

THE RELATIONSHIP BETWEEN CHILDHOOD CHARACTERISTICS AND THE INVOLVEMENT IN ENTREPRENEURIAL ACTIVITIES AND NEW VENTURES

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GEM	Global Enterprise Monitor
BFPT	Big Five Personality Traits
CI	Confidence Interval
GLM	General Linear Model
SD	Standard Deviation

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ABSTRACT

Various research has identified that childhood characteristics have a significant relation on the individual's desirability and intention to become an entrepreneur. However, too little is known what relation those childhood factors have on the involvement in entrepreneurial activities and how previous significant relationships change when the factors are viewed as one entity. Therefore, the purpose of this study is to find out if the weighted sum of those factors have a significant relationship with the individual's actual involvement in entrepreneurial activities and the creation of new ventures.

This study assessed with the help of a univariate analysis of variance and a sample of 103 individuals, obtained via online survey, which suggested childhood factors, namely, family business background, migration background, difficult childhood, frequent relocation and financial distress as the independent variables have the strongest relationship to the dependent variable individual's involvement in entrepreneurial activities and new ventures.

The analysis revealed, when viewing the childhood factors as a unit, only migration background and financial distress have a significant positive relationship to the dependent variable, while the other independent variables show no scientific significant relation.

This study contributes to the existing body of literature by bringing a new perspective and insights to the understanding of the origin regarding entrepreneurship and the individual's involvement. From a managerial perspective, the awareness that especially migration background and financial distress influence and shape the individual's character to become involved in starting his own business, gives evidence that governments need to develop policies and programmes to encourage and support children and their parents if they aim to increase their economic potential which also depends on increasing the percentage of entrepreneurial activities and new ventures in their country.

1. INTRODUCTION

There has been an extensive debate about a universal definition for the term entrepreneurship; to-date the scholars and scientists could not agree on one particular (Abaho, Olomi and Urassa, 2013; Peroni, Riillo and Sarracino, 2016 and Jaskiewicz, Combs and Rau, 2014). Already Schumpeter noted in 1934 that entrepreneurship consists of the new entrance of markets, adopting innovative production technologies and new ways of organising business activities. According to the European Commission (2017), the emphasis lies on the *individual's capabilities* rather than on groups or organisations: “[...] Entrepreneurship is an individual’s ability to turn ideas into action. It includes creativity, innovation, risk taking, ability to plan and manage projects in order to achieve objectives.” (European Commission, 2017). There is the certain belief upon earlier discussions that the individuals involved have some common personal characteristics and habits, such as a higher risk-taking propensity, the typical ‘thinking outside the box’ or the ‘expert mind-set’ which they use in order to be successful in entrepreneurial activities and new ventures (Abaho, Olomi and Urassa, 2013; Krueger, 2007).

Entrepreneurial activities are the ability to explore and assess opportunities before they pass, to create wealth and, according to Kirton (1976), doing things differently. Furthermore, several investigations support the theory that psychological attributes which are related to the involvement in entrepreneurial activities can be explained by cultural differences or several influential factors such as gender, age or working experience (Do Paco, Ferreira, Raposo, Rodrigues and Dinis, 2013). One key implication, according to Krueger (2007) and based on the empirical work of Ericsson and Charness in 1994, is that “[...] experts, including entrepreneurs, are definitely made, not born” (p.123). In this regard, being an individual who is involved in entrepreneurial activities and new ventures, has its starting point at the very beginning of the individual’s development. Therefore, it might be considered as a process one undergoes over a period of time and formed by different life events (Almquist and Brännström, 2014). In psychological research as well as research in entrepreneurship, it is to date well established that circumstances in childhood have a significant impact on the general mental and physical health and well-being of adults (Almquist and Brännström, 2014; Hagger-Johnson, Batty, Deary and von Stumm, 2011). Researcher have found out that the years between the 5th and 11th age of childhood impact adulthood and the career path the most (Anderson, Leventhal, Newman and Dupéré, 2014). One considerable example is the famous entrepreneur Elon Musk who admits that his childhood formed him extensively into who he is today (Kosoff, 2015).

In this regard, it is astonishing that very few studies in entrepreneurship research have examined quantitatively the effects of childhood characteristics or which specific childhood factors could influence various character traits of individuals and consequently, differentiate entrepreneurs from ordinary managers. Most scholars focus on the entrepreneurial intention of individuals rather than on the behaviour and involvement in activities per se (e.g. Drennan, Kennedy and Renfrow, 2005; Krueger, Reilly and Carsrud, 2000).

Previous research has found that for example the relation between family business background and self-employment is positive in regard to entrepreneurial intention (Obschonka et al., 2010; Edelman, Manolova, Shirokova and Tsukanova., 2016; Bird and Wennberg, 2016). Additionally, literature states that migration background tends to have a negative impact on the involvement in entrepreneurial activities due to prejudice and poor education (Lüdemann and Schwerdt, 2016; Peroni et al., 2016; Desiderio and Salt, 2010). Other scholars have identified that frequent relocation (Bramson et al., 2016; Anderson et al., 2014; Rumberger and Lim, 2008; Adam; Chase-Lansdale, 2002), difficult childhood (Drennan et al., 2005; Almquist and Brännström, 2014 and Hagger-Johnson et al., 2011; Malach-Pines, Sadeh, Dvir and Yofe.Yanai, 2002) and financial distress (Jayawarna Jones and Macpherson, 2014; Cetindamar , Gupta, Karadeniz and Egriçan, 2012) are also essential elements during childhood which influence future career and especially entrepreneurship the most.

As can be seen, prior research identified crucial elements that have a relationship to the involvement of entrepreneurial activities and new ventures. However, to the author’s knowledge, researchers have not considered yet, how the weighted sum of the elements impact the individual’s involvement or which one has the strongest significant relation. Additionally, research has primarily focused on entrepreneurial intentions, activities and behaviours in adults (Drennan et al., 2005; Bergmann et al., 2016) while still too little is known about how those ideas and motivations have evolved during childhood (Drennan et al., 2005). Therefore, the goal of this research is to investigate the qualities which originate in one’s childhood, evolve and shape the settled knowledge structures over time and finally promote the involvement in entrepreneurial activity and new ventures (Bergmann et al., 2016).

The present study addresses the question which and how those specific childhood characteristics impact the behaviour of an individual to become involved in entrepreneurial activities and new ventures, either inside or outside the job, in the future. Thereby the focus lies on behavioural attributes which were influenced and formed by their experiences during childhood. Therefore, the research question is as follows:

Which of the suggested childhood characteristics has the strongest relation on individuals to become involved in entrepreneurial activities and new ventures?

The research question was answered by collecting and studying a sample of 103 individuals of which 44 are considered to be involved in entrepreneurial activities and new ventures. This study analysed the effects of the theoretically derived independent variables “family business background”, “migration background”, “frequent relocation”, “difficult childhood” and “financial distress” on the dependent variable “involvement in entrepreneurial activities and new ventures” by conducting a univariate analysis of variance. The results revealed that “migration background” which was expected to have a negative relation, surprisingly has a significant positive relationship. Furthermore, the study also reveals that financial distress has a positive relation with the involvement in entrepreneurial activities and new ventures. All other independent variables

show no significant relationship to the dependent variable. The results will be further explored in the discussion section of this paper.

From a managerial perspective, the awareness of those factors which influence and shape the individual's character to become involved in starting his own business, is crucial if governments want to be successful in developing policies and programmes to encourage and support entrepreneurial activities and new ventures within different cultures (Drennan et al., 2005; Kisfalvi, 2002; Almquist and Brännström, 2014). Therefore, the development of entrepreneurship requires social and economic conditions that promote those activities as well as the capability of individuals to create and sustain productive new ventures (Almquist and Brännström, 2014). By providing a new holistic view on how childhood characteristic can affect the actual involvement in entrepreneurial activity and new ventures, existing knowledge is brought into new perspective by combining established elements and bringing new insights to the understanding of the origin of entrepreneurship and the individuals involved.

This paper is structured as follows. Firstly, I present the theoretical background relating childhood characteristics to entrepreneurs' behaviours. This is followed by a description of the methodology including the sample and the measures. Next, the findings are stated and discussed. The paper ends with concluding remarks highlighting implications for researchers, practitioners and educators and the potential of further research.

2. LITERATURE REVIEW

2.1 Defining entrepreneurs and entrepreneurial activities in new ventures

Bolton and Thompson (2000) have defined entrepreneurs as individuals who recognize opportunities and are able to create and innovate something out of it. Those opportunities can be economic or social; it does not matter, since entrepreneurs either social or business, have the same characteristics and want to champion change and make a difference (Thompson, 2004). Innovative entrepreneurs by definition, attempt to change the routines and competencies so that they differ significantly from the existing entrepreneurs in the market (Littunen, 2000). Additionally, Bosma (2013) defines with the aid of the organisation Global Enterprise Monitor (GEM), the largest ongoing study of entrepreneurial dynamics in the world, entrepreneurship as a process which includes several steps rather than one single phase decision. The steps consist of the actual interest in starting a new business, the intention to start it, effectively starting it and the survival of the new firm (Bosma, 2013; Peroni et al., 2016). Consequently, entrepreneurs are characterized as individuals who try to outset a business in an already established industry.

According to Allinson et al. (2000), entrepreneurial activities can be divided into three key elements: i) the motivation to create wealth and increasing profits, ii) the ability to explore opportunities for wealth creation and iii) judgement that is knowing which opportunities are worth pursuing. Especially, the capability of recognizing opportunities and weighing its worth are seen as essential elements in entrepreneurial activities, since the identification of such opportunities

creates the option to develop an idea and in the end a new venture. That is why the study of Busenitz and Lau (1996) has found that an important factor for entrepreneurial activities is also being able to manage uncertainty, dealing with complexity and to make decisions before potential opportunities have passed.

