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WHO WILL BE AN ENTREPRENEUR? HOW CULTURAL MECHANISMS AND SOCIAL NETWORK STRUCTURE TOGETHER INFLUENCE ENTREPRENEURIAL PARTICIPATION

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ABSTRACT

Using data collected from 35 countries over five years, this study provides an investigation of the combined influence of cultural factors and social network structure on whether or not an individual, anywhere in the world, becomes an entrepreneur. Results show that knowing someone who has started a business recently, across the world, has a significant impact on entrepreneurship participation. Regarding the potential cultural influences, it seems that importance attached to personally knowing entrepreneurs differs significantly between individuals operating in different cultures. In cultures with high power distance, personally knowing a person who recently started a business is relatively less important as a driver of entrepreneurship participation compared to cultures with low power distance. On the other hand, in cultures where the Hofstede’s ‘masculinity’ construct predominates, it is more important than in cultures characterised by ‘femininity’.

INTRODUCTION: IMPORTANCE OF ENTREPRENEURIAL NETWORKING

Using data collected from 35 countries over five years, this study provides an investigation of the combined influence of cultural factors and social network structure on whether or not an individual, anywhere in the world, becomes an entrepreneur. It contributes to the debate on whether there is universality in the process of entrepreneurial networking by investigating differences in social networks among entrepreneurs embedded in different cultures. The study was completed by measuring the interaction effects of variables representing each of Hofstede’s four dimensions of culture (power distance, uncertainty avoidance, masculinity and individualism) with the variable, taken from the Global Entrepreneurship Monitor (GEM), that is used to measure entrepreneurial networking (whether or not an individual personally know someone who have started a business in the past two years). The study makes an original contribution because it changes the focus of investigation. Previous studies have compared the effects of social network structure on entrepreneurship participation between countries and assumed that differences are due to an amorphous construct called ‘national culture’ (Arenius and Kovalainen 2006; De Clercq and Arenius 2006; Klyver, Hindle & Meyer, 2007). This study transcends national boundaries. It focuses instead on the differences between cultural mechanisms irrespective of country.

Recent entrepreneurship literature has changed from viewing entrepreneurs as autonomous and rational decision makers toward viewing entrepreneurs as embedded in social networks (Hoang and Antoncic, 2003). As a reaction to the former atomistic and under-socialized view of the entrepreneur, often taken in the psychological perspective, an increased recognition of the importance of social networks has developed since the mid eighties. Social networks (in diverse ways) provide entrepreneurs with a wide range of valuable resources not already in their possession and help them achieve their goals (e.g., Ripolles and Blesa, 2005; Welter and Kautonen, 2005). Among the most important resources that networks can provide are: information (sensible as well as non-sensible, diverse as well as non-diverse); access to finance; access to skills, knowledge and advice (all aids to competency); social legitimacy; reputation and credibility.
EMBEDDEDNESS AND ENTREPRENEURIAL PARTICIPATION

For decades, sociologists have been interested in how people’s social networks influence their status attainment. Over these decades, three propositions have been formulated: (a) social networks affect the outcome of instrumental actions, (b) the nature of resources obtained from social networks is affected by people’s original position, and (c) the nature of resources obtained from social networks is affected by the strength of ties (Lin, 1999). This interest in how social networks affect status attainment has also occupied entrepreneurship scholars (e.g., Aldrich and Zimmer, 1986; Greve, 1995). Entrepreneurship research shows that social networks affect opportunity recognition (Singh, 2000), entrepreneurial intention (Hmieleski and Corbett, 2006), entrepreneurial orientation (Ripolles and Blesa, 2005) the vocational decision to become an entrepreneur (e.g., Davidsson and Honig, 2003; De Clercq and Arenius, 2006; Morales-Gualdron and Roig, 2005) and growth (Lee and Tsang, 2001).

