UNIVERSITY OF TWENTE.

University of Twente
School of Management and Governance

Master thesis

The Bicultural Identity of knowledge-intensive Turkish-Dutch SME entrepreneurs and their innovative behavior

Nienke Braam
Business Administration
Track Innovation and Entrepreneurship

December, 2013
Number of pages/words: 84/31333

Committee of graduation

Dr. M. L. Ehrenhard, *University of Twente, Enschede*
Dr. R. Harms, *University of Twente, Enschede*
Dr. G. Çelik, *Windesheim University of Applied Sciences, Zwolle*

Preface

Present report contains a study in the bicultural identity of Turkish-Dutch SME entrepreneurs in the Netherlands and their innovative behavior, which I have written in order to finish my master graduation project of the Business Administration program of the University of Twente.

I have conducted a research in the innovative behavior of Turkish-Dutch entrepreneurs and I have examined how their bicultural identity influences their innovative behavior. I have conducted this research commissioned by Dr. Gurkan Çelik who is Associate Professor at Windesheim University of Applied Sciences (Chair of International Business & Chair of Social Innovation and Diversity). This study would not have been possible without his support. I would like to thank him for the possibility to work on this topic and the support with finding respondents, something that highly contributed to the results of this study. Further, I would like to thank Serap Gevrekoglu, who works with Gurkan on the same topic as well, for her help and useful discussions during the development of this thesis.

Special thanks to Dr. M. L. Ehrenhard, my first supervisor at University of Twente, who was enthusiastic about this study from the start and who freely shared his visions and ideas with me about this topic. I would also like to thank Dr. R. Harms, my second supervisor at University of Twente, for the very useful feedback sessions we had face-to-face and via mail. Thanks to both supervisors for their effort, time and support during my graduation project.

Lastly, but certainly not least, I would like to thank my boyfriend, for his patience and help during difficult moments in my graduation project, my parents, sister and brother-in-law, for their support and trust in me, and of course my friends and housemates, who made my graduation period more fun.

Nienke Braam

Enschede, December 2013

Abstract

Title: The Bicultural Identity of knowledge-intensive Turkish-Dutch SME entrepreneurs and their innovative behavior

Course: Master thesis in Business Administration, Innovation and Entrepreneurship

Author: Nienke Braam

Tutors: Michel Ehrenhard, Rainer Harms, and Gurkan Çelik

Key words: Bicultural Identity Integration, innovative behavior, ethnic entrepreneur, Turkish-Dutch, biculturalism, multi-cultural background, innovative entrepreneurship

Problem: The Turkish entrepreneurs have become a sizeable and growing section of the Dutch economy and deserves scientific attention. However, the majority of the past studies about Turkish or other ethnic entrepreneurs have focused on differences in the entry decisions. Little is known about the personal characteristics and success conditions of Turkish or other ethnic entrepreneurs. Immigration and acculturation have been associated with a number of health risk behaviors and psychological problems. The past research have made clear that the dual cultural heritage of immigrants has outcomes in both positive and negative terms. It seems that for some immigrants the bicultural background can be advantageous, and for other immigrants it can be a large drawback.

Purpose: This study seeks to examine how an ethnic entrepreneur can use his or her background as an advantage, and especially in situations where innovation is important. Based on the idea that innovation is a crucial part of the entrepreneurial process and fundamental for business success, this study examines the effect of a bicultural identity on entrepreneurial innovative behavior. Entrepreneurs with an integrated bicultural identity may show a higher degree of innovative behavior, by drawing on the different life experiences, cultural traditions and social challenges of different communities.

Methodology: A quantitative survey was structured with mostly closed questions. To measure the constructs Likert scaling was used. The questionnaire was send to Turkish-Dutch SME entrepreneurs in knowledge-intensive industries. The Dillman method was used to achieve a high response rate. The final response rate was 37.2% (n = 115).

Conclusions: An integrated bicultural identity seemed to be significantly positively correlated with the innovative behavior of the Turkish-Dutch entrepreneur. Moreover, cognitive adaptability was proposed as a mediator and results give evidence that the relation between BII and individual innovative behavior was mediated by this variable. It applies for Turkish-Dutch entrepreneurs that the level of openness, agreeableness, conscientiousness, and extraversion, a systematic working style, and an innovation climate, all positively relate to their innovative behavior. On the contrary, the level of emotional stability is negatively related to innovative behavior.

Contents

Preface 1

Abstract 2

1. Introduction 6

1.1 Introduction to the topic 6

1.2 Definitions 7

Immigrants 7

First, second, and third generation immigrants 7

Ethnic entrepreneur 8

Biculturalism 8

Entrepreneur 9

1.3 Context of the study 9

Macro level 9

Micro level 11

1.4 Research objective and main question 12

1.5 Scope of the research 13

Turkish entrepreneurs in the Netherlands 14

Focus on small- and medium- size enterprises 14

Focus on high tech firms and top sectors 14

1.6 Main research question 15

1.7 Relevance of the study 15

Academic relevance 15

Practical relevance 16

2. Theoretical background - development of hypotheses 17

2.1 Bicultural Identity Integration 17

2.2 The direct effect of Bicultural Identity Integration on innovative behavior 18

2.3 The mediating effect of creativity 19

2.4 The mediating effect of cognitive adaptability 19

2.4 Effect of personal characteristics and organizational climate on innovative behavior 20

Big Five 20

Problem solving style 22

Organizational climate 22
3. Methodology 24
3.1 Respondents and procedure 24
Questionnaire 24
Sampling 24
Generalizability 26
3.2 Instruments 27
Innovative behavior 28
Bicultural Identity Integration 28
Creativity 28
Cognitive adaptability 30
Big Five 30
Systematic Problem solving style 31
Climate for innovation 32
Control variables 32
4. Results 34
4.1 Descriptive statistics 34
4.2 Reversed items 35
4.2 Correlations between key variables and control variables 36
4.3 The direct effect of a Bicultural Identity Integration on innovative behavior 38
4.4 The mediating effect of creativity 39
4.5 The mediating effect of cognitive adaptability 41
4.6 Big Five and Individual Innovative Behavior 42
4.5 Problem solving style 44
4.6 Innovation climate 44
4.7 Hypotheses overview 45
5. Discussion and conclusions 46
5.1 Bicultural Identity integration and Individual Innovative Behavior 46
5.2 Creativity and cognitive adaptability as mediators 46
5.3 Big Five and Individual Innovative Behavior 48
5.4 Systematic problem solving style and Individual Innovative Behavior 50

5.5 Organization climate and Individual Innovative Behavior 51
5.6 Limitations and future research 51
5.7 Concluding remarks 52
6. References 54
Appendix A: Absolute numbers of populations and entrepreneurs from different ethnic groups and normalized growth rates 64
Appendix B: Age and gender distribution compared to CBS (2008) 66
Age distribution 66
Gender 66
Appendix C: Creativity measures 67
Remote Association Test 67
Alternative Associative Test 67
Appendix D: Correlations with key variables, control variables, and sub variables 67
Control variables, BII and innovative behavior 67
Innovative behavior, BII and Adaptive cognition 68
Appendix E: Means and standard deviations of the systematic working style scale 69
Appendix F: Code sheet variables 70

1. Introduction

1.1 Introduction to the topic

Due to increasing globalization and rapid technological revolution, competition is more dynamic and innovation is more critical for business growth today than ever before. Hitt, Ireland, Camp and Sexton (2001) state that innovation is critical to enable SMEs to compete in domestic and global markets. The entrepreneur in a SME has an important role in the innovation process, because "The entrepreneur is the one who undertakes a venture, organizes it, raises capital to finance it, and assumes all or a major portion of the risk. Entrepreneurs also appear to be the prime change agents in a society" (Burch, 1986, p. 13). Many studies have examined characteristics of typical entrepreneurs according to their personality (see for example; Meza and Southey, 1996; Bhidé, 2000; Busenitz, 1999) and their social environment (see for example Smith and Lohrke, 2008; Baron, 2000; Pannekoek, van Kooten, Remp and Omta, 2005). Some studies relate culture to various aspects of entrepreneurship (Morris, Avila and Allen, 1993; Tiessen, 1997; Zacharakis, McMullen and Shepherd, 2007) and innovation (Herbig, 1994; Jones and Davis, 2000). Adler (2002) notes that the diversity of multicultural teams is associated with positive group outcomes such as increased levels of innovation. Therefore, entrepreneurs with a multicultural background may realize higher innovation output than entrepreneurs with a single cultural background. Berry (1990) found that individuals with a multicultural background differ in how their cultural backgrounds are integrated in their identity. Cheng, Sanchez-Burks and Lee (2007) found that bicultural individuals who are better at integrating two cultures in their identity were more innovative than bicultural individuals who are not able to integrate two cultures. Having a bicultural identity means the condition of being oneself regarding the combination of two cultures (Cheng et al., 2007). An individual may face difficulty balancing their identity within themselves due to effects of two cultures. However, a bicultural identity also may have positive effects on the individual, in terms of the additional knowledge they acquire from belonging to more than once culture.

Immigrants in the Netherlands have a multicultural background consisting of the culture of their country of origin and the Dutch culture. Several studies over the last decades (see for example Evans, 1989; Kloosterman, van der Leun and Rath, 1999; Masurel, Nijkamp and Vindigni, 2004) state that immigrants opted to set up business themselves because they are excluded from the mainstream labor market, due to language, cultural and education barriers and sometimes due to discrimination. However, in recent years, these language and education barriers are declining (Rušinović, 2006). Self-employment among immigrants, and especially among the second-generation, has grown significantly in the Netherlands (Sahin, Nijkamp and Rietdijk, 2009), growth rates of non-Western ethnic entrepreneurs are even higher than those of native entrepreneurs (CBS, 2013). In the Netherlands the largest group non-Western ethnic entrepreneurs are the Turks. Therefore, it is interesting to take this group for closer investigation. Immigrants particularly find it difficult to assimilate both their cultural

contexts. Immigrants need to reconcile both their current host cultures and their culture of origin, which is where they grew up (Benet-Marínez, Leu, Lee and Morris, 2002; Moons and Robins, 2012). However, differences in two cultures lead to individuals that form bicultural identities that reconcile distinct expectations associated with the two distinct cultures. Benet-Martínez et al. (2002) developed a construct as a framework for investigating individual differences in bicultural identity organization, which is referred to as Bicultural Identity Integration (BII). The BII seeks to find whether an individual has a cultural distance or conflict within one's cultures, which in turn helps indicate how bicultural competent he or she is. According to Mead and Métraux (2000), individuals respond in a more stable fashion when their cultural contexts are understood. Past research has examined how these differences could relate to other factors. Due to high innovation pressure in the Netherlands nowadays, this study will investigate how the bicultural identity of the Turkish entrepreneurs could be an advantage in their entrepreneurial activities, and especially in their innovative behavior. Recent research suggests a positive relationship between an individual's identity that integrates both cultural backgrounds and their well-being or performance (see for example Berry, 1997; Phinney, Horenczyk, Liebkind and Vedder, 2001; Nguyen and Benet-Martínez, 2007). This study investigates if ethnic entrepreneurs with an integrated bicultural identity show higher levels of innovative behavior, and thus have an advantage over ethnic entrepreneurs without an integrated bicultural identity.

1.2 Definitions

This section mentions important concepts used in this study; explanations described here will be used further in this report.

Immigrants

Before 1999 two definitions were used in Dutch statistics to describe an immigrant. The first one was a narrow definition and the second one was a broad definition, as shown in table 1.1.

Scope	Definition
Narrow	The person and at least one of his parents were born outside the Netherlands.
Broad	The person and at least one of his parents were born outside the Netherlands or he himself was born in the Netherlands out of at least one foreign-born parent.

Table 1.1: Definitions of immigrant used before 1999 in Dutch statistics (CBS, 2000)

The numbers of immigrants according the two definitions varied widely; according to the broad definition there were almost one million persons more considered as an immigrant than according to the narrow definition. Hence, from 1999 CBS accepted only the broad definition (CBS, 2000).

First-, second-, and third-generation immigrants

Immigrants can be categorized in first-, second-, and third-generation immigrants. First-generation immigrants are those who were born outside the Netherlands and who actually migrated to the

Netherlands (CBS, 2000). However, second-generation immigrants are defined differently in various studies. According to CBS (2000), second-generation immigrants are "born in the Netherlands and have at least one foreign-born parent". However, in his study, van den Tillaart (2001) includes immigrants who were not born in the Netherlands but who arrived before the age of six. Moreover, second-generation immigrants are in the study of Rušinović (2006) defined as "those immigrants who were born in the Netherlands, with at least one immigrant parent, or who arrived in the receiving country before the age of twelve" (p.38). This last definition will be used in this study because it is in accordance with relevant international literature (see for example Portes and Rumbaut, 2001; Kibria, 2002) and this definition includes all immigrants who came to the Netherlands before adolescence and before commencing secondary school. Third-generation immigrants are born in the Netherlands with at least one immigrant parent from the second-generation.

Ethnic entrepreneur

Next to "immigrant entrepreneur", authors use the terms "ethnic entrepreneur" interchangeable to refer to entrepreneurs among immigrants (Butler and Greene, 1997). However, to understand the literature and how it relates to various groups of entrepreneurs, it is important to define the terms used. While there is no agreement among all scholars as to these definitions, in this study the definitions that appear to be closely aligned with most of the scholarly work reviewed will be used.

Concept	Definition
Immigrant entrepreneur	An individual who as a recent arrival in the country, starts a business *as a means of economic survival*. This group may involve a migration network linking migrants, former migrants, and non-migrants with a common origin and destination (Butler & Greene, 1997).
Ethnic entrepreneur	A set of connections and regular patterns of interaction among people *sharing common national background* or migration experiences (Aldrich and Waldinger, 1990).

Table 1.2: Conceptual clarity of definitions

This study is not only about immigrants who became entrepreneur as a means of economic survival; it will examine immigrants who freely decided to become entrepreneurs in order to take advantage of a business opportunity as well. The term "ethnic entrepreneur" suggests that the ethnicity of the entrepreneur determines the way the entrepreneur operates and this study is interested in the influence of ethnicity on certain innovative entrepreneurial activities, therefore the term "ethnic entrepreneur" is more appropriate in this research context and will be used from now on.

Biculturalism

"In today's increasingly diverse and mobile world, growing numbers of individuals have internalized more than one culture and can be described as bicultural or multicultural" (Benet-Marítez and Haritatos, 2005, p. 1016). According to Merriam-Webster dictionary, the definition of bicultural is as

follows: "of, relating to, or including two distinct cultures". According to this definition biculturals could relate to dual cultures based on general (i.e. based on demographic characteristics) or psychologically specific conceptualizations (e.g. cultural identifications or orientations). Immigrants, refugees, sojourners (e.g. international students, expatriates), indigenous people, ethnic minorities, those in interethnic relationships, and mixed-ethnic individuals are all included in this definition. However, this study is focused on individuals who are residing in a host country and have lived, or have parents who have lived, in another country before moving to the host country; referred to as immigrants. Immigrants have a *bicultural background* or *bicultural identity*, which refers to individuals belonging to the first- and second-generation immigrant group, and thus have experienced two cultures. However, a part of these immigrants has an *integrated bicultural identity*, meaning that the individual has a bicultural background, but also has internalized or integrated these cultures.

Entrepreneur

To define the concept of entrepreneur I used the definition given by CBS (2013). Their definition is as follows: "all owners of companies managing the company and where entrepreneurship serves as the main activity for the persons". This definition includes both non-legal self-employers, as directors/shareholders of legal persons (CBS, 2013).

1.3 Context of the study

Macro level

The Netherlands has a long history of immigration, immigrants have come to the country in large numbers. Immigrants represent a large and growing share of the labor force in the majority of the Netherlands (11%), and they contribute significantly to job creation (1.3 million in 2004) (OECD, 2006). However, immigrants' participation rate in the labor market is on average lower than that of the native population, and immigrants are often more exposed to unemployment than the native inhabitants. In recent years, self-employment among immigrants has grown significantly in the Netherlands (Sahin et al., 2009). It seems that while there is an increasing trend to become entrepreneur among non-Western immigrants, there is a decreasing trend to become entrepreneur among Western immigrants and native Dutch (Baycan Levent, Nijkamp and Sahin, 2007), see figure 1.1 below[1].

[1] After 2008 CBS did not longer report the amount of entrepreneurs according to their ethnicity.

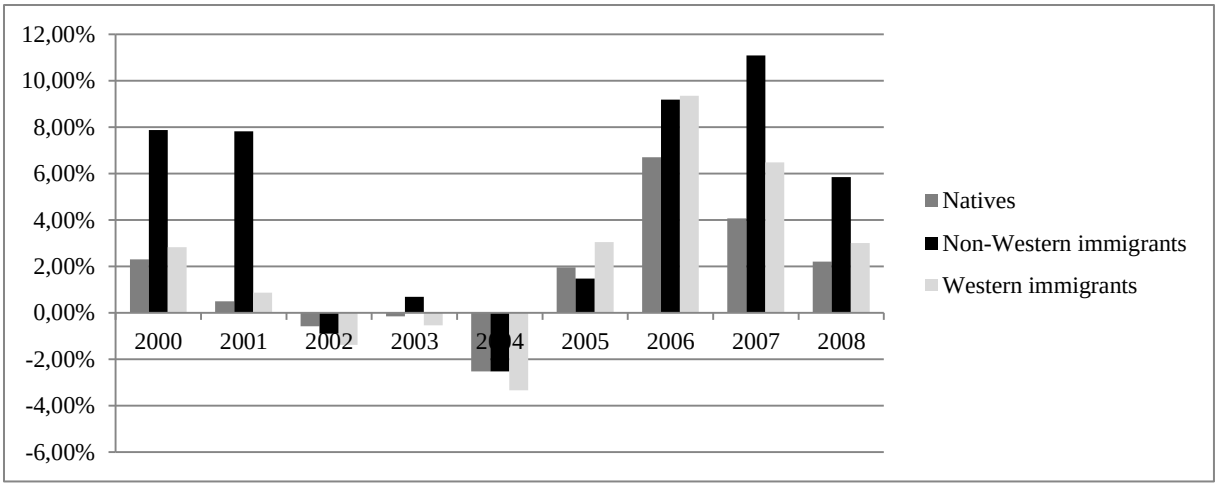

Figure 1.1: : Normalized growth rates[2] of native, non-Western and Western entrepreneurs in the Netherlands over 2000-2008 (CBS, 2013)

This phenomenon is often termed immigrant or ethnic entrepreneurship (Waldinger et al., 1990; Masurel et al., 2004; Nijkamp, 2003 and Baycan-Levent et al., 2007). Among the non-Western entrepreneurs, in absolute and relative numbers, most of them are of Turkish origin (CBS, 2013). Moreover, over the period 2000-2008 the growth rate of Turkish entrepreneurs (71%) is higher than among the native entrepreneurs (15,11%). Comparing 2012 to 2011, Turkish entrepreneurs have the highest growth rate (12%), while native entrepreneurs have a decline rate (-15%) (KvK, 2013). However, the differences in growth rates can be caused by differences in the population, since the natives are an established population and the Turkish population, however, is not. This has implications for the way the results have to be normalized. The growth rate of the Turkish population is different than the growth rate of only those older than a specific age. I assumed that none of the entrepreneurs will start their business before they, at least, reach adulthood; figure 1.2 shows the growth rates of native and Turkish entrepreneurs with the age of 25 or older, normalized by the population growth for each group with the age of 25 or older. This figure shows that when normalizing the growth rates by the ages at which entrepreneurs start their business, the Turkish entrepreneurs still have a higher growth rate in most years, however, over 2004-2008 the growth rates are more converged.

It can be concluded that the Turkish entrepreneurs have become a sizeable and growing section of the Dutch economy and deserves scientific attention. However, the majority of the past studies about Turkish or other ethnic entrepreneurs have focused on differences in the entry decisions (see for example Evans, 1989; Kloosterman et al., 1999; Masurel et al., 2004). Little is known about the personal characteristics and success conditions of Turkish or other ethnic entrepreneurs.

In their study about high-tech entrepreneurship in the U.S., Hart, Acs and Tracy (2009) found that about 16% of the companies in their sample had at least one foreign-born entrepreneur among

[2] All rates are calculated based on absolute growth in entrepreneurs compared with previous years, normalized for the population growth for the specific groups compared with previous years; for absolute numbers and formula see Appendix A.

their founding teams, and these high-tech companies display better performance in some respects than high-tech companies in the sample whose founders were all native-born.

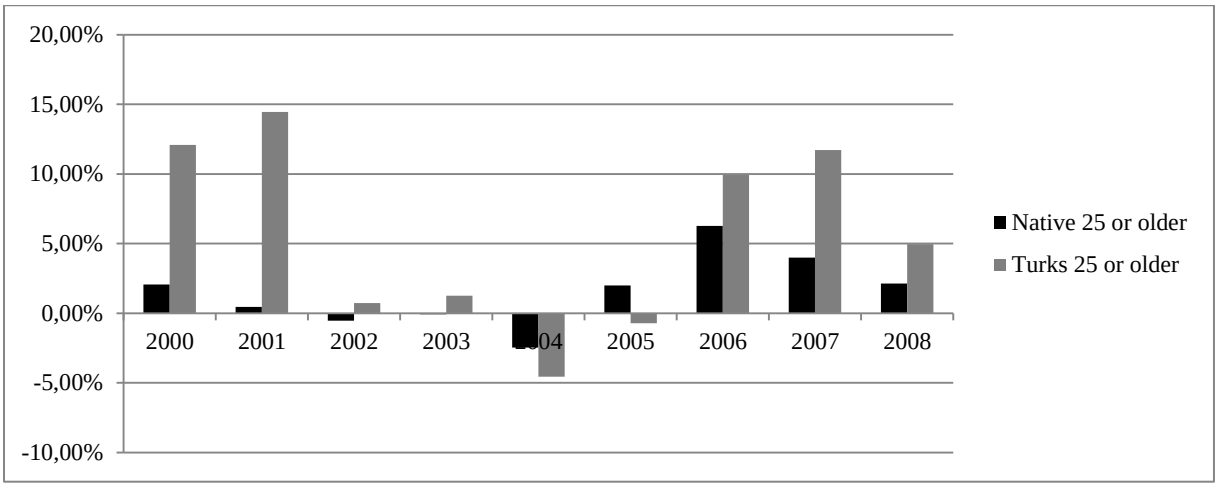

Figure 1.2: Normalized growth rates of native and Turks entrepreneurs older than 25 in the Netherlands over 2000-2008 (CBS, 2013)

The increasing share of immigrants in self-employment and their contribution to job creation are associated, especially in successful cases, with creative thinking and innovative behavior on the part of migrant entrepreneurs. Their increasing involvement in professional services and creative industries (Kloosterman et al., 1999) can be seen as evidence of their creative and innovative outlooks. However, research lacks explanation if and how their ethnical background contributes to creative thinking and innovative behavior.

