context, thus contributing to the lack of prior research on the drivers of work satisfaction in entrepreneurship.

We test our hypotheses in a sample of 1078 new firms founded by formerly unemployed individuals in the years 2006-2009 within two large city districts in Germany. This sample provides a highly meaningful context for investigating the drivers of work satisfaction in entrepreneurship, as achieving satisfaction at work is an especially critical outcome after enduring an unemployment spell.

Several key results are uncovered by our analysis. Contributing to entrepreneurship- as well as job satisfaction theory, our findings reveal that the founder's psychological makeup, the presence of cofounders and the support received from their social network are of relevance for understanding work satisfaction in entrepreneurship. We furthermore advance prior research by showing how some of the previously studied concepts can be modified to fit the assessment of entrepreneurial work satisfaction, which is essential given the different work contexts compared to the previously studied settings within larger organizations.

3.2 Literature Review

There is a long history of research in entrepreneurship and related fields such as strategy, finance and economics that focused on explaining a set of prominent outcome measures to the creation of new firms. While many efforts have been undertaken to understand macro- and firm-level benefits arising from entrepreneurial activity, occasionally entrepreneurship has also been described as a rewarding outcome in itself (e.g., Hisrich et al., 2007; Benz and Frey, 2008), proposing that entrepreneurship can also lead to positive psychological consequences.

A key individual-level success measure concerns the degree of job- or work satisfaction[1], previously described as having pleasant feelings and favorable

[1] In this article, the notions of job, work and professional satisfaction are viewed as conceptually equivalent and will be used interchangeably.

judgments towards the different aspects of one's occupation (Locke, 1976; Agho et al., 1993). Apparently, more studies have focused on understanding job satisfaction than any other variable in organizations (Spector, 1997), indicating the profound importance of this variable. Moreover, the self-employed consistently report increased levels of work satisfaction compared to employees (Katz, 1993; Benz and Frey, 2004; Blanchflower and Oswald, 2011; Millán et al., 2013), raising the question of what effects are responsible for these differences.

Nonetheless, most previous studies on job satisfaction have focused on those employed in larger organizations, neglecting those who have created a position for themselves. This is problematic, as there are a number of key differences between emerging and existing organizations. New firms are typically small, possess fewer resources and limited access to financial and knowledge capital, feature a limited product line and lack reputation in the marketplace, i.e. they suffer from the liabilities of newness, smallness and legitimacy (Aldrich and Fiol, 1994). They often experience a high degree of internal change and instability (Shane and Venkataraman, 2000) and work under conditions which maximize their susceptibility to cognitive biases (Baron, 1998). Thus, many settings of self-employment differ starkly to those of salaried employees – for instance with respect to the challenges faced, the necessary interactions with other people and the types of skills required (e.g., Eden, 1975; Hotch, 2000). Factors which have been identified as relevant for understanding employee job satisfaction thus do not necessarily translate directly to a self-employment context, but require adaptation. The following literature review presents and discusses the findings gained by prior research surrounding three key sets of explanatory variables: task-related, individual and social factors underling the phenomenon of interest.

3.2.1 Task-related Factors Influencing Levels of Job Satisfaction

Task-related differences have been linked to levels of employee job satisfaction for several decades. Important contributions to this research stream have resulted from work design theory (Sims et al., 1976; Turner and Lawrence, 1965), specifically from to the prominent job characteristics model (Hackman and Oldham, 1975, 1976). This

theory states that different task features are of significance for understanding levels of occupational satisfaction and performance, namely the degree of skill variety, task identity, autonomy, task significance and job-related feedback. Accordingly, higher levels on each of these dimensions have a positive influence on job satisfaction. Subsequent meta-analyses confirmed that the job characteristics model proves valid in a variety of employment contexts (Loher et al., 1985; Fried and Ferris, 1987).

Nonetheless, several researchers have criticized that no single situational factor is able to explain a substantial amount of variance in job satisfaction (Arvey et al., 1991). More importantly, although task-related factors have also been investigated in a self-employment context, prior studies have revealed mixed results. Using different samples of entrepreneurs, several entrepreneurship scholars found evidence that the concepts of task variety (Hundley, 2001), task identity (Schjoedt, 2009) and feedback (Hytti et al., 2012) all seem to be less relevant for entrepreneurs than for employees.

Similarly, theoretical arguments suggest that task-related factors might differ in importance between employees and the self-employed (e.g., Schjoedt, 2009). Self-employment naturally offers a high potential for satisfying job-related criteria such as the degree of skill variety, task identity and autonomy (Parasuraman et al., 1996). Moreover, the self-employed arguably possess considerable influence over their own working conditions. Coherently, the explanatory power of task-related differences for entrepreneurial work satisfaction can be expected to be lower than for the case of employees, as the variance of task-related differences is likely to be less pronounced among those who have created a position for themselves. Accordingly, factors external to the job at hand might prove to be more important for entrepreneurial work satisfaction. Table 3.1 below provides an overview of several key articles discussing how task-related factors are associated with job satisfaction.

Author & Year	Literature Base	Study Type	Sample	Focal Variable	Discovered Effect	Additional Findings
Hackman & Oldham (1976)	Organizational Behavior	Empirical Study	n=658 employees	job satisfaction	skill variety (+) task identity (+) task significance (+) autonomy (+) feedback (+)	the identified job characteristics are moderated by individual attributes which determine how positively people will respond to certain job features
Spector (1985)	Organizational Behavior / Psychology	Meta-Analysis	20 studies included in analysis	job satisfaction	employee growth need strength moderates job satisfaction	employees high on growth need strength react stronger to changes in job scope than others
Loher et al. (1985)	Organizational Behavior / Psychology	Meta-Analysis	28 studies included in analysis	job satisfaction	task identity (+) task significance (+) skill variety (+) autonomy (+) feedback (+)	employee growth need strength is confirmed as a valid moderator of the job characteristics - job satisfaction relationship
Fried & Ferris (1987)	Organizational Behavior / Psychology	Meta-Analysis	76 studies included in analysis	job satisfaction	skill variety (+) task identity (+) task significance (+) autonomy (+) feedback (+)	psychological factors are found to mediate the importance of job characteristics for job satisfaction
Gerhart (1987)	Organizational Behavior	Empirical Study	n=809 employees	job satisfaction	job complexity (+)	financial compensation and job status are furthermore important predictors of job satisfaction
Hundley (2001)	Organizational Behavior / Entrepreneurship	Empirical Study	n=1316 entrepreneurs & employees	job satisfaction	autonomy (+) flexibility (+) skill utilization (+) job security (+) job complexity (+)	the self-employed are generally found to be more satisfied than employees due to differences in job characteristics
Schjoedt (2009)	Entrepreneurship	Empirical Study	n=547 entrepreneurs & employees	job satisfaction	autonomy (+) skill variety (+) feedback (+) task identity (n. sig.)	entrepreneurs are more satisfied with their jobs than the top managers surveyed in this study
Hytti et al. (2012)	Organizational Behavior / Entrepreneurship	Empirical Study	n=2327 entrepreneurs & employees	job satisfaction	task significance (+) skill variety (+) autonomy (+) feedback (+) task identity (n. sig.)	feedback has a weaker effect for the self-employed compared to employees
Millán et al. (2013)	Organizational Behavior / Entrepreneurship	Empirical Study	n=62652 entrepreneurs & employees	job satisfaction with type of work; job satisfaction with job security	entrepreneurs are more satisfied than employees with their work content, yet less satisfied with their job security	the hours spent at work have a negative influence for employee job content satisfaction, yet a positive influence for the self-employed

Table 3.1: Task-Related Factors Influencing Levels of Job Satisfaction

3.2.2 Individual Factors Influencing Levels of Job Satisfaction

Dispositional factors have equally been proposed within past research for the study of job satisfaction, arguing that work attitudes are partially a function of stable, individual characteristics. In this vein, a large number of causes ranging from genetic (Arvey et al., 1989) and demographic factors, such as age (Kalleberg and Loscocco, 1983; Brush et al., 1987) and gender (Miller, 1980; Hodson, 1989; Clark, 1997), to cognitive factors, such as intelligence (Ganzach, 1998) as well as variables influencing and developing cognitive abilities such as the level of education (Florit and Lladosa, 2007) have been related to work satisfaction within prior studies.

However, the effects resulting from these abstract, situation-independent variables have proven to be mainly indirect, moderating influences with respect to job-satisfaction in subsequent studies (e.g., Arvey et al., 1991; Florit and Lladosa, 2007). Instead of directly influencing levels of job satisfaction, this set of characteristics is believed to merely act on job satisfaction due to different selection processes (Dormann and Zapf, 2001).

A set of variables closer to the behavior and actions of individuals, such as people's psychological makeup, have also been the subject of study. For instance, psychological factors such as positive and negative affectivity (Levin and Stokes, 1989; Lyubomirsky et al., 2005), locus of control (Spector, 1982; Judge et al., 1997) as well as optimism (Cooper and Artz, 1995) have been demonstrated to correlate strongly with levels of job satisfaction. Moreover, several factors from the well-known five-factor model of personality traits appear to be important predictors of employee job satisfaction (Judge et al., 2002). A large body of literature furthermore investigated and confirmed the relationship between personality traits and the more general concepts of life-satisfaction and happiness (e.g., Diener et al., 1999; Hayes and Joseph, 2003).

Overwhelming evidence suggests that personality factors – as defined by the big-five personality traits – influence how individuals interpret their environment and the situation they find themselves in (e.g., John et al., 2008). However, most prior

studies focused on employee-centered contexts, disregarding the self-employed which are operating in distinct work environments and situational settings (e.g., Eden, 1975; Hotch, 2000). As a significant body of prior research from the field of vocational psychology advises that mean personality scores differ between occupations and work contexts (Ones et al., 2003; Barrick et al., 2003), it is at least possible that personality factors affect work satisfaction differently under the distinct conditions present in self-employment. We therefore conclude that additional research is needed in order to clarify how psychological factors influence levels of work satisfaction in entrepreneurship.

An overview of the literature surrounding the importance of personality-related factors for job satisfaction is given in Table 3.2.

Author & Year	Literature Base	Study Type	Sample Details	Focal Variable	Discovered Effect	Additional Findings
Judge & Bono (2001)	Psychology	Meta-Analysis	135 studies included in analysis	job satisfaction	neuroticism (-)	neuroticism is also negatively related to job performance
Judge et al. (2002)	Psychology	Meta-Analysis	163 samples included in analysis	job satisfaction	neuroticism (-) extraversion (+) openness (+) agreeableness (+) conscientiousness (+)	life-satisfaction is correlated similarly to job satisfaction
Heller et al. (2004)	Psychology	Meta-Analysis	116 samples included in analysis	job satisfaction	neuroticism (-) extraversion (+) openness (+) agreeableness (+) conscientiousness (+)	BIG5 are also related to other domain satisfactions such as marital satisfaction and life-satisfaction
DeNeve & Cooper (1998)	Psychology	Meta-Analysis	148 studies included in analysis	subjective well-being	neuroticism (-) extraversion (+) openness (-) agreeableness (+) conscientiousness (+)	Personality was found to be equally predictive of life satisfaction, happiness and SWB
Steel et al. (2008)	Psychology	Meta-Analysis	347 samples included in analysis	life-satisfaction	neuroticism (-) extraversion (+) openness (-) agreeableness (+) conscientiousness (+)	Up to 39% of the variance in SWB appears to be accounted for by personality
Mount et al. (1998)	Organizational Behavior	Meta-Analysis	11 studies included in analysis	performance in jobs involving teamwork	neuroticism (-) extraversion (+) openness (+) agreeableness (+) conscientiousness (+)	emotional stability and agreeableness are especially important in jobs involving teamwork
Chay (1993)	Organizational Behavior	Empirical Study	n=117 entrepreneurs & employees	job satisfaction	extraversion (+) neuroticism (-) social support (+)	Social support is positively correlated with job satisfaction
Ciavarelly et al. (2004)	Entrepreneurship	Empirical Study	n=111 entrepreneurs	long-term venture survival	conscientiousness (+) openness (-)	extraversion, emotional stability and agreeableness are unrelated to long-term venture survival
Zhao & Seibert (2006)	Entrepreneurship	Meta-Analysis	23 studies included in analysis; entrepreneurs vs. managers	entrepreneurial status	entrepreneurs score higher on conscientiousness and openness to experience and lower on neuroticism and agreeableness.	all personality traits except agreeableness displayed considerable hetergeneity
Rauch & Frese (2007)	Entrepreneurship	Meta-Analysis	116 samples included in analysis	business success	personality is similarly important for entrepreneurs and employees	Traits matched to the task of running a business produce higher effect sizes than unmatched traits
Block & Koellinger (2009)	Entrepreneurship	Empirical Study	n=1547 entrepreneurs	start-up satisfaction	neuroticism (-) extraversion (+) conscientiousness (+)	financial success, independence and creativity are important predictors of startup satisfaction

Table 3.2: Personality Traits Influencing Levels of Job Satisfaction

3.2.3 Social Factors Influencing Levels of Job Satisfaction

Social influences represent a third dimension which has been argued to be of key relevance for understanding levels of satisfaction in the workplace, adding to the importance of task characteristics and psychological factors described above. The idea that satisfaction at work is partially a function of the social support available to the individual is hardly new: several related concepts such as having friendship opportunities at work (Sims et al., 1976), having the opportunity for interpersonal contact (Warr, 1994) or receiving feedback from other people[2] (Herold and Greller, 1977) have been investigated by different scholars in the past. Im sum, it is well-accepted today that one's social network represents a unique and often significant pool of resources, reward and feedback not otherwise available to the individual (Hobfoll et al., 1990). As entrepreneurs have been demonstrated to rely heavily on their social network compared to non-entrepreneurs (Davidsson and Honig, 2003), social influences can also be expected to be highly relevant for understanding job satisfaction of those having created a position for themselves (Chay, 1993).

Social theories explaining employee job satisfaction can be divided according to the source of social support (Flap and Völker, 2001; Schyns and Croon, 2006). In this vein, interactions with kin-centered networks have shown disparate effects on the expressed level of job satisfaction compared to co-worker networks (Hurlbert, 1991), suggesting the need to differentiate between social support originating from firm-internal and firm-external contacts in future studies. A review of the relevant literature revealed that the vast majority of scholars has focused on firm-internal social support, such as the workplace support offered by coworkers (Ducharme and Martin, 2000; Schyns and Croon, 2006), supervisors (Schirmer and Lopez, 2001; Schyns and Croon, 2006), management (Sousa-Poza and Sousa-Poza, 2000) as well as from coaching and mentoring programs (Harris et al., 2007). Each of these concepts

[2]Note that this concept is distinct from the previously discussed concept of task-related feedback listed above, as the feedback from other people identified by Herold and Greller (1977) describe a form of feedback which is given through a social interaction as opposed to being inherent to the task at hand as in the case of Hackman and Oldham (1976).

demonstrated a positive impact on job satisfaction in various employee-focused settings, suggesting that firm-internal social support might also represent an important component for understanding work satisfaction in entrepreneurial settings.

The other category of social factors relevant for understanding work satisfaction is located outside the individual's working sphere and can be subsumed under the term firm-external social support. Accordingly, being in contact with people external to the organization, such as customers, suppliers and the public, has been described as being important for job satisfaction (Morgeson and Humphrey, 2006). Employee job satisfaction has also been linked to the work-family relationship within numerous prior studies (Ernst Kossek and Ozeki, 1998). Contextual social factors can thus be expected to be of relevance also in entrepreneurial settings. While empirical investigations about the importance of non-work related social support in entrepreneurial settings are still scarce to date, one study we could identify revealed that social support is positively related to job satisfaction of employees, small enterprise owners and self-employed individuals, thus equally supporting the above reasoning (Chay, 1993). Unfortunately, the aforementioned work merely analyzed the three distinct professional groups as a combined dataset, calling for additional research to help clarify the importance of firm-external social support for entrepreneurial job satisfaction.

Table 3.3 below provides an overview of the most important articles discussing the role of social factors for understanding levels of job satisfaction.

Author & Year	Literature Base	Study Type	Sample	Focal Variable	Discovered Effect	Additional Findings
Turner & Lawrence (1965)	Organizational Behavior	Empirical Study	n=470 employees	job satisfaction	optional interaction w. others (+) required interaction w. others (mixed results)	social factors, socialization patterns (urban/rural) and job complexity are furthermore important for understanding employee work attitudes
Hurlbert (1991)	Organizational Behavior	Empirical Study	n=711 employees	job satisfaction	social support (+)	social support varies by the source granting the support
Parasuraman et al. (1996)	Organizational Behavior	Empirical Study	n=111 business owners	career satisfaction	informational / emot. support (+) job involvement (+) autonomy (+) time commitment to work (+)	family satisfaction is driven by other factors than career satisfaction
Schyns & Croon (2006)	Organizational Behavior	Empirical Study	n=326 employees	several facets of job satisfaction	task demands (+) leader-member-exchange (+) social structure (+)	the social structure of a job influences different facets of job satisfaction
Sousa-Poza & Sousa-Poza (2000)	Organizational Behavior / Labor Economics	Empirical Study	n=15112 employees	job satisfaction	having good relations with management (+) having good relations with colleagues (+)	the determinants of job satisfaction are generally similar across countries
Ducharme & Martin (2000)	Organizational Behavior	Empirical Study	n=1951 employees	job satisfaction	affective coworker support (+) instr. coworker support (+)	workplace social support is a multidimensional construct; affective and instrumental support are complements instead of substitutes
Schirmer & Lopez (2001)	Organizational Behavior	Empirical Study	n=117 employees	job satisfaction	supervisor support (+)	work stress intensity negatively influences job satisfaction
Harris et al. (2007)	Organizational Behavior	Empirical Study	n=179 employees	job satisfaction	social support (+)	career mentoring and task support are the most important predictors of job satisfaction
Morgeson & Humphrey (2006)	Psychology	Empirical Study	n=540 employees	job satisfaction	social support (+) interaction outside the organization (+)	social support helps predicts job satisfaction beyond motivational work characteristics
Humphrey et al. (2007)	Organizational Behavior / Psychology	Meta-Analysis	259 studies included in analysis	job satisfaction	feedback from others (+) social support (+) interaction outside the organization (+) interdependence (+)	34% of the variance in job satisfaction is explained by motivational characteristics, an additional 17% is explained by social characteristics, and an additional 4% is explained by work context characteristics
Brüderl & Preisendörfer (1998)	Entrepreneurship	Empirical Study	n=1700 entrepreneurs	firm survival firm sales growth firm employment growth	support by strong- and weak ties instrumental support from spouse emotional support from spouse	support from strong ties appears more important that support from weak ties; social networks generally cannot compensate a lack of human and financial capital
Parasuraman & Simmers (2001)	Organizational Behavior / Entrepreneurship	Empirical Study	n=386 entrepreneurs & employees	job satisfaction	the self-employed experience higher levels of work-family conflict and lower levels of family satisfaction	the self-employed experience higher levels of job satisfaction compared to employees and have greater autonomy and work schedule flexibility
Shane & Cable (2002)	Entrepreneurship	In-depth Case Studies	50 high-technology ventures	probability of receiving VC financing	direct social ties (+) indirect social ties (+)	social ties improve the probability of receiving venture financing by improving the transfer of information

Table 3.3: Social Factors Influencing Levels of Job Satisfaction

3.2.4 Findings from the Literature Review and Research Question

In sum, most prior studies have focused on levels of work satisfaction in employee-centered contexts, overlooking the self-employed which are operating in distinct work environments and situational settings. While task-related factors appear to be comparatively less important for the self-employed, both psychological and social factors merit further investigation as to how these concepts influence entrepreneurial work satisfaction. The research question that this article seeks to answer asks *how do psychological and social factors relate to work satisfaction in entrepreneurship?*

3.3 Hypothesis Development

To address the research question underlying this article, our theoretical development needs to consider founder-specific psychological, as well as firm-internal and firm-external social influences. We begin by assessing the role of the founder's personality, which is likely to affect the phenomenon of interest through several mechanisms. Afterwards, two fundamental social influences of importance to the self-employed, the presence of cofounders as well as the support received from firm-external social ties will be analyzed with regards to how they impact entrepreneurial work satisfaction.