One of the essential results, which previous entrepreneurship research on social networks has shown, concerns embeddedness. People embedded in networks containing entrepreneurs tend to be more entrepreneurial oriented. People who have close family members in business (Davidsson and Honig, 2003; Matthews and Moser, 1995; Menzies, Doichon, Gasse & Elgie, 2006; Sanders and Nee, 1996) or personally know someone who has started a business (Arenius and Kovalainen, 2006; Davidsson and Honig, 2003; De Clercq and Arenius, 2006; Klyver & Hindle 2006; Klyver et al. 2007; Morales-Gualdron and Roig, 2005; Menzies et al., 2006; Schott, 2003) seem to have a better chance of becoming entrepreneurs.

Davidsson and Honig (2003) found in their study in Sweden that people who have parents in business or have close friends or neighbours in business are more likely to become nascent entrepreneurs. With respect to personally knowing people who have started a business, De Clercq and Arenius (2006) found positive correlations in both their Belgium and their Finish sample. In an analysis of the 2001 GEM database, considering a sample drawn across 29 countries, Morales-Gualdron and Roig (2005) also concluded that personally knowing someone who has started a business has a positive impact on people’s decisions to become entrepreneurs.

Analyzing a similar sample, but only the Nordic countries and only women, Arenius and Kovalainen (2006) found the same relationship. Schott (2003) analysed the Danish data collected from 2000-2002 and found a similar positive relation. Studying the Australian GEM data accumulated over a six-year’s period, Klyver and Hindle (2006) also found a positive effect of personally knowing an entrepreneur on the tendency to participate in entrepreneurship. In addition to the previous studies on the GEM data, they added a stage perspective and found that although personally knowing an entrepreneur had a positive effect in all stages of the entrepreneurial process these effects varied across different stages. Thus, previous research has strongly supported the proposition that personally knowing someone who has started a business is positively correlated with the decision to become an entrepreneur.

Klyver et al. (2007) further expanded the existing research on having family or friends in business by adding a cultural perspective. They investigated the accumulated GEM data collected in the Australasian area from 2000-2004. Specifically, they analyzed how personally knowing an entrepreneur has different effects in different cultures. They found that the effect of personally knowing an entrepreneur is cultural dependent. Personally knowing an entrepreneur seem to have a positive effect in every culture; however, this effect is moderated by culture and is stronger in some cultures than other cultures.

In this paper, we extend the previous investigations on how entrepreneurial networking or personally knowing an entrepreneur is cultural dependent. Instead of investigating the consequences of culture by comparing entrepreneurial networking across nations as previous studies, we explore how certain cultural values moderate the effect of entrepreneurial networking. In that sense, we explore the mechanisms
instead of the consequences of culture on entrepreneurial networking. The main proposition is that the
effect of personally knowing someone who started a business varies according to certain cultural values
(and not just across nations). In this specific study, we examine how Hofstede’s (1980) four dimensions
moderate the effect of entrepreneurial networking. Accordingly, this paper therefore contributes to the
discussion on whether or not there is universality in the process of entrepreneurial networking.

CULTURE AND ENTREPRENEURIAL NETWORKING

Many previous empirical studies have investigated the impact of social networks in different contexts.
Some have investigated specific industries and some have investigated specific regional areas. These
context specific studies have given birth to a debate on the universal nature of social networks. In this
context, ‘universal’ is a concept akin to ‘mono-dimensionality’. It is argued that the forms, structures
and nature of the networking process tend to be the same irrespective of the environment (particularly
national environment) in which they take place. In particular it is argued that the networking process is
essentially the same in every country.

In the context of prevailing theory and research, two extreme ideal typical positions can be identified,
although research places itself in between these extremes. They are to be perceived as pure thoughts on
each end of a continuum. One extreme position argues that social networking plays a generic and
universal role regardless of the culture and the industry in which entrepreneurs operate. There might be
differences in how social networking is practiced, however, the role of research, according to this
position, is to explore the common and generic elements across contexts. In contrast, the other extreme
position argues that social networking is context determined. Here, networking differs dramatically
depending on the culture and the industry in which entrepreneurs operate. According to this line of
argument, it does not make sense to search for any generic, universal, mono-dimensional nature of
entrepreneurial networking.