Furthermore, entrepreneurial activities are nowadays often connected to new ventures in which individuals either independently or in teams build a business to create financial gain. Often new ventures are based on the demand for specific products or services for which the market lacks supply, or the new venture has developed a product that reveals a customers' need (Gartner, 1985). Further, the active involvement in new ventures does not need to be connected to the current employment of the individual, it can also be a past-time activity. Usually this involvement in entrepreneurial activities within a team to create a new venture is linked with quitting the current job later in time, in order to fully focus on the new venture and its success (Katila, Chen and Piezunka, 2012). The tasks of an individual who is actively working on a new venture can differ immensely. According to Robehmed (2013) the involvement in new ventures is not accurately defined and the entrepreneurial activities within the new venture can vary greatly. While some are interested in the strategic and financial part and need to contribute financial resources to the organisation, for instance with the help of crowdfunding platforms, others are more technically talented and help to build up the whole infrastructure of the firm (Robehmed, 2013).

Important to note is that the study of Kirton (1976) has found that individuals who are involved in entrepreneurial activities differ in their abilities to either 'do things better' or 'do things differently' in business (p. 622). Further, he distinguished between adaptors who, if confronted with a problem, use conventional paths and derive the needed ideas from established procedures whereas innovators (who are entrepreneurs before starting venture) attempt to solve a problem by approaching it from a new angle. Individuals need to do things differently in order to become involved in entrepreneurial activities, otherwise they do not differentiate from ordinary employees who try to improve certain products or services.

This paper uses a combination of the aforementioned definitions and uses the elements on which literature agrees upon: The involvement in entrepreneurial activities within new ventures is the active pursuit of unique opportunities either within or outside the job, the ability to simultaneously manage uncertainty, dealing with complexity, to make decisions before potential opportunities are passed and the actual performance to set up a business in future. Individuals who are involved in entrepreneurial activities are defined as people who do things differently or who have the ability to observe ideas from various perspectives.

2.2 Defining the childhood characteristics

In the following paragraphs, the hypotheses will be formulated based on current literature. Each childhood characteristic is defined separately and assessed in order to reveal if a positive or negative relation towards entrepreneurial activities is present.

In general, the learning process of human beings is a lifelong experience and is categorized into the stages of childhood, adolescence and adulthood (Boz and Ergeneli, 2014). The stage of childhood is divided into early (birth to 54 months old) and middle childhood (4,5 to 11 years old). In these both periods, children develop and learn key physical stages such as social contact within the environment or cooperation and participation with others which help them to form specific characteristic behaviours (Sciencenetlinks, 2016; Anderson et al., 2014). Coherently, children are commonly seen as reflections of the parental social class, their financial income and the housing conditions (Cetindamar, Gupta, Karadeniz and Egrican, 2011), whereas negative circumstances in childhood might have a significant impact on the general mental and physical health and well-being of adults which might result in poor long-term health or social incompetencies (Almquist and Brännström, 2014; Hagger-Johnson, Batty, Deary and von Stumm, 2011).

The study of Schultheiss, Palma and Manzi (2005) revealed that during middle childhood, children begin to develop a self-concept in which the identification with key figures in their direct environment takes place. Those key figures which evolve in school and within the family can have dramatic influence on the later career path either in a positive or negative way. The scholars state that the career interests become stable during middle childhood, because in this age children develop the ability to evaluate and to be more realistic about aspirations and expectations in later career. Additionally, Trice and McClellan (1993) have found evidence that the close social environment is the essential predictor for the children's career. Parents who are satisfied with their jobs and hold esteem within the community are the ones who most likely impact the career choice of the children. The scholars Anyadike-Danes and McVicar (2005) have run a longitudinal study in which they tested the effects of childhood influences on career paths. They have found that having a father who has a low social class and suffer from long-term unemployment during childhood foster the children to have a stable employment later in the career. In contrast, children with high educated fathers have a higher probability to become well educated and involved in entrepreneurial activities or to become self-employed. In this regard, the identification with the key figures in the close social environment of the children is able to show the career direction. Children tend to strive for a successful career, when the key figures have a positive effect on them.

Concerning entrepreneurial activities, one can identify various factors that trigger the intention and the actual involvement to start a business such as unemployment or the idea of creative freedom. This decision can also be influenced by specific life situations or cumulative events over the lifetime, specifically during childhood (Drennan et al., 2005). Those events or situations during the childhood can have a crucial impact on the later adults (Boz and Ergeneli, 2014). The example of Elon Musk who is one of the most successful entrepreneurs worldwide stated in an interview that his difficult childhood was the greatest motivation to change the direction of his life. Being bullied, experiencing the divorce of his parents and having an emotionally abusive father had been the vital factors that made him leave his home country, South Africa, and to make career in the United States of America (Kosoff, 2015).

In this paper, the focus lies on the stage middle childhood, since this phase, according to Drennan et al. (2005), is the most influencing one within the close social environment and is seen as the most profound stage impacting the career choice. The human brain is in this phase greedy for knowledge and inquisitive (Drennan et al., 2005). In line with the example and according to Boz and Ergeneli (2014) and Almquist and Brännström (2014), entrepreneurship is mostly influenced by middle childhood. Additionally, in alignment with several scholars (Anderson et al., 2014; Drennan et al., 2005; Nicolaou and Shane, 2009) the significant factors during middle childhood which influence entrepreneurial activities the most, are: family business- and migration-background, frequent relocation and difficult childhood as well as financial distress. The following section describes each term separately.

Family business background

Growing up in a family in which at least one parent is self-employed, increases generally the possibility to become self-employed in the future as well. The parents serve as role models and present a realistic job preview (Chlosta, Patzelt, Klein and Dormann, 2012). Hence, attitudes and behaviours within the family have vital importance in the child's psychology, personal characteristics, cognitive as well as mental development (Kisfalvi, 2002). Iraz (2005) emphasises that education, manners and attitudes towards children can possibly have three effects on the entrepreneurial intentions and abilities: these are either encouraging, limiting or have neutral effects. He developed a model in which he describes extroverted, proactive and high-achievement oriented families encourage ultimately as an encouragement for the children to become creative, open to experience and self-confident (Almquist and Brännström, 2014). Other encouraging effects are, for example, that children with family business background or even with entrepreneurial families can extensively benefit from being mentored by their parents and by having access to useful business networks (Chlosta et al., 2012; Jayawarna et al., 2014; Basu, 2010; Aldrich and Cliff, 2003). Further, children can develop the motivation to become intentional founders, since the parents serve as role models from whom they get resources to start a business and learn how to strengthen their perception to be able to master challenges related to an entrepreneurial career. Moreover, parents are able to teach their children how to increase 'perceived behavioural control' (Zellweger et al., 2010, p. 3), so that future stressful circumstances within the own business can be solved readily. However, according to several scholars (Jayawarna et al., 2014; Parasuraman, Purohit, Godshalk and Beutell, 1996; Kim and Ling, 2011), limiting effects can also appear in terms of entrepreneurial activities. Particularly, during childhood, the family and notably self-employed parents could suppress the creative potential for specific abilities in order to fit in their school system, close social environment and most importantly to their own ideal (Jayawarna et al., 2014).

Since the setting of this research lies on the involvement in new ventures, literature has found positive as well as negative evidence between the relation of family business background and future involvement in entrepreneurial activities. The positive ones such as the supply of a wide and useful network, the long-life experiences of the parents or family members and the extraverted attitude which the children can easily

adapt, outweigh the negative one of suppressing the creativity. Therefore, following hypothesis is assumed:

H1: Family business experience is positively related to the involvement in entrepreneurial activities and new ventures.

Migration background

Literature has identified various reasons why individuals would migrate to other countries or continents. Apart from political and war refugees, the main arguments to leave the home country are mostly the lack of prospects for career advancement, poverty and low incomes as well as other political reasons (Niebuhr, 2009).

Primarily, immigrants can be distinguished between first- and second generation. First generation migrants are individuals which are born in foreign countries and migrate to countries during their childhood. They usually grow up with both cultures and adapt to their current social environment (Danncker and Cakir, 2016). Second generation migrants are those who are born in the country to which the (grand-) parents have migrated before. Usually individuals from the second generation grow up with the country's culture and have more difficulties to identify with their original roots (Seaman, Bent and Unis, 2016). Studies in economic research fields show evidence that there is a higher propensity for first generation immigrants to become self-employed due to a set of specific characteristics. Since they are more risk-taking and have no fear of failure, they engage in entrepreneurial activities as well (Lüdemann and Schwerdt, 2013; Peroni et al., 2016). These developed character traits can be explained by a good education in their childhood and the permanent pressure from conservative parents to be successful (Peroni et al., 2016). In contrast, second generation immigrants grow up in less favourable socioeconomic environments which can be explained by prevailing social inequalities (Lüdemann and Schwerdt, 2016). Under these circumstances, children who do not grow up in their home country and have parents with migration background, have several drawbacks in their development and subsequent career. This is due to poor integration in the new culture and preserving prejudices (Lüdemann and Schwerdt, 2016).

According to Blume-Kohout (2016), a society with shared values, attitudes and traits such as personal ambition, drive to achievements, innovativeness, risk tolerance and the desire for autonomy, have the expectation to adhere more entrepreneurs. These factors are decisive, however, only in the case of developed countries. Astonishing is that within the process of becoming an entrepreneur, the difference between immigrants and nationals seems to disappear. Consequently, this means that immigrants do not have higher chances in succeeding as entrepreneurs compared to non-immigrants (Peroni et al., 2016; Desiderio and Salt, 2010). The work of Bird and Wennberg (2016) and Canello (2016) illustrate that immigrant entrepreneurship has increased during the last decade. Immigrants are more successful in entrepreneurship due to their family as either intangible resources, such as the access to information, knowledge and networks, or as tangible resources consisting of family labour and financial capital. Basu (2010) added immigrants tend to be more engaged in entrepreneurial activities, since they are either using their outsider status to identify opportunities or they face prejudice and try to avoid injustice in the labour market.

The former is related to the new and naïve perspective immigrants can take in foreign countries since they are not fully settled in the culture and are not restricted in their cognitive processes. Problems and potential solutions can be identified easier due to the diverse angles. The latter is about the discontentment in the labour market. Immigrants are often faced with the difficulty that governments do not accept their degrees and working experiences from their country of origin and need to decrease their expectations for an appropriate job. In order to avoid such issues, immigrants start to become involved in new ventures and become self-employed (Basu, 2010).