Micro level

In entrepreneurship literature, the crucial question arises as to whether entrepreneurs are born or made. Entrepreneurial behavior is most likely inborn, but the effects of social environment, especially the working background of parents and relatives, play an important role. "Apart from inborn characteristics, such as the desire to achieve and diligence, society is the most relevant indicator that forms or does not form personality" (Baycan-Levent and Kundak, 2013, p. 286). The outsider status of ethnic entrepreneurs may allow them to recognize "out-of-the box" opportunities that native-born individuals with similar knowledge and skills do not perceive. Ethnic entrepreneurs can be creative and innovative sometimes in their sectorial orientation, production or management styles (Baycan-Levent and Kundak, 2013). Many studies (see for example Koh, 1996 and Mitton, 1989) show that successful ethnic entrepreneurs have risk-bearing, organizational and innovative attitudes and they are very successful in perceiving niches to fill in the market as well as very open to changes and alterations. However, being an immigrant does not always imply success, it often creates difficulties as well, since "immigration and acculturation are often stressful, given that the immigrant must immerse herself or himself in a new culture and often must undergo a great deal of personal change" (Schwartz, 2005, p. 302). Immigration and acculturation have been associated with a number of health risk behaviors and psychological problems (Isralowitz & Slonim-Neve, 2002) and depression (Oh, Koeske

and Sales, 2002), especially for immigrants who adopt values of the host culture and abandon those of their home culture (Schwartz, 2005). Another example that shows negative effects of immigrations is the high drop-out rate of non-Western immigrant children in the Netherlands. No less than one quarter of second-generation immigrants in the Netherlands drops out of school. However, this is only one side to the story because there are other second-generation immigrants that are doing extremely well, with a third continuing to higher education (OECD, 2005). Some of the early work on this issue considered biculturalism to be psychologically handicapping and stressful, provoking anxiety and depression (Rudmin, 2003). Other early beliefs state that bilingualism hindered children's cognitive development and academic achievement (Saer, 1922, 1923). However, according to Bialystok (1999) biculturalism has positive effects on intellectual development and subjective well-being. The past research have made clear that the dual cultural heritage of immigrants has outcomes in both positive and negative terms. The process of negotiating multiple cultural identities can be associated with feelings of pride, uniqueness, and a rich sense of community and history, while also bringing to mind identity confusion, dual expectations, and value clashes (Benet-Martínez and Haritatos, 2005). It seems that for some immigrants the bicultural background can be advantageous, and for other immigrants it can be a large drawback. This study seeks to find how a bicultural identity can result in positive outcomes. The next section describes why this study attempts to clarify the relation between biculturalism and positive outcomes in innovation.

1.4 Research objective and main question

This study seeks to examine how an ethnic entrepreneur can use his or her background as an advantage, and especially in situations where innovation is important. The capacity to innovate is among the most important factors that affects business performance (Burns and Stalker, 1961; Hurley, Hult and Tomas, 1998). Since the foundation of innovation is ideas, and it is people who "develop, carry, react to, and modify ideas" (Van de Ven, 1986), the study of what motivates or enables individual innovative behavior is critical. In SMEs the entrepreneur is the key actor in this innovation process and his or her innovative behavior will therefore have a major impact on the business performance. However, innovation theory has repeatedly stressed that innovation is broader than only innovative ideas and also includes the implementation of these ideas (King & Anderson, 2002). Innovative behavior can be seen as a multistage process (Scott and Bruce, 1994). Thus innovative behavior does not only include idea generation, but also behaviors needed to implement ideas and achieve improvements that will enhance the business performance. According to Janssen (2004) innovative behaviors are defined as "the intentional creation, introduction, and application of new ideas within a work role, group, or organization, in order to benefit role performance, the group, or the organization" (p. 202). Kleysen and Street (2001) reviewed creativity and innovation literature and grouped innovative behaviors into five categories or phases, from opportunity exploration to application behaviors. There are many studies that found a positive relationship between diversity and

innovation and creativity (Adler, 2002; Hennessey & Amabile, 1998; Niebuhr, 2006). These studies suggests that where people from different (ethnic) backgrounds come together their different perspectives can stimulate new and potential innovative ideas. A bicultural identity could be advantageous for ethnic entrepreneurs because having the influences of two different cultures could lead to broader perspectives and hence positive outcomes in (innovative) entrepreneurship. There are many residents in the Netherlands having a bicultural identity due to the immigration history of the country. Immigrants particularly find it difficult to assimilate both their cultural contexts. Immigrants need to reconcile both their current host cultures and their culture of origin, which is where they grew up (Benet-Marínez, Leu, Lee and Morris, 2002).

Based on the idea that innovation is a crucial part of the entrepreneurial process and fundamental for business success (Wickham, 2006), this study examines the effect of a bicultural identity on entrepreneurial innovative behavior. Entrepreneurs with an integrated bicultural identity may show a higher degree of innovative behavior, by drawing on the different life experiences, cultural traditions and social challenges of different communities. Çelik (2013) found that the integration of the Turkish culture within the Dutch culture allow these entrepreneurs to foster innovation. Furthermore, Engelen (2011) highlights the increasing number of ethnic entrepreneurship and their contribution to the economy. He states that this "multicultural drama" has become an *integration* miracle. Many studies about immigration have studied the acculturation process, which refers to an adaptation process that takes place as the immigrant adopts some ideals, values, and behaviors of the host culture and retains some of the ideals, values, and beliefs of his or her culture of origin (Schwartz, 2005). As individuals enter a new country, they are faced with a fundamental dilemma of whether and to what degree they should (a) maintain their home cultural identity and (b) adopt the new host cultural identity (Berry, 1997). Sometimes there is increased "fit" between the acculturating individual and the new context. Sometimes, however, a "fit" is not achieved and the groups settle into a pattern of conflict, with resultant acculturative stress. Having a bicultural identity thus can have both positive and negative effects on someone's behavior. The main objective of this research can be formulated as follows:

"*The objective of this study is to investigate how a bicultural identity influences the innovative behavior of the ethnic entrepreneur.*"

1.5 Scope of the research

It is useful to narrow the scope of this research. Limitations include the focus on Turkish entrepreneurs in the Netherlands and the focus on SME entrepreneurs in knowledge-intensive industries.

Turkish entrepreneurs in the Netherlands

According to CBS data, the Netherlands counted 160.900 ethnic entrepreneurs in 2008, which is 14.41% of all entrepreneurs at that time. A large proportion (8.51%) of these entrepreneurs are Western immigrant entrepreneurs. These entrepreneurs have found it relatively easy to integrate into the Dutch society, since they broadly share a number of cultural and religious values, apart from their obvious ethnic similarities (Hagendoorn, Veenman and Vollebergh, 2003). In other words: the cultural distance between the Western immigrants and the Dutch is not that large. However, another proportion of these ethnic entrepreneurs are non-Western immigrants. The largest and most important non-Western minority entrepreneurs in the Netherlands, counting around 16.800 entrepreneurs or 1.5% of all entrepreneurs, are Turkish. The Turkish community has a strong sense of identity, of being Turkish rather than exclusively Dutch. Cultural, religious and family links to the motherland are strong, although, it differs from generation to generation (Rath, 1991). Even though religion certainly makes a difference between the Muslim Turks and the Christian Dutch, it is also the language barrier that is high and that poses a serious inhibition to full integration (Vedder and Virta, 2005). Originally, language integrations was not facilitated by the Dutch government because Turks were supposed to return to their country. Thus, Turkish immigrants have been encouraged to maintain their own traditional culture, and maintain their Turkish language proficiency and transfer these to their children. Rath (1991) suggested that this explains, at least partly, why the Turks did not or could not follow an integrated acculturation trajectory. Moreover, since the Turkish immigrants have a greater distance than the Western immigrants have with the Dutch culture, the extent of integration of a non-Western culture with the Dutch culture will perhaps have a greater effect on the variance in innovative behavior than a Western culture would have. Therefore, it is interesting to take the Turkish entrepreneurs in the Netherlands for closer investigation. Further, the Turkish entrepreneurs have become a large and important part of the Dutch economy and are therefore an interesting population for investigating the current issue, since their influence in the Dutch economy is of great importance.

Focus on small- and medium- size enterprises

Both Western and non-Western entrepreneurs in the Netherlands usually set up small- and medium-size enterprises (SMEs), and they form a significantly part of the total SME sector in the Netherlands (at least some 7%) (Sahin et al., 2012). Moreover, in innovation research SMEs do not get much attention (King & Anderson, 2002; Yukl, 2002) simply due to pragmatic reasons; researchers can contact representatives from larger firms more easily. In this study I will partly fill this gap, since the focus is on SME firms (firms with at the most a 250 co-workers) (CBS, 2012).

Focus on high tech firms and top sectors

Since this study examines innovative behavior, only those sectors that are dependent on innovation were selected in this study. Entrepreneurs operating in environments of rapid technology change, like in high-tech industries, have to be aware to the strategy of developing new products or innovations.

The Dutch government supports sectors that show high degrees of innovation. The government, businesses, universities and research centers are collaborating on knowledge and innovation. The agreements are recorded in so-called innovation contracts. Nine top sectors are selected in these innovation contracts: horticulture and starting materials, agri & food, water, life sciences and health, chemistry, high-tech[3], energy, logistics and creative industries (Rijksoverheid, 2013). Although the professional service sector is not included in the innovation contracts of the government, it is included in this study. While service-sector firms in general are less likely to innovate than manufacturing firms, they are becoming more innovative and knowledge-intensive, and services such as financial intermediation and business services show above-average levels of innovation (OECD, 2005). The service sector is of growing importance in OECD economies. Productivity and employment growth are highly dependent on the success of service industries. Moreover, ethnic entrepreneurs have gained a larger market share in professional services, like accountancy and consultancy (Sahin et al., 2012). Turkish SME entrepreneurs from the nine top sectors and the professional services sector are selected in this study. These industries will be referred to as knowledge-intensive industries.

1.6 Main research question

Ethnic entrepreneurs receive increasingly attention in academic research, due to their high growth rates and importance in the Western economies. In the Netherlands the Turks constitute the largest group among the non-Western entrepreneurs, and will be investigated in this study. The main research question in this study is formulated as follows:

> *What is the influence of a bicultural identity of knowledge-intensive Turkish SME entrepreneurs in the Netherlands on their innovative behavior?*

1.7 Relevance of the study

Academic relevance

Past studies have examined possible causes for the differences in rates of (ethnic) entrepreneurship, focusing on demographical determinants such as age, education, gender, household composition and degree of urbanization. These studies have focused on differences in the entry decision, while present study aims to examine differences in successful (innovative) behavior among Turkish-Dutch entrepreneurs. Entrepreneurs need to be innovative in order to sustain their competitive edge. The increasing pressure on entrepreneurs for being innovative and the high rate of entrepreneurship of non-Western entrepreneurs in the Netherlands, raises the question if and why ethnic entrepreneurs are more

[3] "High-tech companies entail an enormous focus in providing all their resources in the development of innovations" (Aleixo and Tenera, 2009, p. 797). According to data from 1999-2007 from the OECD, the following sectors can be classified as high-tech: aerospace, automotive, artificial intelligence, biotechnology, information technology, electrical engineering, information systems, photonics, nanotechnology, nuclear physics, robotics, and telecommunications

able to deal with this pressure on innovation. The proposed research is an effort to examine the relationship between a bicultural identity of ethnic entrepreneurs and innovative behavior, because it has not been done to date. The study is also distinct from other studies because it includes the second-generation ethnic entrepreneurs; past studies almost always incorporated characteristics of first-generation ethnic entrepreneurs, which have distinct characteristics of first-generation entrepreneurs (language fluency, education, etc.). Moreover, this study approaches innovative behavior as a multi-stage process, which may allow to see differences between ethnic entrepreneurs among these stages.

Practical relevance

Entrepreneurs play a vital role in economic development as key contributors to technological innovation and new job growth (Sahin, Baycan and Nijkamp, 2012) and it is therefore desirable for a country to realize high growth rates in entrepreneurship. The examination of ethnic entrepreneurs and their bicultural identity will hopefully give some more insights in the outcomes of ethnic entrepreneurship. Although the high growth rate among first- and second-generation ethnic entrepreneurs does not say much about the success of these entrepreneurs, it still gives a motivation to examine this group further. The number of non-Western entrepreneur in the Netherlands in 2008 was 65.900, indicating that 5.5% of the non-Western immigrants between 15 and 64 is operating as entrepreneur. Among the non-Western groups most entrepreneurs are Turks. Of all Turks immigrants above 25 years, 7,6% is operating as entrepreneur (CBS, 2013). Especially because this group is growing, it has a considerable growing contribution to the Dutch economy. As mentioned in the previous sections, innovation plays a critical role in the modern economy and ethnic entrepreneurs perhaps can use their bicultural background as an advantage in terms of innovation. This study highlights how ethnic entrepreneurs can use their background as an advantage.

2. Theoretical background - development of hypotheses

This chapter describes the theoretical framework of the study. The goal of this framework is to clarify the relation between a bicultural identity and the innovative behavior of the ethnic entrepreneur. The framework shows why bicultural identity organization is important for the innovation output of the entrepreneur. Berry (1990) developed a construct that measures the extent to which a bicultural has integrated his or her cultural identities. This construct is used in this study to clarify the positive influence of a bicultural identity on innovative behavior. Moreover, this chapter also shows other factors that could affect this relation. The conceptual model is shown at the end of the chapter.

2.1 Bicultural Identity Integration

Having an integrated bicultural identity means the condition of being oneself regarding the combination of two cultures (Cheng et al., 2007). An individual may face difficulty balancing their identity within themselves due to effects of two cultures. The behaviors and habits learned from the institutions from both cultures may conflict. However, a bicultural identity may have positive effects on the individual as well, in terms of the additional knowledge they acquire from belonging to more than once culture. Furthermore, they may have more linguistic ability (Chen and Bond, 2010).

Having a bicultural identity affects an individual´s behaviour because he or she may react in a way that is reflective of the knowledge one acquires from one or more culture(s). Problems arise when ideals in one culture are not connected to the ideals in the other culture. Differences in two cultures lead to individuals that form bicultural identities that reconcile distinct expectations associated with the two distinct cultures. Immigrants particularly find it difficult to assimilate both their cultural contexts. Immigrants need to reconcile both their current host culture and their culture of origin, which is where they grew up (Benet-Marínez, Leu, Lee and Morris, 2002).

Acculturation is the process in which an immigrant adopts the social norms of the mainstream society (Benet-Martínez and Haritatos, 2002). However, integrating cultural identities is all about blending two cultures together and learning to be competent within their two cultures. Benet-Martínez et al. (2002) developed a construct as a framework for investigating individual differences in bicultural identity organization, which is referred to as Bicultural Identity Integration (BII). The construct measures the degree to which biculturals perceive dual cultural identities as compatible and integrated vs. oppositional and difficult to integrate (Benet-Martínez and Haritatos, 2005). If an individual is able to activate different and disparate social identities it has identification with both cultures (Benet-Martínez, Leu, Lee and Morris, 2002). The BII seeks to find whether an individual has a cultural distance or conflict within one's cultures, which in turn helps indicate how bicultural competent he or she is. Low BII biculturals individuals have difficulties in incorporating both cultures into a cohesive identity and tend to see both cultures as highly dissimilar. Bicultural individuals with high BII on the other hand, see their identities as complementary and themselves as part of a "third" culture, which

integrates elements from both their cultures. According to Mead and Métraux (2000), individuals respond in a more stable fashion when their cultural contexts are understood. Past research have examined how these differences in identity organization could relate to other factors. BII is significantly associated with the psychological and social adjustments of the bicultural. Low BII bicultural individuals are found to have inferior bilingual proficiency, experience more anxiety, depression and are more neurotic and less open than bicultural individuals with high BII. Also, low BII bicultural individuals are not chameleon-like (Huynh, Nguyen and Benet-Martínez, 2009).

2.2 The direct effect of Bicultural Identity Integration on innovative behavior

According to the network theory, social capital exists where people have an advantage because of their location in a network (Burt, 1992), because a good network position provides possibilities for connection and integration of different information flows. Contacts in a network provide different forms of information, opportunities and perspectives that can be beneficial and provide synergies to the central player in the network. A network consist of clusters and within one cluster exist homogeneous information. Clusters that have heterogeneous information, comparing to each other, have structural holes between them. When a player in the network bridges structural holes it will create benefits that are in some degree additive. "New ideas emerge from selection and synthesis across the structural holes between the groups" (Burt, 2004, p.350). Biculturals have two identities both consisting of homogeneous information but heterogeneous to each other. When bridging the structural hole between heterogeneous identities, biculturals can provide themself with benefits.

Innovation entails the novel recombination of existing knowledge. Individual differences in how multiple social identities are *integrated* influences an individual's ability to recombine knowledge systems linked to these distinct identities, which in turn predicts how well and how much an individual can come up with innovative ideas (Chen et al., 2007). Knowledge systems are associated with different social identities (Hong, Morris, Chiu and Benet-Martínez, 2000), and when these identities are in conflict with another it can be problematic to simultaneously activate both identities, which in turn inhibits the ability to draw from the knowledge systems associated with each identity (Chen et al., 2007). On the other hand; if the individual is able to integrate these two social identities, the bicultural individual will have the ability to draw from both knowledge systems. Thus, bicultural individuals have an advantage over individuals with one social identity in terms of innovation, *only* when the bicultural has integrated the social identities. The integration of the social identities provides biculturals with social capital that will be beneficial in terms of innovation. The study of Chen et al. (2007) also showed that individuals who are better at activating different and disparate social identities were more innovative. As described in the beginning of this chapter, BII measures this degree of integration. The following hypothesis is formulated:

H1. *The degree of bicultural identity integration of the ethnic entrepreneur will have a direct positive influence on his or her innovative behavior.*

2.3 The mediating effect of creativity

Recent studies have shown that multicultural experience is linked to creativity (Leung, Maddux, Galinsky & Chiu, 2008; Maddux & Galinsky, 2009). Culturally diverse work teams are more creative than monocultural teams, because they allow individuals to explore varied perspectives (Cox & Blake, 1991; McLeod, Lobel & Cox, 1996). Moreover, a large proportion of eminent artists, inventors, and scientists are first- or second-generation immigrants (Simonton, 1999). Chua, Morris and Mor (2012) found that intercultural interaction fosters creative collaboration. Creative potential in a collaborative duo comes from the differences between the two people. Demographic differences such as nationality or ethnic background correspond to deeper differences in people's knowledge of the world, their capabilities, and connections. Interaction with people from different cultures can expose one to ideas that are not redundant with one's own; the exchange of ideas in the conversation could result in a novel combination of ideas. The integration of both identities of a bicultural individual can lead to a higher level of creativity. Creativity is associated with innovation and is a "precursor for innovation" (Miron, Erez and Naveh, 2004). In other words, creativity is needed in order to generate new ideas leading to shift in perspective of existing practices. I assume that biculturals who have integrated their dual identities are able to use varied perspectives and are thus more creative, which is an important condition for innovative behavior. The following hypothesis attempts to capture this assumption:

H2. *The level of creativity of an ethnic entrepreneur will positively mediate the relationship between the degree of bicultural identity integration and his or her innovative behavior.*

2.4 The mediating effect of cognitive adaptability

Research about BII has typically focused on how it can affect adjustment to new cultures (Berry, 1997; Ward and Kennedy, 1994). The study of Chen, Sanchez-Burks and Lee (2008) is an exception because it investigates the relationship between BII and creativity. However, this study focuses on levels of creativity in tasks relevant to both identity-related knowledge domains, hypothesizing that BII relates to creativity due to expansion in cultural knowledge. This study goes beyond this work and investigates outcomes of BII in areas outside the cultural domain. This study seeks to determine the positive influence of BII on innovative behavior as a competence in general.

As Tadmor, Galinsky and Maddux (2012) proposed, the effects of BII on general creative and professional outcomes depend on differences in general cognitive processing, rather than specific cultural content. That means that high levels of BII can bring advantages relevant outside the culture-

specific domains. “Simultaneous identification with two cultures can lead individuals to develop more complex information processing styles than individuals who identify with only a single culture” (Tadmor et al., 2012, p. 3). Tadmor et al. (2012) found that acculturation strategies will lead to higher levels of integrative complexity, and this in turn will led to greater success in both creative and professional domains. In their study, integrative complexity refers to the capacity and willingness to acknowledge the legitimacy of competing perspectives on the same issue and to forge conceptual links among these perspectives. Integrating the ethnic and national identity requires the use of such adaptation strategies. Phinney et al. (2001) found that an integrated identity is associated with healthy psychological adaptation. Based on these findings it can be argued that a greater level of BII will lead to a greater level of capacity to change and to adapt to various situations. The cognitive adaptability is “the extent to which individuals are dynamic, flexible, self-regulating, and engaged in the process of generating multiple decision frameworks focuses on sensing and processing variations in environments, then subsequently selecting among those multiple alternatives to effectively interpret, plan, and implement a wide variety of personal, social, and organizational goals in the context of a changing reality” (Haynie and Shepherd, 2009, p. 709). Cognitive adaptability in general is important in an entrepreneurial context because contemporary business environments are characterized by rapid, substantial, and discontinuous change (Hitt, 2000). The capacity to adapt is an important contributor to innovation and therefore the following hypothesis is formulated:

> **H3.** *The level of cognitive adaption of an ethnic entrepreneur will positively mediate the relationship between the degree of bicultural identity integration and his or her innovative behavior.*

2.4 Effects of personal characteristics and organizational climate on innovative behavior

Besides the relationship between identity integration and innovative behavior among ethnic entrepreneurs, this study investigates whether established relations between personality and organizational climate and the innovative behavior in previous studies found among (native) entrepreneurs are generalizable to bicultural entrepreneurs.

Big Five

In a fiercely competitive marketplace, with its emphasis on rapid, continuous innovation and need for ongoing adaptation to an increasingly complex world entrepreneurs are forced to play more consequential roles in all phases of the innovation process. Decades after Schumpeter (1912), in which many authors were looking for personality traits as uniquely characteristics of entrepreneurs, Zhao and Seibert (2006) gained increasing acceptance of the unifying five-factor model (FFM) of personality. The ‘Big Five’ factors (extraversion, agreeableness, conscientiousness, emotional stability, and openness) are considered to encompass most of the significantly variations in personality (Judge,

Heller, and Mount, 2002). Zhao and Seibert (2006) found that across the 23 studies they have examined, entrepreneurs scored high on conscientiousness and openness to experience and low on emotional stability and agreeableness. The personality construct with the strongest relationship to being an entrepreneur was conscientiousness. Table 2.1 shows descriptions of the five personality dimensions.

Since personality traits influence decisions made by entrepreneurs and the entrepreneur has a key role in innovation of SMEs, it is arguable that differences in personality traits lead to differences in innovative behavior. Most entrepreneurship studies regard risk-taking, creativity, optimism, self-efficacy, need for achievement and locus of control inherent characteristics of entrepreneurial personality (Brockhaus, 1980; García-Cabrera and García-Soto, 2009). That personality has some influence at all should be evident from basic characteristics of the entrepreneurial role (initiating a life of self-determination and independence, establishing a social network, taking the risk of failure, etc.). However, do innovative entrepreneurs have specific characteristics in terms of their basic personality?

Personality treat	**Explanation**	**Individuals high**	**Individuals low**
Conscientiousness	The degree to which someone shows dependability, responsibility, achievement orientation and perseverance.	Hardworking and self-disciplined, tendency to reduce uncertainty.	More laid back, less goal-oriented, and less driven by success.
Emotional stability	The tendency to be anxious, defensive or compulsive. The reverse of emotional stability is called neuroticism.	Remain calm when faced with difficulties.	Worried, anxious and emotionally unstable.
Openness	The degree to which someone is open to new experience, creative, thoughtful and curious.	Reveal tolerance for ambiguity and seek out risks and excitement .	Prefer the familiar in order to avoid risk.
Extraversion	Includes characteristics such as sociability, talkativeness, assertiveness and dominance	Outgoing and optimistic. Active, introduce discussions and stimulate social interactions.	Tend to spend time alone and are independent and quiet.
Agreeableness	The degree to which someone shows personal warmth, cooperation and trust.	Are easy to get on with as they represent the tendency to be kind, cooperative, modest, attentive to others as well as flexible, forgiving and courteous.	Skeptical, questioning and autonomous.