Although, the debate on the nature of entrepreneurial networking has continued for nearly two
decades, empirical research still appears only occasionally. Except for a few studies (e.g., Johannisson
and Mønsted, 1997), only one group of studies has specifically dealt with the issue of culture and
entrepreneurial networking. This group of studies has used various surveys to collect more or less similar
data on entrepreneurs’ social networks in different nations: US, Italy, Norway, Sweden, Northern Ireland,
Japan, Canada, Scotland and Greece (e.g., Aldrich, Reese & Dubini, 1989; Dodd and Patra, 2002; Greve
1995; Staber and Aldrich, 1995). Interest in most of these studies focused on international comparisons.
The main research question was to investigate “… how culturally diverse entrepreneurial networks are”
(Dodd and Petra, 2002: 119). However, other research agendas influenced data collection in the various
countries (Dodd and Patra, 2002). Some studies focused specifically on young entrepreneurs, some on
women, and some on urban or rural groups (Dodd and Patra, 2002). Sample selection and questionnaire
administration techniques also differed among the studies.

This body of research clearly struggles to interpret its results. Sometimes emphasis is on similarities
among entrepreneurial networks across countries, and arguments for a degree of generic entrepreneurial
networking are forwarded. At other times, with the focus on dissimilarities, entrepreneurial networking is
viewed as a culturally influenced phenomenon. The problems with reaching an agreement might be due to
the high degree of cultural commonality among the countries that so far have been investigated – a view
first advanced by Dodd and Petra (2002). This suggests that when investigating the interrelationship
between culture and entrepreneurial networks, more focus on cultural diversity is necessary.

A GAP: HOW CULTURAL VALUES INFLUENCE ENTREPRENEURIAL NETWORKING
The main weakness of previous research is the strong focus on consequences of culture on entrepreneurial networking, whereas the interests in and investigations on how cultural values influence entrepreneurial networking are absent. Previous studies have compared entrepreneurial networking among entrepreneurs embedded in different nations based on the assumption that these differences are caused by cultural differences. However, these differences might as well be caused by other characteristics of the nations such as population size, population density, business infrastructure, urban/rural distribution, etc. Even though these differences were thought to be caused by cultural differences, it is still unknown which cultural values drive entrepreneurial networking and in which direction.

In this paper, thus, we investigate how Hofstede’s four dimensions influence the importance of knowing an entrepreneur on entrepreneurial participation. Instead of investigating, as previous studies, how entrepreneurial networking varies across nations (and assuming it is cultural caused), we investigate how cultural characteristics of nations influence entrepreneurial networking. In that sense, we specify cultural aspects that might influence entrepreneurial networking.

**HYPOTHESIS SPECIFICATION**

**Entrepreneurial Network Theory**

Some people have entrepreneurs in their social networks and some do not. Personal knowledge of an entrepreneur has been shown to be associated with a statistically significant increase in the likelihood that a person undertakes entrepreneurship himself or herself (Arenius and Kovalainen, 2006; Davidsson and Honig, 2003; De Clercq and Arenius, 2006; Morales-Gualdron and Roig, 2005; Schøtt, 2003). It may therefore be believed that people who have entrepreneurs in their social networks have access to valuable resources. These resources vary and include: knowledge on the start-up processes; access to business contacts; and emotional support from people with similar career interests. These resources are not easily obtained by people without entrepreneurs in their social networks and our first hypothesis suggests that it is less likely for these people to become entrepreneurs.