The literature is contradictive in regard to migration background. Scholars argue that first generation migrants have a higher tendency to become involved in entrepreneurial activities and create new ventures due to a set of characteristics such as being risk-taking and fearless, while the second generation has a lower tendency which is caused by social inequalities in foreign countries. Therefore, this study assumes the following hypotheses regarding migration background:

H2a: First generation migration is positively related to the involvement in entrepreneurial activities and new ventures.

H2b: Second generation migration is negatively related to the involvement in entrepreneurial activities and new ventures.

Frequent relocation

Since the individual's autonomy and adaptability to new situations are strongly related to entrepreneurship, it is crucial to understand how those autonomies and adaptabilities can be influenced. Frequent residential relocation which is defined as changing the residents to another city can be seen as an aspect of profound change (Vidal and Bexter, 2016). Evidence displays that nascent entrepreneurs "[...] were less likely to have lived their whole lives in the same geographical area and more likely to have lived in several places during their lives." (Vidal and Baxter, 2016, p. 1). The results of Bramson et al. (2016) emphasize that frequent relocation during childhood has a negative impact on the general attitude of achievement, but a positive impact towards autonomy, creativity and social contribution. Hence, the perceived desirability and feasibility to become engaged in entrepreneurial activities is influenced by residential relocations (Drennan et al., 2005).

In general, frequent relocation is related to poor academic performance in the beginning and during childhood but this is mostly due to specific family and social circumstances (Anderson et al., 2014). Families often move to other cities or countries because of long-term unemployment, for health reasons or problems within the close social environment. Usually adults regard the act of moving to another city as a chance to start from the bottom and to create a harmonic family life for their children. However, relocation can also result in cutting social ties and disruption in familiar environments which could decrease the emotional stability and increase the fear of losing beloved ones (Bramson et al., 2016). Moreover, relocations are often related to parental unemployment, low income or a disorganized family life (Pribesh and Downey, 1999). Those negative effects,

however, volatilise over time, since the individuals learn to adapt faster to new situations based on their improved autonomy and social manners which have evolved from early self-independence and the characteristic to handle everything by themselves (Rumberger and Lim, 2008; Adam and Chase-Lansdale, 2002; Anderson et al., 2014).

Since it generally appears through the literature that frequent relocation has first negative effects during childhood but evolves over time to increased autonomy, creativity and improved social manners and hence increase the probability to engage in entrepreneurial activities and new ventures, the following hypothesis is formulated:

H3: Frequent relocation is positively related to the involvement in entrepreneurial activities and new ventures.

Difficult childhood

Compared to the aforementioned factors during childhood, less attention has been paid to other childhood experiences that might shape the involvement in entrepreneurial activities and new ventures. Primarily, by comparing entrepreneurs with non-entrepreneurs, it stands out that entrepreneurs often experience a difficult childhood, identified with financial difficulties within the family (Drennan et al., 2005; Almquist and Brännström, 2014; Hagger-Johnson et al., 2011).

The study of Malach-Pines et al. (2002) has compared the childhood of those who are involved in entrepreneurial activities and want to start a new venture with ordinary managers and confirmed that they tend to differ in their family background. They have stated that frequently, those who are actively involved in entrepreneurship have poorer relationships especially with their fathers which result in feelings of rejection and suspicion in authorities. This can be explained by the fact that families and in particular parents develop certain principles that could allow constancy and predictability (Bratcher, 1982). As soon as those constancies which include mental support, attention and taking care of the well-being decrease, children develop the feeling of loneliness that later on turns into increased independence and autonomy (Bratcher, 1982). The aforementioned factors of autonomy and independence, in turn, form the individuals to be more risk taking, proactive, to have a higher level of independence and become self-employed (Drennan et al., 2005).

Moreover, those children who suffered from poor relationships and negative social environments, tend to use self-employment as the only way to escape from situations which they cannot control. Due to their immaturity, these individuals develop the need to control everything, so that working in an organisation as an employee in which they have to follow the rules of the management, is no option for them (Malach-Pines et al., 2002). However, insecurities and neglect, namely poverty, illness or personal tragedies can also form individuals to risk-averse and uncertain ones who prefer safe employment status in companies over own ventures. It is due to the fact that own ventures are often connected to risks and fear of losing business, as they have experienced the loss of their family in their childhood (Cox and Jennings, 1995).

The development of a negative attitude towards the involvement in entrepreneurial activities and new ventures

appears only, when the children experience the interaction of a difficult childhood and poor education (Malach-Pines et al., 2002). In contrast, those who experienced a difficult but undergo an adequate education, tend to become involved in entrepreneurial activities (Bratcher, 1982).

It generally appears through the studies that a difficult childhood can first have a negative impact in terms of insecurity but can evolve over time to higher level of independence, autonomy and risk-taking, therefore, I test the following hypothesis:

H4: Difficult childhood is positively related to the involvement in entrepreneurial activities and new ventures.

Financial distress during childhood

In terms of financial distress during childhood, it can be asserted that it has a negative impact on the potential to become involved in entrepreneurial activities and new ventures (Cetindamar et al., 2012). Usually, individuals who experienced insecure situations during their childhood tend to seek for long-lasting stability with a steady income later in life in order to avoid similar negative situations (Jayawarna et al., 2014).

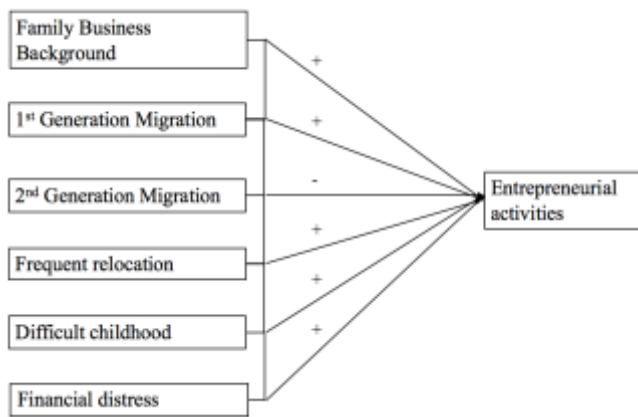
However, according to Jayawarna et al. (2014), the inclusion of human capital fosters a change in attitude towards the involvement in entrepreneurial activities and new ventures. It means that experiencing financial distress during childhood can be divided into two scenarios: i) children who suffer from financial distress and had no support from their family and ii) children who, although suffering from financial distress, have received enough support from their families (Jayawarna et al., 2014). More precisely, if the family has financial problems but is built as one strong unity and supports each other, there is the increased possibility to become involved in entrepreneurial activities and to develop the desire to create a new venture. The combination and results can be explained by psychological safety factors which influence children more dramatically than monetary terms could (Cetindamar et al., 2012).

The literature reveals two outcomes in regard to financial difficulties and the involvement in entrepreneurial activities and new ventures. The additional factor of human capital which is the mental support from family and the close social environment turns out to be the crucial factor for a positive outcome with regards to entrepreneurship. Thus, the following hypothesis will be tested:

H5: Financial distress during childhood is positively related to the involvement in entrepreneurial activities and new ventures.

Figure 1 below represents the model which will be tested based on empirical data.

Figure 1. Hypotheses construct



3. METHODOLOGY

3.1 Data and Sample

In order to test the aforementioned hypotheses, I used a sample of entrepreneurs with own ventures and non-entrepreneurs in organisations. Regarding the entrepreneurs, I sent the questionnaire directly to the contact person of the specific departments or the CEO's of the new ventures. The individuals have been selected based on their location, e.g. entrepreneurs from the Kennispark in Enschede or from the start-up scene in Berlin, Germany. Non-entrepreneurs have been randomly contacted via organisations (with more than 100 employees) they are working in and distributed to several departments, and via social media platforms, such as Facebook or LinkedIn.

This sample is internationally represented, since individuals from about 22 countries participated in this study. The survey was created with the programme Qualtrics and distributed online either via anonymous link, email or personal contact with the participants within a time frame of two weeks. After sending two reminders within those two weeks, I received 109 responses of which 103 are valid (94.5%), due to incomplete answering of the survey. Approximately 42.7% of the participants are entrepreneurs.

The used data in this study was collected from one questionnaire. Since systematic measurement errors can arise due to common method variance, a one-factor analysis has been done in order to check the items which were included in the model of the research (Podsakoff, MacKenzie, Lee and Podsakoff, 2003). With the single factor test, the loadings from all items are put into an exploratory factor analysis to see whether only one factor emerges or multiple factors account for the majority of covariance between the measures (Podsakoff and Organ, 1983). After conducting the test, it can be stated that 35.89% of the variance is explained by a single factor which means that not one factor played the crucial role in the observed responses. Consequently, the probability that common method bias is an issue, decreases (Podsakoff et al., 2003).

Design of the survey

In this study, I used a structured survey with closed questions so that the central theme is not be missed and a clear framework is given. An exception is the inclusion of three open questions regarding the variable migration background in order to give the participants the possibility to provide an

unlimited number of answers. In turn, it helped me to increase the accuracy of the variable migration background in terms of categorizing the participants into first and second generation immigrants. Additionally, structured surveys are, according to van Teijlingen (2014), well suited for confirmatory studies and to identify attitudes, beliefs and values. The benefit of structured surveys is that they are relatively easy to administer, can be developed in less time, are cost-effective, can reduce and prevent geographical dependence and enable to ask numerous questions about subjects by giving extensive flexibility in the data analysis (Ilieva, Baron and Healy, 2001). Moreover, closed-ended questions provide a greater homogeneity and usefulness considering the short time frame and scope of this research (Babbie, 2010).

Potential drawbacks of surveys can be the problem of straight lining so that respondents may not feel encouraged to provide honest and accurate answers (Ilieva, Baron and Healy, 2001). Moreover, data errors due to non-response can arise. The complexity can be solved through monitoring the results for straight lining and adulterating afterwards.