Table 2.1 Big five traits

Some studies have found that high extraversion and openness to experience, and low emotional stability, agreeableness and conscientiousness are related to high risk propensity (Nicholson, Soane, Fenton-O'Creevy, and Willman, 2005), and various researchers connect risk-seeing persons to innovation (Miron, Erez and Naveh, 2004). In regard to the above stated statements, the following sub hypotheses are formulated:

H4a. *The level of an ethnic entrepreneur's openness to experience is positively related with his or her innovative behavior.*

H4b. *The level of an ethnic entrepreneur's emotional stability is negatively related with his or her innovative behavior.*

H4c. *The level of an ethnic entrepreneur's agreeableness is positively related with his or her innovative behavior.*

H4d. *The level of an ethnic entrepreneur's conscientiousness is negatively related with his or her innovative behavior.*

H4e. *The level of an ethnic entrepreneur's extraversion is positively related with his or her innovative behavior.*

Cognitive working style

Cognitive style is reflected in consistent patterns of behavior in the way individuals approach tasks (Perkins, 1981). Specific dimensions of individual's cognitive style can affect his or her innovative behavior (Kirton, 1976). A cognitive style can be defined as stable individual differences in organizing and processing information and experiences (Sagiv, Arieli, Goldenberg and Goldschmidt, 2009). A cognitive style influences the way entrepreneurs solve problems and that in turn influence its innovative behavior. Scott and Bruce (1994), drawing on Jabri's (1991) work, have examined the influence of two independent styles or modes of thinking, associative and bisociative, on innovative behavior. Associative thinking represents a systematic problem solving style, which refers to the use of rationality and logic. Bisociative thinking represents an intuitive problem solving style, which refers to the use of imagery and intuition. Scott and Bruce (1994) found a negative relation between a systematic problem solving style and individual innovative behavior. Their findings suggest that individuals do not need to be highly intuitive problem solvers to be innovative, but being systematic problem solvers appears to inhibit high levels of innovative behavior (Schott and Bruce, 1994). The following hypothesis is formulated:

H5. *The level of an ethnic entrepreneur's systematic working style is negatively related with his or her innovative behavior.*

Organizational climate

"Individuals gradually adapt to their environments in such a way that their awareness of need deteriorates and their action thresholds reach a level at which only crisis can stimulate action" (Scott and Bruce, 1994, p. 580). Scott and Bruce (1994) state that organizational climate channels and directs both attention and activities toward innovation. Scott and Bruce (1994) found a positive relation between the degree to which organization members perceived an organizational climate as supportive of innovation and individual innovative behavior. Climate is an enabler of creative processes that lead

to new ideas in organizations (Pullen, de Weerd-Nederhof, Groen, Song and Fisscher, 2009). Although it is most likely that in SMEs the entrepreneur has the most influence on an organizational climate, the sum of individual intelligence within an organization or team has major implications on the way the organization works (Comeche and Loras, 2010). "The capability and creativity of one individual entrepreneur is always limited" (p. 26). Working together, all members of an organization (SME) could also contribute to innovation and hence influence the organizational climate. When entrepreneurs perceive their organization (i.e. their organization members) as non-supportive of innovation their individual innovative behavior is likely to be weaker than when they perceive it as supportive of innovation. The following hypothesis is formulated:

> **H6.** *An innovation climate, perceived by the ethnic entrepreneur, is positively related with his or her innovative behavior.*

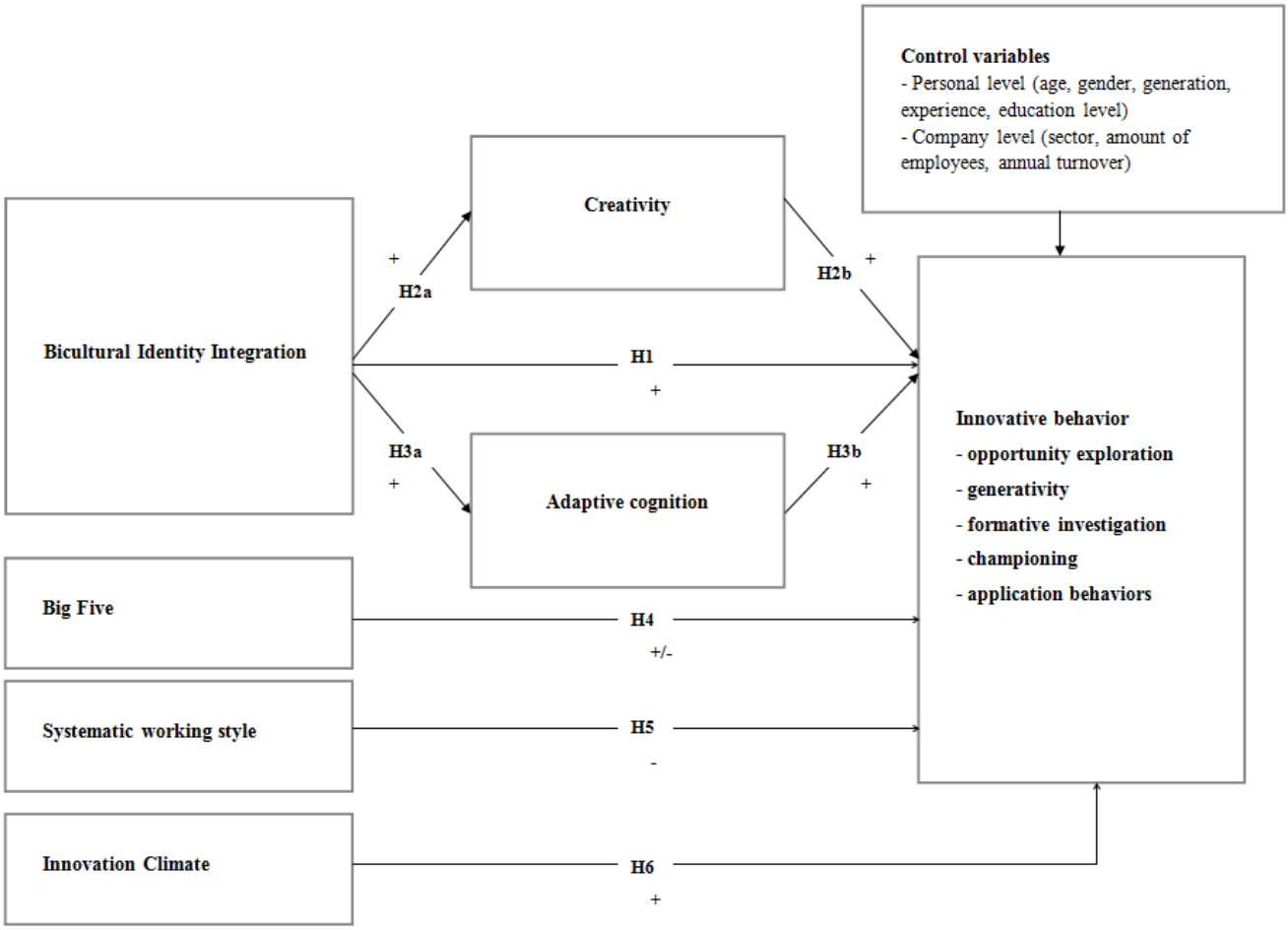

Figure 2.1: Conceptual model

3. Methodology

3.1 Respondents and procedure

Questionnaire

A quantitative survey was structured with mostly closed questions. Some open-ended questions were included to identify personal and company characteristics. By the closed questions Likert scaling was used (Babbie, 2007). The scale that has been adopted at most questions is 7 points, one of the most used scales (Langerak, 2010). Only for the Big Five personality traits 9-points-scale was used, as proposed by the authors. The advantage of using a 9- or 7-point-scale (in contrast to a 5-point-scale) is that it makes it easier for the respondent to deviate from the 'neutral' option. It causes more variation in the data. The effect is a more nuanced and a more detailed view of the results. The survey was send by email, with clear instructions on how to fill out the survey.

Sampling

The initial goal was to achieve a response from 100 Turkish-Dutch entrepreneurs, in order to get reliable results. As discussed earlier in section 1.5, the study is aimed at a specific respondent group, Turkish SME entrepreneurs in one of the knowledge-intensive sectors in the Netherlands. The relevance of this particular respondent group has been discussed in section 1.5 as well. The initial participants were selected with the help of Hogiaf, one of the largest Turkish entrepreneurial associations in the Netherlands. Hogiaf created a list, which resulted in a sample of 78 Turkish entrepreneurs. To gain a high response rate of this short list provided by Hogiaf, I employed a method known as the Total Design Method (TDM). This method has been developed by Don Dillman (1978) and has been successful in securing high response rates from general and special samples. Dillman's method is generally regarding as the standard for mail survey's in the social sciences. The general assumption is that the higher the response rate the lower the potential of nonresponse error and therefore the better the survey. Dillman (1978) explains the goal of this method as follows:

> "*The appeal of the TDM is based on convincing people first that a problem exists that is of importance to a group with which they identify, and second, that their help is needed to find a solution. The researcher is portrayed as a reasonable person who, in light of the complexity of the problem, is making a reasonable request for help, and, if forthcoming, such help will contribute to the solution of that problem. The exchange the researcher seeks to establish is broader than that between him or herself and the questionnaire recipient, that is, if you do something for me, I'll do something for you. Rather, the researcher is identified as an intermediary between the person asked to contribute to the solution of an important problem and certain steps that might help solve it. Thus the reward to the respondents derives from the feeling that they have done something important to help solve a problem faced by them, their*

friends, or members of a group including community, state, or nation, whose activities are important to them" (p. 162-163).

Specifically, in this study the following steps were employed:

Date	How	Responses	Responses Cumulative
Last week of July	Advanced notice mail send by Hogiaf	-	-
Tuesday 30th of July	First e-mail with link to survey from personal student Twente account (personalized)	2	2
Wednesday 7th of August	Second e-mail with link to survey from personal account (personalized)	2	4
Monday 9th of September	Third e-mail with link to survey from Windesheim account (personalized)	3	7
Monday 14th of September	Fourth e-mail with link to survey (in both Dutch and English) from personal account	13	20
Wednesday 16th of September	Hogiaf contacted members of the list (by telephone and mail)	13	38

Table 3.1 Phases of sampling based on Dillman method

First of all, I expected the summer holidays to be a problem. Therefore, I waited till the beginning of September for the third reminder. However, as soon as I saw that I still could not get a large enough sample from Hogiaf, I undertook two actions. The first one was translating the survey to Dutch, with a native English speaker as a reviewer. This was done because after some telephone calls with some of the entrepreneurs on the list (who did not yet fill out the survey) it turned out that the English language seemed to be a threshold and they would prefer a Dutch version over an English one. And as a second action, I reached out to other networks. Two other Turkish entrepreneurial associations (Hotiad and Tover) were contacted, my supervisor from Windesheim University of Applied Sciences contacted Turkish entrepreneurs out of his own network, I emailed Turkish entrepreneurs registered at Turksegids.nl and I contacted Turkish entrepreneurs from my own network. All participants were selected based on their ethnicity (Turkish), sector of the organization (knowledge-intensive) and the size of the organization (<250 employees). The table below shows the final response rate(s):

Source	Actual sample size	Responses	Response rate
Hogiaf	78	38	48.7 %
Hotiad	32		
Tover	41		
Other networks	Turksegids (52) my network (8) supervisor network (98)		
	158	77*	33.3%
Total	309	115	37.2%

Table 3.2 Response rates
This is the number of responses from Hotiad, Tover and the other networks in total (231)

The essence of the Dillman method seemed to be the several reminders. This same method was used at the second sampling; multiple reminders were send to enhance the response rate. Dillman (1978) promises "guaranteed" 80% return rates for mail surveys when using his method. At this study, the response rate was lower, 37.2% (n=115), however, still an acceptable response rate due to two reasons. First of all, the population in this study is different than the population described in Dillman's (1978) study. Instead of all members of an household, this study examines entrepreneurs who usually have tight schedules and have most likely little free time for voluntary participation in such studies. Second, the book was written in 1978, and the method for mail surveys developed in 1991, and since then email has become more and more the way people communicate and exchange information. A mail survey is therefore be less effective nowadays than it was at the time Dillman developed its (mail) survey method.

Generalizability

The extent to which the results of this study could be generalized to the wider population depends on the representativeness of the sample. A sample is representative of the population from which it is selected if the aggregate characteristics of the sample closely approximate those same aggregate characteristics in the population (Babbie, 2007).

First, the sample would have been representative of the population from which it is selected if a probability sample was generated. A basic principle of probability sampling is that all members of the population would have had an equal chance of being selected in the sample. For the sake of this study, a probability sample should have been generated via Kamer van Koophandel (KvK), since all Turkish entrepreneurs are registered at KvK. Respondents could then easily be randomly selected based on their ethnicity, the sector they are operating in and the size of their organization. All members of this population would then have had an equal chance of being selected in the sample. However, KvK did not make any selections in their database based on ethnicity, due to ethical reasons. Therefore, it was not possible to generate a probability sample. However, probability sampling ensures

that the sample is representative of the population that is wished to study and in this study I am interested in generalizing about Turkish SME entrepreneurs in the Netherlands that are active in one of the knowledge-intensive sectors. Therefore, the sample was selected based on these characteristics, in order to be able to make reliable generalizations to this population. I expected to generate a reliable sample via Hogiaf, because it was one of the largest Turkish entrepreneurial associations and members of this association would represent a good reflection of the population. However, the sample size generated via Hogiaf was relatively low and therefore other networks were used because a low sample size would have had an even more negative effect on the representativeness of the sample (Babbie, 2007). It can be concluded that the total sample was selected using convenience sampling; members of the population were chosen based on their ease of access. Hogiaf and the network of my supervisor and me were used to gain a convenience sample. Convenience samples are biased because researchers may unconsciously approach some kinds of respondents and avoid others, and respondents who volunteer for a study may differ in unknown but important ways from others. However, I tried to avoid this bias by using the Dillman method, as discussed in the previous section.

Second, as shortly mentioned before, the size of the sample selected affects the degree of representativeness positively (Babbie, 2007). The larger the sample selected, the more accurate it is as an estimation of the population from which it was drawn and the less error there is in generalizing responses to the whole population. In total there were 16800 Turkish entrepreneurs in the Netherlands in 2008[4] and in total, 115 participants have completed the questionnaire in this study, which is an acceptable sample size.

Third, the representativeness of the sample is also affected if the characteristics of the sample closely approximate those same aggregate characteristics in the population (Babbie, 2007). Therefore, the age and gender distribution of the sample was compared to the age and gender distribution of CBS data of Turkish entrepreneurs from 2008. It turned out that both the age and gender distribution in the sample of this study is very similar to the age and gender distribution of CBS data (see Appendix B). Unfortunately, CBS did not report such data after 2008, however, it still gives a quite good interpretation of the population since such population distributions only show large changes over long periods of time.

3.2 Instruments

The previous section described which research methods are used in this study. The present section describes all variables that are used in the hypotheses and how they are operationalized in the questionnaire. See also appendix F for the scales and questions used in the operationalization.

[4] CBS only has data of the total population of Turkish entrepreneurs in the Netherlands, the latest data derives from 2008. There is no information about the total number of Turkish SME entrepreneurs in the knowledge-intensive sectors, however, it will be less than 16800, and makes a response of 115 knowledge-intensive entrepreneurs even more acceptable.

Innovative behavior

Innovative behavior is defined as "all individual actions directed at the generation, introduction and or application of beneficial novelty at any organizational level" (Kleysen and Street, 2001, p. 285). To measure innovative behavior the Kleysen and Street's Measure of Individual Innovative Behavior (2001) is used because it shows high reliability in previous studies (de Jong and den Hartog, 2010) and it measures multiple dimensions. The measure of Individual Innovative Behavior contains items derived from the creativity and innovation literature. Subjects will be asked to respond to 15 items in terms of the question "As an entrepreneur, how often do you ….?" Each item is measured according to a seven-point behavioral frequency scale, with scores ranging from 1 (never) to 7 (always). Higher overall scores indicate greater innovative behavior. The internal consistency of the scales were determined using Cronbach's alpha as a function of the mean inter-item correlations among the scale items (see table 3.3). The alpha value of the Individual Innovative Behavior scale is high ($\alpha = 0.94$), no items could be deleted to increase the reliability which is a sign of a very good internal consistency with this sample, indicating that the items are consistent in measuring the underlying construct.

Bicultural Identity Integration

The construct of Bicultural Identity Integration is the degree to which bicultural individuals perceive their identities as compatible and integrated versus oppositional and difficult to integrate (Benet-Martínez, Leu, Lee and Morris, 2002). The first version of the bicultural identity integration scale (BIIS-1) is an eight-item measure of BII blendedness (4 items) and BII harmony (4 items) (Benet-Marínez and Haritatos, 2005). Although the adequately internally consistency of the BIIS-1, the reliability of scores yielded by this instrument is not ideal. Moreover, the few items assessing each component of BII do not adequately cover all relevant content domains of BII. Therefore, Huynh (2009) improved the measurement of BII with a second version of the bicultural identity integration scale (BIIS-2). This version will be used in this study. It consist of 19 items and will be rated on a 7-point Likert-type scale (1= strongly disagree, 7 = strongly agree). Both dimensions are incorporated in this version as well; the first dimension consist of conflict (6 items) vs. harmony (4 items) and the second dimension consist of blendedness (5 items) vs. compartmentalization (4 items). The alpha value ($\alpha = 0.76$) of the BII scale is very high, however it was possible to increase the reliability ($\alpha = 0.81$) by deleting three conflict variables (RCON2-4) and one blendedness variable (BLE5). Cronbach's alphas for the cultural harmony and cultural blendedness components were .82 and .78, respectively.

Creativity

"Creativity is the production of novel and useful ideas in any domain" (Amabile, 1996). According to Guilford (1967), divergent and convergent thinking are the main ingredients of creativity. Convergent thinking aims for a single, highly constrained solution to a problem, whereas divergent thinking

involves the generation of multiple answers to an often loosely defined problem. To measure these two constructs, many measures have been developed. However, self-reports of creativity are subjective by definition and may be biased. This study therefore followed previous studies and relied on creativity tests.

To assess divergent thinking, Guilford (1967) developed the Alternative Uses Test (AUT), in which participants are asked to generate alternative uses for a common object (e.g., a brick). The AUT measures the ability to generate novel or atypical ideas. The original test consist of four common objects, however, in this study the participants were asked to list as many possible uses for one common household item (e.g., a paper clip). Participants were said to take a maximum of 2 minutes to complete this test. Two scores were calculated from the responses. The first one was fluency, this score was determined by adding up all the acceptable responses a participant gave. The second one was originality, this score was determined by comparing each response to the total amount of responses from all participants. Responses that were given by only 5% of the group are unusual (1 point), responses that were given by only 1% of the group are unique (2 points). However, the higher fluency the higher the originality. This is a contamination problem and can be corrected by using a corrective calculation for originality (originality = originality/fluency).

To assess convergent thinking, the Mednick's Remote Associates Test (RAT) was developed (Mednick and Mednick, 1967). The RAT aimed at measuring creative thought without requiring knowledge specific to any particular field. The test works as follows. For each item, three words are presented and the participant is required to identify the (fourth) word that connects these three seemingly unrelated words (e.g., "paint, doll, cat", where the solution is "house"). The solution word for each item can be associated with the words of the triad in various ways, such as synonymy, formation of a compound word, or semantic association. However, it has been noted that the RAT is rather difficult for non-native speakers of English (Estrada, Isen and Young, 1994) and the test should be aimed to measure creativity, and not for the ability to speak (foreign) languages. Therefore, I decided to construct two lists, in both English and Dutch. Chermahini, Hickendorff and Hommel (2012) developed a Dutch version of the RAT. Of the original English RAT (Mednick, 1962), they constructed a Dutch version, consisting of 30 items. I figured out which items consist of four words having equal meaning in both English and Dutch. This resulted in two lists, consisting of each 10 items, which have approximately the same degree of difficulty. The final items in both lists consisted only out of formations of compound words. The participants are said to choose the version in the language they feel most comfortable with. They were also said to take a maximum of 5 minutes to complete the ten questions. The score was determined by the number of valid answers given.

The total creativity score was determined by adding up the score for the AUT test and the score for the RAT test. For example, if a respondent gave 4 unique and 2 unusual answers on the AUT test, and gave 4 correct answers in the RAT test, then his final creativity score would be 6 (fluency) + 1.33 (4*1 + 2*2 /6) (originality) + 4 (RAT) = 11.33. To determine the time each respondent took for

the creativity question, timings per question (e.g. how long a user stays on one page) were automatically saved by the online survey. However, since it was an online survey it could not be checked whether the participants filled out the questions without help from others.

Cognitive adaption

The cognitive adaptability is "the extent to which individuals are dynamic, flexible, self-regulating, and engaged in the process of generating multiple decision frameworks focuses on sensing and processing variations in environments, then subsequently selecting among those multiple alternatives to effectively interpret, plan, and implement a wide variety of personal, social, and organizational goals in the context of a changing reality" (Haynie and Shepherd, 2009, p. 709). Charbonnier-Voirin, El Akremi and Vandenberghe (2010) developed a scale measuring the capacity to manage stressful situations, as well as the capability to accommodate diverse social context. I chose to use this measure of adaptive performance because the overall fit of this model was good, it was treated as a unidimensional contruct, it showed a high alpha coefficient ($\alpha = .87$) and it was cross-validated on two independent samples and it yielded a good fit to the data in both samples. The scale captures adaptive performance, based on Pulakos et al.'s (2000) definitions for eight dimensions of the construct. The final scale consist of 19 items which were used to capture adaptive performance among 5 dimensions: (1) handling emergencies and unpredictable situations (4 items); (2) handling work stress (3 items); (3) solving problems creatively (4 items); (4) learning (4 items); (5) demonstrating interpersonal adaptability (4 items). Each item is measured according to a seven-point behavioral frequency scale, with scores ranging from 1 (strongly disagree) to 7 (strongly agree). Higher overall scores indicate greater adaptive performance. The alpha value of the cognitive adaption scale was high ($\alpha = 0.90$). The reliability analysis showed there was only one item (SOL3) that could increase the alpha value only slightly after deleting it, however, the increase was practically zero (.002) so I decided not to do the analysis again and change the scale.

Big Five

The Big Five personality traits are used to describe human personality. The Big Five factors are openness, conscientiousness, extraversion, agreeableness, and emotional stability. The Big Five has been preferably used rather than other models of personality, because it is able to account for different traits in personality without overlapping (Goldberg, 1990). Goldberg (1992) developed a set of 100 adjective markers for the Big-Five factor structure to assess someone's personality. According to Saucier (1994) this 100-item inventory is too lengthy. Moreover, the 100 markers of Goldberg (1992) are beset by moderately high interscale correlations, and include a number of difficult and negation terms that add user-unfriendliness to the measure. Saucier (1994) therefore developed a well-constructed shorter inventory, called the Big-Five mini-markers. However, Thompson (2008) developed a revised marker set, which can be used in international research settings. This International English Mini-Markers set "produced better factor structures, higher scale internal consistency

reliabilities and greater orthogonality than the original set of items, prove to have temporal stability, and acceptable convergent validity" (Thompson, 2008, p.542). For each personality trait 8 characteristics (for example "organized", "jealous", "shy", "warm") are given and respondents rated the extent to which each characteristic described them on a 9-point scale ranging from 1 (extremely incorrect) to 9 (extremely correct). In this study, the five personality traits showed high alpha values, apart from the Emotional Stability scale, which showed a quite low reliability ($\alpha = 0.44$), therefore four items were deleted. The new value is still a low but acceptable alpha ($\alpha = 0.63$). Table 3.3 shows the alpha values and changes in the scales of the personality traits. An important note should be mentioned from this table. All means, except for emotional stability, are very high comparing to the maximum scores, indicating that respondents scored themselves on average high on these four traits.