3.3.1 Personality Factors

Although psychological factors have proven useful for understanding employee job satisfaction, the relationship between the personality dimensions of the five-factor model and job satisfaction has not been studied systematically in entrepreneurial settings to date. Correspondingly, this section discusses the empirical evidence as well as a number of theoretical arguments supporting the idea that the different personality traits within the well-known five-factor model (Goldberg, 1990) are associated with the level of job satisfaction for the self-employed.

Extraversion

Those ranking high on extraversion can be described as energetic, active, talkative, cheerful and enthusiastic, frequently seeking excitement and stimulation (Costa and McCrae, 1992). Extraverts have been depicted as representing the prototypical salesperson interested in enterprising occupations (Berings et al., 2004; Zhao and Seibert, 2006), possessing crucial communication skills especially in the early stages of new businesses and thus entrepreneurship. As frequent interactions with a diverse set of stakeholders, such as clients, partners, suppliers and potential early employees are facilitated by high levels of extraversion, offering lots of potential for stimulation,

this trait is likely to be particularly important for the degree of work satisfaction in entrepreneurship.

Similarly, the related literature on subjective well-being suggests that extraversion has a positive influence on different measures of happiness. Extant research suggests that extraversion influences positive affect (e.g., Rusting and Larsen, 1997; Lucas and Fujita, 2000). For example, extraverts are known to be sociable and have been found to react more positively to daily stimuli and events, leading some to posit that extraverts are more likely to experience positive affect, as social situations are more rewarding and enjoyable (Larsen and Ketelaar, 1991; Steel et al., 2008). A broad review of the multitude of theories about the relationship between extraversion and general life satisfaction is given by Diener et al. (1999). Positive affect in turn has been shown to have a strong positive relationship with job satisfaction in a meta-analysis of employee-related studies (Connolly and Viswesvaran, 2000). Similarly, extraversion has been shown to be a strong predictor of general happiness within a number of prior studies (DeNeve and Cooper, 1998; Hayes and Joseph, 2003). The above discussion suggests that extraversion positively affects the level of work satisfaction expressed by the self-employed. We thus hypothesize as follows:

> H1a: *Extraversion is positively related to the degree of work satisfaction of the self-employed.*

Emotional Stability

People scoring low on emotional stability[3] can be characterized as being prone to stress, depression and anxiety (Judge et al., 1999), and experiencing more negative life-events than others (Magnus et al., 1993), for example due to a tendency to evaluate any situation less favorably than people ranking high on emotional stability (Arvey et al., 1991). In other words, those featuring high levels of emotional stability can be expected to evaluate their circumstances more favorably than others, suggesting that emotional stability contributes to increased levels of work satisfaction

[3]The trait emotional stability is also known as neuroticism, coded inversely.

in any occupation, including self-employment. More specifically, those ranking high on emotional stability have been argued to be self-confident, even tempered, calm and relaxed, which can be seen as highly beneficial traits in entrepreneurship as the self-employed are frequently operating in highly volatile and unstructured settings (Zhao and Seibert, 2006). Compared to employees, entrepreneurs typically face elevated levels of stress due to the high working hours and task load (Dyer, 1994), lack of social security insurance, and substantial financial and personal stake in their businesses. A high self-confidence and stress resilience are thus important for attaining high levels of work satisfaction in self-employment.

Emotional stability furthermore aids in maintaining relationships with others (Hurtz and Donovan, 2000; Steel et al., 2008), making the trait especially relevant for the self-employed who often strongly depend on others and need to form long-term bonds with various constituents to realize their entrepreneurial ambitions. Emotional stability should thus help in coping with the uncertainty inherent in becoming self-employed and help balance risk by fostering the entrepreneur's self-confidence to successfully master all sorts of challenges. Congruently, the literature on the topics of employee job satisfaction (Judge and Bono, 2001), general happiness, and life satisfaction (DeNeve and Cooper, 1998) confirms that high degrees of emotional stability are typically associated with positive psychological consequences. Based on the above arguments and evidence we conclude that emotional stability can be expected to show a highly positive effect on work satisfaction for the self-employed.

> H1b: *Emotional stability is positively related to the degree of work satisfaction of the self-employed.*

Openness to Experience

Individuals scoring high on openness to experience can be described as intellectually curious, imaginative and creative, with a tendency to seek new experiences and explore novel ideas (McCrae and Costa, 1987; Feist, 1998; Ciavarella et al., 2004). Likewise, entrepreneurship has frequently been described as an inherently innovative

activity ever since Schumpeter (1934), requiring creativity and imagination while coming up with new business ideas, when encountering previously unknown problems and setbacks, or when developing new products, processes, and business strategies (Gaglio and Katz, 2001; Ward, 2004; Zhao and Seibert, 2006). Thus, the personality trait "openness to experience" can be expected to increase the founder's level of work satisfaction due to a good fit and congruence with many entrepreneurial characteristics and requirements (Furnham and Schaeffer, 1984). Prior findings which revealed that entrepreneurs can be differentiated from most employees as they feature a strong desire for creativity also lend support to this idea (Engle et al., 1997).

Adding to the fit-argument, some additional reasons exist which suggest that openness also has a beneficial influence on several critical entrepreneurial decisions. From a theoretical perspective, the personality dimension of openness can be expected to facilitate the implementation of product-line changes and necessary adaptations to the new firm's original business model, as such choices align with the desire to explore novel ideas described above. Prior research indeed confirms that those ranking high on openness are more determined and capable in seeking out alternative options in product-market path creation than founders with low openness to experience (Gruber, 2010). As such behavior represents an important determinant of future entrepreneurial performance, this reasoning arguably describes a second mechanism through which openness to experience contributes to the founder's level of work satisfaction. Thus, the psychological trait of openness is expected to be positively associated with entrepreneurial work satisfaction.

> H1c: *Openness to experience is positively related to the degree of work satisfaction of the self-employed.*

Agreeableness

Agreeable individuals can be described as considerate, warm, compassionate, valuing positive interpersonal relationships, with a preference for cooperation rather than competition (Costa and McCrae, 1992; Zhao and Seibert, 2006). Past empirical studies

investigating the importance of agreeableness in employee-centered contexts revealed mixed results. While initial research found a positive correlation between agreeableness and employee job satisfaction, subsequent studies failed to replicate these findings (Judge et al., 2002). Likewise, the trait agreeableness did not demonstrate a significant relationship with several measures of psychological well-being (Hayes and Joseph, 2003). In an entrepreneurial context, the above characteristics are likely to be important however, as they can be seen as helpful for forming positive working relationships with important stakeholders from both inside and outside the firm. For instance, the acquisition of first customers, collaborating with suppliers and industry incumbents, or convincing early employees to join the new firm all require a thorough understanding of the other party's motivation and interests in order to achieve mutually successful outcomes. Agreeableness thus arguably contributes to entrepreneurial work satisfaction by facilitating critical social relations. Based on these considerations, we predict that agreeableness is likely to have a beneficial influence on the level of entrepreneurial work satisfaction.

> H1d: *Agreeableness is positively related to the degree of work satisfaction of the self-employed.*

Conscientiousness

Individuals ranking high on conscientiousness can be described exhibiting a number of important positive work attitudes such as as being hardworking, dependable, achievement-oriented and persistent (Barrick and Mount, 1991). From a theoretical perspective, we would expect that those working hard on their business also have a higher chance of succeeding in self-employment, thus contributing to entrepreneurial work satisfaction in the long term. Accordingly, a large number of empirical studies confirmed that this trait represents a highly useful predictor of job performance in a variety of jobs and occupations (Barrick et al., 2001). It should be noted however that the relationship between conscientiousness and job satisfaction in various employee-centered contexts has frequently proven to be only moderate (Judge et al., 2002).

Moreover, conscientious individuals are typically judged to be dependable and committed to their plans by potential collaboration partners, making it easier for them to engage in psychologically beneficial social interactions and relationships (Zhao and Seibert, 2006). Those ranking high on conscientiousness are thus more likely to report high levels of work satisfaction in self-employment, as important social relations are facilitated by this trait. Lastly, conscientiousness has also proven to be a predictor of several more general satisfaction with life indices (Hayes and Joseph, 2003). In sum, we hypothesize that conscientiousness is positively related to entrepreneurial work satisfaction.

> H1e: *Conscientiousness is positively related to the degree of work satisfaction of the self-employed.*

3.3.2 Social Support

Beyond the personality factors discussed above, we argue that different types of social support are important determinants of work satisfaction in entrepreneurship. It is well accepted today that social influences and comparisons impact not only work satisfaction (Dutton, 2007) but also overall levels of happiness in the population (Veenhoven, 2009).

Three arguments for the positive effects of social contact and interaction can be distinguished: first, affective social support has been posited as providing feelings of being accepted and being cared for (Chay, 1993; Ducharme and Martin, 2000), thus providing comfort during setbacks and challenging periods which form an integral and inevitable part of any entrepreneurial endeavor. Social support can therefore help in the conservation of vital resources and has a stress-buffering effect (Terry et al., 1993; Hobfoll, 2001; Fenlason and Beehr, 1994; Morgeson and Humphrey, 2006), thus likely facilitating entrepreneurial work satisfaction.

Second, social networks have been argued to be an important source of miscellaneous instrumental benefits, such as being able to provide financial

resources, representing a source of free labor (Ducharme and Martin, 2000; Flap and Völker, 2001), and possibly providing access to first customers, suppliers and prospective business contacts (Aldrich and Zimmer, 1986; Ducharme and Martin, 2000). Such instrumental support has been demonstrated to be highly important particularly for newly founded businesses (Brüderl and Preisendörfer, 1998). The founder's level of work satisfaction is likely to benefit by the associated reduction of risk, increased exposure to potential collaboration partners, and by the improved chances of financial success.

Lastly, the founder's social network can also be a reliable, highly effective source of informational benefits through the provision of unique knowledge, experience and information about market conditions and opportunities which can be exploited by the entrepreneur (Aldrich and Zimmer, 1986; Brüderl and Preisendörfer, 1998; Sammarra and Biggiero, 2008). Such informational advantages are likely to increase the founder's confidence in his/her entrepreneurial project and result in favorable social comparisons, which benefit the degree of satisfaction derived from his/her activity (Clark and Oswald, 1996). As the unique knowledge and information provided by the individual's social capital can also represent a superior resource, informational benefits can also help in attaining a competitive advantage as discussed in the strategic management literature (e.g., Peteraf, 1993). Social support might thus also increase entrepreneurial work satisfaction as it helps establish the founder's firm in the marketplace while generating superior financial returns.

The different types of social support described above are nevertheless not equally well provided by all social contacts. Instead, prior research suggests that the effectiveness of social support depends on the source which grants the respective type of social support (Flap and Völker, 2001; Granovetter, 2005; Schyns and Croon, 2006; Arregle et al., 2013). Accordingly, the social support can be categorized as originating from either firm-internal or firm-external relations relative to the nascent company. The effect of these two types of social support will be discussed below

Cofounder Support

While most employees can draw on coworkers as a source of social support, many startups begin with only the founding employee (Shane, 2003, 2008). Only those starting in a team can thus benefit from firm-internal social support, which is likely highly valuable due to the close proximity to peers and high frequency of interaction. For instance, employee job satisfaction is strongly dependent on co-worker satisfaction (Argyle and Martin, 1991). Moreover, working in small work groups as opposed to working alone has been shown to reduce employee turnover and absenteeism (Argyle and Martin, 1991).

The close proximity between those starting a business together with a cofounder allows for an effective working collaboration, as knowledge is transferred more readily inside organizations than across organizational boundaries (Argote and Ingram, 2000). Having a cofounder also allows for a considerable informal social life at work, for instance by permitting jokes, fooling around, playing games and gossiping, all reducing stress and making work more enjoyable (Roy, 1959; Argyle and Martin, 1991; Fenlason and Beehr, 1994). Cofounders thus appear to be especially suitable for providing affective and instrumental support, which in turn can be expected to increase levels of work satisfaction for the self-employed by conserving vital resources (Hobfoll et al., 1990), buffering stress (Terry et al., 1993), and raising the chances of success (Brüderl and Preisendörfer, 1998).

> H2: *The presence of cofounders is positively related to the degree of work satisfaction of the self-employed.*

Firm-External Social Support

Since most firms are founded by only one person, the contextual, firm-external social support is frequently the only form of social support available to most founders. This group entails firm-related external stakeholders such as customers, suppliers and other resource providers, as well as firm-unrelated social contacts of the founder such as those sharing the same household, close friends, more distant acquaintances,

and former colleagues. While the former group of firm-related external stakeholders might be able to supply certain instrumental and informational support in particular cases, little if any affective support can typically be expected from such firm-related stakeholders. However, strong social ties, such as the entrepreneur's family and close friends, are likely contributors of both affective as well as operational support (Aldrich and Cliff, 2003). The founder's work satisfaction should thus benefit from firm-external social support due to the affective and operational support provided by these links.

As individuals working for the same organization tend to be more similar than individuals working in different organizations (Argote and Ingram, 2000), interpersonal relations with those working outside of the nascent firm also possess a number of unique advantages. Accordingly, weak social ties have been argued to be especially helpful for providing informational support and access to new relationships, as more distant connections tend to have better access to non-redundant, novel information and access to useful contacts compared to closer ties (Granovetter, 2005). For instance, firm-external ties can be useful to assess the quality and suitability of important suppliers which would be difficult to assess otherwise (Pennings and Lee, 1999). Firm external social ties can thus be expected to have a beneficial influence on the founder's level of work satisfaction, as the informational support received by such ties can help the founder to establish his/her firm in the marketplace based on a competitive advantage (Argote and Ingram, 2000).

In sum, the amount of support provided by firm-external social relations can be expected to have a beneficial influence on the founder's level of work satisfaction:

> H3: *Firm-external social support is positively related to the degree of work satisfaction of the self-employed.*

Figure 3.1 depicts the complete research model integrating all of the hypotheses developed above.

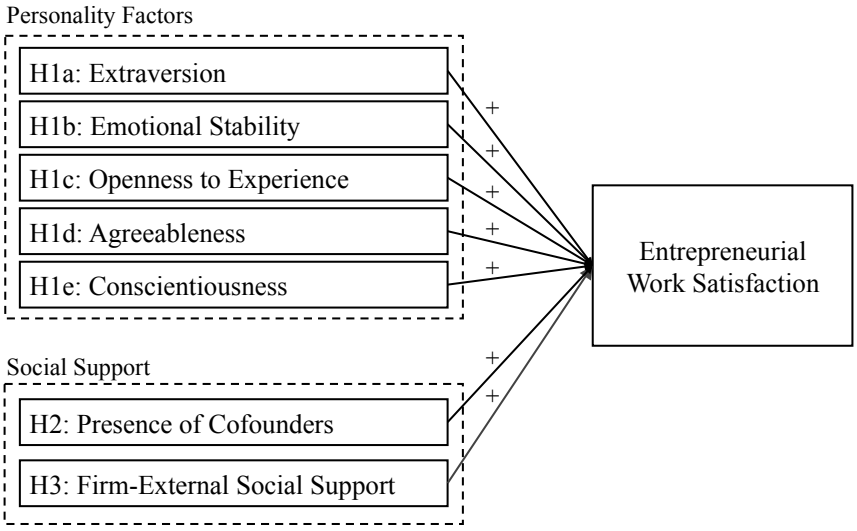

Figure 3.1: Research Model

3.4 Data and Methods

We examine the effects of the big-five personality traits as well as the impact of potential cofounders and the support received from the entrepreneur's social network on the degree of entrepreneurial work satisfaction in a sample of formerly unemployed firm founders. The data has been collected through a one-time survey that was distributed to individuals who founded a firm with the assistance of government subsidies within two medium sized German cities. Our sampling methodology allowed us to contact not only founders still operating their businesses at the time of questioning but also to those whose businesses had failed. This setting provides a decidedly meaningful context for our research question because unemployed individuals have repeatedly expressed lower levels of well-being than their employed counterparts (McKee-Ryan et al., 2005; Lucas, 2007). Increasing this groups degree of satisfaction thus represents a highly relevant outcome after enduring an unemployment spell.

3.4.1 Study Setting

The individuals in our sample have participated in a governmental support program within the northern German cities of Hannover and Braunschweig, representing two branch offices of the German Ministry for Employment and Social Affairs. The sample consists of four entire yearly cohorts of individuals that have been supported by government grants in the years 2006 to 2009 from these institutions. The two regions entail urban areas with about 525.000 and 250.000 inhabitants respectively (Bundesamt für Statistik, 2013). In 2011, 10.5 percent of the working population were registered as unemployed in Hannover, whereas the unemployment rate in the city of Braunschweig was 8.2 percent, close to the German average of 7.4 percent (Stadt Hannover, 2011; Stadt Braunschweig, 2011).

The support program offered a financial contribution equal to the unemployment check which the individual would be entitled to had they not decided to start their business, plus an additional contribution of 300 Euros per month to help offset their social security and living expenses. The maximum support period was limited to 15 months and the funds did not require repayment. In order to benefit from the program, applicants needed to be formally registered as unemployed, be eligible for at least another 150 days of unemployment benefits, and demonstrate the viability of the envisioned business concept through certification from a competent institution, such as the chamber of commerce, a bank, or a tax consultant. The threshold for assessing economic viability of the proposed projects during our sampling period was low, i.e., most applications can expect to be eligible for the financial contribution (comp. Chapter 4).

3.4.2 Survey Data

Survey Design and Response Rate

We prepared the survey in multiple steps: following a comprehensive review of the important concepts in the literature we drafted a first version of the questionnaire

instrument. In order to develop a deeper understanding of the special circumstances of these firm formations, and to ensure that all questions are understood and interpreted in the correct way, the initial survey was subsequently improved in several iterations based on the feedback gained during a total of 19 qualitative interviews with firm founders and experts knowledgeable about the target group. Minor modifications that improved the clarity of some questions resulted out of this pretesting procedure. The complete survey instrument consists of six pages of questions describing information about the firm founder, the period before as well as after the creation of the new company, and a section detailing the firm- and founder-specific outcomes resulting from this process.

The employment agencies from the two regions in our sample assisted in accessing the entire cohort of individuals that have been supported by the financial contribution within their districts in the period of January 1st, 2006 to December 31st, 2009; comprising both founders still operating their businesses as well as those that have abandoned their company. The distribution of the surveys took place between March and August 2011. To avoid privacy issues, the surveys were addressed and mailed to the participants directly from the governmental institutions. All letters arrived enclosed with a pre-paid return envelope as well as a personalized cover letter highlighting the importance of participation in our study to the participant and ensuring the anonymity of the responses, in an effort to reduce non-response bias. Six weeks after the initial mailing, reminder postcards were sent to the participants in order to thank those who already replied for their participation and encourage those who had not yet responded to participate.

The total number of surveys which have been returned by the respondents amounts to 1148 surveys, corresponding to an overall effective response rate of 22,1% based on the total number of surveys that could be delivered to the participants[4].

[4] 1955 firm founders represent the entire cohort of the reference period in Braunschweig. 1682 surveys have reached the intended respondent and 384 have been returned, resulting in an effective response rate of 22,8%. The respective cohort in Hannover consists of 4128 firm founders. 3506 surveys have arrived at their destination and 764 have been returned, resulting in an effective response rate of 21,8%.