Generally, the survey in this study is based on dichotomous questions and questions adapted from the level of measurement such as Likert scale (Taylor, 2016). The mixture of these questions makes it possible to gain insight (and in-depth) knowledge from each respondent (van Teijlingen, 2014). Dichotomous questions are used for general concerns such as gender, questions with different levels of measurement are convenient to give the participant more options but still keep them structured and easy (van Teijlingen, 2014).

In total, 45 questions concerning 12 constructs have been asked. It started with the general perception of entrepreneurs and entrepreneurial activities within their region. Followed by the identification as an individual who is involved in entrepreneurial activities and new ventures. Afterwards, the questions concerning their childhood characteristics have been asked. At the end the control variables such as age, gender, working experience, job satisfaction, regional influence and the Big Five Personality Trait (BFPT) have been requested. The participants also had the option to leave an email address, if they were interested in the results.

3.2 Measures

Dependent variable:

The dependent variable is the involvement in entrepreneurial activities and new ventures. Since there are many instruments to measure entrepreneurship or more specifically the activities of those individuals, I decided to consider the six items from the Global Entrepreneurship Monitor survey and the study of de Castro, Maydeu and Justo (2005). Since some of these questions are out of the scope of this study, I conducted a factor analysis and chose the items with the highest loadings which are "Are you currently involved in a start-up / new venture?" with a loading of 0.903 and "Did you discover new venture opportunities within the last six months?" with a loading of 0.727. These indicators ask, if the individual is involved in entrepreneurial activities and if ideas have been discovered for a potential new venture. The items do not consider the current job status, which supports the findings of Hyytinen and Maliranta, (2008) that new venture creation and involvement in entrepreneurial activities and

new ventures is also possible next to a permanent job. Both are measured on a 7 point Likert scale (“1” = strongly disagree – “7” = strongly agree). In order to use the items, the values need to be re-coded. ‘Entrepreneurial activities’ are computed as one variable by calculating the mean of the two items. The higher the number of each respondent, the more they are involved in entrepreneurial activities and new ventures.

Independent variables

The independent variables in this study are the childhood characteristics.

Family Business Background

In order to measure family business background, I used the items from Carr and Sequeira (2006) and adapted the questions to the timeframe childhood of the respondents. I created an index upon the responses to the following three questions: 1. ‘Did a parent own a business during your childhood?’, 2. ‘Has a family member other than a parent owned a business during your childhood’ and 3. ‘Have you ever worked in a family member’s business?’. The possible answers here are “YES” and “NO” and re-coded as “1” = YES and “0” = NO. ‘Family Business Background’ is re-coded according to their counts and computed as one variable by calculating the mean of the three items. When a respondent has obtained a “3”, this means he has answered all three questions with a YES. Receiving a “2”, means 2 out 3 questions have been answered

with a YES, a “1” means only one question has been answered with a YES, and obtaining “0” signifies all questions have been answered with NO. Answering one question positively indicates that minimum a parent or a family member has owned a business which point out that the respondent has a family business background.

Migration Background

According to the study of Kleiser et al. (2009), a person with migration background is someone who has at least one parent with a different nationality than the local one. The scholars assessed migration by using information about current nationality, country of birth and language spoken at home. The questions “Current Nationality”, “Country of birth” and “Language spoken at home” have been asked as open questions, so that the respondents could give several answers if necessary. The answers were manually assigned to the categories first, second and non-generation migrant. Afterwards, the items have been computed to one variable based on their coding: “1” = First Generation Migrant, “2” = Second Generation Migrant and “3” = Non-Migrant. First generation migrants are those who are born in a foreign country and migrated with their parents to another. These respondents differ usually from non-migrants in their country of birth and/or grew up bilingual. To illustrate, person X has the German nationality, is born in the Netherlands and speaks German and Dutch at home. Second generation migrants are born in their current country, but have (grand-) parents who have migrated to the country. More precisely, it means person

Table 1. Construct and Item Description and Operationalisation

Construct	Definition	Original Item	Author and Cronbach's Alpha	Adopted Item
Entrepreneurial activities	The degree to which an individual is engaged in entrepreneurial activities	<ol style="list-style-type: none"> Are you currently involved in a start-up/new venture? Does your current job involve a start-up / new venture? Are you the owner/manager of a start-up / new venture? Have you been a business angel during the last three years? Have you met entrepreneurs during the last three years? Did you discover start-up opportunities within the last six months? 	GEM of 2003 & de Castro, Maydeu and Justo (2005)	Although all items are used in the survey, only the ones with the highest factor loadings were chosen for analysis <ol style="list-style-type: none"> Are you currently involved in a start-up / new venture? Did you discover start-up opportunities within the last six months?
Family Business Background	The degree to which a family member is self-employed / running own business	<ol style="list-style-type: none"> Does a parent currently own or have they ever owned a business? Does a family member other than a parent currently own or have they ever owned a business? Have you ever worked in a family member's business? 	Carr and Sequeira (2007); $\alpha > 0.8$	It was adapted to childhood: <ol style="list-style-type: none"> Did your mother/father own a business during your childhood? Has a family member other than a parent owned a business during your childhood? Have you ever worked in a family member's business?
Migration Background	The degree to which an individual is migrated to a country. Divided into 1 st and 2 nd generation migrants.	<ol style="list-style-type: none"> Current Nationality Country of Birth Language spoken at home 	Kleiser et al. 2009	It was asked using the original items <ol style="list-style-type: none"> Current Nationality Country of Birth Language spoken at home
Frequent Relocation	How many times an individual has moved to another city/country during childhood	<ol style="list-style-type: none"> In how many different cities/countries have you lived during your childhood? 	Drenan et al. (2005)	It was asked using the original item <ol style="list-style-type: none"> In how many different cities/countries have you lived during your childhood?
Difficult Childhood	The degree to which in individual suffered during childhood such as parents' divorce or negative social environment	<ol style="list-style-type: none"> I would describe my life experience prior to entering university as easy. Compared to my peers, my life experiences have been challenging. I've had to overcome a lot to get where I am today. 	Drennan et al. (2005); $\alpha > 0.73$	It was adopted to childhood by asking: <ol style="list-style-type: none"> I would describe my life experiences during childhood as easy Compared to others, my life experiences during childhood have been challenging. I've had to overcome a lot to get where I am today.
Financial Distress	The degree to which an individual suffered from financial difficulties during childhood due to low income	<ol style="list-style-type: none"> Do you or your spouse have any credit cards on which they owe the maximum amount allowed. In the last 5 years, have you completely missed a payment or been at least 2 months late in paying any of your bills? Did you or your spouse ever declare bankruptcy? 	Zagorsky (2007)	The questions were adopted to childhood: <ol style="list-style-type: none"> Did your parents completely miss a payment or been at least 2 months late in paying any of the bills? Did your parents ever declare bankruptcy?

Y has the German nationality, is born in Germany but speaks more than one language at home.

The question 'language spoken at home' is a key indicator that the parents are migrants (Kleiser et al., 2009). Non-migrants have only one nationality and speak solely the country's language at home.

Frequent Relocation

Frequent relocation is measured by asking in how many different cities/countries the respondents have lived during their childhood: one/two-three/four-five/six-seven/ more than eight (Drennan et al., 2005). Frequent relocation is a categorical variable and consists of one item, therefore the counts 1 to 5 represent the number of relocations. "1" = the person has lived in one city during childhood; "2" = the person has lived in two-three cities during childhood; "3" = the person has lived in four-five cities during childhood; "4" = the person has lived in six-seven cities during childhood and "5" = the person has lived in more than eight cities during childhood. According to Drennan et al. (2005), a person who lived in two to three different cities during childhood (equals the count "2" and higher) is considered as an individual who has experienced frequent residential relocation.

Difficult Childhood

Concerning difficult childhood, I used the three question items from Drennan et al. (2005). These questions are answered by a 7 point Likert scale ("1" = strongly disagree – "7" = strongly agree) and contain: 'I would describe my life experiences during childhood as easy', 'Compared to others, my life experiences during childhood have been challenging (e.g. divorce, stress, negative social environment)' and 'I've had to overcome a lot to get where I am today'. The item "I would describe my life experiences during childhood as easy" is positively formulated, while the others negatively. Thus, the item was re-coded in which the Likert scale "1" = strongly disagree – "7" = strongly agree was transferred to "7" = strongly disagree – "1" = strongly agree. The calculated mean of those three items was computed as one variable. The closer the count to "7" the more the respondent suffered during childhood. Participants who responded with a "5" or higher, are considered as an individual who experienced a difficult childhood (Allen and Seaman, 2007).

Financial Distress

Financial distress is generally to live beyond one's mean (Zagorsky, 2007). Zagorsky stated in his article that family income is based on the following items (p.4):

Family income = Wages
+ Alimony + Child Support
+ Education Grants
+ Other Income + Gifts
+ Welfare + Food Stamps
+ Unemployment Insurance
+ Worker Compensation

In order to measure financial distress during childhood, I used Zagorsky's items and added the component childhood: "During childhood, have your parents completely missed a payment or been at least 2 months late in paying any of the

bills?" and "Have your parents ever declared bankruptcy?". The items are re-coded according to their counts, as "1" = YES and "0" = NO. Since there are two questions, three outcomes per respondent are possible: "0" = the respondent answered both questions with "NO"; "1" = the respondent answered one of the two with "YES" and "2" = the respondent answered both questions with "YES". Participants who has a minimum count of "1" are considered as those who experienced financial distress during childhood (Zagorsky, 2007). It means that the parents either missed payments or declared bankruptcy.

Control variables

In this study, the inclusion of control variables is necessary in order to rule out alternative explanations for the findings (Becker, 2005). Generally, control variables are able to reduce error terms and can increase the result's statistical power (Schmitt & Klimoski, 1991). However, the results of the study might suffer from internal and external validity, if control variables are not included, since one variable whether the dependent or independent one might be affected (Shuttleworth, 2008). In this current study, six control variables are considered to have a reasonable influence on the dependent variable, those are: age, gender, job satisfaction, working experience, regional influence and the Big Five Personality Traits (BFPT) and can be found in Appendix 10.2.