Systematic cognitive working style

A systematic cognitive working style is "based on habit, or following set routines, adherence to rules and disciplinary boundaries, and use of rationality and logic", and in contrast, an intuitive cognitive working style is "characterized by overlapping separate domains of thought simultaneously, a lack of attention to existing rules and disciplinary boundaries, and an emphasis on imagery and intuition" (Scott and Bruce, 1994, p.587). There are many self-report measurements to assess individual differences in a cognitive working style (Scott and Bruce, 1994; Jabri, 1991). Most inventories focus on a specific context (e.g., career decision making, work in a specific field) and/or include items that reflect constructs other than cognitive style (e.g., conformity motivation, leadership style, ability). Sagiv et al. (2009) developed a new scale (the Thinking and Working Style scale - TWS) based on several existing inventories. With this new scale they focused on behavioural items rather than traits or characteristics, because cognitive working style is defined in terms of behavior. Five items in the questionnaire were designed to measure systematic cognitive style (e.g., ''Before I do something important, I plan carefully'', ''I usually make decisions in a systematic and orderly way''). The remaining five items were designed to measure intuitive style (e.g., ''I often follow my instincts',' ''I often make a good decision without really knowing why I made this choice''). In this study, respondents rated the extent to which each statement described them on a 7-point scale ranging from 1 (Totally incorrect) to 7 (Perfectly correct). There are diverse views in literature as to whether systematic and intuitive styles are two poles or the same dimension or two distinct dimensions. According to Sagiv et al. (2009) a person cannot apply both intuitive and systematic thinking at the same moment. Therefore the five intuitive items on the scale of Sagiv et al. (2009) were reversed and a 10-item scale measuring the systematic versus intuitive cognitive style was created. Higher overall scores indicate greater degree of systematic working style. First, the correlation between the two subscales is determined, because the scale consists of five items measuring "systematic style" and five items measuring "intuitive style", and negative correlation means that the two styles can be perceived as two poles. The systematic and intuitive scales were highly negatively correlated ($r = -.482$, $p < .01$)

and could therefore be combined. The internal consistency of the total problem solving scale was determined using Cronbach's alpha. However, the low alpha value (α = .027) of the total scale is a sign of a very weak internal consistency with this sample, indicating that the 10 items are not consistent in measuring the underlying construct of systematic style. The Cronbach's Alpha of the first five items measuring "systematic style" is α = .70. The Cronbach's Alpha of the five items measuring "intuitive style" is α = .183. Therefore, the five items of "intuitive style" were deleted from the scale, and the five items measuring "systematic style" are used in further analysis.

Climate for innovation

An organizational climate is an "individual cognitive representation of the organization setting expressed in terms that reflect psychologically meaningful interpretation of the situation" (Scott and Bruce, 1994, p. 581). This study measures to what extent the entrepreneur perceives the organization climate as supportive for innovation. "A climate for innovation reflects norms and practices that encourage flexibility, the expression of ideas, and learning" (Charbonnier-Voirin et al., 2010, p. 705). To measure the extent to which the climate supports innovation, a scale which was developed by Charbonnier-Voirin et al. (2010). This six-item scale addresses norms and practices that encouraged employees to generate and implement new ideas, products, and processes. Respondents rated the extent to which each statement described the norms and practices used in their organization on a 7-point scale ranging from 1 (Not at all) to 7 (To a very great extent). The internal consistency of innovation climate scale was good, as shown by the high alpha value (α = .910) of the scale.

Control variables

To investigate the results among different groups, the survey included some personal and company characteristics. The final demographics questions asked respondents for basic background information, including immigrant generation, age of immigration, gender, age, highest level of education, company's sector, company size (measured in number of employees), and annual turnover of company. However, in the end I had to delete annual turnover as a control variable because a large share of the respondents did not answer this question or gave answers which were implausible comparing to their amount of employees. For example, several respondents said 10 to 50 euros as their annual turnover, while their amount of employees reached over 10 or 20. Maybe the respondents meant these answers in thousands figures, however, I decided not to make assumption. Therefore, I dropped this variable.

Scale	Subscale	M	SD	N items	Items removed	Cronbach's alpha α Original study	Cronbach's alpha α My study
Innovative Behavior		73.67	13.38	15			.94
	Opportunity Exploration	15.95	3.12	3		.72	.81
	Generativity	11.09	2.32	2		.72	.81
	Formative investigation	15.61	3.15	3		.80	.80
	Championing	15.48	3.63	3		.89	.88
	Application	15.55	3.30	3		.80	.87
BII		97.10	13.86	19			.76
BII*		80.45	12.97	15	RCON2-4; BLE5		.81
	Harmony	50.71	8.95	10		.86	.74
	Harmony*	39.50	7.34	7	RCON2-4		.82
	Blendedness	46.39	9.46	9		.81	.77
	Blendedness*	40.95	8.91	8	BLE5		.78
Cognitive adaptability		102.97	13.538	19		.87	.90
	Handling emergencies and unpredictable situations	22.38	3.30	4		.74	.74
	Handling work stress	16.78	2.80	3		.65	.65
	Solving problems creatively	19.82	3.82	4		.72	.72
	Learning	22.06	3.83	4		.82	.82
	Demonstrating interpersonal adaptability	21.92	3.66	4		.81	.81
Problem solving scale		45.90	4.08	10		.81	.03
	Intuitive	21.49	3.38	5	INT5-10		.18
	Systematic	27.38	3.84	5			.70
Innovation climate		31.51	6.00	6		.87	.91
Big Five	Conscientiousness	55.06	9.055	8		.83	.86
	Conscientiousness*	41.76	7.457	6	RCNS3; RCNS6		.88
	Extraversion	49.42	9.559	8		.83	.78
	Extraversion*	45.30	8.920	7	REXT4		.80
	Openness	52.28	8.731	8		.78	.80
	Openness*	32.80	6.568	5	ROPN3; ROPN8; OPN4		.85
	Emotional Stability	36.50	7.232	8		.78	.44
	Emotional Stability*	14.84	5.515	4	EMO1; EMO2; EMO7; REMO4		.63
	Agreeableness	56.97	8.155	8		.81	.80
	Agreeableness*	52.27	7.795	7			.89

Table 3.3 Cronbach's alphas, before and after deleting, and original versus my study

Note. * = after deleting items

4. Results

4.1 Descriptive statistics

Before sending away, I adjusted the settings of the (online) questionnaire in such a way that the respondents were required to respond to every question before moving on to the next question. Hence, there was no missing data. However, some of the respondents only filled in the first questions and ended the questionnaire before completing it. These respondents were excluded from the analysis. In total, 37 (32.2%) first-generation entrepreneurs and 78 (67.8%) second-generation entrepreneurs have completed the questionnaire. The level of education had a distribution of 6 (5.2%) of secondary education, 13 (11.3%) of Vocational Education, 54 (47%) of University of Professional Education, 39 (33.9%) of University of Science and 2 (1.7%) of Doctorate. Below a table is given for the distribution of the number of years the entrepreneurs have experience in running and owning a business.

Years	Frequency	%
0-4	40	34.8
5-9	34	29.6
10-14	25	21.7
15-19	10	8.7
20-24	1	0.9
25-29	1	0.9
30-34	2	1.7
35-39	1	0.9
40-44	1	0.9
Total	115	100

Table 4.1 Entrepreneur's years of experience with owning and running a company

The table below shows the distribution of the sectors where the entrepreneurs are operating in. The majority of the entrepreneurs is active in the professional services, high-tech and creative industries.

Sector	Frequency	%		Frequency	%
Horticulture and starting materials	3	2.6	Agri & Food	2	1.7
Water	1	0.9	Life sciences and health	12	10.4
Chemistry	1	0.9	High tech	18	15.7
Energy	1	0.9	Logistics	11	9.6
Creative industries	15	13	Professional services	51	44.3
			Total	115	100

Table 4.2 Distribution of sectors

The average number of years the entrepreneurs in this sample have experience with owning and running a company is 8.4 years. The average number of employees the entrepreneurs in this sample have is 12. The distribution of the number of employees is shown in the table below.

Number of employees	Frequency	%
0-9	79	68.7
8	16	13.9
20-29	7	6.1
30-39	3	2.6
40-49	1	0.9
50-59	1	0.9
60-69	1	0.9
70-79	4	3.5
80-89	1	0.9
90-99	0	0
100-109	1	0.9
110-119	0	0
120-129	0	0
130-139	0	0
140-149	0	0
150-159	1	0.9
Total	115	100

Table 4.3 Number of employees in the entrepreneur's company

4.2 Reversed items

Some instruments in this study include negatively-keyed items. Negatively-keyed items are items that are phrased so that an agreement with the item represents a relatively low level of the attribute being measured. Before statistical analysis it was necessary to reverse code items that are negatively worded so that high value indicates the same type of response on every item. Some items of the scales of the five personality traits, all intuitive style items and some items of the BII scale were recoded before statistical analysis, recoding at the other scales was not necessary since they only included positively-keyed items. After having reverse-scored all of the negatively–keyed items on all instruments, the participants' total scores for each instrument could be computed and these scores were used in further analyses.

4.2 Correlations between key variables and control variables

Bivariate correlation analyses are performed to identify the correlations between the control variables and the key variables. Table 4.4 presents the summary statistics and zero-order correlations. Appendix D shows the correlations between the control variables and the key variables and the sub variables. First of all, there is a significantly negative correlation between generation and age, which can be easily explained; the older the entrepreneur the lower its generation. Age and experience is significantly positively correlated, which makes sense because the older the entrepreneur the more experienced he or she is. Generation is significantly negatively correlated with entrepreneur's experience, which means that the lower the generation, the higher its experience. In other words, entrepreneurs of the first generation have more experience with running and owning a business than the second generation, which again can be easily explained by the fact that the first generation is in general older as well and thus will have on average more experience. It should further be noted that one control variable, company size, is significantly positive correlated with one of the key variables, Bicultural Identity Integration (BII). This means the higher the degree of the entrepreneur's BII the higher the number of employees in its business (r = .217; p < .05).

To determine whether there are any significant differences between the BII and innovative behavior of entrepreneurs operating in different sectors an one-way analysis of variance (ANOVA) is used to test for differences among the sector groups. For BII, the significance level is .385 (p = .385), which is above .05 and, therefore, there is no statistically significant difference in the level of BII between entrepreneurs of different sector groups. For innovative behavior, the significance level is .334 (p = .334), which is above .05 as well and, therefore, there is no statistically difference in the level of innovative behavior between entrepreneurs of different sector groups.

Another remarkable significantly correlation is that between creativity and experience (r = -.233; p < .01), meaning that the more experience an entrepreneur has with owning and running a company, the lower his or her level of creativity. Generation is negatively correlated with emotional stability (r = -.291; p < .01), meaning that the second generation has a lower level of emotional stability. Openness and company size is positively correlated (r = .197; p < .05), meaning that the higher the number of employees in an entrepreneur's company, the higher his or her level of openness to experience. Agreeableness and age are positively correlated (r = .190; p < .05), meaning that the higher the entrepreneur's age, the higher his or her level of agreeableness. Conscientiousness and company size are negatively correlated (r = -.216; p < .05), meaning that the higher the number of employees in an entrepreneur's company, the lower his or her level of conscientiousness. Extraversion and gender are positively correlated (r = .187; p < .05), meaning that the female entrepreneurs show a higher level of extraversion in this study.

		M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1.	Gender	1.18	.39	-																
2.	Age	38.31	8.36	-.091	-															
3.	Generation	1.68	.469	.181	-.395**	-														
4.	Education level	5.16	.847	.072	-.029	-.070	-													
5.	Experience	8.40	7.263	-.107	.648**	-.222*	-.118	-												
6.	Company size	12.08	23.15	-.001	-.025	-.003	.084	.183	-											
7.	Bicultural Identity Integration	80.45	12.97	.011	.010	.158	.164	-.060	.217*	-										
8.	Individual Innovative Behavior	73.67	13.38	.132	.094	-.021	.115	.097	-.017	.338**	-									
9.	Creativity	6.17	3.88	.233*	-.108	.105	.154	-.223*	-.133	.115	-.025	-								
10.	Cognitive adaptation	102.97	13.54	.008	.136	-.045	.049	.072	.014	.421**	.726**	-.021	-							
11.	Openness	32.8	6.57	.049	.086	-.112	.134	-.118	-.197*	.143	.415**	.110	.448**	-						
12.	Emotional stability	14.84	5.51	-.015	.010	-.291**	.027	.051	-.181	-.258**	-.210*	-.012	-.188*	-.103	-					
13.	Agreeableness	52.27	7.79	.082	.190*	.007	.040	.087	-.090	.288**	.340**	.111	.534**	.562**	-.261**	-				
14.	Conscientiousness	41.76	7.46	-.006	.049	-.020	.044	.061	-.216*	.278**	.481**	.042	.556**	.419**	-.274**	.652**	-			
15.	Extraversion	45.30	8.92	.187*	-.006	.034	-.015	.037	.018	.221*	.561**	-.064	.511**	.441**	-.229*	.418**	.418**	-		
16.	Systematic working style	27.38	3.84	.017	.158	-.028	.030	.105	-.118	.272**	.583**	-.070	.718**	.288**	-.187*	.526**	.609**	.454**	-	
17.	Innovation climate	31.51	6.01	.069	.065	-.016	.150	.048	.081	.423**	.608**	-.015	.639**	.369**	-.183*	.362**	.469**	.477**	.566**	-

Table 4.4 Correlations between control variables and key variables

Note. N = 115. Alpha coefficients are reported in parentheses on the diagonal. For Gender, 1 = male, 2 = female. For Generation, 1 = first generation, 2 = second generation. Age and Experience are measured in years. For Education level, 1 = no formal schooling, 2 = primary education, 3 = secondary education, 4 = vocational education, 5 = university of professional education, 6 = university of science, 7 = doctorate. Company size is measured in number of employees. For Sector, 1 = horticulture and starting materials, 2 = agri & food, 3 = water, 4 = life sciences and health, 5 = chemistry, 6 = high tech, 7 = energy, 8 = logistics, 9 = creative industries, 10 = professional services.
****p < .05 **p <.01.***

4.3 The direct effect of a Bicultural Identity Integration on innovative behavior

To test the first hypothesis a linear regression analysis is done to determine how much of the variation in innovative behavior is explained by the degree of BII. To predict the entrepreneur's Individual Innovative Behavior (Y) a multiple regression is done, where Individual Innovative Behavior first is predicted based on the BII (X). The strength of the association between BII and Individual Innovative Behavior is measured, which is a moderate positive relation (R = .338, p < .01) indicating that the higher the entrepreneur's BII the higher its Individual Innovative Behavior. A linear regression established that BII could statistically significantly predict Individual Innovative Behavior, F(1,113) = 14.553, p < .01 and BII accounted for 11.4% of the explained variability in Individual Innovative Behavior. The regression equation is: predicted Individual Innovative Behavior = 45.647 + .348 x BII. To examine the influence of the control variables two other multiple regression models were performed, one with the personal control variables and one with the all control variables. See table 4.5 for the three regression models. The R squared of model 1 is .114 and as mentioned before implies that this model explains 11.4 percent of the variance of Individual Innovative Behavior.

	Model 1: Excluding control variables	**Model 2: including demographic control variables**	**Model 3: including demographic and company control variables**
	Individual Innovative Behavior	*Individual Innovative Behavior*	*Individual Innovative Behavior*
Constant	45.647	37.973	37.291
Bicultural Identity Integration	.338**	.378**	.397**
Age		.004	-.037
Gender		.156	.158
Generation		-.085	-.094
Education level		.053	.063
Experience		.085	.139
Company size			-.131
N	115	115	115
F	14.553	2.980	2.836
R^2	.114	.143	.158
Adj. R^2	.106	.095	.102

Table 4.5 Single (model 1) and multiple (model 2, 3) regression analyses
Note. *p < .05. ** p < .01.

However, there seem to be other influences on Individual Innovative Behavior next to the Bicultural Identity Integration. When adding the control variables, the R squared increases to .143 and .158 respectively. Therefore, when adding the control variables to the model, the prediction of Individual

Innovative Behavior is improved. The significant positive effect on Individual Innovative Behavior remains the same after adding the control variables. Hypothesis 1 is supported.

4.4 The mediating effect of creativity

The second hypothesis proposed that a positive effect of BII exists on Individual Innovative Behavior via creativity. A mediator analysis is performed (see table 4.6). A variable may be considered a mediator to the extent to which it carries the influence of a given independent variable to a given dependent variable. Generally speaking, mediation can be said to occur when (1) the independent variable significantly affects the dependent variable in the absence of the mediator, (2) the independent variable significantly affects the mediator, (3) the mediator significantly affects the dependent variable, and (4) the effect of the independent variable on the dependent variable shrinks upon the addition of the mediator to the model. Criteria 1 is met according to earlier analysis. First, a linear regression was conducted with creativity as a dependent variable, to test for the second criteria. Results showed a small, non-significant, positive relation between BII and creativity (B = .115, ns) meaning that criteria 2 is not met. After controlling for the control variables, the relation became little stronger, however, still not significant (B = .158, ns). Creativity consist of two dimensions: divergent and convergent thinking and therefore separate linear regression were done while adding these variables as dependent variables. The relation between BII and divergent thinking was positive, however, it was not significant (B = .125, ns). A positive non-significantly relation was found as well between BII and convergent thinking (B = .049, ns). Since criteria 2 is not met in the mediation analysis, it can be concluded that hypothesis 2 is not supported.

	Model 1a	**Model 1b Including control variables**	**Model 2**	**Model 2b Including control variables**	**Model 3a**	**Model 3b Including control variables**	**Model 4**	**Model 4b Including control variables**	**Model 5a**	**Model 5b Including control variables**	**Model 6a**	**Model 6b Including control variables**	**Model 7a**	**Model 7b Including control variables**
Dependent variable	*Individual Innovative Behavior*	*Individual Innovative Behavior*	*Creativity*	*Creativity*	*Individual Innovative Behavior*	*Individual Innovative Behavior*	*Divergent thinking*	*Divergent thinking*	*Individual Innovative Behavior*	*Individual Innovative Behavior*	*Convergent thinking*	*Convergent thinking*	*Individual Innovative Behavior*	*Individual Innovative Behavior*
Constant	45.647	37.291	3.407	-2.180	-.175	55.591	1.895		72.339	55.311	1.512	-1.795	75.205	54.423
Bicultural Identity Integration	.338**	.397**	.115	.358*			.125	.382*			.049	.359*		
Creativity					.025	.208								
Divergent thinking									.067	.210				
Convergent thinking													.119	.239
N	115	115	115	115	115	115	115	115	115	115	115	115	115	115
F	14.553	2.836	1.513	2.225	74.196	.687	1.795	2.594	.509	.698	.270	2.240	1.637	.918
R^2	.114	.158	.013	.128	.001	.043	0.16	.146	.004	.044	.002	.129	.014	.057
Adj. R^2	.106	.102	.004	.071	-.008	-.020	.007	.090	-.004	-.019	-.006	.071	.006	-.005

Table 4.6 Regression analysis BII, Individual Innovative Behavior and creativity

Note. *p < .05. ** p < .01.

4.5 The mediating effect of cognitive adaption

The third hypothesis proposed that a positive effect of BII exists on Individual Innovative Behavior via cognitive adaption. A mediator analysis is performed, see table 4.7 and 4.8. Criteria 1 is met according to earlier analysis. A linear regression was performed with cognitive adaption as dependent variable to test for the second criteria. Results showed a significantly positive relation between BII and cognitive adaption (B = .421, p < .01) which means that criteria 2 of the mediation analysis is met. Next, a linear regression was conducted with cognitive adaption as independent variable and Individual Innovative Behavior as dependent variable to test for criteria 3. Results showed a strong positive significantly relation between these variables (B = .726, p < .01), which means that criteria 3 of the mediation analysis is met as well. Hierarchical multiple regressions were conducted to measure the effect of the control variables, see table 4.7. As shown in the table, relations remain significantly after adding the control variables.

	Model 1:	**Model 3: Including control variables**	**Model 3:**	**Model 4: Including control variables**	**Model 5:**	**Model 6: Including control variables**
Dependent variable	*Individual Innovative Behavior*	*Individual Innovative Behavior*	*Cognitive adaption*	*Cognitive adaption*	*Individual Innovative Behavior*	*Individual Innovative Behavior*
Constant	45.647	37.291	67.639	65.415	-.175	-11.415
Bicultural Identity Integration	.338**	.397**	.421**	.441**		
Cognitive adaption					.726**	.738**
Age		-.037	.004	.068		-.075
Gender		.158	.156	.036		.131
Generation		-.094	-.085	-.099		-.013
Education level		.063	.053	-.022		.085
Experience		.139	.085	.021		.113
Company size		-.131		-.085		-.058
N	115	115	115	115	115	115
F	14.553	2.836	24.308	3.665	125.807	18.144
R^2	.114	.158	.177	.195	.527	.545
Adj. R^2	.106	.102	.170	.142	.523	.515

Table 4.7: Regression analyses BII, Individual Innovative Behavior and cognitive adaptability
Note. *p < .05. ** p < .01.

To test for the fourth criteria, a hierarchical multiple regression was done with the mediator. There is a significantly relation when adding the mediator (B = .709, p < .01). The effect of the independent variable on the dependent variable should shrink upon the addition of the mediator to the model.

Moreover, if the independent variable drops from a significant beta to a non-significant beta, that is full mediation. If it drops form a significant beta to a smaller significant beta, that is partial mediation. The relation between BII and Individual Innovative Behavior becomes weaker after adding the mediator (B = .039, ns), and the beta has become non-significant. After adding control variables, the results did not differ and criteria's were still met. The findings support full mediation, hypothesis 3 is accepted.

	Model 1:	**Model 2: including control variables**	**Model 3:**	**Model 4: Including control variables**
	Individual Innovative Behavior	*Individual Innovative Behavior*	*Individual Innovative Behavior*	*Individual Innovative Behavior*
Constant	45.647	32.862	-1.756	-11.731
Bicultural Identity Integration	.338**	.420**	.039	.031
Age		.008		-.047
Gender		.124		.106
Generation		-.072		-.008
Education level		.043		.062
Experience		.135		.121
Company size		-.110		-.055
Sector		.151		.123
Cognitive adaptability			.709**	690**
N	115	115	115	115
F	14.553	2.810	62.667	16.623
R^2	.114	.176	.528	.559
Adj. R^2	.106	.114	.520	.525

Table 4.8: Mediator analysis BII, Individual Innovative Behavior and cognitive adaptability
Note. *p < .05. ** p < .01.

4.6 Big Five and Individual Innovative Behavior

To test the sub hypotheses 4a-e the strength and direction of the relationship between the personality traits and Individual Innovative Behavior was measured. To test hypothesis 4a a linear regression analysis is done to determine how much of the variation in innovative behavior is explained by the level of openness of experience. To predict the entrepreneur's Individual Innovative Behavior (Y) a regression analysis is done, where Individual Innovative Behavior is predicted based on the level of openness to experience (X). The strength of the association between level of openness to experience and Individual Innovative Behavior is measured, which is a moderate positive relation (R = .415, p < .01) indicating that the higher the entrepreneur's level of openness to experience the higher its

Individual Innovative Behavior. A linear regression established that the level of openness to experience could statistically significantly predict Individual Innovative Behavior, F(1,113) = 23.504, p < .01 and openness to experience accounted for 17.2% of the explained variability in Individual Innovative Behavior. The regression equation is: predicted Individual Innovative Behavior = 17.790 + .204 x Openness to experience. After controlling for the control variables, the relation remain significant. Hypothesis 4a is accepted. Table 4.9 shows the results of this linear regression analysis, and the results of the regression analyses of the other hypotheses as well.