*Hypothesis 1: Personally knowing an entrepreneur increases an individual’s likelihood of becoming an entrepreneur.*

**Culture and Entrepreneurial Networking**

Hofstede’s study has had huge influence on culture in business and management research. The area of cross-cultural management has expanded recently. Also other world-wide studies have tried to capture how culture influences business behaviour. It is, however, beyond the scope of this paper to review all this literature. What is in the scope of this paper is on the other hand to review and understand how Hofstede’s four dimensions previously have been described in regard to entrepreneurship.

Hofstede (1980) developed four dimensions to distinguish national cultural and collected data from IBM employees in 50 different countries. *Power distance* is the first dimension. It is a measure of the degree to which people accept that power is distributed unequally. The second dimension – *uncertainty avoidance* – measures the degree to which people in a society feel threatened by uncertainty. *Individualism* – the third dimension – measures the degree to which people in a society are concerned for their own and their immediate family members’ well being. The final dimension – *masculinity* - measures the degree to which the dominating values in a society are achievement and success, as opposed to caring for others and quality of life.
Previous research on culture and entrepreneurship reveals that all four dimensions have an impact on entrepreneurship. The general argument from this literature seems to be that individualism (e.g., Shane 1992; Shane 1993; Tiessen 1997; Johnson and Lenartowics 1998; Lee and Peterson 2000; Morrison 2000) and masculinity (e.g., Lee and Peterson 2000) have positive associations with entrepreneurship, whereas uncertainty avoidance (e.g., Shane 1993; Johnson and Lenartowics 1998; Lee and Peterson 2000; Morrison 2000) and power distance (e.g., Shane 1992; Shane 1993; Johnson and Lenartowics 1998; Lee and Peterson 2000) have negative impacts. Others have argued that the relationship is far more complex. Nakata and Sivakumar (1996) argued, based on a review of literature on national culture and product development, that all four dimensions provided by Hofstede (1980) vary in their impact. The impact depends on which component of product development is under investigation. According to Nakata and Sivakumar (1996), it is the initiation of product development that is positively related to high individualism, low power distance, masculinity, and uncertainty avoidance, whereas the implementation of new product development is positively related to low individualism, high power distance, masculinity, and uncertainty avoidance.

Thus, we know that Hofstede’s dimensions each influence entrepreneurship and we know that personally knowledge of someone who recently has started a business has a positive impact on entrepreneurship. However, we are still unaware of the combined effect of Hofstede’s dimensions and personally knowing an entrepreneur. In line with earlier research, we argue that culture affects how entrepreneurial networking is formed (e.g., Dodd and Patra 2002), and thus, how influential it is for an individual personally to know an entrepreneur in order to become an entrepreneur. The hypotheses are here formulated without directions.

**Hypothesis 2:** The impact of personally knowing someone who has recently started a business on becoming an entrepreneur depends on the level of individualism in the culture in which individuals are embedded.

**Hypothesis 3:** The impact of personally knowing someone who has recently started a business on becoming an entrepreneur depends on the level of power distance in the culture in which individuals are embedded.

**Hypothesis 4:** The impact of personally knowing someone who has recently started a business on becoming an entrepreneur depends on the level of uncertainty avoidance in the culture in which individuals are embedded.

**Hypothesis 5:** The impact of personally knowing someone who has recently started a business on becoming an entrepreneur depends on the level of masculinity in the culture in which individuals are embedded.

**METHODODOLOGY**

**Data: Global Entrepreneurship Monitor (GEM)**

The Global Entrepreneurship Monitor (Minniti, Bygrave & Errko, 2006) is an international project examining how entrepreneurial activity varies across countries; what makes a country entrepreneurial; and how entrepreneurial activity affects a country’s rate of economic growth and prosperity. The project was launched in 1999 with 10 countries and since then new countries have joined the project each year. The project has generated an extensive database on a wide range of issues and factors germane to entrepreneurship worldwide. Every calendar year, each participating nation completes a GEM National Population Survey embracing a minimum of 2000 randomly selected adult respondents who are asked a variety of questions regarding their engagement and attitude towards entrepreneurship.
In this study 35 GEM countries are used. The countries are those who have participated in GEM in at least one of the years from 2000 to 2004 and for which data for Hofstede’s (1980; 1983) dimension are available. 35 countries are thus available for investigation. These countries represent a variety of cultures. Accordingly, this study uses nation as the locus of culture. This is in line with Hofstede’s (1980) approach to culture and follows the stream of research that has previously been completed on entrepreneurial networking and culture.