Concerning BFPT and to test if specific character traits influence the probability to become involved in entrepreneurial activities and new ventures, the ten items of Rammstedt and John (2007) are used. Since literature states that particularly the character traits extraversion and conscientiousness are known to have an effect on entrepreneurship, I selected three items which refer to extraversion and conscientiousness. These two traits are known to be intensively present in the character traits of entrepreneurs (De Feyter et al., 2012). The items are "I see myself as someone who is outgoing / sociable" which measures extraversion, "...as someone who does a thorough job", representing conscientiousness, and "... as someone who is relaxed / handles stress well" for extraversion. Those three items are originally asked on a 5 point Likert scale (Rammstedt and John, 2007). Following the recommendation of Allen and Seaman (2007) to have an increased accuracy, I decided to extend them to a 7 point Likert scale ("1" = strongly disagree – "7" = strongly agree) and to adapt them to the other variables. The variable that is calculated by the mean of those three questions.

The control variable age is a crucial element which might reveal to what extent the age of an individual is influencing the dependent variable or has a reasonable effect on the involvement in entrepreneurial activities and new ventures (Lêvesque and Minniti, 2011). It is kept on a scale level and does not need to be re-coded or categorized.

Moreover, gender is also considered to be a crucial element in measuring who is more involved in entrepreneurial activities and new ventures (Rehman and Roomi, 2012). Men tend to be more involved in entrepreneurial activities and new ventures than women due to their higher risk-taking behaviour, their enhanced motivation for competition, reduced fear and altered balance between sensitivity and

punishment (Sapienza, Zingales and Maestriperi, 2009). Gender is coded as “1” = Female and “2” = Male.

Job satisfaction is asked by the question “How high is your current job satisfaction?” (Lee et al., 2009) and is categorized and coded into three categories “1” = low, “2” = medium and “3” = high. Job satisfaction seems to be an essential factor when individuals decide to become involved in entrepreneurial activities and new ventures. According to Wincent and Örtqvist (2006), the lower the satisfaction in the current job, the higher the probability to become involved in entrepreneurial activities.

Furthermore, regional influence is also seen as an essential factor that could influence the behaviour of an individual (Kipler, Kautonen and Fink, 2014). According to Lèvesque and Minniti (2011) the quantity and quality of business incubators such as innovative clusters or universities might shape a positive attitude towards the involvement in entrepreneurial activities and new ventures. It is re-coded to one variable with the mean of all seven items which are “the activity of entrepreneurs in my place of residence improves the quality of my own life”, “the values and beliefs of entrepreneurs in my municipality are similar to my own”, “entrepreneurs in my place of residence contribute to the well-being of local people”, “local entrepreneurs operate according to the commonly accepted norms in my place of residence”, “the activity of entrepreneurs in my place of residence supports the local economy”, “the activity of entrepreneurs in my place of residence is necessary” and “the absence of entrepreneurs in my place of residence is inconceivable”.

Finally, working experience is regarded as one of the most important factors which could influence the involvement in entrepreneurial activities. Scholars state that the higher the working experience, the higher the probability to become involved in new ventures (Hamilton, 2000; Lee et al., 2009). It consists of one item and is divided into four categories “1” = 0-3 years, “2” = 4-8 years, “3” = 9-15 years and “4” = >15 years.

3.3 Analysis

This study makes use of the IBM SPSS statistics software in order to analyse the quantitative data. The SPSS software is a combination of products which addresses the entire analytical process, starting from the planning of data collection up to the reporting and deployment (Aljandali, 2016). It is used in various research fields such as in economics, psychology or behavioural sciences (Aljandali, 2016; Landau and Everitt, 2003). The programme Qualtrics in which the data of the surveys is collected, transfer the data automatically into a SPSS file.

In order to test the aforementioned hypotheses, a univariate analysis of variance is done to see if and which of the independent variables family business background, financial distress, difficult childhood, migration background or frequent relocation have the strongest relation with the dependent variable involvement in entrepreneurial activities and new ventures. The univariate analysis of variance is a general linear model (GLM) in which the calculations are done using a least squares regression. It helps to describe the relationship between one or several predictors and a response

variable (Trochim, 2006). The GLM is appropriate for this study, since it gives a clear framework for comparing how several variables at once affect a different continuous variable (Goebel, 2014). The advantage is its generalisability which helps to handle a wide variety of variables including non-numerical ones (Trochim, 2006). GLM is mathematically identical to a standard multiple regression analysis but emphasizes its suitability for multiple qualitative and quantitative variables (Goebel, 2014). Moreover, it is suited to implement any parametric statistical test with one dependent variable but includes factorial ANOVA design to analyse covariates as well (Goebel, 2014). From a mathematical perspective, the GLM and in this case univariate analysis aims to predict the variation of a specific dependent variable in terms of a linear combination (the weighted sums) of several independent variables (Trochim, 2006). The independent variables are also called predictors and are usually defined by setting values of 1 and 0. Each predictor gets an associated beta weight (coefficient) by quantifying its potential contribution in explaining the effect on the dependent variable. Due to noise fluctuations, an additional error value is added in the system of equations. The general formula can be seen below:

$$y_1 = b_0 + b_1X_{11} + \dots \dots \dots + b_p X_{1p} + e_1$$

Where y is the dependent variable and is explained by the terms on the right side. Depending on how many predictors are used in the study, the formula extends by one beta coefficient. Since it is a parametric modelling method several assumptions and pre-test are required which are presented in the following section.

4. RESULTS

Before analysing the data and to check for possible relations, several tests needed to be done beforehand. The results of the descriptive statistics can be found below in Table 2. (Anderson, 2001). In this study, I used Spearman's correlation coefficient which is appropriate for ordinal and not normally distributed data, in order to test the correlation of the variables and is measured within a range -1 and 1. The mean that illustrate the central tendency of the data ranges from 0.34 to 33.86 whereas the Standard Deviation (SD) which point out the dispersion is between 0.5 and 10. The correlation matrix shows to what extent the variables are correlated with each other. In this case the correlations are between -0.393 and 0.859. The control variables age and working experience show a slight correlation. According to Chung et al. (2015) it is expected, since the older a person gets, the greater is the amount of working experience. Since the correlation between control variables do not influence the coefficients of the variables, the analysis was continued (Allison, 2012).

Additionally, a collinearity diagnostics was conducted to check for multicollinearity between the independent variables. Multicollinearity is the correlation among the independent variables themselves. Within this collinearity diagnostics, the variance inflation factor (VIF) is the key indicator (Allison, 2012). Although there is a controversy between researchers about the threshold of the VIF, most of them recommend not to exceed the value of 10 while a VIF below 5 would be even better (O'Brien, 2007). In this case, the VIF does not exceed 4.254 (see Appendix 10.4).

Table 2. Descriptive Statistics

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. Entrepreneurial activities	4.6456	1.91566	1											
2. FamilyBusiness	1.0583	1.08307	.248*	1										
3. Migrationbackground	2.699	0.52084	-.376**	0.016	1									
4. FrequentRelocation	1.7379	0.87404	.281**	0.017	-.245*	1								
5. DifficultChildhood	11.58225	4.65164	.255*	-.037	-.313**	0.122	1							
6. FinancialDistress	0.3398	0.63483	.390**	0.11	-.325**	.204*	.376**	1						
7. BFPT	5.2484	0.8896	.136	0.078	-0.051	-0.036	0.032	0.044	1					
8. WorkingExperience	2.3689	1.12014	0.044	-.161	-0.142	0.08	0.101	-0.058	-0.183	1				
9. JobSatisfaction	2.4369	0.60504	0.055	0.014	-0.109	0.024	-0.09	0.07	.234*	0.101	1			
10. Gender	1.5437	0.50052	0.186	-0.124	-.322**	0.105	0.183	-0.045	-0.093	.346**	0.141	1		
11. RegionallInfluence	4.9182	0.70968	.276**	.295**	-0.037	0.081	-0.043	0.048	.221*	-0.053	.276**	0.125	1	
12. Age	33.8641	10.00495	0.097	-0.182	-.282**	0.176	0.158	0.019	-0.189	.859**	0.178	.447**	-0.101	1

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

4.1 Validity

According to Babbie (2013) “validity refers to the extent to which an empirical measure adequately reflects the real meaning of the concept under consideration” (p. 191). Hence, researchers need to verify that the chosen constructs of the study measure what they supposed to. In line with Harman (1976), conducting a factor analysis can help to test discriminant validity of the various scales. This test includes the Kaiser-Meyer-Olkin measure of sampling adequacy (KMO). The analysis shows a KMO of 0.720 which is in line with Fabrigar and Wegener (2011) who recommend a level of 0.5. This demonstrate that the sample size is large enough. Additionally, the Bartlett’s test of sphericity which tests whether there is a certain redundancy between the variables, is highly significant (p=0.000) so that the correlations are large enough to continue the analysis (see Table 3 below for the results).

Table 3. KMO and Bartlett’s Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0,720
Bartlett’s Test of Sphericity	Approx. Chi-Square	71,001
	df	15
	Sig.	0,000

4.2 Reliability Measures

Although all scales and items in this study are validated by previous research, those variables which include diverse items have been tested to determine the reliability. Thereby the Cronbach’s alpha is used. Cronbach’s alpha measures the internal consistency and ranges between 0 and 1. The closer the coefficient to 1, the greater the internal consistency of those items in the scale (Bonett and Wright, 2014). In this case, the variables family business background, difficult childhood and financial distress have been tested since the others consist of only one item. The results can be seen in Table 4 below.

Table 4. Cronbach’s Alpha

Construct	Cronbach’s alpha	N of items
Family Business	0.639	3
Background		
Difficult Childhood	0.831	3
Financial distress	0.640	2

The literature does not agree what the minimum level of Cronbach’s alpha is. Some argue a minimum threshold of 0.7 whereas others state that everything above 0.6 is enough for preliminary research (Bonett and Wright, 2014; Peterson, 1994; Nunnally, 1967). Since the results are all above 0.6 and one even above 0.8, it can be stated that internal consistency among the items exists. The reason why the alpha of family business background and financial distress are lower than difficult childhood, is that Cronbach’s Alpha is more commonly used for items which are measured on a level such as Likert scale (Gliem and Gliem, 2009).