These response rates are comparable to, or higher than, the rates found in other empirical studies within similar contexts (Sarkar et al., 2001; Dencker et al., 2009a). Because the goal of this study has been to identify the factors contributing to work satisfaction for those engaging in newly established businesses, falsely addressed founders who registered their company before the year 2006 have been excluded from the analysis (47 cases).

It should be noted that not every participant fully completed the survey. Several surveys were incomplete and missing values have been imputed with the respective variable mean value in these cases; our results have proven highly robust to this procedure[5]. The final analyses were conducted based on n=1078 completed surveys.

Inspection of the Dataset

In order to ensure that statistical inferences derived from our sample can be generalized to the population of interest, it is important to minimize response bias. Several analyses suggest that our study does not suffer from any significant nonresponse bias. The mean age of the founders in our sample is 41,6 years and about 42% of the founders are females, which is highly comparable to official statistics about German firm foundations in this period (Kohn and Spengler, 2009). High overlap with official data also exists with regards to the educational attainment and survival rates found our sample.

We did not find any evidence of response bias after comparing early and late respondents (those replying before and after the reminder postcard) (Paganini-Hill et al., 1993) as no significant differences between these groups were apparent in our analysis. Based on these considerations it is reasonable to conclude that the

[5]Specifically, the psychological questions have been left blank by some respondents, requiring the following number of imputations: change in work satisfaction (33), extraversion (15), conscientiousness (14), neuroticism (23), openness (20), agreeableness (34). Of our control variables we equally replaced several observations with the respective mean values: duration of prior unemployment (15), subjective income comparison (18), founder age (64) and business takeover (13). A total of 23 surveys have been dropped from the analysis as they contained several missing values, including an unidentifiable economic sector.

individuals which responded to our survey do not differ in important dimensions to the population of formerly unemployed firm founders in the two cities that the data has been collected from.

Common method variance bias describes the effect when respondents are affected by some survey items in a way that alters their response to subsequent measures. Our independent psychological variables are unlikely to be affected by any consistency motives and the different social influences are based on discrete events, such as having been supported by a fixed number of people or a potential cofounder, which are inherently less vulnerable to distortion and recollection bias. We conducted Harman's one-factor test (Podsakoff and Organ, 1986) which identified two factors with eigenvalues greater or about one (1,39 and 1,00, accounting for 56% and 40% of the variance in the data respectively), providing a quantitative indication suggesting that common method bias is unlikely to prevent the interpretation of our results.

3.4.3 Measures

Dependent Variable

Following prior research on both job satisfaction (Argyle and Martin, 1991; Gardner et al., 1998; Nagy, 2002) and within the interrelated literature on happiness and subjective well-being (Kahneman and Krueger, 2006; Layard, 2010; Oswald and Wu, 2010), we directly asked the respondents to assess their degree of work satisfaction.[6] Choices ranged from (1) "strongly decreased" to (5) "strongly improved", similar to previous studies on job satisfaction (Freeman, 1978; Staw and Ross, 1985; Trevor, 2001; Block and Koellinger, 2009). Prior empirical findings have confirmed the usefulness of similar measures of overall job satisfaction (Scarpello and Campbell, 1983). Our dependent variable reflects the perceived change in work satisfaction as a result of the self-employment experience compared to the situation before being unemployed. By focusing on the subjective difference (increase or decrease) in job

[6]The exact wording of the question was "How did your 'professional satisfaction' change through the self-employment experience compared to the situation before being unemployed?"

satisfaction resulting from the individual's entrepreneurial experience, our measure allows capturing the net effect resulting from our independent variables on the level of professional satisfaction of the self-employed in relation to the entrepreneur's previous professional occupational status. This methodology moreover reduces potential bias resulting from individual set-points of happiness which have been recently discovered (Lucas et al., 2004; Lucas, 2007).

A meta-analysis by Wanous et al. (1997) found that single-item measures of job satisfaction levels tend to show high convergent validity with scale measures (minimum reliability estimates appear to be close to 0.70) while being more robust than scale measures. Past studies investigating the relationship between subjective measures of satisfaction with objective quality of life-indicators found the two to be strongly correlated (Walter-Busch, 1983; Ng et al., 2005), demonstrating strong test-retest correlations, and exhibiting a high degree of face and construct validity, thus concluding that psychological satisfaction measures can be considered reliable (Diener et al., 1999; Boarini et al., 2012).

Independent Variables

The independent variables of this study include the founder's psychological makeup as categorized by the big-five personality traits, as well as the social support granted by cofounders and from the individual's firm-external social network during the creation of the new business.

Our measure of the founder's personality traits used a previously validated 20-item scale (John et al., 2008). Each factor was derived as the mean-centered eigenvector of four survey items through a principal-component analysis. Alpha-values of 0.79 (extraversion), 0.71 (emotional stability), 0.80 (openness to experience) and 0.79 (conscientiousness) indicate good construct validity, only our measure of agreeableness scored substantially lower at 0.46.

The presence of cofounders was captured by asking the respondents to indicate whether they started their business alone or with a business partner.

To assess the network support strength construct, we formed an additive measure combining various types of social support relevant to firm founders, conceptually linked to prior studies quantifying social support in different contexts (Schirmer and Lopez, 2001; Nicolaou and Birley, 2003; Harris et al., 2007). Up to four persons could be listed as having contributed to the self-employed activity of the respondents. The type of support was divided into affective, instrumental, financial and informational support, whereas each of the four support realms was assessed on a likert-type scale ranging from 0 (no support) to 4 (very strong support). The final construct thus ranges from 0 to 64 (maximum of 4 persons × 4 support types × 4 support strength).

Control Variables

Various individual-level measures such as years of education, founder age, gender, prior self-employment experience, duration of prior unemployment and subjective income gain were included as control variables. In addition, we controlled for the firm-level measures business failure, business registration year, business takeover, survey locale and economic sector.

On the individual level, the founder's level of formal education has been included as a proxy for his/her cognitive capabilities (Florit and Lladosa, 2007). Education was assessed by asking about the highest degree received in the German schooling and professional education system, which was subsequently integrated into an ordinal variable capturing the years of education that are required to receive the degree chosen by the respondent. Less than 1% had no educational degree at all, about 21% of the respondents had only a high school degree, 27% of the respondents indicated they held a vocational training diploma, above 7% were master craftsmen, and about 44% had a university diploma (including PhD).

The demographic factors age (Kalleberg and Loscocco, 1983; Brush et al., 1987) and gender (Miller, 1980; Hodson, 1989; Clark, 1997) have been demonstrated to be of importance to both job satisfaction and entrepreneurship (Lévesque and Minniti,

2006), thus we controlled for the founder's age at the time of firm formation. The gender dummy variable was coded 1 for female and 0 for male.

Prior entrepreneurial experience can be expected to moderate the current appreciation of the respondent's professional independence, thus potentially biasing our dependent variable. Coherently, we included a dummy indicating whether the respondent had a history of prior self-employment to control for this effect.

Because prior research has indicated that a period of unemployment can disturb an individual's psychological condition (Lucas et al., 2004; McKee-Ryan et al., 2005), we controlled for the duration of unemployment. Respondents indicated whether their unemployment spell prior to becoming self-employed lasted "less than one month", "1-2 months", "3-4 months", "5-6 months", "7-9 months", "10-12 months", "13-24 months", "25-36 months" and "more than 36 months" which we combined into an ordinal variable.

Similarly, an individual's income and wealth have been demonstrated to have a strong impact on levels of satisfaction (Stevenson and Wolfers, 2008), requiring us to control for this effect in order to distill the influence of our explanatory variables on work satisfaction, net of financial success. For this purpose, we have incorporated a measure designed to capture the income difference of the founder in his/her self-employed position compared to his/her previous occupation before being self-employed, which respondents were invited to answer on a likert scale ranging from 1 ("a lot less") to 5 ("a lot more"). Similar subjective measures have been used in prior studies to control for the impact of financial success on psychological outcomes (e.g., Wiklund and Shepherd, 2003; Block and Koellinger, 2009; Hahn et al., 2012).

On the firm-level, we controlled for business failure, as the owner of a failed business is likely to experience a serious setback that is likely to affect his/her level of professional satisfaction besides negative personal consequences (Miller et al., 2003; Shepherd et al., 2009). The business failure dummy marks those firms which have been terminated or interrupted in the period between company creation and our study, else it equals zero.

In order to control for potential time-based effects in our sample, we introduced three dummy variables indicating the year when the respondent's firm had been incorporated with the respective public agency. Firms registered prior to 2007 serve as the base level.

Next, a business takeover dummy variable has been coded as 1 if the respondent indicated that he took over an existing business or participated in an existing company as opposed to starting a new business himself. Around 14% of the respondents in our sample belong to this group. Business takeovers are considered separately as this route to self-employment poses a number of unique challenges as well as advantages that might differ in their potential for generating high levels of work satisfaction. For example, different individual characteristics have been found in those taking over an existing business compared to those starting a new business (Block et al., 2012), suggesting that this group needs to be considered separately from "true" new firm founders. A dummy variable has been included to capture this effect.

We coded a dummy variable indicating in which of the two cities of our study the respondent lived in to control for different environmental contexts, which may vary in their degree of economic and social opportunity and hence facilitate different levels of work satisfaction. The smaller city of Braunschweig was coded as 1.

Lastly, we included a set of dummy variables indicating the economic sector of the respondent's firm to control for potential industry-specific differences in work satisfaction. The activities of the respondents were manually coded according to the most recent industry classification scheme ("WZ2008") available from the German Statistical Office based on the relevant information in the survey.

3.4.4 Research Method

We estimated our results using ordinary least squares (OLS) regression analysis techniques. The robust parameter was included during the regression analyses in Stata 12 in order to estimate heteroscedasticity-consistent standard errors, which take

potential minor violations of assumptions concerning heterogeneity and lack of normality into account (White, 1980).

3.5 Results

3.5.1 Descriptive Statistics

Our analyses was based on a sample of 1078 founders who had been unemployed prior to starting their company. Descriptive statistics and correlations between the variables of this study are given in Table 3.4. Multicollinearity was not a problem as the correlations among the variables are generally quite low; moreover all variables had a variance inflation factor (VIF) below 3.

	Variable	Mean	SD	Min	Max	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	Change in Job Satisfaction	4.051	1.120	1.000	5.000																				
2	Change in Life Satisfaction	3.978	1.026	1.000	5.000	0.666*																			
						(0.00)																			
3	Years of Education	15.427	3.335	7.000	22.000	0,050	0.013																		
						(0.10)	(0.66)																		
4	Founder Age	41.566	9.285	11.000	99.000	-0.156*	-0.139*	-0,010																	
						(0.00)	(0.00)	(0.75)																	
5	Gender	0.418	0.493	0.000	1.000	0,055	0.076	0,026	-0,058																
						(0.07)	(0.01)	(0.39)	(0.05)																
6	Prior Self-Employment Experience	0.516	0.500	0.000	1.000	-0.113*	-0.087*	0,037	-0,048	-0,027															
						(0.00)*	(0.00)	(0.22)	(0.11)	(0.37)															
7	Duration of prior unemployment	3.186	1.958	1.000	9.000	-0.149*	-0.100*	-0,039	0.247*	0.108*	0,025														
						(0.00)*	(0.00)	(0.20)	(0.00)	(0.00)	(0.41)														
8	Subjective Income Gain	-0.121	1.335	-2.000	2.000	0.361*	0.285*	0,072	-0.268*	-0.083*	-0,051	-0.289*													
						(0.00)	(0.00)	(0.02)	(0.00)	(0.01)	(0.09)	(0.00)													
9	Business Failure	0.217	0.412	0.000	1.000	-0.308*	-0.236*	-0.085*	0,052	0.086*	0.166*	0.153*	-0.253*												
						(0.00)	(0.00)	(0.00)	(0.09)	(0.00)	(0.00)	(0.00)	(0.00)												
10	Company founded in 2007	0.238	0.426	0.000	1.000	-0.101*	-0.065	0,008	0,025	0,020	0,068	0.085*	0,008	0,032											
						(0.00)	(0.03)	(0.79)	(0.42)	(0.52)	(0.02)	(0.00)	(0.79)	(0.29)											
11	Company founded in 2008	0.277	0.448	0.000	1.000	0,056	0,052	0,047	0,012	0,011	0,011	-0,020	0,014	0,009	-0.346*										
						(0.07)	(0.09)	(0.12)	(0.69)	(0.73)	(0.72)	(0.50)	(0.63)	(0.77)	(0.00)										
12	Company founded in 2009	0.382	0.486	0.000	1.000	0,012	-0.003	-0,033	0,005	-0,019	-0.098*	-0,038	-0,046	-0,043	-0.440*	-0.487*									
						(0.70)	(0.91)	(0.28)	(0.86)	(0.54)	(0.00)	(0.21)	(0.13)	(0.16)	(0.00)	(0.00)									
13	Business Takeover	0.138	0.345	0.000	1.000	-0,020	-0,026	-0,016	-0,044	-0,045	-0,018	-0,077	0.157*	0,006	-0,051	0,023	-0,012								
						(0.50)	(0.40)	(0.59)	(0.14)	(0.13)	(0.55)	(0.01)	(0.00)	(0.83)	(0.09)	(0.45)	(0.70)								
14	City	0.334	0.472	0.000	1.000	-0,001	0.021	-0,061	0,023	-0,011	-0,042	-0,033	0,056	-0,014	0,065	-0,004	-0,046	0,051							
						(0.99)	(0.49)	(0.05)	(0.45)	(0.72)	(0.17)	(0.27)	(0.06)	(0.66)	(0.03)	(0.89)	(0.12)	(0.09)							
15	Agreeableness ("Big Five")	-0.001	1.232	-6.309	2.941	0,059	0,054	-0.135*	0,009	0.159*	0,038	0,061	0,003	0,064	0,053	0,048	-0,053	0,028	0,047						
						(0.05)	(0.08)	(0.00)	(0.76)	(0.00)	(0.21)	(0.04)	(0.93)	(0.03)	(0.08)	(0.11)	(0.08)	(0.36)	(0.12)						
16	Conscientiousness ("Big Five")	-0.000	1.487	-6.814	1.756	0,051	0,061	-0.140*	0,007	0.121*	0,026	-0,028	0,032	0,002	-0,007	-0,015	0,033	0,034	0,051	0.223*					
						(0.09)	(0.05)	(0.00)	(0.82)	(0.00)	(0.39)	(0.36)	(0.29)	(0.95)	(0.83)	(0.62)	(0.28)	(0.26)	(0.09)	(0.00)					
17	Extraversion ("Big Five")	-0.009	1.449	-4.658	1.920	0.144*	0.136*	-0.091*	-0,031	0.142*	0,007	-0.088*	0.079*	-0,007	-0,016	-0,035	0,028	0,052	0,003	0.099*	0.233*				
						(0.00)	(0.00)	(0.00)	(0.30)	(0.00)	(0.82)	(0.00)	(0.01)	(0.82)	(0.60)	(0.24)	(0.35)	(0.08)	(0.92)	(0.00)	(0.00)				
18	Emotional Stability ("Big Five")	-0.009	1.459	-5.200	3.272	0.125*	0.137*	-0,013	0.082*	-0.102*	-0,012	-0,031	0,048	-0,010	-0,021	-0,009	0,008	0,016	-0,004	0.181*	0.274*	0.186*			
						(0.00)	(0.00)	(0.67)	(0.01)	(0.00)	(0.69)	(0.31)	(0.11)	(0.74)	(0.49)	(0.77)	(0.78)	(0.59)	(0.90)	(0.00)	(0.00)	(0.00)			
19	Openness to Experience ("Big Five")	-0.019	1.585	-5.855	2.607	0.184*	0.184*	0,032	0,021	-0,026	0,041	-0,038	-0,001	-0.089*	-0,021	0,012	0,012	-0.099*	-0,025	0.169*	0.168*	0.291*	0.142*		
						(0.00)	(0.00)	(0.30)	(0.49)	(0.39)	(0.17)	(0.20)	(0.98)	(0.00)	(0.49)	(0.69)	(0.70)	(0.00)	(0.40)	(0.00)	(0.00)	(0.00)	(0.00)		
20	Cofounders	0.126	0.332	0.000	1.000	0.088*	0.036	0.118*	-0.084*	-0,039	-0,042	-0.198*	0.104*	-0,061	-0,026	0,034	-0,007	0.236*	-0,014	-0,035	0,020	0,025	-0,002	-0,022	
						(0.00)	(0.24)	(0.00)	(0.01)	(0.19)	(0.16)	(0.00)	(0.00)	(0.04)	(0.39)	(0.27)	(0.83)	(0.00)	(0.64)	(0.25)	(0.52)	(0.41)	(0.94)	(0.47)	
21	Social Network Support	15.766	10.179	0.000	64.000	0.156*	0.182*	0.089*	-0.164*	0.143*	-0,025	-0.080*	0,036	-0,074	-0,029	0.078*	-0,043	0,057	0,037	0.082*	0,036	0.092*	-0,027	0,029	0,061
						(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.41)	(0.01)	(0.23)	(0.01)	(0.33)	(0.01)	(0.16)	(0.06)	(0.22)	(0.01)	(0.24)	(0.00)	(0.38)	(0.34)	(0.04)

Table 3.4: Descriptive Statistics and Correlation Matrix

Furthermore, we see that the founders in our sample reported, on average, a mean value of about 4 for our dependent variable, the change in work satisfaction as a result of the self-employment experience. This finding is already quite interesting, as it not only confirms prior research indicating high levels of satisfaction for the self-employed, but furthermore enhances our understanding about the magnitude of this effect. Accordingly, the respondents in our sample quantify their change in work satisfaction as a result of their self-employed experience not just as a minor increase, but instead as a fairly solid improvement. A more detailed analysis of our dependent variable can be seen in Figure 3.2.

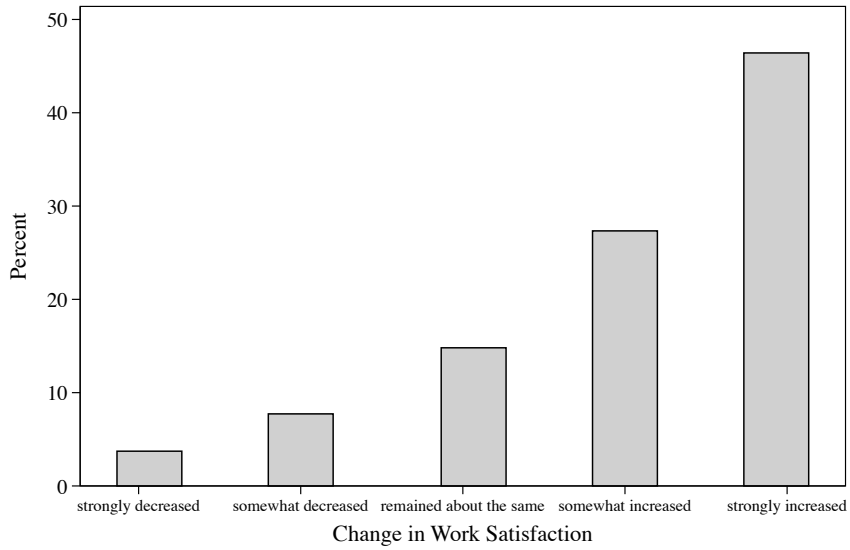

Figure 3.2: Histogram of the *Change in Work Satisfaction* Measure

About 48% of the respondents indicated that their professional satisfaction strongly increased as a result of their self-employment experience by selecting the highest mark, yet only 12% of the participants in our study responded that their level of job satisfaction has at least mildly decreased due to their self-employment experience (response lower than median value of 3).