	Model 1	**Model 2: controlling covariates**	**Model 3**	**Model 4: controlling covariates**	**Model 5**	**Model 6: controlling covariates**	**Model 7**	**Model 8: controlling covariates**	**Model 9**	**Model 10: controlling covariates**
Dependent variable	*IIB**	*IIB*	*IIB*	*IIB*	*IIB*	*IIB*	*IIB*	*IBB*	*IBB*	*IBB*
Constant	17.790		21.210		37.668		22.018		17.726	
Openness	.415**	.405**								
Emotional stability			-.210*	-.254**						
Agreeableness					.340**	.296**				
Conscientiousness							.481**	.491**		
Extraversion									.561**	.523**
N	115	115	115	115	115	115	115	115	115	115
F	23.504		5.194		.509		33.948		52.006	
R^2	.172		.044		.116		.231		.315	
Adj. R^2	.165		.035		.108		.231		.309	

Table 4.9: Regression analyses Individual Innovative Behavior and personality traits
Note. *p < .05. ** p < .01.

Hypothesis 4b proposed that emotional stability is negatively related to Individual Innovative Behavior. Results of the regression analysis in table 4.9 show a significantly negative relation between these variables, before controlling for the covariates (B = -.210, p < .05), and after controlling for the covariates (B = -.254, p < .01). Hypothesis 4b is accepted. Hypothesis 4c proposed that agreeableness is negatively related to Individual Innovative Behavior. Results of the regression analysis in table 4.7 show a significantly positive relation between these variables, before controlling for the covariates (B = .340, p < .01), and after controlling for the covariates (B = .296, p < .01). After controlling for the covariates the relation becomes weaker, however, against expectations the higher the level of agreeableness the higher Individual Innovative Behavior. Hypothesis 4c is rejected. Hypothesis 4d proposed that conscientiousness is negatively related to Individual Innovative Behavior. Results of the regression analysis in table 4.9 show a significantly positive relation between these variables, before controlling for the covariates (B = .481, p < .01), and after controlling for covariates (B = .491, p < .01). Against earlier research, in this study conscientiousness seems not to negatively affect innovative

behavior, the effect is even significantly positively. Hypothesis 4d is rejected. Hypothesis 4e proposed that extraversion is positively related to Individual Innovative Behavior. Results of the regression analysis in table 4.9 show a significantly positive relation between these variables, before controlling for the covariates ($B = .561$, $p < .01$), and after controlling for the covariates ($B = .523$, $p < .01$). Hypothesis 4d is accepted.

4.5 Problem solving style

To test the fifth hypothesis the strength and direction of the relationship between Systematic style and Individual Innovative Behavior should be measured. A linear regression analysis is done to measure the effect of a systematic style on Individual Innovative Behavior. A positive significantly relation is found between Systematic problem solving style and Individual Innovative Behavior ($B = 583$, $p < .01$), indicating that the more systematic the Turkish entrepreneur works, the higher his or her level of innovative behavior. This finding is against expectations and hypothesis 5 will therefore be rejected.

4.6 Innovation climate

To measure the strength and direction of the relationship between organizational climate a regression analysis is done. It turned out that an organizational climate that supports innovation is highly positively related with innovative behavior ($B = .608$, $p < .01$). Hypothesis 6 is accepted.

4.7 Hypotheses overview

The table below shows an overview of the hypotheses tested in this study and whether they are accepted or rejected.

Hypothesis		Accepted?
1	The degree of bicultural identity integration of the ethnic entrepreneur will have a direct positive influence on his or her innovative behavior.	YES
2	The level of creativity of an ethnic entrepreneur will positively mediate the relationship between the degree of bicultural identity integration and his or her innovative behavior.	NO
3	The level of cognitive adaption of an ethnic entrepreneur will positively mediate the relationship between the degree of bicultural identity integration and his or her innovative behavior.	YES
4a	The level of an ethnic entrepreneur's openness to experience is positively related with his or her innovative behavior.	YES
4b	The level of an ethnic entrepreneur's emotional stability is negatively related with his or her innovative behavior.	YES
4c	The level of an ethnic entrepreneur's agreeableness is positively related with his or her innovative behavior.	NO
4d	The level of an ethnic entrepreneur's conscientiousness is negatively related with his or her innovative behaviour	NO
4e	The level of an ethnic entrepreneur's extraversion is positively related with his or her innovative behavior.	YES
5	The level of an ethnic entrepreneur's systematic problem solving style is negatively related with his or her innovative behavior.	NO
6	An innovation climate, perceived by the ethnic entrepreneur, is positively related with his or her innovative behavior.	YES

Table 4.10: Overview hypotheses accepted yes/no

5. Discussion and conclusions

5.1 Bicultural Identity integration and Individual Innovative Behavior

Consistent with the formulated hypothesis, Bicultural Identity Integration was founded to be significantly related to individual innovative behavior, it explained 11.4 percent of the variance in innovative behavior. The study provides evidence that, to a certain extent, a Turkish entrepreneur's ability to integrate both the Dutch and the Turkish identity can predict his or her innovative behavior. Difficulties with identity integration will have implications for the innovative behavior of Turkish entrepreneurs in the Netherlands. Those entrepreneurs with low identity integration may be more likely to activate one social identity at a time, and therefore are less likely to access disparate knowledge systems, resulting in lower levels of innovative behavior. Results also show that BII is stronger correlated with the second phase of innovative behavior ($B = .365$, $p < .01$, see Appendix D) than with other phases, meaning that identity integration is important for the generativity-phase. Bicultural entrepreneurs high on identity integration are thus particularly better in establishing and guiding ideas and solutions to the next generation. Earlier research suggest that individuals high on BII are chameleons who match their behavior to the situation. According to Benet-Martínez et al. (2002) individuals high on BII are better in the cultural frame-switching process. The cultural frame-switching process is the modification of someone's behavior in an interaction in a foreign setting in order to accommodate different cultural norms for appropriate behavior. This study found that individuals high on BII are particularly good in guiding ideas to next generation once an opportunity for change is recognized by someone else, probably because they are better in switching between different appropriate behaviors depending the context. Individuals high on BII do not directly resist change because they are better in switching to another frame, and will easily support the implementation of new ideas.

The positive influence of identity integration on innovative behavior found in this study has implications for understanding the ways innovative behavior of Turkish or other ethnic entrepreneurs can be improved. For example, research shows that identity integration is associated with past experiences (Phinney & Devich-Navarro, 1997; Vivero & Jenkins, 1999). There is preliminary evidence that identity integration increases when individuals recall positive experiences related to having multiple identities, but decreases when individuals recall negative experiences related to having multiple identities (Cheng & Lee, in press). Thus, conditions that emphasize positive past experiences related to having multiple social identities might increase identity integration and facilitate innovative behavior.

5.2 Creativity and cognitive adaption as mediators

It was further proposed that this effect (high BIIs being more innovative than low BIIs) will be mediated by creativity and cognitive adaption. Results show that creativity did not mediate this

relation. Especially the non-significantly and, however weak, negative relation between creativity and innovation (r = -.025, p < .01, see table 4.6) is totally against expectations. A large body of previous research on innovation or innovative behavior shows highly significantly positive relations between creativity and innovation. However, the way creativity is measured in this study may be questioned.

Examining the creativity measures leads to some notable observations. First of all, the scores on the RAT were on average very low (see appendix C). 40 respondents, which is almost 35% of the sample, did not fill out the RAT or did not give any correct answer. Moreover, 85% of the sample gave 3 or less correct answers. These results may implicate that the Turkish entrepreneurs are less able to think convergent. However, it is more likely that the majority of the sample did not understand the question correctly, or have not taken the question seriously, or scored low because the questions were not in their native language (but in Dutch and English), which makes the question even more difficult. The second creativity measure, the AUT, showed also low scores among the sample (see appendix C). Dippo (2013) examined the Alternative Uses Test extensively and in her study participants (n=2000) were also asked to list as many alternative uses for a paperclip as they can think of. In her study the average number of responses per participant was 10.2. In this study, the average number of responses per participant was 3.18. The problem might be that the test was taken online in this study and that the participants were said to record the time (two minutes) by themselves. Due to tight schedules of entrepreneurs, they perhaps took less than two minutes to come up with answers, which in turn may resulted in low scores. The study of Dippo (2013) also showed that later responses were significantly more novel than early responses. In other words, as the quantity of ideas goes up, the originality of those ideas goes up approaching a limit. On average, a participant would list 9 responses before arriving at responses that were thought of by less than 10% of the participant pool (Dippo, 2013, p. 432). None of the participants in this study gave more than 9 responses, indicating that they probably gave less novel responses than they would give if they took more time. However, as mentioned in the methodology section, timings were saved per question. The table below shows the timings for the creativity question, e.g. how long a user stays on the page with the two creativity tests. Participants are said to use no more than 7 minutes in total to complete the two questions. As shown in the table below only 53% of the participants used no more than 7 minutes to complete the question. It is not sure if the timings are the actual time spent on the creativity tests, because the participants could also do other things at the same time (like working on another screen or making a phone call). Nevertheless, the correlation between the time spent and the total score on the creativity tests was determined. There was a strong positive significantly correlation (r = .419, p < .01) between those variables, indicating that the longer the time the respondent spent on the creativity tests the higher its total score. The table below shows that 35% of the participants took 5 or less minutes to complete the tests. This means that it is likely that 35% of the participants could have got an higher score. Based on the discussion above, it can be concluded that the creativity scores are highly unreliable.

Time spent	Frequency # respondents	Percent %	Cumulative percent %
1 minute or less	3	3.0	3.0
1 to 2 minutes	4	4.0	7.0
2 to 3 minutes	11	11.0	18.0
3 to 4 minutes	11	11.0	29.0
4 to 5 minutes	6	6.0	35.0
5 to 6 minutes	10	10.0	45.0
6 to 7 minutes	8	8.0	53.0
7 to 8 minutes	10	10.0	63.0
8 to 9 minutes	0	0	63.0
9 to 10 minutes	1	1.0	65.0
10 to 11 minutes	5	5.0	69.0
11 to 12 minutes	4	4.0	73.0
12 to 13 minutes	8	8.0	81.0
13 to 14 minutes	2	2.0	83.0
14 to 15 minutes	1	1.0	84.0
More than 15 minutes	16	16	100
Total	100	100	
Missing values	15		
Total	**115**	**100**	

Table 4.9: Timings creativity question

Cognitive adaption was also proposed as a mediator and results give evidence that the relation between BII and individual innovative behavior was mediated by this variable. BII explained 17.7% of the variance in cognitive adaption, and cognitive adaption even explained 52.7% of the variance in innovative behavior. The results emphasize the importance of identity integration for someone's cognitive adaptability. It also emphasize that the innovative behavior of a Turkish entrepreneur is highly influenced by its cognitive adaptability.

5.3 Big Five and Individual Innovative Behavior

Four out of five personality traits are significantly positively correlated with innovative behavior. As hypothesized, previous research showed that conscientiousness and agreeableness are negatively

related with innovative behavior. However, this study showed a positive relation between these two personality traits and innovation.

The vast majority of research demonstrates that a lack of conscientiousness is related to innovation (e.g. King, walker and Broyles, 1996; Feist, 1999). Characteristics of conscientiousness are organized, neat and systematic. Evidence of these studies shows that individuals high on conscientiousness do not challenge authority and are more likely resist change. At first glance conscientiousness may appear to be negatively related to innovation, and results of this study seem to be conflicting. However, King et al. (1996) found that self-discipline and hard work is vital for innovative achievement. It is therefore hard to determine the relationship between conscientiousness and innovation, and so more research on this personality trait is clearly needed.

Previous studies also show that agreeableness is negatively associated with innovation, however, this study found a positive relation. An explanation for the positive influence of both conscientiousness and agreeableness on innovative behavior might be the method of a self-report; the results can be inaccurate due to errors in self-observation. For example, the participants might considered the agreeableness items as positive (kind, sympathetic, cooperative, warm) and the recoded items (unkind, rude, inconsiderate) as negative personality characteristics. This might have resulted in higher (or lower for the recoded items) scores on these items due to socially desirable responding. Participants who are on average in reality (comparing to others of roughly the same age) less cooperative or less sympathetic may perceive themselves as highly cooperative or highly sympathetic due to a lack of self-knowledge. Another possible reason for conflicting results is that in this big five inventory some items were negatively formulated (e.g., unorganized, uncreative), which might have confused participants when rating them. Participants could have made the wrong assumption that, for example, low scores on "uncreative" indicate that they are less creative. Furthermore, the inventory was not in the their native language, which makes this last explanation even more likely.

The previous chapter also showed some correlations between the five personality traits and some of the control variables. First, the second-generation showed a lower level of emotional stability which means that the second-generation entrepreneurs have more difficulties of being able to act in a rational manner than the first-generation. Second-generation immigrants have had education in the Netherlands, are usually active in other than niche markets, and are therefore often faced with situations with dilemmas of whether and to what degree they should maintain their home cultural identity and adopt the new host cultural identity. First-generation immigrants usually stay in their own ethnic network and are therefore less often faced with such situations. This might explain the lower level of emotional stability of second-generation Turkish-Dutch entrepreneurs. Second, entrepreneurs with a higher level of openness to experience have usually a higher number of employees in their business. An explanation might be that the level of openness to experience of an ethnic entrepreneur might influence the economic well-being of a company positively, which in turn leads to a higher

employee workforce. Moreover, an ethnic entrepreneur with a higher level on openness to experience might be more open to hire other people in his company, and is more willing to grow in numbers. Another explanation might be that the higher the number of employees is in a business, the more the entrepreneur is faced with different situations and different perspectives, and the higher his or her level of openness to experience will be. Third, the older the ethnic entrepreneur, the higher his level of agreeableness. It might be that the older the entrepreneur gets, the more he or she learns and the higher his or her level of flexibility gets, and the more he is willing to forgive and the more he becomes courteous. Fourth, the higher the level of conscientiousness of the ethnic entrepreneur the lower the number of employees in his or her business. An explanation might be that companies who have a high number of employees, are less dependent on the individual entrepreneur. In such situations, the entrepreneur might gain a decreasing level on conscientiousness, which means that he or she becomes more laid back, less goal-oriented, and less driven by success, and the more he trusts on his employees. Fifth, female Turkish-Dutch entrepreneurs show in this study a higher level of extraversion. Female entrepreneur are thus more outgoing and optimistic than male ethnic entrepreneurs.

5.4 Systematic problem solving style and Individual Innovative Behavior

Another striking finding in this study is the positive relation between a systematic problem solving style and innovative behavior. According to Scott and Bruce (1994) being a systematic problem solvers inhibit high levels of innovative behavior. Systematic problem solvers works with established methods or procedures, and are likely to generate conventional solutions to problems. Results of this study are totally against their study.

The mean scores per item of the scale (see appendix E) show high mean scores on the systematic items (>5). These high scores might be due to the errors in self-observation as described in the previous section. Although the intuitive items were deleted from the scale, it also might give some more insights when examining the mean scores of these intuitive items as well (see Appendix E as well). Only two items of the intuitive scale are scored low on average by the participants: “I often follow my instincts” and “I often make a good decision without really knowing how I did it”. The striking results of this study comparing to the study of Scott and Bruce (1994) might be due to the fact that Scott and Bruce performed their study among Americans. The conflicting results might then be a result of differences in characteristics of the Turkish and American culture. An intuitive working style might have negative associations in the Turkish culture, or Turkish entrepreneurs might be more systematic by nature. Furthermore, it is likely that the same individuals use systematic and intuitive problem solving at different times and different tasks. “Perhaps the true innovators are people who can use a style that is appropriate to the stage of the innovation cycle in which they are involved” (Scott and Bruce, 1994, p. 601). Further study on the implications of the various combinations of the systematic and intuitive style on innovative behaviour is needed.

5.5 Organization climate and Individual Innovative Behavior

An organization climate that supports innovation turned out to be positively related with innovative behavior, which is according expectations. Further, high levels of identity integration also turned out to be positively related with an innovative organization climate. However, culture should not be confused with climate. Culture refers to the deep structure of organizations, which is rooted in the values, beliefs and assumptions held by organizational members. In contrast, climate represents organizational environments as being rooted in the organization's value system. Climate is often relatively temporary, whereas culture is more stable over time (Denison, 1996). Culture exists at a higher level of abstraction than climate, and climate is a manifestation of culture (Pullen et al., 2009). Thus, climate can be more easily adjusted to the purposes of innovation and improving levels of BII.

5.6 Limitations and future research

This thesis represents an exploratory step towards understanding the relation between bicultural identity and innovation, and such, the results need to be replicated and the design should be refined and expanded in future studies.

However, most importantly, the literature has conceptualized identity integration primarily as a stable individual difference, and future research is needed to examine whether it can indeed be manipulated and increased. Future studies are needed on how to emphasize positive past experiences related to having multiple social identities because this might increase identity integration and in turn facilitate innovative behavior.

Secondly, this study relied entirely on a single ethnic group: Turkish-Dutch. Future studies should examine how generalizable the findings are to non-Turkish ethnic groups in the Netherlands (or in other countries), who are likely to have different cultural norms and migration histories.

Third, only entrepreneurs in SMEs are examined; thus, future work is needed to see whether BII is relevant to other individuals in an organization, and to individuals in large organizations, like managers.

Fourth, the sample size of this study was somewhat small for testing complex models, and, given the exploratory nature of this study, the findings and conclusions should be validated in future studies with larger numbers of participants. Moreover, when a higher sample size is generated Structural Equation Modeling (SEM) could be used. SEM is a very general, very powerful multivariate analysis technique that included specialized versions of a number of other analysis methods as special cases. However, SEM was not appropriate for the sample size and time length of this study.

A fifth limitation concerns the causality of the constructs. The possibility that relationships go in the opposite direction (from innovative behaviour to identity integration) cannot be excluded. Longitudinal studies that replicate similar measurements at different points of time would allow closer

examination of the issue of causality among constructs. Clearly, much work remains to be done to achieve a better understanding of the role of identity integration in innovation.

Moreover, monoculturals may also engage in frame-switching behaviors. Individuals have multiple, opposing identities across dimensions other than culture. Biculturalism is not a phenomenon that is relevant only to immigrants or people with multiple ethnic identities. Gender and ethnicity aside, race, religion, occupation, political affiliation, sexual orientation, and peer group can all create important sources of social identity, and each can create oppositional demands that individuals have to negotiate and integrate in their socially categorized lives (Baumeister, 1999; Fordham & Ogbu, 1986; Kray et al., 2001). Future research is necessary to explore relations between dual social, other than cultural, identities and innovative behavior.

5.7 Concluding remarks

In today's world where innovation rather than routine performance is a critical skill for success, it is important to understand how individuals innovate and the conditions which facilitate individuals' ability to innovate. Past research have long examined how structures and policies affect organizational innovation, however, this study focused on mechanisms underlying how individuals innovate. These mechanisms are highly important in SMEs since the individual entrepreneur has a major impact on the business outcomes. This thesis emphasizes and gave evidence that individual differences do have influence on innovative outcomes. Evidence is found that high identity integration, or perceptions that multiple and conflicting social identities are compatible, positively predicts individual-level innovation. These findings suggest that the psychology underlying innovation is an interesting field of research that can have theoretical implications for understanding how multiple identities are managed and negotiated, and practical implications for increasing individuals capacity to innovate in their everyday lives. Cultural and cross-cultural psychology seem to be moving away from an initial focus on cultural differences and dynamics between groups toward an interest in how cultures are negotiated and play out within the individual (Phinney, 1999). This shift calls for complex studies that acknowledge the interplay between personality, cultural and sociocognitive variables. The present study takes such an approach in trying to understand the influence of individual variations in bicultural identity integration (BII) on innovation. Hopefully, the present work brings awareness to the issue that biculturalism is a complex and multidimensional phenomenon, and has major implications for organizational success.

The findings of this study contributes and supports earlier findings on Bicultural Identity Integration; differences in identity integration have influences on individual behavior, as proposed by Berry (1990). The study also highlights the importance of the effects of the social environment, apart from inborn characteristics, on individual behavior. Moreover, this study supports the network theory since it highlights the importance of bridging structural holes between clusters of heterogeneous

information; Bicultural Identity Integration provides biculturals with social capital. The findings also contributes to the entrepreneurship literature, since it shows factors that have influences on innovation at the individual level of the (ethnic) entrepreneur. It also contributes to the literature about ethnicity and cultural differences, since this study is not only focused on demographical developments of immigrants in a host country, the present study has examined personal characteristics and success conditions for Turkish or other ethnic entrepreneurs.

6. References

Adler, N. J. (2002). *International Dimensions of Organizational Behavior*. Cincinnati: SouthWestern.

Akbari Chermahini, S. A., Hickendorff, M. and Hommel, B. (2012). Development and validity of a Dutch version of the Remote Associates Task: An item-response theory approach. Thinking Skills and Creativity, 7, 177-186.

Aleixo, G. G. and Tenera, A. B. (2009). High product development process on high-tech innovation life cycle. World Academy of Science, Engineering and technology, 58, 794-800.

Amabile, T. M. (1996). *Creativity in context: Update to the social psychology of creativity.* Boulder, CO: Westview Press.

Baron, R. A. (2000). Counterfactual thinking and venture formation: the potential effect of thinking about 'what might have been'. *Journal of Business Venturing, 15*(1), pp. 79–92.

Baycan Levent, T. Nijkamp, P.and Sahin, , M. (2009). New orientations in ethnic entrepreneurship: motivation, goals and strategies of new ethnic generation ethnic entrepreneurs. *International Journal of Foresight and Innovation Policy, 5*(1-3), 83-112.

Baycan-Levent, T. and Kundak, S. (2009). Motivation and driving forces of Turkish entrepreneurs in Switzerland. *Innovation: The European Journal of Social Science Research,* 22(3), 283-308.

Benet-Martínez, V. and Haritatos, J. (2005). Bicultural Identity Integration (BII): Components and socio-personality antecedents. *Journal of Personality, 73*, 1015-1049.

Benet-Martínez, V., Leu, J., Lee, F., and Morris, M. W. (2002). Negotiating biculturalism: cultural frame switching with oppositional versus compatible cultural identities. *Journal of Cross-cultural Psychology, 33*(5), 292-516.

Berry, J. W., (1997). Immigration, acculturation, and adaptation. *Applied Psychology: An International Review, 46*, 5-68.

Bhide, A. (2000). *The Origin and Evolution of New Businesses*. New York: Oxford University Press.

Bialystok, E. (1999). Cognitive complexity and attentional control in the bilingual mind. *Child development, 70,* 636-644.

Brockhaus, R. H. (1980). Risk taking propensity of entrepreneurs. *Academy of Management Journal, 23*(3), 509-520.

Burch, J. G. (1986). Profiling the entrepreneur. *Business Horizons, 29*(5), pp. 13-16.

Burns, T. and Stalker, G. M. (1961*). The management of innovation.* London: Tavistock.

Burt, R. S. (1992). Structural Holes. Cambridge, Mass.: Harvard University Press.

Burt, R. S. (2004). Structural holes and good ideas. *American Journal of Sociology, 110*(2), 349-399.

Busenitz, L.W. (1999). Entrepreneurial risk and strategic decision making. *Journal of Applied Behavioral Science, 35*(3), pp. 325–340.