4.3 Univariate Analysis of Variance

The results of the analysis which contains the parameter estimates and beta coefficients are presented in Table 5. The model includes the independent as well as the control variables. The results show with a 90% confidence interval (CI) that H1 family business background, has no significant relation with entrepreneurial activities and the involvement in new ventures (B= 0.255; p=0.125). Hence H1 is rejected and emphasize that having a family business background either via parents or a family member does not predict becoming involved in entrepreneurial activities and new ventures. Following H2a, the results do confirm a positive relationship with the individual’s involvement in entrepreneurial activities and new ventures (First Generation B= 2.380; p=0.036). However, H2b which states that second generation migrants have a negative relation with the involvement in entrepreneurial activities, was rejected. The results reveal a significant positive relation (B= 0.927; p= 0.059). This signifies that having a migration background, the more likely it is that one involves oneself in entrepreneurial activities and new ventures. Moreover, the analysis reveals that frequent relocation during childhood, which represents H3, does not have a significant relation with the involvement in

Table 5. Parameter Estimates

Dependent Variable: EntrepreneurialActivities						
Parameter	B	SD	t	Sig.	Confidence Interval	
					Lower Bound	Upper Bound
Intercept	3.012	3.032	0.993	0.323	-2.032	8.056
FrequentRelocation= 1	-1.617	1.701	-0.951	0.344	-4.447	1.212
FrequentRelocation= 2	-0.86	1.721	-0.5	0.619	-3.723	2.004
FrequentRelocation= 3	-0.882	1.762	-0.501	0.618	-3.813	2.049
FrequentRelocation= 4	-1.662	2.013	-0.825	0.412	-5.011	1.688
FrequentRelocation = 5	0a	.	.	.	.	.
FinancialDistress = 0	-0.844	0.684	-1.235	0.22	-1.981	0.293
FinancialDistress = 1	0.102	0.741	0.138	0.891	-1.131	1.335
FinancialDistress = 2	0a	.	.	.	.	.
MigrationBackground = 1	2.380	1.119	2.126	0.036	0.518	4.243
MigrationBackground = 2	0.927	0.484	1.916	0.059	0.122	1.732
MigrationBackground = 3	0a	.	.	.	.	.
FamilyBusiness	0.255	0.165	1.548	0.125	-0.019	0.53
DifficultChildhood	-0.017	0.044	-0.402	0.689	-0.09	0.055
Gender = 1	-0.445	0.388	-1.147	0.255	-1.091	0.2
Gender = 2	0a	.	.	.	.	.
JobSatisfaction = 1	-0.403	0.746	-0.54	0.591	-1.645	0.839
JobSatisfaction = 2	0.425	0.375	1.135	0.26	-0.198	1.048
JobSatisfaction = 3	0a	.	.	.	.	.
WorkingExperience = 1	-0.478	0.898	-0.533	0.596	-1.972	1.016
WorkingExperience = 2	0.964	0.77	1.252	0.214	-0.317	2.246
WorkingExperience = 3	0.427	0.618	0.691	0.492	-0.601	1.454
WorkingExperience = 4	0a	.	.	.	.	.
Age	-0.002	0.035	-0.058	0.954	-0.061	0.057
RegionalInfluence	0.383	0.255	1.503	0.137	-0.041	0.807
BFPT	0.215	0.199	1.081	0.283	-0.0116	0.546

entrepreneurial activities and new ventures (B= between -1.662 and -0.86; p= between 0.618 and 0.323). Therefore, H3 can be rejected. According to literature, difficult childhood (H4) can have a strong positive relation towards entrepreneurial activities and the involvement in new ventures, however, the results represent no significant relation within this sample (B=-0.017; p=0.689). Finally, H5 which states that financial distress has a positive relation with entrepreneurial involvement, has been supported (B=0.102; p=0.10) This reveals that financial distress does have a positive relation with entrepreneurial activities and new venture involvement. In order to test if the control variables age, gender, working experience, job satisfaction, regional influence and BFPT effect the dependent variable and hence the results, the analysis was first done only with the control variables (can be found in Appendix 10.5). They show that they do not affect the relationship between dependent and independent variables. Nevertheless, the results identify that the control variable working experience has a significant relation with the dependent variable (B=-0.478; p=0.019). The less working experience an individual has, the less likely he will be involved in entrepreneurial activities and new ventures.

Finally, the data was tested as well in order to identify if the two specific character traits of BFPT have a positive relation towards the involvement in entrepreneurial activities. The results report no significant relation (B= 0.215; p= 0.283), so it can be concluded, having those character traits do not affect the involvement in entrepreneurial activities and new ventures in this sample.

Generally, the corrected model of this analysis is significant which implies that this test is appropriate for the used data set. Further, the adjusted R^2 of 0.304 is relatively low and indicates that 30.4% of the response variable variation can be explained by this research model. In social sciences in which human behaviour is analysed and tried to be predicted, a R^2 of 0.2 is very likely and considered as sufficient whereas in controlled environments, like factory settings, a R^2 of 0.9 is seen as necessary (Yiannakoulias, 2016). Since this study is trying to predict human behaviour, the lower R^2 is reasonable.

5. DISCUSSION

This study was set out to identify which childhood characteristics influence individuals to become involved in entrepreneurial activities and new ventures and which of them has the strongest relation with each other. In order to

answer the question, six hypotheses have been identified concerning the factors family business background, migration background (first and second generation), difficult childhood, financial distress and frequent relocation.

Concerning the first hypothesis (H1) “*family business background is positively related to entrepreneurial activities and new ventures*”, the results provide no significant relation, thus the hypothesis was rejected. It can be explained by several reasons. First, children who grow up in a family in which one of the parents is self-employed, experience personal sacrifices, constraints and the parent’s absence due to business matters (Douglas and Shepherd, 2002). Consequently, those individuals try to avoid the pressures and responsibilities from entrepreneurial careers and end up in employments within organisations. The individuals do not have a high tolerance for risk and believe that an employment is connected to less risk than being self-employed (Douglas and Shepherd, 2002). In contrast, experiencing self-employed parents during childhood increases the probability to become more independent and to develop greater autonomy which are attributes that are highly connected to entrepreneurs. However, individuals with a negative attitude towards own business are mostly those who experienced less attention and support from parents and may view this independence as undesirable due to their inner wish to feel safe and appreciated (Bird, 1989). The inner desire for attention and appreciation is natural for children during that age and goes back to primary instincts (Shields and Cicchetti, 1998). Second, many individuals who have the option to choose the entrepreneurial career path, do not believe it is always favourable. Going the self-directed way of success appears more attractive than the career path of the family members (Zellweger, Sieger and Halter, 2010). The decision going their ‘own way’, is strongly connected to the individual’s character. According to Lips-Wiersma (2001), individuals who believe in purposes of ‘expressing self’, ‘developing and becoming self’ and ‘serving others’ (p. 514), are more animated to become self-employed and to follow the career of an entrepreneur. Moreover, the study of White, Thornhill and Hampson (2007) which analysed the genetic factors of an individual, has found that these nature effects influence the decision to become involved in entrepreneurial activities, too. They state that although genetic similarity leads to similar career, character, attitude and the wider environment are essential factors which influence the decision-making of an individual as well. Only the balanced combination of nurture and nature factors, which means the genetic factors as well as the educated and experienced elements, push the individual to develop an interest in the involvement in entrepreneurial activities (White, Thornhill and Hampson, 2007). Due to the fact that not all individuals are equal and differ in experience, notion and education, different job selections are possible.

The second hypothesis (H2a) that states first generation migration has a positive relation with the involvement in entrepreneurial activities and new ventures was supported. The results revealed a significant positive relation. In other words, those individuals who migrated to a country as first generation tend to be more involved in entrepreneurial activities and new ventures compared to non-migrants. In accordance with Lüdemann and Schwerdt (2013) and Peroni et al. (2016), immigrants own a set of particular characteristics which make them more risk-taking and fearless to become involved in entrepreneurial activities and new ventures. This can be explained by the dauntless decision

to leave the home country in order to aim for a better life (Al Ariss, 2010). The ability to go beyond one’s own nose, to leave everything behind and to start from the very beginning, are all essential factors that motivate individuals to become successful in life (Al Ariss, Koall, Özbilgin and Suutari, 2013). For many of those individuals the definition of a successful career is to be self-employed at one point in time. It is seen as the ‘final stage’ of the career in which one becomes his ‘own boss’ and creates his own vision of life (Al Ariss, 2010). Moreover, the view, inspection and reflection on specific problems or challenges in the market seem to differ for first generation migrants compared to local people (Al Ariss et al., 2013). Migrants’ observations from a new and naïve perspective facilitate them to discover beneficial ideas from different angles (Al Ariss et al., 2013; Al Ariss, 2010). Furthermore, first generation migrants who left the home country first, experience the permanent pressure of family members to be successful, not to dishonour the family and additionally, the prejudice of the public that immigrants live at the expense of the government. It provokes often the desire to become self-employed, to give the society and the family something back and thereby fight prejudices (Peroni et al., 2016).

Concerning hypothesis H2b, literature predicted a negative relation with the involvement in entrepreneurial activities and new ventures. The results revealed that second generation migrants whose (grand-)parents had migrated to a new country, have a positive significant relation with the involvement in entrepreneurial activities and new ventures. Consequently, H2b was rejected. The opposite result can be explained by several reasons. For instance, Shapero (1975) argued that the involvement in entrepreneurial activities depends on various factors and not only the ethnic origin. Elements such as character traits, skills, demographics and social support are important as well. Moreover, individuals who were born in a country in which the cultural characteristics are high individualism, low uncertainty avoidance and high power-distance, have the increased probability to become involved in entrepreneurial activities (Basu, 2010; Hofstede, 2001). Those cultural characteristics are highly connected to entrepreneurship, since they create the space for taking risks (both personal and economically) and give individuals the opportunity to develop the desire to create their own vision of business. Moreover, countries which show these cultural characteristics have usually improved economic factors, including high growth rate, high technological capabilities and the relative importance of manufacturing (Hofstede, Noorderhaven, Thurik, Uhlaner, Wennerkersy and Wildemann, 2004). The aforementioned factors stimulate individuals to become involved in entrepreneurial activities and new ventures. Especially, the second generation of immigrants experiences the economic situation as a unique chance to make career, since they know from their families’ narrations and experiences how different countries and their economic status can be. However, because they grow up with the improved economic status and view them as natural, opportunities to create a new venture may appear more frequently than in other countries in which economic settings are lower (Basu, 2010).