3.5.2 Multivariate Analyses of Work Satisfaction

Results from the OLS regressions of work satisfaction for the self-employed are presented in Table 3.5. Model 1 shows the baseline results for the control variables. Models 2 to 6 add the five hypothesized personality factors to the baseline model respectively. Model 7 integrates all of the big five personality variables simultaneously. The impact of cofounders on work satisfaction is depicted in Model 8, whereas the influence of the firm-external social network support is investigated in Model 9. Model 10 combines the firm-internal and firm-external social support in a separate regression analysis. Lastly, Model 11 presents the full model.

Hypothesis 1a suggested that more extrovert founders express higher levels of work satisfaction which we find support for in Model 2, as the coefficient is highly significant and positive. However, the coefficient loses some significance in the complete personality model (M7) as well as in the full model (M11). As extraversion only appears to have a weakly positive influence on work satisfaction, we thus only claim partial support for H1a. However, we find support for Hypotheses 1b and 1c in Models 3 and 4, confirming our hypotheses that emotional stability and openness to experience contribute to increased work satisfaction for the self-employed. Although the psychological trait agreeableness appears to be slightly correlated with entrepreneurial work satisfaction according to M5, the coefficient loses significance in the additional models, leading us to reject H1d. Similarly, H1e is rejected as the coefficient representing the trait conscientiousness is not significant in any of the Models (M6, M7 and M11).

Hypothesis 2 is examined in Model 6. The coefficient of cofounder presence is just barely significant in all Models containing this independent variable, leading us to claim only partial support for the hypothesis. Model 7 shows the impact of the social support from firm-external social influences. The effect is highly significant and also holds in the extended social support Model 10 as well as in the full Model, providing support to Hypothesis 3. Overall, the regression coefficients demonstrate a stable influence across the models and the full model (M11) explains an additional 4.9% of variance compared to the baseline model (M1).

	Change in Work Satisfaction											
VARIABLES	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
Individual Level Controls												
Years of Education	-0.001	0.003	0.000	-0.001	0.003	0.001	0.002	-0.002	-0.004	-0.005	-0.004	-0.005
	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)	(0.012)
Founder Age	-0.009**	-0.009**	-0.011**	-0.010**	-0.009**	-0.009**	-0.011**	-0.009*	-0.007*	-0.007+	-0.008*	-0.008*
	(0.004)	(0.003)	(0.003)	(0.003)	(0.004)	(0.004)	(0.003)	(0.003)	(0.004)	(0.004)	(0.003)	(0.004)
Gender	0.188**	0.136+	0.206**	0.180**	0.165*	0.173*	0.173*	0.192**	0.153*	0.157*	0.152*	0.197*
	(0.070)	(0.069)	(0.069)	(0.069)	(0.070)	(0.070)	(0.069)	(0.070)	(0.071)	(0.071)	(0.070)	(0.085)
Prior Self-Employment Experience	-0.153*	-0.158*	-0.150*	-0.167**	-0.162*	-0.157*	-0.164**	-0.150*	-0.149*	-0.146*	-0.156*	-0.185*
	(0.063)	(0.063)	(0.063)	(0.062)	(0.063)	(0.063)	(0.062)	(0.063)	(0.063)	(0.063)	(0.062)	(0.073)
Duration of Prior Unemployment	-0.012	-0.006	-0.010	-0.008	-0.014	-0.011	-0.005	-0.008	-0.009	-0.005	0.002	0.005
	(0.017)	(0.017)	(0.017)	(0.016)	(0.017)	(0.017)	(0.016)	(0.017)	(0.017)	(0.017)	(0.017)	(0.019)
Subjective Income Gain	0.251***	0.242***	0.244***	0.249***	0.248***	0.249***	0.239***	0.252***	0.254***	0.254***	0.243***	0.295***
	(0.027)	(0.027)	(0.027)	(0.027)	(0.027)	(0.027)	(0.027)	(0.027)	(0.027)	(0.027)	(0.027)	(0.032)
Firm Level Controls												
Business Failure	-0.588***	-0.592***	-0.595***	-0.567***	-0.595***	-0.587***	-0.582***	-0.587***	-0.568***	-0.567***	-0.562***	-0.567***
	(0.093)	(0.092)	(0.091)	(0.091)	(0.093)	(0.093)	(0.091)	(0.092)	(0.092)	(0.092)	(0.090)	(0.091)
Business registered in 2007	-0.308**	-0.300**	-0.290*	-0.307**	-0.332**	-0.312**	-0.294**	-0.313**	-0.314**	-0.319**	-0.302**	-0.356**
	(0.116)	(0.116)	(0.115)	(0.115)	(0.116)	(0.117)	(0.113)	(0.116)	(0.116)	(0.115)	(0.112)	(0.137)
Business registered in 2008	-0.014	0.000	0.003	-0.022	-0.037	-0.017	-0.005	-0.018	-0.037	-0.041	-0.029	-0.063
	(0.108)	(0.107)	(0.107)	(0.107)	(0.108)	(0.108)	(0.106)	(0.107)	(0.107)	(0.107)	(0.105)	(0.134)
Business registered in 2009	-0.091	-0.090	-0.078	-0.097	-0.104	-0.097	-0.084	-0.094	-0.092	-0.095	-0.086	-0.155
	(0.104)	(0.103)	(0.102)	(0.102)	(0.104)	(0.104)	(0.101)	(0.103)	(0.103)	(0.103)	(0.100)	(0.128)
Business Takeover	-0.207*	-0.225*	-0.219*	-0.175+	-0.211*	-0.211*	-0.199*	-0.237*	-0.214*	-0.243*	-0.235*	-0.292**
	(0.092)	(0.092)	(0.092)	(0.090)	(0.093)	(0.093)	(0.091)	(0.095)	(0.092)	(0.095)	(0.092)	(0.106)
City	-0.045	-0.044	-0.043	-0.039	-0.049	-0.048	-0.037	-0.042	-0.057	-0.054	-0.045	-0.042
	(0.068)	(0.067)	(0.067)	(0.067)	(0.068)	(0.068)	(0.066)	(0.068)	(0.067)	(0.068)	(0.066)	(0.078)
Industry Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Personality Factors												
Extraversion ("Big Five")		0.089***					0.048*				0.042+	0.050+
		(0.023)					(0.024)				(0.024)	(0.028)
Emotional Stability ("Big Five")			0.096***				0.078***				0.080***	0.093***
			(0.022)				(0.023)				(0.023)	(0.027)
Openness to Experience ("Big Five")				0.110***			0.087***				0.089***	0.113***
				(0.019)			(0.021)				(0.020)	(0.024)
Agreeableness ("Big Five")					0.067*		0.026				0.020	0,024
					(0.027)		(0.028)				(0.028)	(0.032)
Conscientiousness ("Big Five")						0.028	-0.026				-0.028	-0,029
						(0.022)	(0.022)				(0.022)	(0.026)
Social Factors												
Cofounders								0.151+		0.149+	0.161+	0.176
								(0.091)		(0.091)	(0.090)	(0.117)
Social Network Support									0.013***	0.013***	0.012***	0.015***
									(0.003)	(0.003)	(0.003)	(0.004)
Constant	4.846***	4.766***	4.873***	4.839***	4.826***	4.838***	4.818***	4.819***	4.588***	4.562***	4.560***	
	(0.235)	(0.233)	(0.229)	(0.233)	(0.238)	(0.235)	(0.229)	(0.236)	(0.246)	(0.245)	(0.237)	
Observations	1,078	1,078	1,078	1,078	1,078	1,078	1,078	1,078	1,078	1,078	1,078	1,078
R-squared / Pseudo R-squared	0.228	0.240	0.243	0.250	0.233	0.229	0.265	0.229	0.240	0.242	0.277	0.156

Robust standard errors in parentheses / *** p<0.001, ** p<0.01, * p<0.05, + p<0.1

Table 3.5: Results from the Regression Analyses

Several interesting effects can also be observed among the control variables: on the individual level, prior self-employment experience has a negative and significant effect in our sample. Interestingly, the duration of unemployment prior to becoming self-employed does not show an effect in any of the models. Becoming self-employed thus appears to have a beneficial psychological influence largely independent of previous circumstances and even important life-events such as experiencing an

unemployment spell. Expectedly, the individual-level control variable capturing financial success has a strong positive association with levels of work satisfaction.

The firm-level control variable capturing the effect resulting from a business failure clearly represents a major setback to people's work satisfaction, as indicated by the highly significant negative coefficient. Surprisingly, even owners of failed businesses seem to report a modest increase in work satisfaction from their self-employment experience. Recall that the mean response to our work satisfaction difference measure is marginally above 4, denoting a "slight increase in work satisfaction". Although a coefficient of -0.56 for owners of failed businesses in the full model implies a large drop in professional satisfaction, the overall experience is still evaluated positive on average (as the predicted value remains above the median value of 3).

The dummy variables differentiating between firm formations occurring in different years reveal that the year 2007 must have been an especially difficult period for starting a business, suggesting that temporal effects and the current economic context might also impact people's perception about their work satisfaction.

Moreover, the business takeover dummy showed a significantly negative effect for those taking over and participating in a new business. This finding is highly thought-provoking, as it suggests that it is not the self-employment status in itself that leads to an increase in work satisfaction, but instead the achievement of having created an organization from the onset (as opposed to merely taking over or participating in an already established company) which is responsible for this effect.

The nonsignificant environmental dummy finally leads us to conclude that work satisfaction differences do not seem to be caused by any unobserved geographical factors in any significant manner.

3.5.3 Robustness Tests

As the use of OLS regression analysis on ordinal dependent variables can be problematic in case the distance between the discrete levels of work satisfaction captured by our dependent variable are not perceived as equal by the respondents, a series of robustness tests has been conducted. We employed an ordered probit regression analysis in these tests, which relaxes the assumption of normally distributed error terms and potential nonlinearities in our dependent variable. Model 12 in Table 3.5 displays the coefficients of the full model of these tests. The results are highly comparable to the previously discussed OLS regressions. All independent and control variables preserve their effect direction, approximate magnitude and significance level, with the exception of the cofounder variable loosing it's already weak significance. We therefore conclude that our results are robust to potential unequal distances between the scores of our dependent variable.

A series of additional robustness tests have been conducted using an alternative dependent variable, the "perceived increase in general life-satisfaction as a result of the self-employed experience of the respondents" (comp. Binder and Coad, 2013), measured analogously to the *change in work satisfaction* measure presented in Section 3.4.3 above[7]. The results of this robustness test can be seen in Table 3.6. Again, the results are highly comparable to the findings generated by the OLS regression analyses. All independent variables preserve their effect direction and approximate magnitude, although the effect sizes appear to be somewhat stronger in the job satisfaction regressions, e.g. the cofounder variable again loses it's already weak significance. As the overall results are nevertheless very similar, it is concluded that our outcome measure appears to accurately capture the difference in work satisfaction as a result of the self-employed experience of our respondents.

[7]The exact wording of the question was "How did your satisfaction with you 'life as a whole' change through the self-employment experience compared to the situation before being unemployed?"

	Change in Life Satisfaction										
VARIABLES	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11
Individual Level Controls											
Years of Education	-0.011	-0.008	-0.010	-0.012	-0.009	-0.010	-0.011	-0.011	-0.015+	-0.015+	-0.015+
	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)
Founder Age	-0.009**	-0.009**	-0.010**	-0.009**	-0.009**	-0.009**	-0.010**	-0.009**	-0.006+	-0.006+	-0.008*
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Gender	0.183**	0.140*	0.201**	0.176**	0.168*	0.168*	0.186**	0.183**	0.145*	0.145*	0.159*
	(0.068)	(0.068)	(0.067)	(0.067)	(0.069)	(0.069)	(0.069)	(0.068)	(0.068)	(0.068)	(0.069)
Prior Self-Employment Experience	-0.081	-0.085	-0.079	-0.096	-0.086	-0.085	-0.090	-0.081	-0.075	-0.075	-0.083
	(0.061)	(0.061)	(0.060)	(0.060)	(0.061)	(0.061)	(0.060)	(0.061)	(0.060)	(0.060)	(0.059)
Duration of Prior Unemployment	0.003	0.008	0.004	0.007	0.002	0.004	0.009	0.003	0.007	0.007	0.013
	(0.016)	(0.016)	(0.016)	(0.016)	(0.016)	(0.016)	(0.016)	(0.016)	(0.016)	(0.016)	(0.016)
Subjective Income Gain	0.193***	0.186***	0.185***	0.191***	0.191***	0.192***	0.183***	0.193***	0.196***	0.196***	0.186***
	(0.026)	(0.026)	(0.026)	(0.026)	(0.027)	(0.027)	(0.026)	(0.026)	(0.026)	(0.026)	(0.026)
Firm Level Controls											
Business Failure	-0.403***	-0.407***	-0.409***	-0.379***	-0.407***	-0.403***	-0.390***	-0.403***	-0.383***	-0.382***	-0.370***
	(0.087)	(0.087)	(0.086)	(0.086)	(0.087)	(0.087)	(0.086)	(0.087)	(0.087)	(0.087)	(0.086)
Business registered in 2007	-0.163	-0.157	-0.137	-0.161	-0.180	-0.167	-0.133	-0.163	-0.173	-0.173	-0.139
	(0.111)	(0.110)	(0.109)	(0.109)	(0.112)	(0.111)	(0.108)	(0.111)	(0.109)	(0.109)	(0.106)
Business registered in 2008	0.035	0.047	0.058	0.030	0.019	0.032	0.060	0.035	0.005	0.005	0.034
	(0.105)	(0.104)	(0.104)	(0.103)	(0.105)	(0.105)	(0.103)	(0.105)	(0.103)	(0.103)	(0.101)
Business registered in 2009	-0.056	-0.056	-0.037	-0.062	-0.066	-0.063	-0.039	-0.056	-0.062	-0.062	-0.042
	(0.101)	(0.100)	(0.100)	(0.099)	(0.102)	(0.101)	(0.098)	(0.101)	(0.100)	(0.100)	(0.097)
Business Takeover	-0.175+	-0.189*	-0.190*	-0.147	-0.177+	-0.180+	-0.167+	-0.176+	-0.176+	-0.177+	-0.170+
	(0.093)	(0.092)	(0.093)	(0.091)	(0.093)	(0.093)	(0.092)	(0.096)	(0.093)	(0.096)	(0.095)
City	0.025	0.025	0.029	0.031	0.022	0.021	0.036	0.025	0.008	0.008	0.022
	(0.063)	(0.063)	(0.063)	(0.062)	(0.063)	(0.063)	(0.062)	(0.063)	(0.062)	(0.062)	(0.062)
Industry Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Personality Factors											
Extraversion ("Big Five")		0.072***					0.031				0.024
		(0.022)					(0.023)				(0.023)
Emotional Stability ("Big Five")			0.102***				0.090***				0.091***
			(0.020)				(0.022)				(0.022)
Openness to Experience ("Big Five"				0.102***			0.086***				0.086***
				(0.019)			(0.021)				(0.020)
Agreeableness ("Big Five")					0.043+		-0.002				-0.010
					(0.025)		(0.026)				(0.026)
Conscientiousness ("Big Five")						0.028	-0.021				-0.022
						(0.020)	(0.021)				(0.020)
Social Factors											
Cofounders								0.005		0.005	0.014
								(0.089)		(0.089)	(0.088)
Social Network Support									0.015***	0.015***	0.014***
									(0.003)	(0.003)	(0.003)
Constant	4.759***	4.691***	4.776***	4.749***	4.749***	4.751***	4.743***	4.758***	4.475***	4.474***	4.484***
	(0.228)	(0.227)	(0.224)	(0.226)	(0.229)	(0.228)	(0.223)	(0.230)	(0.239)	(0.240)	(0.234)
Observations	1,060	1,060	1,060	1,060	1,060	1,060	1,060	1,060	1,060	1,060	1,060
R-squared / Pseudo R-squared	0.157	0.167	0.177	0.180	0.159	0.159	0.197	0.157	0.175	0.175	0.213

Robust standard errors in parentheses / *** p<0.001, ** p<0.01, * p<0.05, + p<0.1

Table 3.6: Results from the Robustness Test Analyses

3.6 Discussion

The topic of work satisfaction has received a significant amount of interest from researchers focused on salaried employees, yet the high share of self-employed individuals in many societies has been frequently overlooked. By offering a large-scale empirical account of the drivers of work satisfaction in a self-employment context, the present article fills an important gap in the literature, revealing several novel contributions.

3.6.1 Contributions to Entrepreneurship Theory

The present study contributes to entrepreneurship theory by highlighting a meaningful, yet frequently overlooked goal of entrepreneurial activity: the fact that entrepreneurship can also lead to positive psychological consequences, which represent an important measure of entrepreneurial performance. The sole focus on economic goals cannot explain the continued popularity of self-employment in spite of negative earnings differentials (Hamilton, 2000) and the frequently high workloads. Especially founders engaging in fairly common, less growth-oriented forms of entrepreneurship, such as many of the respondents in our sample who started their business after a period of unemployment, are likely to be primarily motivated by the prospects of attaining work satisfaction and a life-sustaining income for themselves, as opposed to striving for economic influence and growth. Inquiry into the drivers of work satisfaction thus holds promise to improve our understanding of the entrepreneurial process in many ordinary self-employment settings.

While personality factors have long been associated with many psychological outcome variables in a variety of contexts, including entrepreneurship (e.g., Argyle and Martin, 1991; DeNeve and Cooper, 1998; Ciavarella et al., 2004), the entrepreneur's social capital was previously merely considered as an important determinant of entrepreneurial performance measures such as firm survival, financial returns and economic growth (Aldrich and Zimmer, 1986; Brüderl and Preisendörfer, 1998). Conversely, our study revealed that the founders social network similarly

represents an essential driver of work satisfaction. Social relations are thus fulfilling multiple purposes simultaneously, marking them a universally important resource in entrepreneurship.

The present investigation furthermore suggests that becoming self-employed can increase people's level of work satisfaction despite not always being simultaneously financially rewarding, as even respondents who indicated they are earning a strongly reduced income in their self-employed position in the respective control variable typically score above the median value of our dependent variable. Aspired goals thus do not always coincide, but instead diverge in many cases. Our research thus raises the question of potential goal conflicts between striving for work satisfaction vs. some of the more traditional entrepreneurial performance measures such as financial turnover, revenues and employment growth. For instance, such goal conflicts could manifest in intertemporal decisions when optimizing short-term work satisfaction and longer-term financial objectives, similar to consumers intertemporal choice dilemma regarding consumption decisions in economic theory (e.g., Kapteyn and Teppa, 2003).

3.6.2 Contributions to Job Satisfaction Theory

This article furthermore builds upon and extends our understanding of the drivers of work satisfaction by enhancing the scope of job satisfaction theory to those creating a position for themselves – a previously neglected, yet important group of workers in many contemporary societies. Overall, our results confirm that both psychological and social influences impact the level of work satisfaction not only for employees, but also for the self-employed. Accordingly, several traits from the big-five taxonomy, the presence of cofounders and the support that the entrepreneur receives from his/her or her social network increase the likelihood of attaining high levels of work satisfaction of the self-employed.