Butler, J. S. and Greene, P. G. (1997). Ethnic Entrepreneurship: The Continuous Rebirth of American Enterprise, in *Entrepreneurship 2000*. Edited by Sexton, D. L. and Smilor, R. W. Chicago: Upstart Publishing Company.

Centraal Bureau voor de Statistiek (2000). Standaarddefinitie allochtonen, in Index: Hoe doet de CBS dat nou? Edited by Keij, I., pp. 24-25. Derived from: http://www.cbs.nl/NR/rdonlyres/26785779-AAFE-4B39-AD07-59F34DCD44C8/0/index1119.pdf

Centraal Bureau voor de Statistiek (2013). CBS Statline. Populations; sex, age, marital status, origin and generation. Derived from: http://statline.cbs.nl

Çelik, G. (2013). Het beste van beide werelden: Succesfactoren van Turks-Nederlandse ondernemers. *Journal of Social Intervention, 22*(3), 23-49

Charbonnier-Voirin, A., El Akremi, A., Vandenberghe, C. (2010). A multilevel model of tranformational leadership and adaptive performance and the moderating role of climate for innovation. *Group Organization Management, 35*(6), 699-726.

Chen, S. X. and Bond, M. H. (2010). Two languages, two personalities? Examining language effects on the expression of personality in a bilingual context. *Personality and Social Psychology Bulletin, 36*(100), 1514-1528.

Cheng C.-Y. and Lee, F. (in press). Multiracial identity integration: Perceptions of conflict and distance among multiracial individuals. *Journal of Social Issues.*

Cheng, C.-Y., Sanchez-Burks, J., and Lee, F. (2007). Increasing individual-level innovation through identity-integration. *Best Paper Proceedings of the 2007 Annual Meeting of Academy of Management* held in Philadelphia, PA.

Cheng, C.-Y., Sanchez-Burks, J, and Lee, F. (2008). Connecting the dots within creative performance and identity integration. *Psychological Science, 19*(11), 2008.

Chua, R. Y. J., Morris, M. W. and Mor, S. (2012). Collaborating across cultures: Cultural metacognition and affect-based trust in creative collaboration. *Organizational Behavior and Human Decision Processes, 118*(2), 116-131.

Comeche, J. M. and Loras, J. (2010). The influence of variables of attitude on collective entrepreneurship. *International Entrepreneurial Management, 6*, 23-38.

Cox, T., Jr. and Blake, S. (1991). Managing cultural diversity: Implications for organizational competitiveness. *Academy of Management Executive, 5*, 45-56.

De Meza, D. and Southey, C. (1996). The borrower's curse: optimism finance and entrepreneurship. *The Economic Journal, 106*(435), pp. 375–386.

Dillman, D. A. (1978). *Mail and Telephone Surveys: The Total Design Method*. New York: Wiley & Sons.

Dillman, D. A. (1991). The design and administration of mail surveys. Annual Review of Sociology, 17, 225-249.

Dippo, C. (2013). Evaluating The Alternative Uses Test of Creativity. Proceedings of the National Conference, On Undergraduate Research (NCUR) 2013. University of Winconsin La Crosse, WI.

Engelen, E. (2011). *Etnisch Ondernemerschap 2.0.* Oratie. Amsterdam: VU Press.

Estrada, C. A., Isen, A. M. and Young, M. J. (1994). Positive affect improves creative problem solving and influences reported source of practice satisfaction in physicians. *Motivation and Emotion, 18*(4), 285-299.

Evans M. D. R. (1989) . Immigrant Entrepreneurship: Effects of Ethnic Market Size and Isolated Labor Pool. *American Sociological Review, 54*(6), pp. 950-962.

Feist, G. J. (1998). A meta-analysis of personality in scientific and artistic creativity. *Personality and Social Psychology Review, 2*(4), 290-309.

García-Cabrera, A. M. and García-Soto, M. G. (2009). A dynamic model of technology-based opportunity recognition. *Journal of Entrepreneurship, 18*(2), 167-190.

Goldberg, L. R. (1990. An alternative "Description of personality", The Big-Five factor structure. *Journal of Personality and Social Psychology, 59*, 1216-1229.

Goldberg, L. R. (1992). The development of markers for the Big-Five Factor structure. *Psychological Assessment, 4*(1), 26-42.

Guilford, J. P. (1967). *The nature of human intelligence.* New York: McGraw-Hill.

Hagendoorn, L., Veenman, J. and Vollebergh, W. (2003). *Integrating Immigrants in the Netherlands: Cultural versus Socio-Economic Integration.* Burlington: Ashgate Publishing Company.

Hart, D., Acs, Z. and Tracy, S. (2009). *High-tech immigrant entrepreneurship in the United States.* Washington, DC: Corporate research Board.

Haynie, M. and Shepherd, D. A. (2009). A measure of adaptive cognition for entrepreneurship research. *Entrepreneurship Theory and Practice, 33*(3), 695-714

Hennessy, B. A. and Amabile, T. M. (1998). Reality, intrinsic motivation and creativity. *American Psychologist, 53*(6), p. 674-675.

Herbig, P. (1994). *The Innovation Matrix: Culture and Structure, Prerequisites to Innovation.* Westport, CT: Quorum Books.

Hitt, M. (2000). The new frontier: Transformation of management for a new millennium. *Organization Dynamics, 28*(3), 6-18.

Hitt, M. A.; Ireland, R. D.; Camp, S. M. and Sexton, D. L. (2001). Introduction to the Special Issue Strategic Entrepreneurship: Entrepreneurial Strategies for Wealth creation. *Strategic Management Journal*, 22(6), pp. 479-491.

Hong, Y. Y., Morris, M., Chiu, C. Y., and Benet-Martínez, V. (2000). Multicultural minds: A dynamic constructivist approach to culture and cognition. *American Psychologist, 55*, 709-720.

Huynh, Q. (2009). *Variations in biculturalism: Measurement, validity, mental and physical health/psycho-social correlates, and group differences of identity integration.* Unpublished doctoral dissertation. Riverside: University of California.

Huynh, Q., Nguyen, A. D. and Benet-Martínez, V. (2011). Bicultural identity integration. In S. J. Schwartz, K. Luyckx, and V. L. Vignoles (Eds.), *Handbook of identity theory and research* (827-844). New York: Springer.

Hurley, R. F. and Hult, G. T. M. (1998). Innovation, Market Orientation, and Organizational Learning: An Integration and Empirical Examination. *Journal of Marketing, 62*(3), 42-54.

Isralowitz, R. and Slonim-Nevo, V. (2002). Immigrant and delinquent youth: Patterns of substance abuse. *Addiction Research and Theory, 10*(4), 399-414.

Jabri, M. M. (1991). The development of conceptually independent sub-scales in the measurement of modes of problem solving. *Educational and Pscyhological Measurement, 51*, 975-983.

Janssen, O. (2004). How fairness perceptions make innovative behavior more or less stressful. *Journal of Organizational Behavior, 25*(2), pp. 201-215.

Jones, G. K. and Davis, H. J. (2000). National culture and innovation: implications for locating global R&D operations. *Management International Review (MIR), 40*(1), pp. 11–39.

Jong, de, J. and Hartog, den, D. (2010). Measuring innovative work behaviour. *Creativity and Innovation Management, 19*(1), 23-36.

Judge, T. A., Heller, D. and Mount, M. K. (2002) Five-factor model of personality and job satisfaction: A meta-analysis. *Journal of Applied Psychology, 87*, 530-541.

Kamer van Koophandel (2013). Startende ondernemers in beeld, in Rapport: Startersprofiel 2012, pp. 1-12. Derived from: http://www.kvk.nl/download/startersprofiel%202012_tcm14-341271.pdf

King, L.A, Walker, L. M. K. and Broyles, A. J. (1996). Creativity and the Five-Factor Model. *Journal of Research in Personality, 30*(2), 180-203.

King, N., and Anderson, N. (2002). *Managing innovation and change: a critical guide for Organizations.* London: Thomson.

Kirton, M. (1976). Adaptors and innovators: A description and measure. *Journal of Applied Psychology, 51*, 622-629.

Kleysen, R. F. and Street, C. T. (2001). Toward a multi-dimensional measure of individual innovative behavior. *Journal of Intellectual Capital, 2*(3), pp. 284-296.

Kloosterman, R., van der Leun, J. And Rath, J. (1999). Mixed embeddedness: (In)formal economic activities and immigrant business in the Netherlands. *International Journal of Urban and Regional Research, 23*(2), pp. 253-267.

Koh, H. C. (1996). Testing hypotheses of entrepreneurial characteristics: A study of Hong Kong MBA students. *Journal of Managerial Psychology, 11*(3), 2-25.

Leung, A. K., Maddux, W. W., Galinsky, A. D. and Chiu, C. (2008). Multicultural experience enhances creativity: The when and how. *American Psychologist, 63*, 169-181.

Maddux, W. W. and Galinsky, A. D. (2009). Cultural borders and mental barriers: The relationship between living abroad and creativity. *Journal of Personality and Social Psychology, 96*, 1047-1061.

Masurel, E., Nijkamp, P. and Vindigni, G. (2004). Breeding places for ethnic entrepreneurs: a comparative marketing approach. Research Memorandum 2002-23.

McLeod, P. L., Lobel, S. A. and Cox, T. H. Jr. (1996). Ethnic diversity and creativity in small groups. *Small Group Research, 27*, 246-264.

Mednick, S. A. (1962). The associative basis of creative problem solving process. *Psychological Review, 69,* 200-232.

Mednick, S. A. and Mednick, M. T. (1967). Examiner's manual, Remote Associates Test: College and adult forms 1 and 2. Boston: Houghton Mifflin.

Miron, E., Erez, M. and Naveh, E. (2004). Do personal characteristics and cultural values that promote innovation, quality, and efficiency compete or complement each other? *Journal of Organizational Behavior, 25*(2), 175-199.

Mitton, D. G. (1989). The complete entrepreneur. *Entrepreneurship: Theory and Practice, 13*(3), 9-19.

Morris, M.H., Avila, R.A. and Allen, J. (1993). Individualism and the modern corporation: implications for innovation and entrepreneurship. *Journal of Management, 19*(3), pp. 595–612.

Nguyen, A. M. D. and Benet-Martínez, V. (2007). Biculturalism unpacked: components, measurement, individual differences, and outcomes. *Social and Personality Psychology Compass, 1(*1), 101-114.

Nicholson, N. , Soane, E., Fenton-O'Creevy, M. and Willman, P. (2005). Personality and domain-specific risk taking. Journal of risk Research, 8, 157-176.

Niebuhr, A. (2006). Migration and Innovation: does cultural diversity matter for regional R&D activity*? IAB discussion paper*. Derived from: http://hdl.handle.net/10419/31908

Nijkamp, P. (2003). Entrepreneurship in a modern network economy. *Regional studies: The Journal of the Regional Studies Association, 27*(4), 395-405.

Organization for Economic Cooperation and Development, (OECD). Performance Information in the Budget Process: Results of the OECD 2005 Questionnaire. OECD Journal on Budgeting, 5(2), ISSN 1608-7143.

Organization for Economic Cooperation and Development (OECD). Annual National Accounts-Volume 1- Exchange Rate, PPPs, and Population, Vol. 2006 release 02. Accessed March 30, 2013.

Organization for Economic Cooperation and Development (OECD). Annual National Accounts-Volume 1- Population and Employment, Vol. 2005 Release 02. Accessed March 30, 2013

Oh, Y., Koeske, G. F. and Sales, E. (2002). Acculturation, stress and depressive symptoms among Korean immigrants in the United States. *The Journal of Social Psychology, 142*, 511-526.

Pannekoek, L., Van Kooten, O.; Kemp, R. and Omta, S. W. F. (2005). Entrepreneurial innovation in chains and networks in Dutch greenhouse horticulture. *Journal on Chain and Network Science, 5*(1), pp. 39-50.

Perkins, D. N. (1981). *The mind's best work.* Cambridge, MA: Harvard University Press.

Phinney, J. S. and Devich-Navarro, M. (1997). Variations in bicultural identification among African American and Mexican American adolescents. *Journal of Research on Adolscence, 7*, 3-32.

Phinney, J.S., Horenczyk, G., Liebkind, K. and Vedder, P. (2001). Ethnic identity, immigration, and well-being: An interaction perspective. *Journal of Social Issues, 57*, 493-510.

Pullen, A., de Weerd-Nederhof, P., Groen, A., Song, M. and Fisscher, O. (2009). *Successful patterns of Internal SME characteristics leading to high overall innovation performance. Creativity and Innovation Management, 18*(3), 209-223.

Rath, J. (1991). *Minorisering: De sociale constructie van etnische minderheden {The social construction of ethnic minorities]*. Amsterdam: SUA.

Rijksoverheid. (n.d). Ondernemersklimaat en innovatie. Retrieved Septembre 10, 2013, from http://www.rijksoverheid.nl/onderwerpen/ondernemersklimaat-en-innovatie/investeren-in-topsectoren

Rudmin, F. W. (2003). Critical history of acculturation psychology of assimilation, integration, separation and marginalization. *Review of General Psychology, 31*, 81-91.

Rušinović, K. (2006). *Dynamic Entrepreneurship: First and second-generation immigrant entrepreneurs in Dutch cities*. Amsterdam: Amsterdam University Press.

Saer, D. J. (1922). An inquiry into the effect of bilingualism upon the intelligence of young children. *Journal of Experimental Pedagogy, 6*, 232-240, 266-274.

Saer, D. J. (1923). The effects of bilingualism on intelligence. *British Journal of Psychology, 14*, 25-38.

Sagiv, L., Arieli, S., Goldenberg , J. and Goldschmidt, A. (2009). Structure and freedom in creativity: the interplay between externally imposed structure and personal cognitive style. *Journal of Organizational Behavior, 31*(8), 1086-1110.

Sahin, M., Nijkamp, P. and Rietdijk, M. (2009). Cultural diversity and urban innovativeness: personal and business characteristics of urban migrant entrepreneurs. *Innovation: The European Journal of Social Science Research, 22*(3), pp. 251-281.

Sahin, M., Baycan, T. and Nijkamp. P. (2012). The economic importance of migrant entrepreneurship: An application of data envelopment analysis. *Research Memorandum 2012-8*. Amsterdam: VU Press.

Saucier, G. (1994). Mini-Markers: a brief version of Goldberg's Unipolar Big-Five Markers. *Journal of Personality Assessment, 63*(3), 506-516.

Scott, S. G. and Bruce, R. A. (1994). Determinants of Innovative Behavior: A Path Model of Individual Innovation in th Workplace. The Academy of Management Journal, 27(3), pp. 580-607.

Schumpeter, J. (1912). *The Theory of Economic Development.* New York: Harper & Brothers.

Schwartz, S. J. (2005). A new identity for identity research: Recommendations for expanding and refocusing the identity literature. *Journal of Adolescent Research, 20*, 293-308.

Simonton, D. K. (1999). Talent and its development: an emergenic and epigenetic model. *Psychological Review, 106*, 435-457.

Smith, D. A., and Lohrke, F. T. (2008). Entrepreneurial network development: Trusting in the process. *Journal of Business Research, 61*(4), pp. 315-322.

Tadmor, C. T., Galinsky, A. D. and Maddux, W. W. (2012). Getting the most out of living abroad. Biculturalism and integrative complexity as key drivers of creative and professional success. *Journal of Personality and Social Psychology*. Advance online publication. doi: 10.1037/a0029360

Thompson, E. R. (2008). Development and validation of an International English Big-Five Mini-Markers. *Personality and Individual Differences, 45*, 542-548.

Tiessen, J.H. (1997). Individualism, collectivism, and entrepreneurship: a framework for international comparative research. *Journal of Business Venturing*, *12*(5), pp. 367–384.

Tillaart, H. van den (2001). Monitor etnisch ondernemerschap 2000. Zelfstandig ondernemerschap van etnische minderheden in Nederland in de periode 1990-2000. Nijmegen: ITS.

Vedder, P. and Virta, E. (2005). Language, ethnic identity, and the adaptation of Turkish immigrant youth in the Netherlands and Sweden. I*nternational Journal of Intercultural Relations, 29*(3), 317-337.

Ven, van de, A. H. (1986). Central Problems in the Management of Innovation. *Management of Science, 32*(5), pp. 590-607.

Vivero, V. N. and Jenkins, S. R. (1999). Existential hazards of the multicultural individual: Defining and understanding "cultural homelessness". *Cultural Diversity & Ethnic Minority Psychology, 5*, 6-26.

Aldrich, H. E. and Waldinger, R. (1990). Ethnicity and entrepreneurship. *Annual Review of Sociology, 16*, 111-135.

Ward, C. and Kennedy, A. (1994). Acculturation strategies, psychological adjustment, and socio-cultural competence during cross-cultural transitions. *International Journal of Intercultural Relations, 18*, 329-343.

Wickham, P. A. (2006). *Strategic Entrepreneurship*. Harlow: Pearson Education Limited.
Yukl, G. (2002). *Leadership in organizations.* New York: Prentice Hall

Zacharakis, A. L.; McMullen, J.S. and Shepherd, D.A. (2007). Venture capitalists' decision policies across three countries: an institutional theory perspective. *International Business Studies, 38*(5), pp. 691–709.

Zhao, H. and Seibert, S. E. (2006). The Big Five personality dimensions and entrepreneurial status: A meta-analytical review. *Journal of Applied Psychology, 91*, 259-271.

Appendices

Appendix A: Absolute numbers of populations and entrepreneurs from different ethnic groups and normalized growth rates

in the Netherlands	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total population	15760225	15863950	15987075	16105285	16192572	16258032	16305526	16334210	16357992	16405399
Total entrepreneurs	929500	957400	970300	968800	970700	948000	969100	1038500	1087600	1116900
Natives	13060991	13088648	13116851	13140336	13153814	13169880	13182809	13186595	13187586	13189983
Native entrepreneurs	822400	843100	849100	845700	845300	824900	841900	898600	935200	956000
Corrected growth rate		2,30%	0,50%	-0,58%	-0,15%	-2,53%	1,96%	6,70%	4,07%	2,21%
Western immigrants	1353199	1366535	1387036	1406596	1416156	1419855	1423675	1427565	1431954	1449686
Western immigrant entrepreneurs	73000	75800	77600	77600	77700	75300	77800	85300	91100	95000
Corrected growth rate		2,82%	0,86%	-1,39%	-0,55%	-3,34%	3,04%	9,34%	6,47%	3,01%
Non-Western immigrants	1346035	1408767	1483188	1558353	1622602	1668297	1699042	1720050	1738452	1765730
Non-Western immigrants entrepreneurs	34100	38500	43700	45500	47700	47800	49400	54600	61300	65900
Corrected growth rate		7,88%	7,81%	-0,90%	0,68%	-2,54%	1,48%	9,18%	11,08%	5,84%
Morrocans	252493	262221	272752	284124	295332	306219	315821	323239	329493	335127
Morrocan entrepreneurs	2800	3300	4000	4300	4600	4700	4900	5500	6600	7200
Corrected growth rate		13,48%	16,53%	3,20%	2,92%	-1,46%	1,09%	9,67%	17,72%	7,26%
Surinamese	296984	302514	308824	315177	320658	325281	329430	331890	333504	335799
Surinamese entrepreneurs	6400	7100	7800	7900	8100	7900	8300	9100	10200	11100
Corrected growth rate		8,91%	7,61%	-0,76%	0,78%	-3,86%	3,74%	8,83%	11,55%	8,08%
Antilleans	99130	107197	117089	124870	129312	130722	130538	129683	129965	131841
Antillean entrepreneurs	1500	1800	2000	2100	2200	2100	2300	2006	3000	3300
Corrected growth rate		10,97%	1,72%	-1,54%	1,16%	-5,58%	9,68%	-12,21%	49,23%	8,43%
Turks	299662	308890	319600	330709	341400	351648	358846	364333	368600	372714
Turkish entrepreneurs	7900	9300	11000	11500	12000	12000	12200	13700	15600	16800
Corrected growth rate		14,20%	14,32%	1,03%	1,08%	-2,91%	-0,37%	10,60%	12,55%	6,50%
Other non-Western	397766	427945	464923	503473	535900	554427	564407	570905	576890	590249
Other non-Western entrepreneurs	15400	17000	18800	19800	20900	21000	21700	23700	25900	27500

Corrected growth rate		2,60%	1,79%	-2,74%	-0,83%	-2,88%	1,51%	7,97%	8,15%	3,77%
First-generation Turks	175229	177754	181595	185943	190219	194319	195678	195711	195113	194556
First-generation Turkish entrepreneurs	7200	8200	9600	10000	10300	10100	10200	11200	12600	13400
Corrected growth rate		12,27%	14,60%	1,73%	0,68%	-4,01%	0,29%	9,79%	12,84%	6,65%
Second-generation Turks	124433	131136	138005	144766	151181	157329	163168	168622	173487	178158
Second-generation Turkish entrepreneurs	800	1000	1300	1500	1700	1900	2000	2500	3000	3400
Corrected growth rate		18,61%	23,53%	10,00%	8,52%	7,40%	1,50%	20,96%	16,63%	10,36%
Native total 25 or older	9250755	9284812	9308665	9329227	9338797	9351295	9366175	9382162	9393979	9404249
Native entrepreneurs 25 or older	804400	824000	829900	827300	827600	808300	825700	878900	915200	935700
Turks total 25 or older	145142	152011	159063	166037	173614	181910	188341	194506	200357	205371
Turks entrepreneurs 25 or older	6900	8100	9700	10200	10800	10800	11100	12600	14500	15600
Corrected growth rate Native 25 or older		2,06%	0,46%	-0,53%	-0,07%	-2,46%	1,99%	6,26%	4,00%	2,13%
Corrected growth rate Turks 25 or older		12,09%	14,44%	0,74%	1,26%	-4,56%	-0,73%	9,92%	11,72%	4,96%

Source: CBS, 2013

Formula: Normalized growth rate = $\frac{Entrepreneurs^{new}Population^{old} - Population^{new}Entrepreneurs^{old}}{Entrepreneurs^{old}Population^{new}}$

Appendix B: Age and gender distribution compared to CBS (2008)

Age distribution

	Sample		CBS (2008)	
Age categories	**Frequency**	**%**	**Frequency**	**%**
15-19	0	0	100	0.6
20-24	2	1.7	1100	6.6
25-29	12	10.4	2400	14.3
30-34	30	26.1	3100	18.5
35-39	24	20.9	3900	23.2
40-44	18	15.7	3300	19.6
45-49	21	18.3	1800	10.7
50-54	4	3.5	600	3.6
55-59	2	1.7	200	1.2
60-64	1	0.9	100	0.6
65-69	1	0.9	100	0.6
Total	115	100	16800	100

Gender

	Sample	%	CBS (2008)	
	Frequency		**Frequency**	**%**
Male	94	81.7	14000	83.3
Female	21	18.3	2800	16.7
Total	115	100	16800	100

Appendix C: Creativity measures

Remote Association Test

Correct answers	Respondents		Cumulative %
#	#	%	
0	40	34.8	34.8
1	16	13.9	48.7
2	14	12.2	60.9
3	16	13.9	85.2
4	16	13.9	85.2
5	3	2.6	87.8
6	6	5.2	93
7	5	4.3	97.4
8	3	2.6	100

M = 2.21

Alternative Associative Test

Correct answers (Fluency)	Respondents		Cumulative %
#	#	%	
0	17	14.8	14.8
1	11	9.6	24.3
2	20	17.4	41.7
3	20	17.4	59.1
4	21	18.3	77.4
5	8	7.0	84.3
6	5	4.3	88.7
7	6	5.2	93.9
8	4	3.5	97.4
9	3	2.6	100