The third hypothesis (H3) in which frequent residential relocation has a positive relation towards entrepreneurial activity and new ventures involvement could not be supported. Vidal and Bexter (2016) revealed that frequent

relocation during childhood can impact academic performance and consequently, the involvement in entrepreneurship, but are entangled with other significant characteristics of the individuals as well. Besides family support, the context and environment of the new residence influence decisively the behaviour of the individual and can result in other career paths. One reason would be a potential negative consequence in which children suffered from the frequent relocation and develop a desire for permanent stability (Vidal and Bexter, 2016). According to Bures (2003) the environment individuals experience during their childhood, can have a lasting impact on the mental and physical health. Since the social networks are developed and maintained through residential stability, the frequent relocation forces children to establish new social connections (Bures, 2003). It can be negative, because children's community based social capital which is their network, is lost every time they move with their families. Therefore, the residential stability is missing. However, it can turn out to be positive, since children learn to adopt to new environments, new social networks and consequently, develop an 'open-mind', become more self-confident, learn to be alone and to become more self-reliant (Vidal and Bexter, 2016; Bures, 2003). In what direction children will develop depends heavily on the support of the close family. Moreover, the study of Bures (2003) reveals that children with single-parent families are often connected to frequent relocation. Family disruptions, frequent relocation and no stability in their social environment leads to an increased probability to have poor health outcomes. Poor health is often associated with low or even no involvement in entrepreneurial activities due to physical inability and the changed perception of life and work (Bures, 2003).

The aforementioned reasons explain why the fourth hypothesis (H4) was rejected, as well. Even though entrepreneurs tend to differ from non-entrepreneurs in their family background and have poorer relationships with the parents, the insecurities, rejection and risk-averse behaviour during childhood can lead to the wish to have stability and strict authorities in the future job (Malach-Pines et al., 2002). Thereby, individuals are seeking for the authority they have missed during childhood and would like to have rules they can follow (Cox and Jennings, 1995). During childhood, the identification with role models is an essential process in which the individuals develop their own character traits and further evolve into their own unique identity (Hackett, Esposito and O'Halloran, 1989). Consequently, when role models such as the parents do not have a positive contribution to the children's development in terms of career paths, mental support and the creation of self-esteem, these children become less involved in entrepreneurial activities and new ventures (Hackett, Esposito and O'Halloran, 1989). In line with White (2014), not only the childhood, whether difficult or not, decides if an individual becomes involved in entrepreneurial activities and new ventures, but also the nature of the individual. Whereas some people develop strong character traits, when experiencing a difficult childhood, others turn to complete different direction and develop different perceptions on situations (White, 2014).

Finally, the last hypothesis "*Financial distress is positively related to entrepreneurial activities*" was supported and has a positive relation with the involvement in entrepreneurial activities and new ventures. This can be explained by the

division of the individuals into two different groups: on the one hand, children who suffered from financial distress and had no support from the family, and on the other hand, children who suffered from financial difficulties but did perceive human capital, such as social cohesion and emotional stability (Jayawarna et al., 2014). Children who suffered from financial distress without social support became risk-averse individuals who try to circumvent financial pressure as often as possible as adults (Jayawarna et al., 2014). Financial pressure is highly associated with being self-employed (Dyer, 1994). Since those individuals believe that they bear the risk of an organisation solely and feel responsible for their employees, apprehension develops to such an extent that individuals feel frightened and want to avoid these kind of situations. Therefore, these individuals do not tend to become involved in entrepreneurship.

Individuals who suffered from financial difficulties but did perceive human capital, tend to have an increased probability to develop entrepreneurial behaviour. This is due to the psychological safety factors which have a greater impact on children than monetary terms have (Cetindamar et al., 2012). During childhood, children learn to develop a self-concept which is a combination of psychology and education. This self-concept is crucial for later life, since it decides in what way an individual evolves in terms of behaviour and learning (Hay and Ashman, 2003). Human capital which is seen as emotional stability and mental support is essential for children to develop a positive self-perception and motivation to aim for a change in life (Hay and Ashman, 2003). Although financial distress puts parents under considerable strain in which children suffer as well, the social cohesion motivates children to 'escape from poverty' (Dyer, 1994, p. 9), in order to provide the family with an improved standard of living. Moreover, children who received mental support from their parents, have a closer relationship and an increased sensitivity towards their well-being which in turn motivates them to make career and to offer the family enough financial resources (Dyer, 1994). Children who grow up with a positive self-concept and are motivated to make career, develop an understanding that being self-employed is fundamental to gain enough financial resources. They view own ventures as the only way to be able to control their environment, since the perception of being powerless during childhood, provokes the desire to become the master of their own life (Dyer, 1994).

Concerning the tested control variables, there is expected that working experience is positively related to entrepreneurship. In line with Robinson and Sexton (1994), working experience leads to higher educated and experienced individuals who in turn have increased self-esteem and a sense of efficacy. Those attributes increase the ability to perceive opportunities, to possess more information about self-employment and to assess the chances of success. Although the simple-mindedness of young individuals can sometimes turn out to be successful, regarding the overall population, working experience is still one of the influential factors in entrepreneurship (Robinson and Sexton, 1994).

The additional test, if the particular personality traits of the BFPT, extraversion and consciousness, positively influence the involvement in entrepreneurial activities was rejected. Zhao and Seibert (2006) reported in their study that single primary personality dimensions can have different effects on individuals and that only the overall character influences heavily the decision to become involved in entrepreneurial activities and new ventures. Although extraversion and

consciousness have, regarded separately, a positive impact on entrepreneurship, only the combination of character, environment and education of an individual ultimately leads to entrepreneurship or not (Zhao and Seibert, 2006).

To summarize and answer the research question, this study reveals that migration background has the strongest effect on the involvement in entrepreneurial activities and new venture. To be more precise, migration background has a significant positive relation which means if an individual is a migrant, the higher the probability that he or she will be involved in entrepreneurial activities and new ventures. Moreover, financial distress is a significant factor, as well, which has a positive relation with the involvement in entrepreneurial activities and new ventures.

6. IMPLICATIONS

6.1 Theoretical implications

This study combined several papers and their outcomes in order to test if and how various factors tested together have a relation with the involvement in entrepreneurial activities and new venture. The results contribute to the existing theory in multiple ways.

This study provides evidence that although scholars have found significant results in childhood characteristics and their relation with entrepreneurial activities, the entanglement of those tested factors on individuals can alter the outcome. Testing all factors at once gives a new holistic view on how specific childhood characteristics can affect the actual involvement in entrepreneurship and not only the intention or desirability as the scholars Drennan et al., (2005) have found. Combining these factors shows that prior significant relationships are reduced. For instance, within the sample of this study the findings of Chlosta et al. (2012), Almquist and Brännström (2014) and Jayawarna et al. (2014) are contradicted, since family business background has no significant relation with the involvement in entrepreneurial activities and new venture. Further, contradictory findings are identified compared with the study of Lüdeman and Schwerdt (2016) who claimed that migration background particularly the second generation of migrants has a negative relation with the involvement in entrepreneurial activities. A second study could help to further explore the inconsistencies.

By using the GLM and thereby combining the independent variables against the dependent variable involvement entrepreneurial activities and new venture, prior theoretical findings which were viewed separately, brought a new perspective to existing research. An individual is formed by various character traits and not just one, so only the combination of all factors can show what the actual outcome might be. More precisely, how the weighted sum of childhood characteristics affects the actual involvement in entrepreneurial activities and new ventures.

6.2 Managerial implications

The results of this study present some implications from a managerial perspective. It identified that childhood does have an effect on the probability to become involved in entrepreneurial activities and new ventures. However, not all tested elements have the assumed relation, especially

migration background which turned out to have the most positive significant relation.

In particular, this study extends the study of Drennan et al. (2005) which analysed among other things, how childhood characteristics influence the desirability and feasibility of starting an own venture. This study extends the model and revealed that not the desirability per se, but the total involvement in entrepreneurial activities and new ventures can be influenced by specific factors during childhood. It adds that not only the intention (which usually do not lead ultimately to actual involvement in entrepreneurship) but the decision and the activity itself can be influenced by what happened during childhood. Models that explain how the activities of entrepreneurship are influenced and affected, are crucial in identifying and creating interventions, programmes and policies to stimulate entrepreneurial activities. Especially for individuals who have great working experience and are already able to assess possibilities to become self-employed, are the right target group for such programmes. Moreover, developing programmes in universities in which the effects of childhood factors on entrepreneurship are considered can help to support and lead students to the direction of self-employment. Those programmes can trigger to create academic scholarships, sustain programme assessment initiatives with funds and incentives in faculty participation (Duval-Couetil, 2013). Moreover, organisations which support and develop new ventures could use the information of this study to choose individuals who are motivated and seek challenges. The encouragement of migrants who have the desire to become involved in entrepreneurial activities and new ventures, but do not have sufficient resources, can help to motivate and inspire them to take the risk and to become successful in their career.

7. LIMITATIONS AND FUTURE RESEARCH

This study has various limitations. First, due to the number of participants (N=103), the generalizability towards the total population is restricted. There can be several other reasons why individuals chose to become involved in entrepreneurship, such as sudden new ideas which are called 'unicorns' (e.g. Airbnb or Uber) or the working experience and long-term partnership with others to develop a new business (Robinson and Sexton, 1994). Moreover, the sample size would normally be considered as too small to conduct various statistical tests, such as the univariate or factor analysis. A larger sample size could reveal different results.

Second, since this is a quantitative study, we can only get a rough overview of the selected factors and if they affect the involvement in entrepreneurial activities and new ventures positively or negatively. The detailed insights which can only be gained by qualitative data analyses are missing and could give other tremendous results and findings. Those precise analyses can help to understand the individual's reasoning behind the involvement in entrepreneurship and to help develop platforms and initiatives to positively support entrepreneurial performance.