Furthermore, our analyses raise the question of potential differences between employees working in larger organizations and those having created a job for

themselves: becoming a *happy entrepreneur* appears to strongly depend on distinctive psychological traits as well as the support received from others. Especially personality factors appear to be critical for work satisfaction in entrepreneurship, perhaps more so than for employees, whose satisfaction has been argued to be mostly conditional on job characteristics (Colarelli et al., 1987). For instance, while openness to experience demonstrated only a negligible impact on employee job satisfaction in a popular meta-analytic study (Judge et al., 2002), this personality dimension has proven highly important for the self-employed in the present study. Furthermore, firm-internal as well as firm-external social influences – this study focused on the presence of cofounders and the amount of support received from the entrepreneur's social network – have proven relevant for explaining the within-sample variance of work satisfaction in our sample. It should be added that the presence of cofounders appeared to have only a marginal effect in our sample however.

3.6.3 Practical Implications

Assuming a prospective entrepreneur aspires to be satisfied in his/her occupation and does not engage in entrepreneurship for other reasons (e.g., due to a lack of alternative career options), the results from our study suggests that those interested in an entrepreneurial career need to be aware that personality and social factors are influential for attaining high levels of work satisfaction in self-employment. The insights from the present study can thus help avoid false expectations and negative individual consequences. Although this can be interpreted as a deterministic, gloomy supposition for those lacking an appropriate psychological fit, it should not be forgotten that many factors independent of the individual's characteristics are similarly important and this article merely emphasizes two parts in the undoubtedly large and complex puzzle surrounding the phenomenon of work satisfaction. Prospective entrepreneurs can nevertheless improve their likelihood of attaining high levels of work satisfaction by starting in a team – in case an appropriate partner can be found – and by assuring that the envisioned project is sufficiently backed in terms of affective, instrumental and informational support by their social relations.

3.6.4 Implications for Public Policy

From a public-policy perspective, a principal implication of the current study represents the fact that almost three-fourth of the respondents indicated that their professional satisfaction has at least mildly increased as a result of the self-employed experience. Another 15% replied that their work satisfaction remained about the same, thus leaving only about 12% less better off than before. Despite this overall positive picture of the experience made within our sample, policymakers need to resist the deceptive temptation of promoting entrepreneurship as a panacea to all unemployment problems by recognizing that self-employment is not for everyone as it can also have detrimental effects. Our results suggest that for entrepreneurship-related policies to have a beneficial impact on society, legislators need to pay attention not only to competence-related individual factors but be sensitive also to psychological matters as well as the latent actor's social embeddedness. Although our study suggests a positive impression of the self-employment subsidies which helped the individuals in our sample discover their entrepreneurial potential, overly permissive policy schemes make it appear costly also for those not psychologically suitable for entrepreneurship to miss out on the appraised opportunity for becoming self-employed, ultimately reducing the professional well-being of this group.

3.6.5 Limitations

While there were many strengths in the present study, our study also contained a number of limitations: our sample originated from a population of less frequently studied firm founders, namely formerly unemployed individuals who decided to engage in entrepreneurship supported by a governmental subsidy. Although this group provides a meaningful setting for our enquiry into the drivers of work satisfaction, the experience of unemployment has demonstrated a strong negative effect on different measures of life-satisfaction in the past (Winkelmann and Winkelmann, 1998; McKee-Ryan et al., 2005). Using data from the British Household

Panel Survey, Binder and Coad (2013) find that individuals moving into self-employment after working as an employee experience an increase in life satisfaction, whereas formerly unemployed entrepreneurs are not more satisfied with their lives as a whole compared to individuals becoming reemployed after a period of unemployment. These findings suggest the possibility that the individuals in our sample reacted differently to their entrepreneurial experience than founders who did not previously suffer from an unemployment spell. Although the slightly negative coefficient of the prior self-employment control variable indicates that prior self-employment experience does influence people's subsequent work attitudes to some extent, the prior unemployment duration did not show any significant effect in our analyses, leading us to believe that the identified effects are likely to exist also in other settings. We thus expect that psychological and social factors remain predictors of work satisfaction also for those who decide to become self-employed after terminating a position as a salaried employee, as this group faces essentially similar psychological and social needs as those becoming self-employed after an unemployment spell, especially in the long term. Of course, the mean values of the variables of interest in this study as well as the magnitude of the identified relationships may deviate from those found in other populations however.

Several additional limitations must be kept in mind when interpreting the results of this study. As experimental data regarding the hypothesized relationships does not exist, several selection effects may be at work. For instance, while some have argued that entrepreneurs and nonentrepreneurs are unlikely to differ with regards to various personality aspects (Baron, 1998), personality traits have been known to influence occupational choices (Berings et al., 2004; Zhao and Seibert, 2006), thus potentially leading certain individuals with distinct personality traits to self-select into a given context that will maximize their degree of professional satisfaction. Accordingly, those preferring a challenging and demanding work environment, or those who may find it easier to handle the pressure and stress involved in self-employment would be more likely to choose an entrepreneurial career path than those who prefer to be employed (Andersson, 2008). Moreover, external agents critical to the new business – financial resource providers, key suppliers and first employees –

might prefer individuals having certain skills, personality traits or industry experience over others lacking these attributes, thus presenting another selection mechanism (Zhao and Seibert, 2006) which we could not control for in the current research design.

Although most survey-based research projects rely on cross-sectional data assessments, it is important to discuss the possibility that the observed associations between our dependent and some of our independent variables may be biased by reverse causality issues. While we have no evidence to suggest that the direction of the relationship between cause and effect might actually be inverse than predicted within our study, we cannot prove the direction of causality as all of our measures have been assessed at a single point in time. Numerous prior studies suggest however that the relationship is indeed as predicted by our study. Personality traits have been found to be generally stable during adult life, predisposing people to experience a certain level of happiness (Headey and Wearing, 1989; Roccas et al., 2002; Rauch and Frese, 2007). Nevertheless, important life events – such as becoming self-employed – have been found to influence people's psychological satisfaction over and above the effects of personality (Headey and Wearing, 1989). Similarly, recent meta-analyses have demonstrated that personality factors are important predictors of various important outcomes such as happiness, physiological and psychological health, as well as occupational satisfaction and performance (Ozer and Benet-Martinez, 2006), supporting the direction of causality implied in our findings. Although great care has been taken in the selection of our independent and control variables based on the relevant findings in the prior literature, we cannot rule out completely that the coefficients of our independent variables are affected by omitted variable bias.

Finally, the cross-sectional study design required that the respondents indicate the perceived *difference* between the level of work satisfaction currently experienced compared to the situation before being unemployed (comp. Section 3.4.3). Although our measure addresses a fundamental issue about the individual and his/her professional experience more easily remembered than fine-grained details (Miller et al., 1997), this procedure represents a potential source of error, as the respondent's

memory of the previous level of work satisfaction prior to the unemployment experience might be affected by recall bias. Moreover it should be noted that some cognitive effort is required in order to mentally calculate the difference between the two experiences once the respective work satisfaction levels have been remembered, adding another source of potential error. Due to these limitations, definitive causality can not be determined between our dependent and independent variables.

3.6.6 Future Research

Several questions about our predictor variables remain to be investigated in future studies. For instance, while the different types of social support have been extensively discussed with respect to their importance for company survival and growth (e.g., Brüderl and Preisendörfer, 1998), we encourage researchers to investigate the importance of different types of social support – affective, instrumental and informational support – for entrepreneurial work satisfaction. Are all forms similarly relevant, and if not, which type of support is most conducive to entrepreneurial work satisfaction? Which type of support is best delivered by firm-internal vs. the different firm-external sources of social support? While the present article represents a starting point for investigation, empirical research contributing to our understanding of these questions is still scant in entrepreneurial settings. Support needs could furthermore vary over time, as our founding-year control variable indicated that work satisfaction differences also depend on the yearly cohort being studied, posing the question how the right support can be assured in the right period. Thus, we wouldn't be surprised if support needs turn out to interact with additional variables on the individual, firm or environmental level for predicting work satisfaction levels. For instance, founders possessing distinct personalities might require different types and amounts of support from their social relations than others. Also, certain aspects of the chosen occupation might interact with individual-level concepts such as the founder's degree of "growth need strength", related to the employee-focused model proposed by Hackman and Oldham (1975).

Another unresolved puzzle revealed by our work concerns the importance of the mode of entry into self-employment, captured by one of our control variables: is

the *accomplishment of having created an organization from the onset* truly a major determinant of subsequent levels of entrepreneurial work satisfaction? If yes, to what extent do work satisfaction levels of those taking over an existing business depend on the characteristics (e.g., age) of the organization which is being succeeded? Our study cannot provide answers to these questions, calling for future research to explore and clarify the mechanisms behind this discovery.

Lastly, focusing on our dependent variable, we conclude that additional research investigating potential goal conflicts between entrepreneurial work satisfaction and some of the traditionally studied performance measures in entrepreneurship (e.g., firm survival, financial turnover or employment growth) might provide interesting insights to entrepreneurship theory. For instance, while some firms might make a valuable contribution to society through its product offering and by securing the jobs of it's employees, circumstances can be imagined which lead founders to limit the growth of their firm – or even close it down entirely – in order to increase their level of professional satisfaction as they decide to employ their skills elsewhere. Similarly, it can be speculated that some founders refrain from hiring employees as they perceive the added responsibility to be detrimental to their work satisfaction. Improving our knowledge about the conditions under which such goal conflicts may arise advances entrepreneurship theory and can potentially be used to help resolve some of these conflicts.

3.7 Conclusion

The idea that well-being and happiness represent the ultimate objective of human activity can be traced back to the ancient philosophers of Socrates and Aristotle. The domain of work has long been excluded from this theorem in the scientific literature, yet inquiry into the topic of job satisfaction has thrived throughout the last fifty years. While a solid body of research has focused on the phenomenon of employee job satisfaction, only few have tested the viability of prior findings in a self-employment context. In this vein, the present article contributed to- and extended the prior body

of literature by confirming the relevance of several previously identified concepts to an entrepreneurial setting while also revealing several novel insights. We shed light on the critical role of personality factors as antecedents of work satisfaction for the self-employed, amongst the importance of cofounders and social contextual influences. As entrepreneurship represents a central part of life especially for the self-employed, being satisfied at- and with one's work represents an important success measure for these individuals. The present article suggests that the *happy entrepreneur* is likely to be open to new experiences (yet not necessarily an extravert), have an emotionally stable personality, is starting his/her firm together with a cofounder, and is sufficiently backed by his/her social relations. It is hoped that this article proves helpful for other researchers and forms a building block to a more developed understanding of the phenomenon of work satisfaction in entrepreneurship.

4 Research Study 3: Supporting the Transition from Unemployment to Self-employment – A Comparative Analysis of Governmental Support Programs across Europe

4.1 Introduction

Governments around the world are facing increasing pressure to reduce unemployment. A deficit of 50 million jobs as compared to the situation before the 2008 financial crisis prevails (ILO, 2012). This not only represents a significant amount of unused economic potential but also threatens to undermine the social stability of entire societies through a marginalization of large groups of people from the working population. One mechanism to help reduce unemployment is to support those who want to become self-employed. For this purpose, several active labor market programs (ALMPs) have been developed across Europe, providing support to those seeking to start a business after a period of unemployment. Despite constituting a relatively small portion of national active labor market expenses (1-6% of ALMP spending, Organization for Economic Co-operation and Development, 2000) firms established by the previously unemployed make up a large proportion of all new firms as indicated by the 30% in Sweden (Statistics Sweden, 1998), and more than 25% in France (Désiage et al., 2010). The political and economic importance of these programs has led to an increased scholarly attention over the past years (Benus, 1994; Block and Sandner, 2009; Corral and Stack, 2006; Caliendo and Kritikos, 2009; Bosma and Levie, 2010; Block and Wagner, 2010) and it is likely that their political importance will further rise due to ongoing labor market instabilities (ILO, 2012).

Despite the enhanced awareness of these programs that have been widely adopted in a number of countries across Europe, most prior research has restricted its scope to analyzing only one specific country, rather than engaging in an international comparative study. A few notable, however outdated, exceptions have employed an internal lens to compare alternative policy schemes and share experiences – both positive and negative – across borders (Staber and Bögenhold, 1993; Meager, 1996; Organization for Economic Co-operation and Development, 2000). While some countries have gained considerable knowledge about how to structure their policy initiatives based on experiences from past revisions, other countries have only recently introduced such policy schemes. An international comparative analysis that is able to offer an encompassing yet also detailed overview of existing

self-employment support programs could therefore serve as a basis for policymakers trying to improve existing- and implementing new support programs.

The purpose of this chapter is to provide an overview and analysis of such policy schemes from several European countries. The selection of countries seeks to reflect the diversity with regards to economic importance, political orientation, history and culture, as well as the variety of program structures that have been implemented. It includes the large economies of France, Germany and Great Britain; their smaller, centrally located neighbors of Austria, Belgium, the Netherlands and Switzerland; the northern, Scandinavian country of Sweden; the eastern European countries of Poland and the Czech Republic; and the southern European countries of Greece and Spain.

Similarities and differences between the programs are investigated in order to contribute to increasing their effectiveness (e.g., pointing out suitable policy instruments) and their efficiency (e.g., by employing limited public funds with maximum positive impact). The program structure, the eligibility requirements, the different forms of financial support, as well as the availability of nonfinancial business support services are presented. Subsequently, a number of differing policy approaches are identified and analyzed in greater detail. The chapter concludes with a discussion of our findings, including suggestions for policymakers and employment agencies that are responsible for the implementation and operation of such programs.

4.2 Evolution of Self-Employment Support Programs

Over the past three decades, many European countries have established dedicated programs designed to help unemployed individuals transition into self-employment. Research about the nature and processes of firm creation by formerly unemployed individuals has identified two fundamental reasons advocating the implementation of such policy schemes, namely (1) market failures in the allocation of capital and entrepreneurial talent, and (2) a number of positive economic- and social externalities resulting from the creation of new businesses (ILO, 2012; Nolan, 2003).

Market failures can be addressed by governmental interventions to improve access to entrepreneurial resources, such as financing and business support services. Formerly unemployed entrepreneurs often lack of financial resources to set up and grow their businesses and may be refused bank loans; typically due to their lack of income, because the amounts are too small, or because of missing collateral. For these reasons, formerly unemployed firm founders are experiencing disproportionate difficulties in starting a business. Without self-employment support programs, they are thus more likely to be establishing underresourced businesses with poor survival chances from the onset (ILO, 2012). Support programs can additionally help mitigate the lack of entrepreneurial skills that concerns some of these people through the provision of different types of business support services and entrepreneurial training.

Positive economic and social effects resulting from the creation of new businesses represent the second reason promoting the implementation of self-employment support schemes. Supporting unemployed people in their transition to self-employment is supposed to relieve the welfare system, promote efficient markets, and ultimately lead to economic stability and economic growth (Storey, 1994; Fritsch, 2008). Furthermore, the programs stimulate the labor market as many of the supported firms have shown to create additional jobs (Parker, 2004; Nolan, 2003; Dencker et al., 2009a). Even in case the self-employment experience finally proves unsuccessful, prior studies have reported a favorable impact on the chances of becoming re-employed (e.g., Kellard and Middleton, 1998; Organization for Economic Co-operation and Development, 2000; Caliendo and Künn, 2011). In contrast to other active labor market programs – such as vocational training or job creation through established companies schemes – empirical evidence on the efficiency and effectiveness of such policy schemes is still scarce, yet mainly indicates positive results. However, as the majority of prior studies have focused on a single country, including Germany (Caliendo and Künn, 2011; Dencker et al., 2009b,a), Poland and Hungary (O'Leary, 1999), Romania (Rodriguez-Planas, 2010), Spain (Cueto and Mato, 2006), Sweden (Carling and Gustafson, 1999), and the United Kingdom (UK) (Meager et al., 2003), these studies can not be generalized and do not allow for an international comparison.

Policy schemes designed to support formerly unemployed individuals in their transition to self-employment have evolved from fairly simple structures through a number of revisions until their current, more refined state of development. These modifications have typically occurred based on experiences made within the respective nation, yet international coordination attempts are gaining more importance in parallel with the European Union integration efforts throughout the last decade. While each country has its own program development history, three stages of maturity can be differentiated. These evolutionary stages of development will be detailed in the following paragraphs in order to provide a better understanding of the origins of the current generation of public policy support schemes discussed in this chapter.

Early Policy-development Initiatives

The development of the earliest programs took place as a response to the increasing rates of unemployment in the 1970's, particularly within the larger OECD economies. France launched their ACCRE-program ("Aide au chômeur créant ou reprenant une entreprise" / assistance to those starting a business out of unemployment) in 1977, pioneering the concept of a one-time, lump sum payment as a financial contribution equal to the respective unemployment benefit allocation of the applicant. Germany's "Überbrückungsgeld" (bridging allowance) initiative was introduced in 1986 to cover entrepreneurs' subsistence during the start-up phase. At the time, the self-employment contributions consisted of the respective unemployment allowance plus an additional social security insurance contribution for the duration of up to six months. Other examples for these *early-experimenters* include the UK, which introduced their "business startup scheme" in 1983, and Spain with the "Prestaciones por desempleo Capitalización" (unemployment capitalization benefit) in 1985. These early initiatives were all based on a rather simple structure with the main focus being the financial contribution.

Universal Adoption and Expansion of the Policy Schemes

Rising levels of unemployment in the beginning of the 1990's amplified the pressure on policymakers to identify those ALMPs that had the capability of reversing this trend. As a result, policies designed to support the creation of new businesses by the unemployed were gaining momentum in a number of national initiatives during this period (Organization for Economic Co-operation and Development, 1992). Several smaller countries such as Belgium (program introduced in 1992), the Netherlands (1996), Austria (1998), and Switzerland (1998) subsequently adopted the programs that the pioneering countries had created. In France, the initially devised program was changed by legislators in 1987, both revoking the originally granted legal right to the contribution and also requiring a basic economic feasibility assessment from its applicants. In 1993, Sweden reviewed their previously created policy scheme, removing a major obstacle, suddenly making the program accessible to a wider audience, resulting in a surge of participants shortly after being launched (Carling and Gustafson, 1999). Due to the policy initiative, an evidently large, latent demand for opportunities to become self-employed suddenly became feasible. Subsequent evaluation of the program has been largely positive (Carling and Gustafson, 1999). Similarly, Germany revised their bridging allowance policy in 1994, which resulted in a considerable increase in the number of new firms created. This policy scheme consequently became established as a promising instrument within the existing national ALMP landscape[1]. The Czech Republic established their self-employment support program as early as 1989, however it consisted primarily of an indirect backing through a self-employment-friendly tax system. In subsequent years, the initial policy was supplemented by the facilitated access to bank loans. Starting in 2004, additional forms of support including direct financial contributions were introduced using capital provided by the EU Structural Funds (Veverková, 2012). Likewise, Poland (2004) and Greece (2008) have given more political attention to their support schemes to help unemployed people start businesses. During this stage,

[1]The traditionally employed elements of ALMP comprised public employment services, subsidized employment within the private sector and labor market training programs, however all but the latter have been evaluated rather unenthusiastic in subsequent analyses (Heckman et al., 1999; Martin and Grubb, 2001; Kluve and Schmidt, 2002; Boone and Van Ours, 2004).

many countries additionally began administering dedicated programs restricted to certain demographic groups such as for women, younger people, and older generations that might otherwise have difficulties to re-enter the job market. Additionally, some programs are specifically directed at disadvantaged regions or target only certain subsets of new firms such as social businesses. This stage is thus characterized by an increase in complexity and diversity of the programs.