The cumulative number of GEM respondents in the selected countries for the five years (2000-2004) is 218,974 people. Of those 218,974, 20,437 expect to start a business within the next three years, 9,831 were in the process of starting a business, and 7,144 were running a newly established business. A contentious discussion takes place in entrepreneurship research concerning the definition and operationalisation of entrepreneurship. Broadly, this discussion can be divided into two perspectives. The first perspective (the opportunity perspective) argues that entrepreneurship is about discovery, evaluation, and exploitation of opportunities (Shane and Venkataraman, 2000). It puts emphasis on entrepreneurship as a disequilibrium activity. The second perspective (the emergence view) regards entrepreneurship as ‘firm emergence’ or ‘firm creation’ (Gartner, 1993). It emphasises evolutionary and dynamic aspects of entrepreneurship and focuses on organizing activities in a Weickian sense (Davidsson, 2004). For its analytical purposes, the study reported in this paper takes a very broad emergence perspective and focuses on participation in ownership of new ventures as its definition of entrepreneurship.

In a subsequent section describing variables employed in the analysis, the precise questions used to classify entrepreneurs are presented. This classification divides entrepreneurs into three categories: those who operate in the early discovery stage (trying to recognize a business opportunity to pursue); those operating in the start-up stage (actively trying to start a business); and those running a young business operating in the young business stage.

**Dependent Variables**

Three dependent variables are utilised in this study. All three variables have to do with engagement in entrepreneurship but at different stages of the entrepreneurial process: discovery stage, start-up stage and young business stage. The entrepreneurial process is approached as a business life cycle like in many other studies of entrepreneurial networks (e.g., Greve and Salaff, 2003). Thus, our hypotheses are tested for three different dependent variables representing different stages of the entrepreneurial process.

**Discovery stage**: People who within the next three years, alone or with others, expect to start a new business, including any type of self-employment.

**Start-up stage**: People who, alone or together with others, are trying to start an independent new business or a new venture together with their employer. This must be a business or venture they have been actively trying to start, will own all or part of, and from which they have not received salary for more than three months.

**Young business stage**: People who alone or together with others currently own at least a part of the business they help manage and, in order to qualify for the young business stage the owners may not have received salary for more than 42 months.

**Independent Variables**

The GEM and Hofstede data set used for this study contained questions capable of producing measures of the 9 independent variables classified below.
**Know an entrepreneur (Entrepreneurial networking):** This binary variable is based on the ‘Yes’ or ‘No’ answer to the following question: ‘Do you personally know someone who started a business in the past two years’. This is the variable that is at the heart of our investigation. Previous research shows that ‘know an entrepreneur’ is a strong predictor of entrepreneurial participation, although previous studies have not investigated any cultural differences (Arenius and Kovalainen, 2006; De Clercq and Arenius, 2006; Morales-Gualdron and Roig, 2005). The point of the statistical testing conducted in this study was to try to determine the effect of networking (isolated from the influence of other factors) upon the three dependent variables and to investigate how culture moderates this effect. The remaining independent variables function as control variables.

**Power distance:** This scale variable applies to a nation in which an individual is embedded. It measures the degree to which people accept that power is distributed unequally (Hofstede 1983). A high score indicates that people in a nation accept unequally distributed power compared to people living in a nation with a low power distance score. The range of value is 93.