Next to that, the focus in this study lies on character traits and factors that have evolved solely during middle childhood. Those personal characteristics which are genetically given or developed during infancy or further change in the stage of adulthood are not included. They contribute to the final

individual's personality as well and can have a major influence on the later career (Nicolaou and Shane, 2009). Moreover, drawing on the study of Nicolaou and Shane (2009), correlations between genes and environment can also influence the involvement in entrepreneurship. Although this study can be seen as complementary to the results of previous research, the interaction of the environment, genetics and character traits predicting the individual's involvement in entrepreneurial activities and new ventures are not taken into account.

Concerning future research, this study used an acceptable but small sample size (N=103), the usage of a larger sample size is highly recommended, since it could disclose different results or even different relationships among the variables. According to Bartlett, Kotrlik and Higgins (2001), a sample size of 200-300 is suggested to be able to make statements about the general public.

Furthermore, this research was done within a limited time frame, a long-lasting research construct in which different control groups, more participants and an optional second survey could give more detailed findings. A longitudinal study could establish causality, for instance, observing children from their middle childhood onwards until they are adults to see how those childhood characteristics have evolved and how the relation with the career path has influenced the individuals to become entrepreneurs. Additionally, using mixed methods such as diary studies in which data is collected by participants who report their experiences over a period of time, could give more in-depths insights and qualitative data. This qualitative data can be used to analyse the individual's psyche and the reasons behind specific behaviours.

Moreover, the interaction of the variables was not tested. It could have been the case that several variables interact and adulterate the results. Testing for the interaction between those already defined and significant variables could bear interesting results.

Another direction which scholars could investigate is the detailed understanding of how the significant variables effect the involvement in entrepreneurial activities and new ventures. Recognizing for what reasons specific factors influence an individual could help to establish programmes in which others who potentially own such characteristics can be supported. Moreover, this study focused on the individuals and their attributes itself and ignore the influence of culture. Further studies could try to identify how cultural aspects influence the involvement in entrepreneurship as well. As Hofstede and McCrae (2004) stated "personality is created through the process of enculturation" and "[...] culture is constitutive of personality" (p. 54), individuals can be seen as reflections from their culture and develop traits which suit their social environment (Hofstede and McCrae, 2004). Factors such as uncertainty avoidance which is developed during childhood could influence the direction towards self-employment and entrepreneurship.

Additionally, researchers could take a more holistic approach and combine established theories in order to test their interaction and potential overlapping. For example, the linkage between the BFPT and the cultural dimensions by Hofstede could answer the question how personality

(genetically or developed) is influenced by culture and in which countries the significant factors have the most impact on the involvement in entrepreneurial activity. Since migration background has a positive significant impact on the involvement in entrepreneurial activities and new ventures, researchers could find out which countries are more inclined to be involved in entrepreneurial activities than others and why.

Lastly, the result that migration background positively influence entrepreneurship can be used in organisations to develop and support intrapreneurship. Human Resource departments could create mixed teams with migrants and non-migrants to exchange experience and to enhance entrepreneurial performance.

8. CONCLUSION

This study has tested if the childhood characteristics family business background, migration background, difficult childhood, frequent relocation and financial distress have a relationship with the involvement in entrepreneurial activities. It has shown that migration background, first and second generation, as well as financial distress have a significant positive relation with the involvement in entrepreneurial activities and new ventures. The relations of those factors when considered and tested separately, can change dramatically. The result that migration background is positively significant, can help universities, diverse institutions and organisations to further develop plans and programmes to support integration and entrepreneurship. Moreover, families who suffer from financial difficulties can be helped by supporting their children to get a good education in which they can build their own unique career path.

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10. APPENDIX

10.1 The survey

Age: _____ years

Gender:

- Female
- Male

Working Experience:

- 0-3 years
- 4-8 years
- 9-14 years
- >15 years

How high is your current job satisfaction?

- Low
- Medium
- High

REGIONAL INFLUENCE	Strongly disagree	Disagree	More or less disagree	Neither agree or disagree	More or less agree	Agree	Strongly agree
The activity of entrepreneurs in my place of residence improves the quality of my own life							
The values and beliefs of entrepreneurs in my municipality are similar to my own.							
Entrepreneurs in my place of residence contribute to the well-being of local people							
Local entrepreneurs operate according to the commonly accepted norms in my place of residence							
The activity of the entrepreneurs in my place of residence supports the local economy							
The activity of entrepreneurs in my place of residence is necessary							
The absence of entrepreneurs in my place of residence is inconceivable							

ENTREPRENEURIAL ACTIVITIES	Strongly disagree	disagree	More or less disagree	Neither agree or disagree	More or less agree	agree	Strongly agree
Are you currently involved in a start-up / new venture?							
Involves your current job a start-up / new venture?							
Are you the owner / manager of a business?							
Have you been a business angel during the last three years?							
Have you met entrepreneurs during the last three years?							
Did you discover start-up opportunities within the last six months?							

FREQUENT RELOCATION	1	2-3	4-5	6-7	>8
In how many different cities/countries have you lived during your childhood?					

DIFFICULT CHILDHOOD	Strongly disagree	disagree	More or less disagree	Neither disagree or agree	More or less agree	agree	Strongly agree
I would describe my life experiences during childhood as easy							
Compared to others, my life experiences during childhood have been challenging (e.g. divorce, stress, negative social environment)							
I've had to overcome a lot to get where I am today							

FAMILY BUSINESS BACKGROUND

Did your mother/father own a business during your childhood?

- Yes
- No

Has a family member other than a parent owned a business during your childhood?

- Yes
- No

Have you ever worked in a family member's business?

- Yes
- No

MIGRATION BACKGROUND

Current Nationality _____

Country of Birth _____

Language spoken at home _____

FINANCIAL DISTRESS

During childhood, have your parents completely missed a payment or been at least 2 months late in paying any of the bills?

- Yes
- No

Have your parents ever declared bankruptcy?

- Yes
- No

BFPT I see myself as someone who...	Strongly disagree	disagree	More or less disagree	undecided	More or less agree	agree	Strongly agree
... is reserved							
... is generally trusting							
... tends to be lazy							
... is relaxed, handles stress well							
... has few artistic interests							
... is outgoing, sociable							
... tends to find fault with others							
... does a thorough job							
... gets nervous easily							
... has an active imagination							

10.2 Control variables

<i>Control variables</i>	<i>Elements / distribution</i>	<i>Literature</i>
<i>Age</i>	Young, middle age, old	<i>Lèvesque & Minniti, 2011; Nga and Shamuganathan, 2010</i>
<i>Gender</i>	Male or female	<i>Rehman & Roomi, 2012; DeMartino et al., 2006; DeMartino & Barbato, 2003; Caputo & Dolinsky, 1998; McGowan et al., 2012</i>
<i>Working experience</i>	0-3 years, 4-8 years, 9-15 years, >15 years	<i>Lee et al., 2009; Hamilton, 2000; Manser & Picot, 1999</i>
<i>Regional influence</i>	Quantity and quality of business incubators (e.g. Universities or innovative clusters)	<i>Kipler, Kautonen & Fink, 2014; Lèvesque & Minniti, 2011</i>
<i>Job Satisfaction</i>	Low, medium, high	<i>Lee et al., 2009; Long 1982; Hamilton, 2000; Renzuli et al., 2000; Wincent & Örtqvist 2006</i>

10.3 Factor analysis for the dependent variable Entrepreneurial Activities

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3,574	59,558	59,558	3,574	59,558	59,558
2	0,84	13,998	73,557			
3	0,72	12	85,557			
4	0,458	7,64	93,198			
5	0,305	5,082	98,28			
6	0,103	1,72	100			

Extraction Method: Principal Component Analysis.

Component Matrix ^a	Component
Are you currently involved in a start-up/ new venture?	0,903
Involves your current job a start-up/ new venture?	0,897
Are you the owner/manager of a business?	0,811
Have you been a business angel during the last three years?	0,555
Have you met entrepreneurs during the last three years?	0,677
Did you discover start-up opportunities within the last six months?	0,727

Extraction Method: Principal Component Analysis.

a 1 components extracted.

10.4 Multicollinearity test via Variance Inflation Factor (VIF)

Coefficients^a

Model		Collinearity Statistics	
		Tolerance	VIF
1	Family Business Background	0,848	1,179
	Frequent Relocation	0,902	1,108
	Difficult Childhood	0,73	1,37
	Financial Distress	0,705	1,418
	Migration Background	0,737	1,356
	Age	0,235	4,254
	Regional Influence	0,798	1,253
	Gender	0,717	1,395
	Job Satisfaction	0,866	1,154
	Working Experience	0,264	3,795

a Dependent Variable: Entrepreneurial activities

10.5 Univariate analysis of variance only with control variables – parameter estimates

Parameter Estimates						
Dependent Variable: EntrepreneurialActivities						
Parameter	B	Std. Error	t	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Intercept	-0.066	2.638	-0.025	0.98	-5.305	5.172
[Gender=1,00]	-0.636	0.404	-1.577	0.118	-1.438	0.165
[Gender=2,00]	0a	.	.	.	.	.
[JobSatisfaction=1,00]	-0.745	0.819	-0.91	0.365	-2.371	0.881
[JobSatisfaction=2,00]	0.427	0.394	1.085	0.281	-0.355	1.209
[JobSatisfaction=3,00]	0a	.	.	.	.	.
[WorkingExperience=1,00]	0.191	0.97	0.197	0.845	-1.737	2.118
[WorkingExperience=2,00]	1.273	0.818	1.557	0.123	-0.351	2.897
[WorkingExperience=3,00]	0.857	0.677	1.265	0.209	-0.489	2.202
[WorkingExperience=4,00]	0a	.	.	.	.	.
Age	0.015	0.037	0.392	0.696	-0.059	0.088
RegionalInfluence	0.569	0.27	2.108	0.038	0.033	1.104
BFPT	0.188	0.214	0.876	0.383	-0.238	0.613

a This parameter is set to zero because it is redundant.