Continued Refinement and Recent Developments of the Policy Schemes

Resulting from their increased popularity and visibility, several countries went through additional revisions of their policy schemes based not only on their own past experiences, but also shaped by political debates and societal trends. As a result, the policy schemes have sometimes been altered repeatedly. For example, in France, the initially drafted loan was transformed in 2001 into a grant, only to be transformed back to a loan in 2004. Since 2009, an interest-free loan is available in addition to a partial exoneration from a number of social charges such as health insurance and a companionship-program lasting for three years designed to support those in transition to self-employment through the provision of various business support services. In addition to the existing "Überbrückungsgeld" program, Germany launched a policy program termed "Existenzgründungszuschuss" (also known as "Ich-AG" / "Me-Corporation") in 2003 in order to better cater to those unemployed for extended periods. The total number of supported founders in the country increased to roughly one million people in the following years (Caliendo et al., 2007). Although these two programs were replaced by the "Gründungszuschuss" (start-up grant) in 2006, several studies appraised the scheme's effectiveness (e.g., Baumgartner and Caliendo, 2008). Furthermore, the survival- and employment-growth rates of previously unemployed founders have been found to be largely comparable to those of companies created by founders without previous unemployment (Pfeiffer and Reize, 2000), the participant income was found to be significantly higher than that of non-participants, and the support schemes were furthermore regarded as comparatively cost-effective labor market policies (Caliendo et al., 2007). The new

startup-grant offered an extension of the duration for financial support of up to 9 months, but simultaneously increased the eligibility requirements for the proposed business concept. In 2012, budget restrictions rendered the previously practiced, comprehensive evaluation of the proposed business idea unfeasible, altering the nature of support from being a legal entitlement to a merely discretionary offer made to those deemed well-prepared. The self-employment support programs in the UK underwent a number of revisions in the 1990's (Duggan, 1998) indicating only limited effectiveness (Storey, 1994), specifically for formerly unemployed individuals (Metcalf, 1998). Current revisions of the program in the UK are also more targeted towards specific groups, such as the "Start-up Loans" program, launched in 2012, dedicated to promoting youth entrepreneurship.

On the one hand, these examples demonstrate how the current stage of development is characterized by an increased professionalism with regards to the administration and implementation of the public policy programs. Many current reforms are rooted in scientific evaluations and a number of countries have established dedicated labor market research institutions charged with the task of monitoring and controlling the effectiveness and efficiency of the national policies. On the other hand, today's popularity and visibility makes the programs increasingly subject of political discussions and, as a consequence, policies are sometimes repeatedly altered depending on the current political climate and the country's economic situation.

Over the last decades, international bodies such as the OECD or the European Social Fund have begun to recognize the benefits of and demands for this type of policy schemes. As a result, coordination efforts in Europe are shifting away from predominantly domestic initiatives towards trans-national coordination efforts, such as the formation of the "European Employment Strategy" (European Commission, 1997) and the "OECD Employment Outlook" (2000). In recent years, governmental agencies responsible for these policy schemes have organized international conferences aiming at facilitating the exchange of best practices among researchers and practitioners (e.g., German Federal Ministry of Labour and Social Affairs, 2010).

Moreover, the current "Europe 2020 Strategy" contains entrepreneurship as a key policy priority, not just with regards to economic growth and as an instrument for addressing youth unemployment, but also in relation to the creation of employment in general following the global recession (European Commission, 2010).

While the motivation behind these policy schemes and the evolution of the programs has been illustrated in this section, it also has become apparent that the large diversity of approaches cannot be readily analyzed without the prior identification of meaningful dimensions of comparison. The following section thus identifies a list of criteria facilitating a structured comparative analysis of the current programs in Europe. Existing policy differences are subsequently analyzed based on these dimensions, leading to the examination of three contrasting policy approaches of supporting formerly unemployed individuals in becoming self-employed.

4.3 Overview of Current Self-Employment Support Programs

In order to derive meaningful criteria of differentiation between the respective policy initiatives, an overview of the approaches and objectives of the current generation of policy initiatives in selected European countries is presented below. Following this overview, the program structure, the eligibility criteria for participation, the provision of financial support and the availability of business support services are being discussed in more detail. In order to facilitate the design of policies in this realm, we also provide an overview of the key policy dimensions.

Table 4.1 details the programs currently implemented in Austria, Belgium, the Czech Republic, France, Germany, Greece, the Netherlands, Poland, Spain, Sweden, Switzerland and the UK. As revealed in the introduction, these countries have been selected in order to reflect the cultural, economic and geographic variety in Europe as well as to show the diversity of existing programs. The policy in each country is described by the program name, the governmental agency responsible for its

implementation and the date of the initial program (column 1), the program's objectives as well as the forms of aid that are being offered (column 2), as well as the eligibility criteria, the admission procedure, the presence of a potential fallback-solution and requirements regarding the repayment of funds, if applicable (column 3).

4.3.1 Program Structures

Differing political landscapes, economic conditions as well as distinct strategic goals of the various national ALMP instruments have led to several *structural differences between the support initiatives*. In particular, these programs differ along two main dimensions: (1) whether the programs are administered by centralized or decentralized entities; and (2) whether the initiatives are fully dedicated to those transitioning into self-employment out of unemployment or whether the participants are channeled into generic support programs also open to firm founders without a prior unemployment experience.

Centralized vs. Decentralized Structure

As Table 4.1 shows, there is heterogeneity with regards to whether the support programs are centrally- or de-centrally organized. While the majority of countries in this study offer financial subsidies through a nationwide, centralized support program (e.g., Germany – comp. case study in Figure 4.1), other countries feature a range of more decentralized programs (e.g., the UK). However, due to a large variety of regional programs, the UK underwent a major consolidation effort in 2009 within their Business Support Simplification Programme (BSSP) to reduce the more than 3000 existing programs to less than 100, thus equally shifting towards a more centralized policy administration structure.

Case Study Germany: Hierarchical Organization of Program Administration

The organizational structure for the administration of the German public-policy landscape revolves around the "Zentrale der Bundesagentur für Arbeit", a statutory body that acts as the central managing institution for all labor-market related statement of affairs currently in action as defined by the legislative system. These headquarters are well connected to other public institutions concerned with the implementation of policy instruments, as well as to an in-house research and intelligence department for internal controlling purposes. As direct subordinates to the central office, ten regional units across the country govern the implementation of labor-market policies at the intermediate level. These entities coordinate their duties of implementing national policies with other regional initiatives as well as with regional politics. The regional centers furthermore act as a link to the roughly 175 employment agencies ("Agentur für Arbeit") and 600 branch offices ("Geschäftsstellen") throughout the country that are responsible for operationally implementing the strategies defined at the higher levels within their local areas (Bundesagentur für Arbeit, 2013).

Figure 4.1: Case Study – Support Program Structure in Germany

Specific vs. General Self-Employment Promotion Programs

While most countries have established dedicated programs to help unemployed individuals transition into self-employment (e.g., Austria, France, Germany, Spain and Switzerland), others are less focused on this group and combine those starting businesses out of unemployment into generic self-employment support initiatives that are open to anyone interested in starting a firm (e.g., Sweden, Poland and the Czech Republic). Specialized support programs to financially assist unemployed individuals aim at offsetting disadvantages they face with regards to accessing capital, as compared to founders without an unemployment background. We are unaware of any international studies comparing dedicated to generic programs in terms of effectiveness or efficiency.

Greece **Title**: Πρόγραμμα Νέων Ελεύθερων Επαγγελματιών (New Freelancers) **Agency**: Greek Manpower Employment Organisation (OAED) **Initial Enactment**: 2008	**Objectives:** This program offers monetary support and counseling to firm founders from the unemployment. **Forms of Aid:** It consists of counseling and funding of varying duration and amounts (18'000 – 24'000 € for 12 – 36 months duration, depending on the age and pre-conditions). In addition, the government offers specific programs for young people and unemployed women. If the firm survives for more than 12 months, a monetary bonus can be requested.	**Eligibility & Procedure:** Granted to registered unemployed (Greek or EU citizens) that have attended OAED entrepreneurship courses, have at least 30 days of unemployment support remaining and have registered with the tax office. **Fallback & Return of Funds:** If the company fails, the person can return to the unemployment insurance if there are sufficient benefits remaining. The funds do not require repayment unless the firm fails within the funding period, in which case a proportion of the subsidies need to be repaid.
Netherlands **Title**: Besluit Bijstandsverlening Zelfstandigen (BBZ) **Agency**: Dutch Public Employment Service (UWV) **Initial Enactment**: 1996	**Objectives:** Provide monetary and non-monetary assistance to self-employed and unemployed wanting to start a business. **Forms of Aid:** Income support (maximum of 18 months), loans (maximum of 26 weeks with 70% of prior income), tax-incentive programs for private investors (Aunt Agatha Scheme), micro-financing (loans of less than 35'000 € and coaching).	**Eligibility & Procedure:** People receiving unemployment benefits (WW) whose business plans are approved by the "Werkbedrijf" ('work-coach') of the Dutch Public Employment Service (UWV). **Fallback & Return of Funds:** After two years, the UWV Werkbedrijf will calculate the amount of money that should be paid back.
Poland **Title**: Ustawa o Promocji Zatrudnienia i Instytucjach Rynku Pracy **Agency**: Ministerstwo Pracy i Polityki Społecznej **Initial Enactment**: 2004	**Objectives:** The act explicitly states its objective to promote employment and to reduce unemployment. **Forms of Aid:** One of the mechanisms is to support self-employment, but also re-employment, with grants provided consisting of a loan of up to 20 times the national average wage from the Labor Fund. I Immediate repayment is required if the business is not started. According to our sources, the loans are rather uncommon.	**Eligibility & Procedure:** Unemployed are eligible if (1) they did not reject a valid job offer during the previous 12 months of unemployment and (2) they did not receive any public funds for starting a new business during the last 5 years. Strict criteria are applied, limiting the program to a small number of applicants. The business has to be started at latest 2 months after signing the contract. **Fallback & Return of Funds:** The unemployed person has to return the funds if the business ceases within 12 months or if specific provisions from the contract were infringed. After 24 months, the principal for the loan is reduced to 50%
Spain **Title**: Prestaciones por desempleo Capitalización (Unemployment Capitalization benefit) **Agency**: Servicio Público de Empleo **Initial Enactment**: 1985	**Objectives:** Unemployment capitalization aims at boosting employment, supports those starting companies and those taking over companies. **Forms of Aid:** One-time payment of parts or the full amount of the remaining unemployment allocations as well as a coaching component. The Institute of Employment (Instituto Publico de Empleo) promotes different courses for unemployed people, allowing them to develop specific skills that may help in setting up a business.	**Eligibility & Procedure:** Registered unemployed (with more than three months of unemployment benefits remaining) who have not received unemployment capitalization during the previous 4 years and start business not later than 1 month after receiving the money. A detailed viability check is made prior to the funding. **Fallback & Return of Funds:** There are three conditions that need to be fulfilled to be eligible to return into the unemployment insurance: (1) some of the benefits are still available, (2) The business ceased in the first 2 years after start, (3) the person has a proof of his/her prior unemployment. Funds do not have to be repaid in case the business ceases for economic reasons.
Sweden **Title**: Start-up Grants Program **Agency**: Arbetsförmedlingen (Swedish Public Employment Service) **Initial Enactment**: 1985	**Objectives:** The program targets the general population, disadvantaged minorities and the unemployed. **Forms of Aid:** The "Startup Grants" are equivalent to the remaining unemployment allocations and are paid for a maximum period of 6 months; less generous grants are also available to those without unemployment insurance. There is also a micro-financing program in place (Almi mikrolån) and special programs for young people under the age of 26.	**Eligibility & Procedure:** Registered unemployed or those at risk of becoming unemployed. The Public Employment Service decides whether to grant financial assistance based on external consultants who rate the potential of the business and the candidate's abilities. Registration is required prior to producing the first revenues. Candidates must not have received a prior bank loan. **Fallback & Return of Funds:** It is possible to come back into the unemployment insurance in the case of failure. Grants do not have to be returned.
Switzerland **Title**: Taggelder **Agency**: Swiss federal secretary of economy (SECO) **Initial Enactment**: 1996	**Objectives:** Supporting unemployed transitioning to self-employment. **Forms of Aid:** Unemployed individuals can receive maximum of 90 days of their unemployment benefits (Taggelder) and work on their business ideas without having to actively look for jobs. At the end of this period, they decide to proceed or not. Tax reductions exist for investors. Special support programs exist for disadvantages regions (e.g. Valais, Jura, etc.). Other forms of support include an online information portal, further monetary bonds as well as a coaching program.	**Eligibility & Procedure:** An individual is eligible for the support program if they became unemployed without actual fault, is 20 years of age or older and has a project proposal for the business endeavor. The business must be related to prior professional experience and no revenues may be produced during the period of support. **Fallback & Return of Funds:** An extended period of support can be granted in case the business is not started or if for some reason self-employment is ended.

Table 4.1: Self-employment Assistance for the Unemployed Across Europe

Title / Agency / Date of Enactment	Objectives & Forms of Aid	Eligibility / Procedure / Fallback / Return of Funds
Austria **Title**: Gründerprogramm **Agency**: Arbeitsmarktservice (AMS) **Initial Enactment**: 1998	**Objectives:** Offering support and advice for founders, providing incentives to unemployed people to create their own company and job, training programs and, under specific conditions, a monetary contribution. **Forms of Aid:** The support consists of financial aid of up to 6 months (exceptional extensions) through continued unemployment payments or emergency-state payments (Arbeitslosen- und Notstandshilfegeld), training (accounting, marketing etc) and financial support (Gründungsbeihilfe) during the first 2 months after firm creation.	**Eligibility & Procedure:** Unemployed persons with intentions of starting a company based on an idea that matches their previous professional experience can apply for the program. Once these prerequisites are fulfilled, external advisors assess the business plan, assessing its eligibility for funding. **Fallback & Return of Funds:** Allocated funds are in the form of subsidies and therefore do not have to be returned. In case the self-employment project is abandoned, the person can return into the unemployment insurance.
Belgium **Title**: Prêt Lancement **Agency**: Office National de l'Emploi (ONEM) **Initial Enactment**: 1992	**Objectives:** Financing the working capital requirement accompanying the launching of a business or the implementation of the investment project concerned. **Forms of Aid:** Unemployment insurance can be extended for another 6 months in order to prepare the administrative tasks necessary for setting up the company prior to generating sales. Eligible persons can also receive favorable starter loans. Professional support from a coaching and mentoring program is furthermore offered for a maximum duration of 18 months. In addition, there are special support programs for younger as well as older persons, including special funding and coaching support.	**Eligibility & Procedure:** Unemployed, jobseekers (more than 3 months registration with the regional employment office), and beneficiaries of waiting allowances. Assessment criteria include the project's chances of success, the person's business competence and the outlook for repayment capacity. Repayment of the loan takes place in monthly increments starting from the 2nd (optionally 3rd or 4th) year. **Fallback & Return of Funds:** If the company fails during the first 5 years (bankruptcy, demise of the person or extraordinary circumstances), the Participation Fund will not claim the remaining balance of the loan. The person can again register as unemployed if the company closes during the first 15 years.
Czech Republic **Title**: Překlenovací příspěvek **Agency**: Ministerstvo práce a sociálních věcí České republiky **Initial Enactment**: 1989, significantly expanded in 2004	**Objectives:** The program covers operating costs at the start of self-employment. However, the Czech Republic has a strong focus on re-employment in their active labor market policies and somewhat less on self-employment. **Forms of Aid:** The program constitutes a bridging contribution for three months that amounts to the average monthly wage.	**Eligibility & Procedure:** Registered unemployed that have had a previous employment of at least 12 months in the last 3 years. **Fallback & Return of Funds:** There exists only a limited fallback solution, as the general unemployment benefits only last for 6 months except for older employees. The subsidies do not have to be repaid unless the business survives less than two years. If the training programs provided are abandoned prior to completion, the costs for these need to be repaid.
France **Title**: ACCRE / NACRE **Agency**: Pôle Emploi **Initial Enactment**: 1977	**Objectives:** To provide support to unemployed and social security claimants in order to set up a business. **Forms of Aid:** ACCRE ("Aide au chômeur créant ou reprenant une entreprise" / "Assistance to those starting a business out of unemployment" in English) offers exonerations from some social security contributions (maximum for 3 years), monetary support paid in two tranches of 50% of the remaining credit in the unemployment insurance each. In some cases, applicants can also get a loan bonus if a bank approved their application. NACRE: coaching / training program for 3 years after company creation.	**Eligibility & Procedure:** Registered unemployment including the right for monetary support (exceptions: young people under 30, people with disabilities or those whose employer has declared bankruptcy). The applicant has to (1) create a new company or take over a company, (2) apply no later than 45 days after business registration, and (3) cover more than 50% of the start capital. **Fallback & Return of Funds:** In case of cessation, the applicant can return into the unemployment insurance to receive any remaining support. Exonerations and contributions that have been granted do not have to be returned
Germany **Title**: Gründungszuschuss **Agency**: Bundesministerium für Arbeit und Soziales **Initial Enactment**: 2006 (previously "bridging allowance" and "Me Inc" since 1986).	**Objectives:** Support formerly unemployed company founders. **Forms of Aid:** Founding subsidies offer financial support (6 months continuation of last unemployment benefits + 300€, with a possibility of a 9- month extension if the business performs well), the allocation of industrial real-estate space and founding-related coaching (in cooperation with the KfW Bank). The "Einstiegsgeld" (start-up grant) is a monetary support mechanism for those people that are not eligible for unemployment benefits but still want to start a business.	**Eligibility & Procedure:** Subsidies are granted to those entitled to unemployment payments (ALG II) having at least 150 days of unemployment benefits remaining. Sufficient knowledge and the viability of the idea need to be proven. **Fallback & Return of Funds:** Generally, the person has the possibility of returning to the unemployment insurance, if sufficient funds remain. Subsidies do not have to be repaid.

Table 4.1: Self-employment Assistance for the Unemployed Across Europe

4.3.2 Program Eligibility and Admission Criteria

Another key dimension differentiating the national policy schemes represents the *eligibility requirements and admission criteria*, thus limiting the program access to a pre-defined group of individuals. This dimension directly reflects the country's strategy of following a more inclusive (e.g., Belgium, France, the Netherlands and Sweden) or a more selective (e.g., Austria, Germany, Greece, Spain and Switzerland) active labor market strategy. Furthermore, while the general framework of the programs is being defined on a national level, regional actors are responsible for the implementation and execution, partially resulting in a significant variance not only across countries, but also between different regions within the same country. While the majority of countries studied in this chapter have established formal viability checks of new business concepts (1), subjective assessments often play a significant role in determining who is admitted into a program (2). In the following, these two key practices related to the program eligibility and admission criteria are discussed in greater detail.

Viability-check of New Business Concepts

Today, the majority of the national programs require from the unemployed to provide a business plan when applying for financial support. In order to be eligible for the financial contribution, the proposal typically needs to be assessed and approved by a qualified institution. This trend has likely been fueled by past experiences from overly permissive policy schemes (e.g., "Existenzgründungszuschuss"-program in Germany), which lead to increased cases of abuse. Some people enrolled in the program for continued monetary support shortly before losing eligibility for unemployment benefits, while others registered as unemployed just to receive the monetary support while starting a company they would likely have started even without the contribution (the "free-rider" phenomenon). While permissive programs have the advantage of allowing many people to discover whether self-employment is a viable career path for them, excessively elevated restrictions on the other hand limit the support to people who have increased chances of success, potentially

constraining other positive externalities resulting from self-employment. The profound impact of this parameter will be discussed in greater detail in Section 4.4.

The Influence of Subjective Assessments

Although the eligibility requirements for receiving the support are typically stated in form of legal degrees referring to clearly defined factors such as a minimum or maximum length of unemployment or the applicant's age, a subjective assessment through the employees of the regional employment agencies is a common practice. In Germany, for example, local program coordinators are given authority to decide who is eligible for starting a business and who is denied the financial support. In Switzerland, the cantonal authorities are given autonomy about how strictly the admission criteria for their policy scheme are applied. As a result, the policy implementations may differ significantly between regions. Comparable project proposals accepted in one region may thus be rejected somewhere else. Although a detailed analysis of such regional differences is beyond the scope of this chapter, it is likely that similar discrepancies exist in countries other than the ones mentioned before.