M = 3.18

Appendix D: Correlations with key variables, control variables, and sub variables

Control variables, BII and innovative behavior

	M	SD	1	2	3	4	5	6	7	7.1	7.2	8	8.1	8.2	8.3	8.4	8.5
1. Gender	1.18	.39	-														
2. Age	38.31	8.36	-.091	-													
3. Generation	1.68	.469	.181	-.395**	-												
4. Education level	5.16	.847	.072	-.029	-.070	-											
5. Experience	8.40	7.263	-.107	.648**	-.222*	-.118	-										
6. Company size	12.08	23.15	-.001	-.025	-.003	.084	.183	-									
7. Bicultural Identity Integration	80.45	12.97	.011	.010	.158	.164	-.060	.217*	-								
7.1 Harmony vs. Conflict	39.50	7.34	-.103	.152	.083	.106	.072	.123	.750**	-							
7.2 Blendedness vs. Compartmentalization	40.95	8.91	.102	-.112	.162	.152	-.146	.215*	.839**	.286**	-						
8. Individual Innovative Behavior	73.67	13.38	.132	.094	-.021	.115	.097	-.017	.338**	.270**	.269*	-					
8.1 Opportunity exploration	15.95	3.12	.102	.126	-.060	.131	.093	.046	.298**	.275**	.207*	.839**	-				
8.2 Generativity	11.09	2.32	.138	.086	-.038	.108	.010	-.044	.365**	.345**	.248**	.869**	.756**	-			
8.3 Formative investigation	15.61	3.15	.152	.061	.009	.066	.067	-.013	.330**	.273**	.256**	.876**	.663**	.742**	-		
8.4 Championing	15.48	3.63	.130	.079	-.069	.102	.118	-.019	.251**	.171	.224*	.868**	.603**	.669**	.708**	-	
8.5 Application behavior	15.55	3.30	.051	.056	.064	.089	.104	-.048	.240**	.143	.231*	.855**	.628**	.659**	.668**	.700**	-

**p < .05 **p <.01.*

Innovative behavior, BII and Adaptive cognition

	1	1.1	1.2	1.3	1.4	1.5	2	2.1	2.2	3	3.1	3.2	3.3	3.4	3.5
1. Individual Innovative Behavior	-														
1.1 Opportunity exploration	.839**	-													
1.2 Generativity	.869**	.756**	-												
1.3 Formative investigation	.876**	.663**	.742**	-											
1.4 Championing	.868**	.603**	.669**	.708**	-										
1.5 Application	.855**	.628**	.659**	.668**	.700**	-									
2. Bicultural Identity Integration	.338**	.298**	.365**	.330**	.251**	.240**	-								
2.1 Harmony vs. Conflict	.270**	.275**	.345**	.273**	.171	.143	.750**	-							
2.2 Blendedness vs. Compartmentalization	.269**	.207**	.248**	.256**	.224*	.231**	.839**	.268**	-						
3. Adaptive cognition	.726**	.587**	.658**	.665**	.615**	.611**	.421**	.373**	.305**	-					
3.1 Handling emergencies	.702**	.581**	.645**	.688**	.553**	.577**	.331*	.355**	.190*	.801**	-				
3.2 Handling work stress	.546**	.421**	.527**	.498**	.437**	.486**	.363**	.333**	.255**	.709**	.574**	-			
3.3 Solving problems creatively	.477**	.377**	.369**	.410 **	.467**	.410**	.222*	.225*	.138	.798**	.483**	.515**	-		
3.4 Learning	.630**	.529**	.566**	.587**	.542**	.498**	.358**	.321**	.257**	.826**	.627**	.378**	.610**	-	
3.5 Demonstrating interpersonal adaptability	.478*	.380**	.474**	.417**	.388**	.418**	.374**	.234*	.351**	.739**	.463**	.407**	.441**	.520**	-

p < .05 **p <.01.

Appendix E: Means and standard deviations of the systematic working style scale

Items #	Mean	SD
Systematic		
Before I do anything important, I carefully plan my actions	5.54	1.179
Before I start working on an assignment I gather all the needed information	5.21	1.143
When I do something of great importance, I make an effort to follow my working plan	5.38	1.121
I usually make decisions in a systematic and organized way	5.77	1.012
When I have to choose between alternatives, I analyze each of them and choose the best one	5.49	1.209
Intuitive		
I often follow my instincts	2.76	1.554
I know a way of conduct suits me, if I feel it's right	5.21	1.188
I often start working on an assignment with no idea of what I'm about to do	4.51	1.385
When I decide how to act, I follow my inner feelings and emotions	5.64	1.171
I often make a good decision without really knowing how I did it	3.37	1.624

Appendix F: Code sheet variables

Question	Variable in SPSS	Subvariable	Lable (item)	Answer code
CODES				
1A	DVG1	Divergent thinking	Fluency	
	DVG2		Originality	
1B	CVG1	Convergent thinking	Convergent thinking	
2	EXT1	Extraversion	Shy	1 = extremely inaccurate / 2 = very inaccurate / 3 = moderately inaccurate/ 4= slightly inaccurate / 5 = neutral / 6 = slightly accurate / 7 = moderately accurate / 8 = very accurate / 9 = extremely accurate
	EXT2		Talkative	1 = extremely inaccurate / 2 = very inaccurate / 3 = moderately inaccurate/ 4= slightly inaccurate / 5 = neutral / 6 = slightly accurate / 7 = moderately accurate / 8 = very accurate / 9 = extremely accurate
	EXT3		Energetic	1 = extremely inaccurate / 2 = very inaccurate / 3 = moderately inaccurate/ 4= slightly inaccurate / 5 = neutral / 6 = slightly accurate / 7 = moderately accurate / 8 = very accurate / 9 = extremely accurate
	EXT4		Quiet	1 = extremely inaccurate / 2 = very inaccurate / 3 = moderately inaccurate/ 4= slightly inaccurate / 5 = neutral / 6 = slightly accurate / 7 = moderately accurate / 8 = very accurate / 9 = extremely accurate
	EXT5		Extraverted	1 = extremely inaccurate / 2 = very inaccurate / 3 = moderately inaccurate/ 4= slightly inaccurate / 5 = neutral / 6 = slightly accurate / 7 = moderately accurate / 8 = very accurate / 9 = extremely accurate
	EXT6		Outgoing	1 = extremely inaccurate / 2 = very inaccurate / 3 = moderately inaccurate/ 4= slightly inaccurate / 5 = neutral / 6 = slightly accurate / 7 = moderately accurate / 8 = very accurate / 9 = extremely accurate
	EXT7		Reserved	1 = extremely inaccurate / 2 = very inaccurate / 3 = moderately inaccurate/ 4= slightly inaccurate / 5 = neutral / 6 = slightly accurate / 7 = moderately accurate / 8 = very accurate / 9 = extremely accurate

	EXT8		Untalkative	1 = extremely inaccurate / 2 = very inaccurate / 3 = moderately inaccurate/ 4= slightly inaccurate / 5 = neutral / 6 = slightly accurate / 7 = moderately accurate / 8 = very accurate / 9 = extremely accurate
	OPN1	Openness	Creative	1 = extremely inaccurate / 2 = very inaccurate / 3 = moderately inaccurate/ 4= slightly inaccurate / 5 = neutral / 6 = slightly accurate / 7 = moderately accurate / 8 = very accurate / 9 = extremely accurate
	OPN2		Intellectual	1 = extremely inaccurate / 2 = very inaccurate / 3 = moderately inaccurate/ 4= slightly inaccurate / 5 = neutral / 6 = slightly accurate / 7 = moderately accurate / 8 = very accurate / 9 = extremely accurate
	OPN3		Unimaginative	1 = extremely inaccurate / 2 = very inaccurate / 3 = moderately inaccurate/ 4= slightly inaccurate / 5 = neutral / 6 = slightly accurate / 7 = moderately accurate / 8 = very accurate / 9 = extremely accurate
	OPN4		Artistic	1 = extremely inaccurate / 2 = very inaccurate / 3 = moderately inaccurate/ 4= slightly inaccurate / 5 = neutral / 6 = slightly accurate / 7 = moderately accurate / 8 = very accurate / 9 = extremely accurate
	OPN5		Intelligent	1 = extremely inaccurate / 2 = very inaccurate / 3 = moderately inaccurate/ 4= slightly inaccurate / 5 = neutral / 6 = slightly accurate / 7 = moderately accurate / 8 = very accurate / 9 = extremely accurate
	OPN6		Philosphical	1 = extremely inaccurate / 2 = very inaccurate / 3 = moderately inaccurate/ 4= slightly inaccurate / 5 = neutral / 6 = slightly accurate / 7 = moderately accurate / 8 = very accurate / 9 = extremely accurate
	OPN7		Deep	1 = extremely inaccurate / 2 = very inaccurate / 3 = moderately inaccurate/ 4= slightly inaccurate / 5 = neutral / 6 = slightly accurate / 7 = moderately accurate / 8 = very accurate / 9 = extremely accurate
	OPN8		Uncreative	1 = extremely inaccurate / 2 = very inaccurate / 3 = moderately inaccurate/ 4= slightly inaccurate / 5 = neutral / 6 = slightly accurate / 7 = moderately accurate / 8 = very accurate / 9 = extremely accurate
	EMO1	Emotional Stability	Envious	1 = extremely inaccurate / 2 = very inaccurate / 3 = moderately inaccurate/ 4= slightly inaccurate / 5 = neutral / 6 = slightly accurate / 7 = moderately accurate / 8 = very accurate / 9 = extremely accurate
	EMO2		Emotional	1 = extremely inaccurate / 2 = very inaccurate / 3 = moderately inaccurate/ 4= slightly inaccurate / 5 = neutral / 6 = slightly accurate / 7 = moderately accurate

				/ 8 = very accurate / 9 = extremely accurate
	EMO3		Anxious	1 = extremely inaccurate / 2 = very inaccurate / 3 = moderately inaccurate/ 4= slightly inaccurate / 5 = neutral / 6 = slightly accurate / 7 = moderately accurate / 8 = very accurate / 9 = extremely accurate
	EMO4		Unworried	1 = extremely inaccurate / 2 = very inaccurate / 3 = moderately inaccurate/ 4= slightly inaccurate / 5 = neutral / 6 = slightly accurate / 7 = moderately accurate / 8 = very accurate / 9 = extremely accurate
	EMO5		Jealous	1 = extremely inaccurate / 2 = very inaccurate / 3 = moderately inaccurate/ 4= slightly inaccurate / 5 = neutral / 6 = slightly accurate / 7 = moderately accurate / 8 = very accurate / 9 = extremely accurate
	EMO6		Unenvious	1 = extremely inaccurate / 2 = very inaccurate / 3 = moderately inaccurate/ 4= slightly inaccurate / 5 = neutral / 6 = slightly accurate / 7 = moderately accurate / 8 = very accurate / 9 = extremely accurate
	EMO7		Moody	1 = extremely inaccurate / 2 = very inaccurate / 3 = moderately inaccurate/ 4= slightly inaccurate / 5 = neutral / 6 = slightly accurate / 7 = moderately accurate / 8 = very accurate / 9 = extremely accurate
	EMO8		Unanxious	1 = extremely inaccurate / 2 = very inaccurate / 3 = moderately inaccurate/ 4= slightly inaccurate / 5 = neutral / 6 = slightly accurate / 7 = moderately accurate / 8 = very accurate / 9 = extremely accurate
	CNS1	Conscientiousness	Efficient	1 = extremely inaccurate / 2 = very inaccurate / 3 = moderately inaccurate/ 4= slightly inaccurate / 5 = neutral / 6 = slightly accurate / 7 = moderately accurate / 8 = very accurate / 9 = extremely accurate
	CNS2		Disorganized	1 = extremely inaccurate / 2 = very inaccurate / 3 = moderately inaccurate/ 4= slightly inaccurate / 5 = neutral / 6 = slightly accurate / 7 = moderately accurate / 8 = very accurate / 9 = extremely accurate
	CNS3		Careless	1 = extremely inaccurate / 2 = very inaccurate / 3 = moderately inaccurate/ 4= slightly inaccurate / 5 = neutral / 6 = slightly accurate / 7 = moderately accurate / 8 = very accurate / 9 = extremely accurate
	CNS4		Untidy	1 = extremely inaccurate / 2 = very inaccurate / 3 = moderately inaccurate/ 4= slightly inaccurate / 5 = neutral / 6 = slightly accurate / 7 = moderately accurate / 8 = very accurate / 9 = extremely accurate

	CNS5		Neat	1 = extremely inaccurate / 2 = very inaccurate / 3 = moderately inaccurate/ 4= slightly inaccurate / 5 = neutral / 6 = slightly accurate / 7 = moderately accurate / 8 = very accurate / 9 = extremely accurate
	CNS6		Inefficient	1 = extremely inaccurate / 2 = very inaccurate / 3 = moderately inaccurate/ 4= slightly inaccurate / 5 = neutral / 6 = slightly accurate / 7 = moderately accurate / 8 = very accurate / 9 = extremely accurate
	CNS7		Systematic	1 = extremely inaccurate / 2 = very inaccurate / 3 = moderately inaccurate/ 4= slightly inaccurate / 5 = neutral / 6 = slightly accurate / 7 = moderately accurate / 8 = very accurate / 9 = extremely accurate
	CNS8		Organized	1 = extremely inaccurate / 2 = very inaccurate / 3 = moderately inaccurate/ 4= slightly inaccurate / 5 = neutral / 6 = slightly accurate / 7 = moderately accurate / 8 = very accurate / 9 = extremely accurate
	AGR1	Agreeableness	Kind	1 = extremely inaccurate / 2 = very inaccurate / 3 = moderately inaccurate/ 4= slightly inaccurate / 5 = neutral / 6 = slightly accurate / 7 = moderately accurate / 8 = very accurate / 9 = extremely accurate
	AGR2		Sympathetic	1 = extremely inaccurate / 2 = very inaccurate / 3 = moderately inaccurate/ 4= slightly inaccurate / 5 = neutral / 6 = slightly accurate / 7 = moderately accurate / 8 = very accurate / 9 = extremely accurate
	AGR3		Harsh	1 = extremely inaccurate / 2 = very inaccurate / 3 = moderately inaccurate/ 4= slightly inaccurate / 5 = neutral / 6 = slightly accurate / 7 = moderately accurate / 8 = very accurate / 9 = extremely accurate
	AGR4		Cooperative	1 = extremely inaccurate / 2 = very inaccurate / 3 = moderately inaccurate/ 4= slightly inaccurate / 5 = neutral / 6 = slightly accurate / 7 = moderately accurate / 8 = very accurate / 9 = extremely accurate
	AGR5		Unkind	1 = extremely inaccurate / 2 = very inaccurate / 3 = moderately inaccurate/ 4= slightly inaccurate / 5 = neutral / 6 = slightly accurate / 7 = moderately accurate / 8 = very accurate / 9 = extremely accurate
	AGR6		Warm	1 = extremely inaccurate / 2 = very inaccurate / 3 = moderately inaccurate/ 4= slightly inaccurate / 5 = neutral / 6 = slightly accurate / 7 = moderately accurate / 8 = very accurate / 9 = extremely accurate
	AGR7		Rude	1 = extremely inaccurate / 2 = very inaccurate / 3 = moderately inaccurate/ 4= slightly inaccurate / 5 = neutral / 6 = slightly accurate / 7 = moderately accurate

				/ 8 = very accurate / 9 = extremely accurate
	AGR8		Inconsiderate	1 = extremely inaccurate / 2 = very inaccurate / 3 = moderately inaccurate/ 4= slightly inaccurate / 5 = neutral / 6 = slightly accurate / 7 = moderately accurate / 8 = very accurate / 9 = extremely accurate
3	OPP1	Opportunity exploration	Look for opportunities to improve an existing process, technology, product, service or work relationship	1 = never / 2 = rarely / 3 = occasionally / 4 = sometimes / 5 = frequently / 6 = usually / 7 = always
	OPP2		Recognize opportunities to make a positive difference in your organization, or with customers	1 = never / 2 = rarely / 3 = occasionally / 4 = sometimes / 5 = frequently / 6 = usually / 7 = always
	OPP3		Pay attention to non-routine issues in your organization or the market place	1 = never / 2 = rarely / 3 = occasionally / 4 = sometimes / 5 = frequently / 6 = usually / 7 = always
	GEN4	Generativity	Generate ideas or solutions to address problems	1 = never / 2 = rarely / 3 = occasionally / 4 = sometimes / 5 = frequently / 6 = usually / 7 = always
	GEN5		Define problems more broadly in order to gain greater insight into them	1 = never / 2 = rarely / 3 = occasionally / 4 = sometimes / 5 = frequently / 6 = usually / 7 = always
	FOR6	Formative investigation	Experiment with new ideas and solutions	1 = never / 2 = rarely / 3 = occasionally / 4 = sometimes / 5 = frequently / 6 = usually / 7 = always
	FOR7		Test-out ideas or solutions to address unmet ideas	1 = never / 2 = rarely / 3 = occasionally / 4 = sometimes / 5 = frequently / 6 = usually / 7 = always
	FOR8		Evaluate the strengths and weaknesses of new ideas	1 = never / 2 = rarely / 3 = occasionally / 4 = sometimes / 5 = frequently / 6 = usually / 7 = always
	CHA9	Championing	Try to persuade others of the importance of a new idea or solution	1 = never / 2 = rarely / 3 = occasionally / 4 = sometimes / 5 = frequently / 6 = usually / 7 = always
	CHA10		Push ideas forward so that they have a chance to become implemented	1 = never / 2 = rarely / 3 = occasionally / 4 = sometimes / 5 = frequently / 6 = usually / 7 = always
	CHA11		Take the risk to support new ideas	1 = never / 2 = rarely / 3 = occasionally / 4 = sometimes / 5 = frequently / 6 = usually / 7 = always
	APP12	Application	Implement changes that seem to be beneficial	1 = never / 2 = rarely / 3 = occasionally / 4 = sometimes / 5 = frequently / 6 = usually / 7 = always
	APP13		Work the bugs out of new approaches when applying them to an existing process, technology, product or service	1 = never / 2 = rarely / 3 = occasionally / 4 = sometimes / 5 = frequently / 6 = usually / 7 = always
	APP14		Incorporate new ideas for improving an existing process, technology, product or service into daily routines	1 = never / 2 = rarely / 3 = occasionally / 4 = sometimes / 5 = frequently / 6 = usually / 7 = always

4	SYS1	Systematic	Before I do anything important, I carefully plan my actions	1 = totally incorrect / 2 = incorrect / 3 = slightly incorrect / 4 = neutral / 5 = slightly correct / 6 = correct / 7 = perfectly correct
	SYS2		Before I start working on an assignment I gather all the needed information	1 = totally incorrect / 2 = incorrect / 3 = slightly incorrect / 4 = neutral / 5 = slightly correct / 6 = correct / 7 = perfectly correct
	SYS3		When I do something of great importance, I make an effort to follow my working plan	1 = totally incorrect / 2 = incorrect / 3 = slightly incorrect / 4 = neutral / 5 = slightly correct / 6 = correct / 7 = perfectly correct
	SYS4		I usually make decisions in a systematic and organized way	1 = totally incorrect / 2 = incorrect / 3 = slightly incorrect / 4 = neutral / 5 = slightly correct / 6 = correct / 7 = perfectly correct
	SYS5		When I have to choose between alternatives, I analyze each of them and choose the best one	1 = totally incorrect / 2 = incorrect / 3 = slightly incorrect / 4 = neutral / 5 = slightly correct / 6 = correct / 7 = perfectly correct
	INT6	Intuitive	I often follow my instincts	1 = totally incorrect / 2 = incorrect / 3 = slightly incorrect / 4 = neutral / 5 = slightly correct / 6 = correct / 7 = perfectly correct
	INT7		I know a way of conduct suits me, if I feel it's right	1 = totally incorrect / 2 = incorrect / 3 = slightly incorrect / 4 = neutral / 5 = slightly correct / 6 = correct / 7 = perfectly correct
	INT8		I often start working on an assignment with no idea of what I'm about to do	1 = totally incorrect / 2 = incorrect / 3 = slightly incorrect / 4 = neutral / 5 = slightly correct / 6 = correct / 7 = perfectly correct
	INT9		When I decide how to act, I follow my inner feelings and emotions	1 = totally incorrect / 2 = incorrect / 3 = slightly incorrect / 4 = neutral / 5 = slightly correct / 6 = correct / 7 = perfectly correct
	INT10		I often make a good decision without really knowing how I did it	1 = totally incorrect / 2 = incorrect / 3 = slightly incorrect / 4 = neutral / 5 = slightly correct / 6 = correct / 7 = perfectly correct
5	EME1	Handling emergencies and unpredictable situations	I keep focused on the situation to react quickly	1 = strongly disagree / 2 = disagree / 3 = somewhat disagree / 4 = neither agree or disagree / 5 = somewhat agree / 6 = agree / 7 = strongly agree
	EME2		I quickly take effective action to solve the problem	1 = strongly disagree / 2 = disagree / 3 = somewhat disagree / 4 = neither agree or disagree / 5 = somewhat agree / 6 = agree / 7 = strongly agree
	EME3		I examine available options and their implications to choose the best solution	1 = strongly disagree / 2 = disagree / 3 = somewhat disagree / 4 = neither agree or disagree / 5 = somewhat agree / 6 = agree / 7 = strongly agree
	EME4		I easily change plans to deal with the new situation	1 = strongly disagree / 2 = disagree / 3 = somewhat disagree / 4 = neither agree or disagree / 5 = somewhat agree / 6 = agree / 7 = strongly agree
	STR5	Handling work stress	I stay calm under circumstances where I have to take many decisions at the same time	1 = strongly disagree / 2 = disagree / 3 = somewhat disagree / 4 = neither agree or disagree / 5 = somewhat agree / 6 = agree / 7 = strongly agree