4.3.3 Practices related to the Provision of Financial Support

Capital constraints represent a major barrier for becoming self-employed (e.g., Blanchflower and Oswald, 1998). Having access to adequate amounts of *financial resources* helps founders respond to adverse circumstances, overcome liquidity constraints and influence external stakeholders' perception of the new venture (Shane, 2003). While some basic financial investment is required to start any type of business, the amount varies strongly depending on the type of business opportunity exploited by the founder. Evidence from prior research suggests that unemployed individuals are more likely to become self-employed in manual- and labor-intensive businesses with a low capital investment (Kellard and Middleton, 1998), likely in part due to financial constraints.

This reality is reflected in the structure of all investigated programs as they offer at least some basic financial support to help bridge the funding gap before the founder can draw a steady income from the new business. However, the specific conditions differ widely across the countries studied in this chapter. The importance of this program dimension will furthermore be discussed in greater detail in Section 4.4. In the following, three central factors differentiating the examined programs are discussed, namely: (1) whether the financial support is provided in the form of a grant or as a loan; (2) whether it is paid as a single, lump sum payment or as regularly recurring allowances; and (3) whether there exists a fallback solution for the program participant in case the self-employment project is abandoned.

Grants vs. Loans

Monetary support is provided in different forms within the analyzed countries. Although there is a general trend of offering grants (funds that are distributed by one party to a recipient that do not have to be repaid) from the unemployment insurances (e.g., Austria, Czech Republic, France, Germany, Greece, Spain, Sweden, Switzerland and the UK), some countries have implemented loan schemes that require repayment (e.g., Belgium and the Netherlands, as well as France through its NACRE program). In one case, the repayment is only required if the business ceases to operate within a certain timeframe (Poland).

Single Payment vs. Recurring Payments

The above-described monetary support is either provided as a single, lump sum payment (Poland and Spain) or through recurring, typically monthly (Austria, Belgium, Czech Republic, France, Germany, Greece, Netherlands, Sweden and Switzerland) or weekly (UK) allowances. Nascent self-employed often need to cover up-front investments, which can vary in magnitude depending on the industry and the activity. The possibility of receiving subsidies in form of a single, lump-sum payment can be helpful to cover such expenses. Yet, in order to cover the cost of living, recurring payments (similar to the reception of a regular salary) seem to be advantageous.

Provision of a Fallback Solution

A fallback solution allows the participants to re-enter the national welfare system in case the self-employment activity is abandoned, for example due to economic reasons. Offering a fallback solution into the general welfare system in case the business remains unsuccessful appears to be a well-received practice. While all countries in this section have some sort of fallback scenario, the specific approaches are different. Some countries offer general fallback solutions with the only criteria being the availability of remaining individual allocations in the unemployment insurance scheme (e.g., Austria, France, Germany and Switzerland). Other countries have fallback solutions that are linked to specific requirements such as how long the firm needs to be operating and the mode of failure (e.g., Czech Republic and Poland).

4.3.4 Nonfinancial Business Support Services

In addition to an appropriate level of funding, the founder's prior knowledge and professional experience have been shown to influence the long-term success of a new business concept (e.g., Shane, 2003; Dencker et al., 2009b). Research suggests that *nonfinancial* business support services can positively influence the success of formerly unemployed firm founders through two central mechanisms.

Firstly, instead of imposing strict eligibility criteria that exclude insufficiently refined business concept, evidence suggests that supporting individuals improve unrefined business concepts can potentially increase the supply of promising business concepts (Guérin and Vallat, 2000; Nolan, 2003; Jakobsen and Ellegaard, 2012). Secondly, once a refined business concept has been developed, there is ample evidence that the establishment and growth of the new businesses can be positively influenced through the provision of appropriate business support services (e.g., Brüderl and Preisendörfer, 1998; Sheikh et al., 2002).

While coaching and training programs have long been a central element of the active labor market programs implemented in many countries, initiatives designed

to support individuals transitioning into self-employment through the provision for education and business support services represent a comparatively new element of these systems. As a result, the available nonfinancial support varies widely across regions and is often restricted to metropolitan areas; those located in more rural areas are thus disadvantaged at times.

However, the educational, nonfinancial component of the governmental support schemes is regarded as being one of their most valued aspects (Kellard and Middleton, 1998). Scientific studies that have been conducted on this matter indicate generally positive outcomes of the self-employed assistance components (Organization for Economic Co-operation and Development, 2000; Martin and Grubb, 2001; van Es and van Vuuren, 2011). Even in case the self-employment experience ultimately proves unsuccessful, positive spillover effects with regards to re-employment chances have been discovered (Kellard and Middleton, 1998; Organization for Economic Co-operation and Development, 2000). The comparison of the business support services conducted for this chapter revealed a number of differences with regards to (1) the types of business support available to the program participants; (2) the encouragement of participation in these offerings; and (3) the provision of support through government- or private-sector organizations.

Types of Business Support Services

The evidence we collected shows that the business support services that are relevant to firms founded by the unemployed can be divided into three main types: Professional training initiatives offer vocational or technical training typically aimed at individuals seeking to work in skill and labor-intensive professions; general education programs focus on the transfer of theoretical knowledge in a classroom or lecture hall setting, while personalized coaching and consulting support is targeted at individuals in need of advice regarding specific topics arising during the creation of their businesses. Analogous distinctions between the different forms of business support services have been made in the past (e.g., Sheikh et al., 2002), yet with a broader focus on micro,

small and sole proprietor businesses in general. Table 4.2 provides an overview of the key types of nonfinancial support available to formerly unemployed founders:

Type	Professional Training	General Education	Consulting/Coaching
Primary Audience	Skill- and labor-intensive professions such as the free-lance professions and crafts; focuses on teaching practical skills	Applicable to broad audiences; focuses on the transfer of theoretical knowledge	More unique business concepts requiring personalized strategy development & idiosyncratic solutions
Group Size	Smaller groups	Larger groups possible	Individuals / small groups
Example Content & Details	Food preparation license training; computer skills Includes a wide range of professions such as journalists, graphic designers, hairdressers, electricians, accountants , cabinetmakers and others Collaboration between participants is encouraged Duration of courses: from a few sessions to several years	Provision of basic information, education about procedures for setting up a company & facilities Writing a business plan Financial management or general business courses Lower cost but longer time investment needed	Coaching , experimental market-study; development of an advertising strategy Consulting for strategy and supplier-related issues Psychological counseling High added values, very effective Expensive due to personalization

Table 4.2: Types of Nonfinancial Business Support Services

Most countries have offerings related to all three types of business support, yet the respective programs receive differing degrees of emphasis and their availability can vary widely not just across different countries, but also across different regions within the same country. Belgium can be seen as an example of a country putting special emphasis on professional training as a viable path to help formerly unemployed individuals transition into self-employment, sporting several institutions with high national visibility (e.g., SYNTRA, IFAPME, EFPME). The Czech Republic similarly puts strong emphasis on this type of nonfinancial support within their national ALMP. A focus on providing general education can be observed within the "public university" ("Volkshochschule") concept in Germany, but similar institutions can also be found in Austria, the Scandinavian countries, and others. Despite its relatively high costs, some countries such as France explicitly focus on the consulting/coaching components within their unemployment support policies. In this case, the business support is integrated within the national policy scheme and participants are supported for a

maximum duration of up to three years. As each type of business support service is important for a specific type of business, it is still unknown to date which approach is the most cost-effective from a governmental perspective.

Mandatory vs. Voluntary Participation

Participation in the nonfinancial support offerings is typically voluntary; however an exception to this rule could be identified in Slovakia, a country outside of our sample, where the completion of preparatory courses organized by the Labor Office is required in order to receive the financial contribution. Nevertheless, most countries have installed mechanisms to incentivize their participants to profit from the nonfinancial support that is being offered, for example by distributing coaching vouchers or contributing financially to consulting services that have been used. An example of this practice can be found in France, which has implemented a consulting-voucher system within its ACCRE program. Participants receive a number of tickets that can be spent on counseling services at the beginning of the creation of the firm and during the following year (Organization for Economic Co-operation and Development, 2000). Authorities in the Netherlands offer to refund costs for coaching, courses or market surveys relating to the new business (Bekker, 2010). In Sweden, consultants who have been hired for business support services (e.g., the evaluation of a business idea) can be paid by the authorities. The UK follows an indirect approach, granting an increase in the financial allowance in case the unemployed participates in some form of training. A number of prior studies have found that the publicity and visibility of support services appear to be strongly limited for the small and medium-sized companies (Thomas, 1994; Guerreiro et al., 2000). This suggests that, in addition to the aforementioned incentives that have been put in place, policymakers may want to concentrate on making information about the various types of support more available to those seeking to start businesses.

Governmental vs. Privatized Provision of Support

While historically the majority of educational programs have been operated by governmental institutions, private contractors and internet-based training programs have become more prominent in recent years (Nolan, 2003). For example, websites on the topic of business creation are being operated by government agencies in Germany, providing basic information about the most common questions surrounding new business creation. The regional employment offices supplement this central knowledge database as a provider of more personalized information available in the region, and by acting as hubs for connecting entrepreneurs with local contacts. Similar arrangements have been implemented by the Czech Republic, the Netherlands and Switzerland. The shift towards internet-based support services is further strengthened through remote e-learning solutions to educate the unemployed on how to start and operate a business (e.g., in the Czech Republic).

Several countries have partly or fully outsourced the business support of their program participants to private contractors (e.g., Austria, Belgium and the Netherlands). This strategic move appears promising, as prior research indicates that the provision of business support services through private organizations will lead to greater success of the participating companies than services provided by government bodies (Kluve and Schmidt, 2002; Wößmann and Schütz, 2006) and that government-supported advisory services are less proficient at supporting firm growth but rather at rescuing ailing firms (Bennett and Robson, 1999). Some of these services are offered free of charge for the participants, the duration is projected to last between 6 (Austria) to 18 months (Belgium).

Since positive outcomes of these services might not be immediately visible, it is especially vital to have a longer-term focus when evaluating the costs and benefits of business support services (Card et al., 2010); one source is citing a timeframe of three- to four years as reasonable (Nolan, 2003).

4.3.5 Summary of Key Program Dimensions

Building on these findings, Table 4.3 summarizes the key support scheme dimensions differentiating the policy schemes within the countries in this study: the program structure (centralized vs. decentralized organization; specific- vs. general self-employment promotion programs), the program's eligibility requirements (objective- vs. subjective assessment; viability-check of the new business concept), practices related to the provision of financial support (grants vs. loans; single- vs. recurring payments; provision of a fallback solution) as well as differences in the offering of nonfinancial business support services (types of business support, mandatory- vs. voluntary participation, public- vs. privatized provision of support services).

Program Structure	Program Eligibility	Financial Support	Nonfinancial Support
Centralized vs. Decentralized Structure	Viability-check of New Business Concepts	Grants vs. Loans	Training, Consulting and General Education
Specific vs. General Self-Employment Promotion Programs	Influence of Subjective Assessment	Single Payment vs. Recurring Payments	Mandatory vs. Voluntary Participation
		Provision of a Fallback Solution	Government vs. Privatized Organization

Table 4.3: Key Support Scheme Dimensions

These dimensions reflect the major cornerstones of self-employment promotion programs for formerly unemployed individuals. Policymakers aiming at modifying existing programs or implementing new programs and those seeking to understand these policy initiatives can use these dimensions as a reference. Clearly, some factors are more important than others from both a governmental- and a participant's perspective. Considerations regarding the program structure have a profound impact on the governmental resources that need to be devoted for the administration of the policy schemes. The choice of a centralized vs. a decentralized structure needs to carefully balance specific advantages and disadvantages of the two approaches, and also needs to take into account a range of country-specific factors

(e.g., country size, population and existing policy infrastructure). The choice of operating a dedicated self-employment program for unemployed individuals as opposed to grouping them with others into a general self-employment promotion program needs to account for the difference between the unemployed and the non-unemployed founders with regards to the average level of education, skills and experience; which can vary between countries.

The nonfinancial support, on the other hand, is of greatest concern for those who create new businesses and need this type of support. Because business support services are characterized by a variety of private actors at the regional or local levels, they are oftentimes dissociated from centralized policymaking efforts, resulting in the apparent large heterogeneity across regions.

Other policy dimensions such as the strictness of eligibility and the level of financial support available to the program participants have a profound impact on both governments as well as participants. Choices related to these factors are much more flexible in the short- and medium term compared to the program's administrative structure and nonfinancial support landscape, making these factors suitable levers for adapting active labor market strategies to changing political, economic and labor market circumstances. The impact and implications from the eligibility requirements and the available level of financial support from both a governmental as well as a participant perspective will be discussed in greater detail in the next section in order to shed light on the implications arising from these parameters.

4.4 An Examination of Contrasting Policy Approaches

The previous section has revealed how the policy schemes differ based on several criteria. While some practices are hardly comparable across the countries studied in this chapter and difficult to influence within policy revisions, two central parameters – the available level of financial support and the strictness of eligibility – are indicative of the general strategy followed by the government. These two dimensions not only

define who is receiving how much financial support but also for how long. As both parameters are of particular interest to those affected by unemployment and wishing to become self-employed, these dimensions merit an in-depth discussion.

The first dimension describes the level of financial support, relating to both the amount and the duration of financial support that is being offered, as well as the type of financial support (grant vs. loan). Several parameters that have been discussed in the *practices related to the provision of financial support* (Section 4.3.3) are grouped together in this dimension. The countries have been classified into low, medium or high levels of financial support. A *low level of financial support* corresponds to a period of less than six months of monetary support. Available support for a maximum duration between 6-12 months of financial support or a non-refundable single payment of an equal amount has been classified as *medium level of financial support*, whereas any support lasting longer than one year or a one-time grant of similar size has been classified as *high levels of financial support*. The second dimension indicates the strictness of eligibility for program participants. The countries have been classified as having either low or high eligibility requirements where countries classified as *low strictness* only demand the registration as unemployed in order to be eligible for funding, and countries listed as *high strictness* are imposing extended viability proofs (e.g., assessing the business plan by a qualified institution, limiting the choice of industrial sector to those cases in which the applicant can document prior experience).

The classification of each country was made based on publicly available information about the programs, whereas unclear cases have been verified through interviews with employees of the national policy administration agencies. Figure 4.2 illustrates this categorization.

By mapping the respective programs on these two dimensions, the different approaches of the countries in our sample become apparent. In order to better understand these contrasting approaches, several interviews with representatives from selected countries following the different approaches were conducted. In the following, we discuss the advantages and disadvantages of the strategic positioning

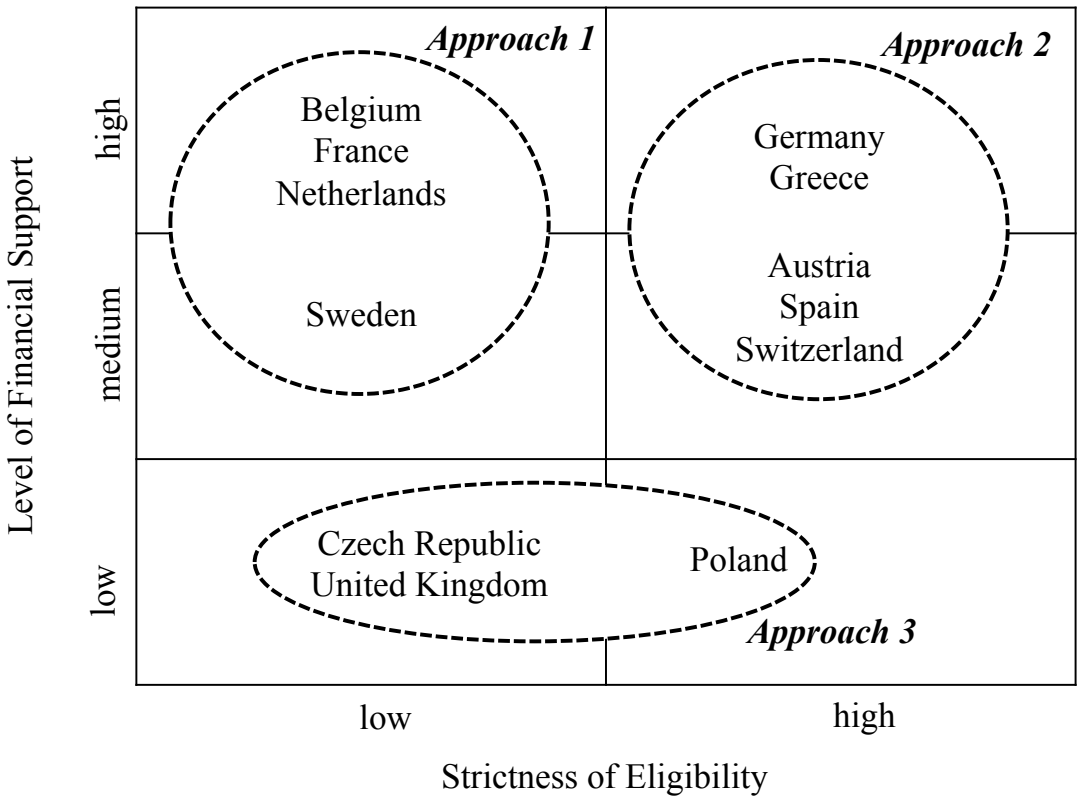

Figure 4.2: Contrasting Policy Approaches

for both governments and participants based on the previous overview of support schemes, supplemented by information gained during the interviews, as well as corresponding publicly available information.

4.4.1 Differing Policy Approaches

Approach 1: Low Strictness of Eligibility / Medium to High Levels of Financial Support

Countries positioned in the top left corner of the categorization feature a rather generous policy scheme as almost anyone is granted the comparatively high financial

support when engaging in an entrepreneurial activity. France represents an example for this type of policy orientation.

From a governmental perspective, granting large shares of the unemployed population financial support when engaging in entrepreneurship represents a relatively expensive approach, as even ideas with lower probabilities of success are supported. In France, for instance, more than 50% of all companies are started with the financial support from this government program (APCE, 2012). Although the current policy has been found to result in high survival rates during the support period, anecdotal evidence suggests that many problems only become visible after the financial subsidies are terminated. The governmental support thus appears to incite a false sense of economic security among the participants, as a disciplined strategy development and implementation process is not sufficiently encouraged from the beginning. Quantitative data from the year 2011 indicates that more than 80% of companies supported by the program in France are single-founder businesses, whereas around 80% of companies are service or commerce-related businesses (APCE, 2012). Correspondingly, such an inclusive program might have a limited impact in terms of national economic growth, demanding for differentiated measures of success that are able to capture the societal impact of this policy strategy.

From a participant perspective, such policy schemes are received rather positively, as the broader population of unemployed individuals has the possibility to explore entrepreneurship as a viable career path, and ideas with an extended exploratory phase – prior to knowing about the financial viability – can receive monetary support for an extended period. In this case, the participants are somewhat protected from too much pressure to identify a viable business model that would be present without the policy scheme. However, anecdotal evidence suggests that such unrestrained programs specifically targeted towards unemployed people can result in a substantial social divide, as the formal unemployment registration is required to be eligible for funding. Those starting a business while employed elsewhere thus tend to perceive such policies as somewhat unfair and unjust.

Approach 2: High Strictness of Eligibility / High Level of Financial Support

The top right corner of the categorization indicates programs that can be characterized as generous, yet highly selective. One example of a country within this category is Germany.

From a government perspective, having strict eligibility criteria while simultaneously offering generous financial support leads to an increased selection effort during the early stage of the process. The focus of this approach is on those participants that have the highest probability of succeeding. According to the German employment ministry, this positioning is the result of a recent strategic shift towards an increased emphasis of re-employment of unemployed individuals rather than self-employment stemming from the currently (2013) optimistic economic situation in the country. As a consequence, the accessibility of these programs has been changed from being generally available for every unemployed person interested in becoming self-employed, to being a merely voluntary offering at the discretion of the respective employment agency. While supporting only the most capable citizens in becoming entrepreneurs might increase the survival chances of the newly founded firms, this strategy denies large shares of the population the chance to explore whether self-employment represents a viable career for them.

From a participant perspective, this strategic shift has both positive and negative aspects. Those allowed into the program are likely to possess alternative employment options, whereas those denied might lack such options, thus potentially excluding some people from being able to participate in the labor market. Assuming a functioning selection process, the positive aspects of such a policy variant reside in the quick market feedback to the individuals, indicating whether their business ideas are economically feasible of having long-term survival prospects in the market.

Approach 3: Low Level of Financial Support

The lower part of the categorization indicates programs featuring only a low level of financial support, thus reducing the importance of the eligibility requirements in this

approach. Poland and the Czech Republic are examples of countries following this policy strategy in our study.

While government expenditures related to the provision of financial support are kept at a minimum in such a policy variant, only marginal positive externalities with respect to reducing unemployment and generating economic growth can be expected in return. New businesses have to find alternative ways to compensate their need for funding through other actors such as financial institutions and private investors, which might be an even more difficult endeavor for unemployed individuals compared to others who did not suffer from an unemployment spell.

From a participant perspective, this approach is similar to a total lack of support, as the restricted financial support is likely to be insufficient for the exploitation of most opportunities, increasing the chance of establishing under-resourced businesses with poor survival chances from the onset (ILO, 2012). Only business concepts requiring a minimal amount of financing, such as simple arbitrage or services businesses, can be exploited in case additional private funds are absent. The implementation of more complex, larger-scale business ideas is thus reserved to those having access to other capital sources in this policy approach. On a more positive note, the mere existence of a dedicated entrepreneurship support policy targeted at unemployed people is likely to entice at least some individuals to try out if self-employment presents a viable career option for them. Although we can only speculate about the impact of such a policy approach, participants lacking additional sources of financing are likely to feel discouraged at a later point in time when having to realize that the available funding proves insufficient for the realization of many projects.

4.4.2 Key Insights

The categorization of countries provides a snapshot of the status quo of the pan-European policy landscape designed to help unemployed individuals transition into self-employment within a number of European countries. While this landscape

can be expected to continue evolving in the years to come, several insights can be distilled from the current examination:

- Two central parameters, the level of financial support and the strictness of eligibility of the respective national policies, reveal several contrasting policy approaches with differing implications from both a governmental and a participant perspective.
- While some programs have a strategy of primarily promoting growth-oriented entrepreneurship, others follow a rather inclusive labor market approach, perceiving entrepreneurship as a potentially viable career option for larger shares of the population and as a solution to increased rates of unemployment. Again others offer only very limited assistance for those seeking to create a business after a period of unemployment, revealing that entrepreneurship support policies are not a top policy priority. Correspondingly, the programs cannot be ranked in order of effectiveness or efficiency, as each policy scheme follows an approach that has been adapted to the specific national context, shaped by both economic and societal factors (Staber and Bögenhold, 1993).
- Even generous policies can have negative impact on participants, as they might incite a false sense of economic security as indicated by the example of France. Survival rates during the support period would thus be artificially inflated but can be expected to drop sharply after the funding expires. Future studies are needed to improve our understanding if this effect is visible in larger scale empirical research and identified in other countries as well.

4.5 Conclusion

This chapter provides an international comparative analysis of the policy initiatives designed to help those affected by unemployment transition into self-employment within a number of European countries. Following an overview of the history of the programs as well as a comparative analysis of currently existing programs across

Europe, we identified and analyzed key program dimensions, including the overall program structure, the program eligibility requirements, and practices related to the provision of financial support and nonfinancial business support services. This analysis revealed several distinctive features about the current state of development of these policies.

The program structure follows a centralized approach in the majority of countries with consistent national policy schemes that are being executed by regional employment agencies. Both dedicated and generic self-employment support programs can be found.

Most countries have introduced some sort of eligibility requirements that the applicants need to fulfill in order to receive the financial support including a well-refined business concept that needs to be approved by a qualified institution. As the criteria often leave room for interpretation by labor office employees, the assessments are likely to be influenced by subjective factors, resulting in potential regional differences of how the national policies are being implemented.

While some form of financial support for the program participants, either direct or indirect, is available in all of the investigated countries, the type, amount and duration of monetary support differs widely. However, we could identify grant-based monthly contributions for half a year to a year being the most common approach. A basic fallback solution in case the entrepreneurial endeavor proves unsuccessful is available in all of the countries.

The available business support services differ markedly across the countries, but also across different regions within the same country. One area for further policy development could focus on making information about the various types of support more transparent – an observation that is in line with prior research indicating that the publicity and visibility of support services is strongly limited for small and medium-sized companies (Thomas, 1994; Guerreiro et al., 2000). Prior studies moreover suggest, that private organizations have advantages over government bodies in the provision of business support services (Kluve and Schmidt, 2002);

Wössmann and Schütz, 2006) and that government-supported advisory services might be less proficient at supporting firm growth but instead better in rescuing ailing firms compared to services offered by the private sector (Bennett and Robson, 1999). Governmental interventions regarding business support services thus need to be carefully planned and potentially limited to market failures in the provision of support by the private sector.

The program eligibility requirements and the level of financial support are central parameters revealing several contrasting policy approaches. Some policies primarily aim at promoting growth-oriented entrepreneurship, whereas others see entrepreneurship as a potentially viable option for larger shares of the population and as a solution to increased rates of unemployment. As prior studies have indicated that the costs of these programs are considerably lower than those of other ALMPs or the continued provision of unemployment benefits (Organization for Economic Co-operation and Development, 2000), the strategy of making entrepreneurship part of the solution towards reducing unemployment in many developed countries appears to be promising. Such policies can be an important instrument for generating positive economic and social externalities also in geographical areas where similar initiatives have thus far been scant or even absent. However, approaches offering only limited assistance for those seeking to create a business after a period of unemployment can also be appropriate in some contexts. A rank-ordering of program designs in terms of their general superiority is thus not feasible.

Outlook and Future Research

Despite an improved understanding of the structure and outcomes of the analyzed policy programs designed to help unemployed individuals transition into self-employment, further research is needed that can shed light on a number of issues:

We identified a need for additional international comparison studies that evaluate the programs in terms of their effectiveness and efficiency. Unanswered

questions include: How can dedicated self-employment policies targeted at formerly unemployed individuals be compared quantitatively to generic programs open to anyone interested in starting a business? How might the eligibility requirements and the level of financial support be altered depending on the current economic circumstances and depending on the type of firm that is to be founded? Which types of business support services can be provided in a cost-efficient manner by governments as well as private organizations? Inquiring onto these topics can provide decision-makers with more quantifiable information in the future than what has been available at the time of this study.

To date, the central performance indicator of the programs has been the survival rate of firms supported by the programs. However, due to selection effects, the survival rates are not directly comparable as a result of the differing eligibility criteria. Policies featuring strict selection criteria thus are likely to lead to higher survival rates, as only the most capable individuals have been previously admitted to the program. In case the policy schemes focuses on increasing the country's economic output, the growth of the newly created businesses, measured for example in terms of tax revenue or by the creation of new jobs, should also be monitored and taken into account as a meaningful performance indicator. In case the policy schemes are part of the national social development strategies, the impact resulting from eligibility requirements needs to be more seriously considered in order to help a large proportion of those affected by unemployment discover whether self-employment represents a potentially viable career path for them. Measures such as levels of resulting work- and life-satisfaction might be valuable additions for these policy approaches. Programs aiming to pursue both goals simultaneously could benefit from more insights into the quantitative tradeoffs of the different policy strategies outlined in Section 4.4.

While self-employment has the potential to be a rewarding professional career path, the reality that self-employment is also risky should not be neglected. A critical element for the successful implementation of functional programs thus represents an honest and authentic communication with prospective participants, rather than promoting self-employment as a viable path for everyone (Kellard and Middleton,

1998). Future research could help investigate the different mechanisms by which the government is able to communicate this reality to the prospective applicants.

There are several questions surrounding the provision of nonfinancial support services deserving further attention: what type of business support is the most cost-effective from a government perspective? How can governmental agencies ensure that appropriate business support services are widely available? Which services are best provided privately vs. publicly administered and controlled? How can business support services be made more accessible to those interested in starting a business, including those located outside of metropolitan areas?

While more research is needed in order to shed light on these and other questions, the comparative analysis presented in this chapter was able to uncover several interesting facts about the current stage of development of policies designed to support the transition of formerly unemployed individuals to self-employment. Our work contributes to an improved understanding and a heightened awareness of the public policy schemes that were previously difficult to compare, facilitating the exchange of best-practice solutions in order to improve existing programs and in developing new programs. The programs have the potential to stimulate a number of positive secondary effects, such as a relief of the welfare system, increased societal well-being, and economic growth. It should not be forgotten, however, that such policy initiatives are only one tool within a larger set of active labor market policies, albeit an important one deserving further attention as acknowledged within the current "Europe 2020 Strategy" (European Commission, 2010). It is hoped that the increased transparency that this chapter created continues to stimulate the international dialogue on this topic.

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5 Conclusion

The current dissertation contributes to a better understanding of *entrepreneurship occurring in unfavorable circumstances* through three complementary research articles. Each study addressed a unique and previously disregarded research question, yet all articles are united in the overarching theme of this dissertation. Again, the topic of entrepreneurship has proven highly fascinating and intriguing, revealing several novel insights.

5.1 Insights Resulting from the Three Articles

In the first article, a theoretical model was built around the concept of necessity entrepreneurship, differentiating between two types of external influencing those interested in becoming entrepreneurs. Accordingly, absolute-necessity entrepreneurs are distinct from relative-necessity entrepreneurs, and both groups differ from their voluntary counterparts with respect to important aspects of the entrepreneurial process. The theorizing efforts of this study were substantially guided by insights gained from research about the effects of unemployment, as as from the literature about those living at the "bottom of the pyramid". Put simply, the first research study argues that not all individuals perceiving necessity are alike, but that differentiations need to be made based on the individual's idiosyncratic situation as well as the environmental context. Coherently, an unemployed individual supported by a modern welfare state is likely to approach potential entrepreneurial opportunities differently from an independent service business operator, struggling to feed his/her family in a developing country. The proposed theoretical model explicitly distinguishes between such cases, furthermore guiding empirical studies on how to measure less obvious differences in practice.

The research second study illuminates the topic of work satisfaction for the self-employed, a highly meaningful measure of entrepreneurial success, especially for those suffering from negative situational influences such as unemployment. Accordingly, distinct personality factors and the amount of social support that the entrepreneur receives from his/her social network are important determinants for

being satisfied in self-employment. This study required a profound understanding of the literature about employee job satisfaction, which provided a helpful starting point for the present inquiry. However, due to the frequently differing work environments between employees and the self-employed, several adaptations based on insights gained from the fields of psychology and sociology were necessary in order to develop new knowledge relevant for entrepreneurship theory. Entrepreneurship thus again requires reaching out to other fields in order to arrive at new insights.

The third article investigated a research question at the intersection between entrepreneurship and political science, conducting an international comparison of public policy initiatives designed to support those seeking to transition into self-employment after a period of unemployment. This study uncovers a number of insights about how different societies are valuing those interested in starting businesses in order to become self-employed. However, the analysis revealed no single best approach to be superior in a pareto-efficient sense, as each policy strategy represents a tradeoff between the interests of different groups of individuals within the respective societies that have been studied in the present sample.

5.2 Contribution to Current Societal & Political Developments

Taken together, this dissertation also makes a contribution to the currently ongoing sociopolitical discussion regarding improved ways of measuring a nations prosperity and the quality of life of its inhabitants. Several research groups and political think tanks have proposed different measures designed to complement established indicators like the Gross domestic product (GDP), such as the Happy Planet Index (Marks et al., 2006), the Human Development Index (Sagar and Najam, 1998), the Quality-of-Life-Index (The Economist Intelligence Unit, 2005), the Genuine Progress Indicator (Lawn, 2003) as well as the idea of Gross National Happiness (Brooks, 2008; Veenhoven, 2009). Instead of focusing on the rare, unrepresentative cases of high-growth entrepreneurship, the present dissertation concentrates on the highly

prevalent form of entrepreneurship under unfavorable circumstances (Autio, 2007; Global Entrepreneurship Research Association, 2013). Correspondingly, the improved theoretical understanding of the antecedents of necessity developed in the first research article can help identify and classify societal groups of prospective entrepreneurs affected by negative external influences, furthermore enabling the systematic study of ways to improve the standard of living of these individuals.

The second research article similarly contributes to the above debate by focusing on the previously neglected topic of work satisfaction in entrepreneurship. As any index intending to aggregate individual-level quality-of-life data to the national level relies on quantitative measures, this article presents a highly valuable contribution to the literature by showing how a significant part of people's quality of life – the domain of work – can be assessed and studied quantitatively in order to identify potential determinants pertinent to change. Moreover, the study demonstrates how the change in work satisfaction as a result of the self-employment experience typically represents a fairly solid improvement, despite a frequent loss of income, revealing how a purely financial perspective on the outcomes of entrepreneurial activity appears insufficient to explain the continued popularity of this career path. Increasing the body of knowledge about the determinants of entrepreneurial work satisfaction thus contributes to a better understanding of how public policies can help improve the quality of life of its citizens.

Political actors responsible for the implementation of policies that benefit their societies will also see value in the third research study of this dissertation, which presents an overview of the meaningful criteria of differentiation between the various support schemes throughout Europe. The new-gained transparency facilitates the communication of best practices and international coordination efforts, paving the way for the continued improvement of active labor market policies in countries that have already established said support schemes. Moreover, decision makers wishing to establish such schemes in the future can avoid strategies which have previously proven unsuccessful in other places, while being informed about the critical levers and tools available to them. The importance of necessity entrepreneurship is underlined

by the mere existence of these policy schemes, raising hopes that such policies are capable of increasing the quality of life of those facing unfavorable circumstances also in places where appropriate polices are still scant to date. Since public policies have demonstrated their potential for increasing levels of well-being in other populations (Diener et al., 2009), these hopes appear justified.

5.3 Towards a Theory of Necessity Entrepreneurship

Throughout the history of entrepreneurship research, the entrepreneur has typically been regarded as an individual who engages voluntarily in a series of actions in order to exploit an opportunity. Coherently, different individual attributes and roles have been ascribed to what people believed are defining characteristics of an entrepreneur. Common themes revolve around the notion of risk bearing (Cantillon, 1755; Mill, 1848), the notions of achievement and personal initiative (Sutton, 1954; Welsh and White, 1981; Leibenstein, 1968), as well as the reorganization of production factors (Say, 1836) and innovation (Schumpeter, 1934). Modern theories of entrepreneurship have extended the field beyond the enterprising individual, advocating the study of the interactive relationship between individuals and opportunities as the distinctive domain of entrepreneurship research (Ventakaraman, 1997; Shane, 2003).

Adding to this ongoing discussion, the phenomenon of necessity entrepreneurship suggests that a sizable proportion of individuals actually engages involuntarily in entrepreneurship (comp. Section 2.1). This dissertation suggests that both situational and environmental factors need to be considered in order to understand how the process of opportunity exploitation unfolds in unfavorable circumstances. Although future research is needed in order to untangle the importance of these influences for the entrepreneurial process of necessity entrepreneurship, the present work nevertheless provides an important conceptual building block that can be of use within future studies.

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EDUCATION

09/09 – 08/13	**École Polytechnique Fédérale de Lausanne (EPFL), Switzerland** Doctoral Researcher at the Chair of Entrepreneurship and Technology Commercialization (ENTC), College of Management of Technology Doctoral thesis on "Necessity Entrepreneurship"; Advisor: Prof. Dr. Marc Gruber
09/12 – 12/12	**University of Illinois at Urbana-Champaign (IL), USA** Visiting Researcher at the School of Labor and Employment Relations (LER)
09/08 – 08/09	**École Polytechnique Fédérale de Lausanne (EPFL), Switzerland** Exchange Semester at the College of Management of Technology Majors: Entrepreneurship, Corporate & Business Strategy, International Negotiation
03/07 – 08/09	**RWTH Aachen University, Germany** Graduate Studies in Industrial Engineering / Engineering Management Degree: German "*Diplom-Wirtschaftsingenieur*" (MSc equivalent) Majors: Entrepreneurship, Production Management, Technology and Innovation Management Master-Thesis "Development of Criteria for Knowledge-Based Business-Models of Innovation Clusters"
09/04 – 09/06	**Otto-von-Guericke-University Magdeburg, Germany** Undergraduate Studies in Industrial Engineering / Engineering Management
08/01 – 07/02	**Lutheran High-School, Minneapolis (MN), USA** American High School, Degree: US High School Diploma
08/95 – 06/04	**Gymnasium CJD Christophorusschule, Braunschweig, Germany** German High School, Degree: Abitur

PROFESSIONAL EXPERIENCE

12/12 - present	**Co-Founder, TD-TechDesign GmbH, Braunschweig, Germany** Strategy & Business Development
09/09 – present	**Various Doctoral Consortia & Academic Conferences** (Academy of Management 2011, 2012, 2013; International Council for Small Business, Stockholm; Swiss Seminar "Methods in the Social Sciences", Lugano)

09/09 – 08/13	**Teaching Assistantships** "Introduction to Entrepreneurship" and "Entrepreneurship & New Venture Strategy" on undergraduate- and graduate level, Prof. Marc Gruber "International Negotiation" graduate level class, Lecturer: Barbara Boldt (MSc.)
11/08 – 08/09	**Student Research Assistant** Chair of Entrepreneurship and Technology Commercialization, Prof. Dr. Marc Gruber Preparation of an international research project on necessity entrepreneurship
04/08 – 09/08	**BMW Financial Services Switzerland AG, Dielsdorf, Switzerland** Internship "Benchmarking the Data Quality of Credit Rating Agency's" Business development support
10/06 – 02/07	**MessWerk GmbH, Braunschweig in Cooperation with the Technical University of Braunschweig, Germany** Development of a control force measurement system for small aircraft
06/04 – 08/04	**AUDI AG, Ingolstadt, Germany** Internship metal processing & machining

EXTRACURRICULAR ACTIVITIES

06/10 – present	**Private Stakeholder in Several New Venture Projects** Strategic Consulting, Operational Support & Seed Financing of Several High-Growth Startups in Switzerland and Germany
04/10 – 04/11	**École Polytechnique Fédérale de Lausanne (EPFL), Switzerland** Co-Organizer of an "Early-Stage Investor Training Program" offered by the "A3 Angels" Business Angel Association of EPFL
03/07 – 04/08	**RWTH Aachen University, Germany** Participation in various Entrepreneurship related activities from the WIN - Chair at RWTH Aachen (Prof. Dr. Malte Brettel) as well as the associated Gründerkolleg

ADDITIONAL INFORMATION

Languages	German (mother tongue), English (business fluent), French (business fluent), Spanish (basic)
IT	MS Office, LaTeX, STATA, Image Processing, Quantitative Data Analysis, OpenERP
Hobbies & Interests	Argentine Tango, Biking, Skiing, Windsurfing, International Politics and Culture, Travelling, Computers and Technology

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