	STR6		I seek solutions by talking to more experienced colleagues	1 = strongly disagree / 2 = disagree / 3 = somewhat disagree / 4 = neither agree or disagree / 5 = somewhat agree / 6 = agree / 7 = strongly agree
	STR7		My colleagues often ask me for advice in difficult circumstances because I keep cool	1 = strongly disagree / 2 = disagree / 3 = somewhat disagree / 4 = neither agree or disagree / 5 = somewhat agree / 6 = agree / 7 = strongly agree
	SOL8	Solving problems creatively	I try to develop new methods for solving atypical problems	1 = strongly disagree / 2 = disagree / 3 = somewhat disagree / 4 = neither agree or disagree / 5 = somewhat agree / 6 = agree / 7 = strongly agree
	SOL9		I rely on a wide variety of information to find an innovative solution to the problem	1 = strongly disagree / 2 = disagree / 3 = somewhat disagree / 4 = neither agree or disagree / 5 = somewhat agree / 6 = agree / 7 = strongly agree
	SOL10		I try to avoid following established ways of addressing problems to find an innovative solution	1 = strongly disagree / 2 = disagree / 3 = somewhat disagree / 4 = neither agree or disagree / 5 = somewhat agree / 6 = agree / 7 = strongly agree
	SOL11		My colleagues take advice from me for generating new ideas and solutions	1 = strongly disagree / 2 = disagree / 3 = somewhat disagree / 4 = neither agree or disagree / 5 = somewhat agree / 6 = agree / 7 = strongly agree
	LEA12	Learning	I search for innovations in my job so as to improve work methods	1 = strongly disagree / 2 = disagree / 3 = somewhat disagree / 4 = neither agree or disagree / 5 = somewhat agree / 6 = agree / 7 = strongly agree
	LEA13		I take actions (within or outside the company) to keep my skills up to date	1 = strongly disagree / 2 = disagree / 3 = somewhat disagree / 4 = neither agree or disagree / 5 = somewhat agree / 6 = agree / 7 = strongly agree
	LEA14		I anticipate changes in my job by participating in projects or assignments that help me deal with change	1 = strongly disagree / 2 = disagree / 3 = somewhat disagree / 4 = neither agree or disagree / 5 = somewhat agree / 6 = agree / 7 = strongly agree
	LEA15		I am always looking for opportunities (e.g., training, interactions with colleagues, etc.) that help me increase my job performance	1 = strongly disagree / 2 = disagree / 3 = somewhat disagree / 4 = neither agree or disagree / 5 = somewhat agree / 6 = agree / 7 = strongly agree
	DEM16	Demonstrating interpersonal adaptability	I change my way of working as a function of others' feedback and suggestions	1 = strongly disagree / 2 = disagree / 3 = somewhat disagree / 4 = neither agree or disagree / 5 = somewhat agree / 6 = agree / 7 = strongly agree
	DEM17		I always develop positive relationships with the people I interact with when doing my job because it helps me perform better	1 = strongly disagree / 2 = disagree / 3 = somewhat disagree / 4 = neither agree or disagree / 5 = somewhat agree / 6 = agree / 7 = strongly agree
	DEM18		I learn new ways of doing my job to better cooperate with colleagues	1 = strongly disagree / 2 = disagree / 3 = somewhat disagree / 4 = neither agree or disagree / 5 = somewhat agree / 6 = agree / 7 = strongly agree
	DEM19		I try to consider others' viewpoints to better interact with them	1 = strongly disagree / 2 = disagree / 3 = somewhat disagree / 4 = neither agree or disagree / 5 = somewhat agree / 6 = agree / 7 = strongly agree
6	CLI1	Climate for innovation	Scanning and examining the external environment to anticipate changes and prevent risks	1 = not at all / 2 = to a very small extent / 3 = to a small extent / 4 = to a moderate extent / 5 = to a fairly great extent / 6 = to a great extent / 7 = to very great extent

	CLI2		Building scenarios of the future to deal more effectively with expected changes	1 = not at all / 2 = to a very small extent / 3 = to a small extent / 4 = to a moderate extent / 5 = to a fairly great extent / 6 = to a great extent / 7 = to very great extent
	CLI3		Identifying the best opportunities in you environment	1 = not at all / 2 = to a very small extent / 3 = to a small extent / 4 = to a moderate extent / 5 = to a fairly great extent / 6 = to a great extent / 7 = to very great extent
	CLI4		Creating and innovating on a continuous basis to compete with other companies	1 = not at all / 2 = to a very small extent / 3 = to a small extent / 4 = to a moderate extent / 5 = to a fairly great extent / 6 = to a great extent / 7 = to very great extent
	CLI5		Developing a culture of change within the team	1 = not at all / 2 = to a very small extent / 3 = to a small extent / 4 = to a moderate extent / 5 = to a fairly great extent / 6 = to a great extent / 7 = to very great extent
	CLI6		Searching for opportunities for development	1 = not at all / 2 = to a very small extent / 3 = to a small extent / 4 = to a moderate extent / 5 = to a fairly great extent / 6 = to a great extent / 7 = to very great extent
7	CON1	Harmony vs. Conflict	I feel caught between the Turkish and Dutch cultures	1 = strongly disagree / 2 = disagree / 3 = somewhat disagree / 4 = neither agree or disagree / 5 = somewhat agree / 6 = agree / 7 = strongly agree
	CON2		I feel like someone moving between two cultures	1 = strongly disagree / 2 = disagree / 3 = somewhat disagree / 4 = neither agree or disagree / 5 = somewhat agree / 6 = agree / 7 = strongly agree
	CON3		Being bicultural means having two cultural forces pulling on me at the same time	1 = strongly disagree / 2 = disagree / 3 = somewhat disagree / 4 = neither agree or disagree / 5 = somewhat agree / 6 = agree / 7 = strongly agree
	HAR1		I do not feel trapped between the Turkish and Dutch cultures	1 = strongly disagree / 2 = disagree / 3 = somewhat disagree / 4 = neither agree or disagree / 5 = somewhat agree / 6 = agree / 7 = strongly agree
	CON4		I feel conflicted between the Dutch and Turkish ways of doing things	1 = strongly disagree / 2 = disagree / 3 = somewhat disagree / 4 = neither agree or disagree / 5 = somewhat agree / 6 = agree / 7 = strongly agree
	HAR2		I find it easy to balance both Turkish and Dutch cultures	1 = strongly disagree / 2 = disagree / 3 = somewhat disagree / 4 = neither agree or disagree / 5 = somewhat agree / 6 = agree / 7 = strongly agree
	HAR3		I rarely feel conflicted about being bicultural	1 = strongly disagree / 2 = disagree / 3 = somewhat disagree / 4 = neither agree or disagree / 5 = somewhat agree / 6 = agree / 7 = strongly agree
	CON5		I feel torn between Turkish and Dutch cultures	1 = strongly disagree / 2 = disagree / 3 = somewhat disagree / 4 = neither agree or disagree / 5 = somewhat agree / 6 = agree / 7 = strongly agree

	CON6		I feel that my Turkish and Dutch cultures are incompatible	1 = strongly disagree / 2 = disagree / 3 = somewhat disagree / 4 = neither agree or disagree / 5 = somewhat agree / 6 = agree / 7 = strongly agree
	HAR4		I find it easy to harmonize Turkish and Dutch cultures	1 = strongly disagree / 2 = disagree / 3 = somewhat disagree / 4 = neither agree or disagree / 5 = somewhat agree / 6 = agree / 7 = strongly agree
	BLE1	Blendedness vs. compartmentalization	I feel Turkish-Dutch	1 = strongly disagree / 2 = disagree / 3 = somewhat disagree / 4 = neither agree or disagree / 5 = somewhat agree / 6 = agree / 7 = strongly agree
	BLE2		I feel Turkish and Dutch at the same time	1 = strongly disagree / 2 = disagree / 3 = somewhat disagree / 4 = neither agree or disagree / 5 = somewhat agree / 6 = agree / 7 = strongly agree
	BLE3		I relate better to a combined Turkish-Dutch cultural than to Turkish or Dutch culture alone	1 = strongly disagree / 2 = disagree / 3 = somewhat disagree / 4 = neither agree or disagree / 5 = somewhat agree / 6 = agree / 7 = strongly agree
	BLE4		I feel part of a combined culture	1 = strongly disagree / 2 = disagree / 3 = somewhat disagree / 4 = neither agree or disagree / 5 = somewhat agree / 6 = agree / 7 = strongly agree
	BLE5		I cannot ignore the Turkish or Dutch side of me	1 = strongly disagree / 2 = disagree / 3 = somewhat disagree / 4 = neither agree or disagree / 5 = somewhat agree / 6 = agree / 7 = strongly agree
	COM1		I do not blend my Turkish and Dutch cultures	1 = strongly disagree / 2 = disagree / 3 = somewhat disagree / 4 = neither agree or disagree / 5 = somewhat agree / 6 = agree / 7 = strongly agree
	COM2		I keep Turkish and Dutch cultures separate	1 = strongly disagree / 2 = disagree / 3 = somewhat disagree / 4 = neither agree or disagree / 5 = somewhat agree / 6 = agree / 7 = strongly agree
	COM3		I am simply a Turk who lives in the Netherlands	1 = strongly disagree / 2 = disagree / 3 = somewhat disagree / 4 = neither agree or disagree / 5 = somewhat agree / 6 = agree / 7 = strongly agree
	COM4		I find it difficult to combine Turkish and Dutch cultures	1 = strongly disagree / 2 = disagree / 3 = somewhat disagree / 4 = neither agree or disagree / 5 = somewhat agree / 6 = agree / 7 = strongly agree
8	CNT1		What country / continent was you born in?	1 = the Netherlands / 2 = Turkey / 3 = Africa, Asia (not including Indonesia and Japan) or Latin America / 4 = Europe (not including the Netherlands and Turkey), North America, Indonesia, Japan, Australia, New Zealand or the Pacific Islands / 5 = I don't know / I prefer not to answer
	CNT2		What country / continent was your father born in?	1 = the Netherlands / 2 = Turkey / 3 = Africa, Asia (not including Indonesia and Japan) or Latin America / 4 = Europe (not including the Netherlands and Turkey), North America, Indonesia, Japan, Australia, New Zealand or the Pacific Islands / 5 = I don't know / I prefer not to answer

	CNT3		What country / continent was your mother born in?	1 = the Netherlands / 2 = Turkey / 3 = Africa, Asia (not including Indonesia and Japan) or Latin America / 4 = Europe (not including the Netherlands and Turkey), North America, Indonesia, Japan, Australia, New Zealand or the Pacific Islands / 5 = I don't know / I prefer not to answer
	NET		If you were born in a country outside the Netherlands on what age did you come to the Netherlands?	In years
	GEN		What is your gender?	1 = female / 2 = male
	AGE		What is your age?	In years
	EDU		What is your highest level of education you have completed?	Education
	RUN		How many years in total do you have experience with owning and running a company?	In years
	SEC		In which sector does your company operate?	Sector
	EMP		How many employees work for your company?	In employees
	TUR		What is the annual turnover of your company in euros?	In euros
	CONT1		E-mail address	
	CONT2		Phone number	

RECODES AND TOTALS

1	DVGTOT	Divergent thinking	Divergent thinking – Total (DVG1 + DVG2)	
	CREATOT	Creativity	Creativity Total (DVGTOT + CVG1)	
2	RCNS2	Conscientiousness	Disorganized	1 = extremely accurate / 2 = very accurate / 3 = moderately accurate/ 4= slightly accurate / 5 = neutral / 6 = slightly inaccurate / 7 = moderately inaccurate / 8 = very inaccurate / 9 = extremely inaccurate
	RCNS3		Careless	1 = extremely accurate / 2 = very accurate / 3 = moderately accurate/ 4= slightly accurate / 5 = neutral / 6 = slightly inaccurate / 7 = moderately inaccurate / 8 = very inaccurate / 9 = extremely inaccurate

	RCNS4		Untidy	1 = extremely accurate / 2 = very accurate / 3 = moderately accurate/ 4= slightly accurate / 5 = neutral / 6 = slightly inaccurate / 7 = moderately inaccurate / 8 = very inaccurate / 9 = extremely inaccurate
	RCNS6		Inefficient	1 = extremely accurate / 2 = very accurate / 3 = moderately accurate/ 4= slightly accurate / 5 = neutral / 6 = slightly inaccurate / 7 = moderately inaccurate / 8 = very inaccurate / 9 = extremely inaccurate
	CNSTOT		Conscientiousness Total (CNS1 + CNS5 + CNS7 + CNS8 + RCNS2 + RCNS3 + RCNS4 + RCNS6)	1-72
	REXT1	Extraversion	Shy	1 = extremely accurate / 2 = very accurate / 3 = moderately accurate/ 4= slightly accurate / 5 = neutral / 6 = slightly inaccurate / 7 = moderately inaccurate / 8 = very inaccurate / 9 = extremely inaccurate
	REXT4		Quiet	1 = extremely accurate / 2 = very accurate / 3 = moderately accurate/ 4= slightly accurate / 5 = neutral / 6 = slightly inaccurate / 7 = moderately inaccurate / 8 = very inaccurate / 9 = extremely inaccurate
	REXT7		Reserved	1 = extremely accurate / 2 = very accurate / 3 = moderately accurate/ 4= slightly accurate / 5 = neutral / 6 = slightly inaccurate / 7 = moderately inaccurate / 8 = very inaccurate / 9 = extremely inaccurate
	REXT8		Untalkative	1 = extremely accurate / 2 = very accurate / 3 = moderately accurate/ 4= slightly accurate / 5 = neutral / 6 = slightly inaccurate / 7 = moderately inaccurate / 8 = very inaccurate / 9 = extremely inaccurate
	EXTTOT		Extraversion Total (REXT1 + EXT2 + EXT3 + REXT4 + EXT5 + EXT6 + REXT7 + REXT8)	1-72
	ROPN3	Openness	Unimaginative	1 = extremely accurate / 2 = very accurate / 3 = moderately accurate/ 4= slightly accurate / 5 = neutral / 6 = slightly inaccurate / 7 = moderately inaccurate / 8 = very inaccurate / 9 = extremely inaccurate
	ROPN8		Uncreative	1 = extremely accurate / 2 = very accurate / 3 = moderately accurate/ 4= slightly accurate / 5 = neutral / 6 = slightly inaccurate / 7 = moderately inaccurate / 8 = very inaccurate / 9 = extremely inaccurate
	OPNTOT		Openness Total (OPN1 + OPN2 + ROPN3 + OPN4 + OPN5 + OPN6 + OPN7 + ROPN8)	1-72
	REMO4	Emotional stability	Unworried	1 = extremely accurate / 2 = very accurate / 3 = moderately accurate/ 4= slightly accurate / 5 = neutral / 6 = slightly inaccurate / 7 = moderately inaccurate / 8 =

				very inaccurate / 9 = extremely inaccurate
	REMO6		Unenvious	1 = extremely accurate / 2 = very accurate / 3 = moderately accurate/ 4= slightly accurate / 5 = neutral / 6 = slightly inaccurate / 7 = moderately inaccurate / 8 = very inaccurate / 9 = extremely inaccurate
	REMO8		Unanxious	1 = extremely accurate / 2 = very accurate / 3 = moderately accurate/ 4= slightly accurate / 5 = neutral / 6 = slightly inaccurate / 7 = moderately inaccurate / 8 = very inaccurate / 9 = extremely inaccurate
	EMOTOT		Emotional stability Total (EMO1 + EMO2 + EMO3 + REMO4 + EMO5 + REMO6 + EMO7 + REMO8)	1-72
	RAGR3	Agreeableness	Harsh	1 = extremely accurate / 2 = very accurate / 3 = moderately accurate/ 4= slightly accurate / 5 = neutral / 6 = slightly inaccurate / 7 = moderately inaccurate / 8 = very inaccurate / 9 = extremely inaccurate
	RAGR5		Unkind	1 = extremely accurate / 2 = very accurate / 3 = moderately accurate/ 4= slightly accurate / 5 = neutral / 6 = slightly inaccurate / 7 = moderately inaccurate / 8 = very inaccurate / 9 = extremely inaccurate
	RAGR7		Rude	1 = extremely accurate / 2 = very accurate / 3 = moderately accurate/ 4= slightly accurate / 5 = neutral / 6 = slightly inaccurate / 7 = moderately inaccurate / 8 = very inaccurate / 9 = extremely inaccurate
	RAGR8		Inconsiderate	1 = extremely accurate / 2 = very accurate / 3 = moderately accurate/ 4= slightly accurate / 5 = neutral / 6 = slightly inaccurate / 7 = moderately inaccurate / 8 = very inaccurate / 9 = extremely inaccurate
	AGRTOT		Agreeableness Total (AGR1 + AGR2 + RAGR3 + AGR4 + RAGR5 + AGR6 + RAGR7 + RAGR8)	1-72
3	OPPTOT	Opportunity exploration	Opportunity exploration Total (OPP1 + OPP2 + OPP3)	1-21
	GENTOT	Generativity	Generativity Total (GEN4 + GEN5)	1-14
	FORTOT	Formative investigation	Formative investigation Total (FOR6 + FOR7 + FOR8)	1-21
	CHATOT	Championing	Championing Total (CHA9 + CHA10 + CHA11)	1-21
	APPTOT	Application	Application Total (APP12 + APP13 + APP14)	1-21

	INNTOT	Individual Innovative behaviour	Individual Innovative behaviour Total (OPP1 + OPP2 + OPP3 + GEN4 + GEN5 + FOR6 + FOR7 + FOR8 + CHA9 + CHA10 + CHA11 + APP12 + APP13 + APP14)	1-98
4	RINT6	Intuitive	I often follow my instincts	1 = perfectly correct / 2 = correct / 3 = slightly correct / 4 = neutral / 5 = slightly incorrect / 6 = incorrect / 7 = totally incorrect
	RINT7		I know a way of conduct suits me, if I feel it's right	1 = perfectly correct / 2 = correct / 3 = slightly correct / 4 = neutral / 5 = slightly incorrect / 6 = incorrect / 7 = totally incorrect
	RINT8		I often start working on an assignment with no idea of what I'm about to do	1 = perfectly correct / 2 = correct / 3 = slightly correct / 4 = neutral / 5 = slightly incorrect / 6 = incorrect / 7 = totally incorrect
	RINT9		When I decide how to act, I follow my inner feelings and emotions	1 = perfectly correct / 2 = correct / 3 = slightly correct / 4 = neutral / 5 = slightly incorrect / 6 = incorrect / 7 = totally incorrect
	RINT10		I often make a good decision without really knowing how I did it	1 = perfectly correct / 2 = correct / 3 = slightly correct / 4 = neutral / 5 = slightly incorrect / 6 = incorrect / 7 = totally incorrect
	SYSTOT		Systematic working style Total (SYS1 + SYS2 + SYS3 + SYS4 + SYS5 + RINT6 + RINT7 + RINT8 + RINT9 + RINT10)	1-70
5	EMETOT	Handling emergencies and unpredictable situations	EME Total (EME1 + EME2 + EME3 + EME4)	1-28
	STRTOT	Handling work stress	STR Total (STR5 + STR6 + STR7)	1-21
	SOLTOT	Solving problems creatively	SOL Total (SOL8 + SOL9 + SOL10 + SOL11)	1-28
	LEATOT	Learning	LEA Total (LEA12 + LEA13 + LEA14 + LEA15)	1-28
	DEMTOT	Demonstrating interpersonal adaptability	DEM Total (DEM16 + DEM17 + DEM18 + DEM19)	1-28
	ADATOT	Adaptive performance	Adaptive performance Total (EME1 + EME2 + EME3 + EME4 + STR5 + STR6 + STR7 + SOL8 + SOL9 + SOL10 + SOL11 + LEA12 + LEA13 + LEA14 + LEA15 + DEM16 + DEM17 + DEM18 + DEM19)	133
6	CLITOT	Climate for	Climate Total (CLI1 + CLI2 + CLI3 + CLI4 + CLI5 + CLI6)	1-42

		innovation		
7	RCON1	Conflict	I feel caught between the Turkish and Dutch cultures	1 = strongly agree / 2 = agree / 3 = somewhat agree / 4 = neither agree or disagree / 5 = somewhat disagree / 6 = disagree / 7 = strongly disagree
	RCON2		I feel like someone moving between two cultures	1 = strongly agree / 2 = agree / 3 = somewhat agree / 4 = neither agree or disagree / 5 = somewhat disagree / 6 = disagree / 7 = strongly disagree
	RCON3		Being bicultural means having two cultural forces pulling on me at the same time	1 = strongly agree / 2 = agree / 3 = somewhat agree / 4 = neither agree or disagree / 5 = somewhat disagree / 6 = disagree / 7 = strongly disagree
	RCON4		I feel conflicted between the Dutch and Turkish ways of doing things	1 = strongly agree / 2 = agree / 3 = somewhat agree / 4 = neither agree or disagree / 5 = somewhat disagree / 6 = disagree / 7 = strongly disagree
	RCON5		I feel torn between Turkish and Dutch cultures	1 = strongly agree / 2 = agree / 3 = somewhat agree / 4 = neither agree or disagree / 5 = somewhat disagree / 6 = disagree / 7 = strongly disagree
	RCON6		I feel that my Turkish and Dutch cultures are incompatible	1 = strongly agree / 2 = agree / 3 = somewhat agree / 4 = neither agree or disagree / 5 = somewhat disagree / 6 = disagree / 7 = strongly disagree
	HARTOT		Harmony vs. Conflict Total (RCON1 + RCON2 + RCON3 + RCON4 + RCON5 + RCON6 + HAR1 + HAR2 + HAR3 + HAR4)	1-70
	RCOM1	Compartmentalization	I do not blend my Turkish and Dutch cultures	1 = strongly agree / 2 = agree / 3 = somewhat agree / 4 = neither agree or disagree / 5 = somewhat disagree / 6 = disagree / 7 = strongly disagree
	RCOM2		I keep Turkish and Dutch cultures separate	1 = strongly agree / 2 = agree / 3 = somewhat agree / 4 = neither agree or disagree / 5 = somewhat disagree / 6 = disagree / 7 = strongly disagree
	RCOM3		I am simply a Turk who lives in the Netherlands	1 = strongly agree / 2 = agree / 3 = somewhat agree / 4 = neither agree or disagree / 5 = somewhat disagree / 6 = disagree / 7 = strongly disagree
	RCOM4		I find it difficult to combine Turkish and Dutch cultures	1 = strongly agree / 2 = agree / 3 = somewhat agree / 4 = neither agree or disagree / 5 = somewhat disagree / 6 = disagree / 7 = strongly disagree
	BLETOT		Blendedness vs. Compartmentalization Total (BLE1 + BLE2 + BLE3 + BLE4 + BLE5 + RCOM1 + RCOM2 + RCOM3 + RCOM4)	63
	BIITOT	Bicultural Identity Integration	BII Total (RCON1 + RCON2 + RCON3 + RCON4 + RCON5 + RCON6 + HAR1 + HAR2 + HAR3 + HAR4 + BLE1 + BLE2 + BLE3 + BLE4 + BLE5 + RCOM1 + RCOM2 + RCOM3 + RCOM4)	1-33
NEW CODES - AFTER DELETING (according to Cronbach's alpha)				
2	RCNS3		Deleted	

	RCNS6		Deleted	
	CNSTOTA		Conscientiousness Total (CNS1 + CNS5 + CNS7 + CNS8 + RCNS2 + RCNS4)	
	REXT4		Deleted	
	EXTTOTA		Extraversion Total (REXT1 + EXT2 + EXT3 + EXT5 + EXT6 + REXT7 + REXT8)	
	ROPN3		Deleted	
	ROPN8		Deleted	
	OPN4		Deleted	
	OPNTOTA		Openness Total (OPN1 + OPN2 + OPN5 + OPN6 + OPN7)	
	EMO1		Deleted	
	EMO2		Deleted	
	EMO7		Deleted	
	REMO4		Deleted	
	EMOTOTA		Emotional stability Total (EMO3 + EMO5 + REMO6 + REMO8)	
	RAGR3		Deleted	
	AGRTOTA		Agreeableness Total (AGR1 + AGR2 + AGR4 + RAGR5 + AGR6 + RAGR7 + RAGR8)	
4	RINT6		Deleted	
	RINT7		Deleted	
	RINT8		Deleted	
	RINT9		Deleted	

	RINT10		Deleted	
	SYSTOTA		Systematic working style Total (SYS1 + SYS2 + SYS3 + SYS4 + SYS5)	
7	RCON2		Deleted	
	RCON3		Deleted	
	RCON4		Deleted	
	BLE5		Deleted	
	HARTOTA		Harmony vs. Conflict Total (RCON1 + RCON5 + RCON6 + HAR1 + HAR2 + HAR3 + HAR4)	
	BLETOTA		Blendedness vs. Compartmentalization Total (BLE1 + BLE2 + BLE3 + BLE4 + RCOM1 + RCOM2 + RCOM3 + RCOM4)	
	BIITOTA		BII Total (RCON1 + RCON5 + RCON6 + HAR1 + HAR2 + HAR3 + HAR4 + BLE1 + BLE2 + BLE3 + BLE4 + RCOM1 + RCOM2 + RCOM3 + RCOM4)	