**Uncertainty Avoidance:** This scale variable applies to a nation in which an individual is embedded. It measures the degree to which people in a society feel threatened by uncertainty (Hofstede 1983). A high score indicates a relatively high anxiety level and a high focus on behaviour that tries to avoid uncertainty. The range of value is 104.

**Individualism:** This scale variable applies to a nation in which an individual is embedded. It measures the degree to which people in a society are concerned for their own and their immediate family members’ well being. A high score indicates a relatively high concern about their own well being. The range of value is 85.

**Masculinity:** This scale variable applies to a nation in which an individual is embedded. It measures the degree to which the dominating values in a society are achievement and success, as opposed to caring for others and quality of life. A high score indicates a relatively high focus on achievement and success. The range of value is 90.

**Gender:** Peoples’ gender was coded 1 for male and 2 for female. Although results from all studies are still not thoroughly consistent, predominant emerging results indicate that female entrepreneurs have different social networks to male entrepreneurs (e.g., Renzulli, Aldrich & Moddy, 2000).

**Age:** A respondent’s exact age was recoded using two indicator variables – one for the age group between 30 and 49 years old and another for the age group at least 50 years old, with a reference group of younger than 30 years old. Previous literature shows that age affects how entrepreneurs use and activate their social networks (e.g., Greve and Salaff, 2003; Renzulli et al., 2000).

**Competence:** This binary variable is based on the ‘Yes’ or ‘No’ answer to the following question: ‘Do you have the knowledge, skill and experience required to start a new business’. The entrepreneurship literature argues that competence (otherwise called ‘human capital’) impacts entrepreneurship (Cuervo, 2005; Davidsson and Honig, 2003).

**Alertness:** This variable identifies people who think that in the next six months there will be good opportunities for starting a business in the area where they live. Discoveries of new opportunities are crucial to the entrepreneurial process (e.g., Shane and Venkataraman, 2000). Being alert to opportunities seems to have a positive impact on entrepreneurship (e.g., Ardichvile and Cardozo, 2000).

**Statistical Analysis**
Descriptive statistics were used to summarise the data. In order to test the five hypotheses, logistic regression (Hosmer and Lemeshow, 2000) was used as the principal statistical technique of the study. Specifically, interactions variables were used to test for cultural differences in networking activity (Cozby, 1997). For each individual, the cultural values associated with their country were used. The interaction variables of entrepreneurial networking and culture were then calculated by multiplying ‘entrepreneurial networking’ with the each of the four cultural values and added to the regression.

**FINDINGS**

**Descriptive Statistics**

Table 1 shows the descriptive statistics. It reveals that the average age of the whole sample is 42 years which is above the average of entrepreneurs (in each stages of the entrepreneurial process). The whole sample contains 51 % females which is a higher proportion than each of the sample of entrepreneurs. As expected, the tendency among entrepreneurs to personally know someone who recently has started a business is higher than the whole sample. In the whole sample 35 % know an entrepreneur whereas this number is above 60 % for entrepreneurs.

**The Importance of Personally Knowing an Entrepreneur**

The logistic regression results reported in Table 2, tested the relationship between knowing an entrepreneur and the participation in entrepreneurship after controlling for gender, age, competence and alertness. Before analysing the effect of cultural differences on social networks, it was appropriate to test whether knowing an entrepreneur significantly influences entrepreneurship participation for each of the three stages of entrepreneurship.

Table 2 shows that among the independent variables, having the knowledge, skills and experience required to start a business (Competence) is the strongest predictor of entrepreneurship regardless of the stage of the entrepreneurial process. Controlling for the effect of the other variables, people who think they have the knowledge, skills and experience required to start a business have 3.86 times better odds of operating in the discovery stage (p<0.01), 5.57 better odds of operating in the start-up stage (p<0.01), and 5.52 better odds of operating in the young business stage (p<0.01), compared to people who do not think they have this competence. Being a female reduces the odds of being an entrepreneur by 20%, 15% and 27% respectively in discovery stage (p<0.01), start-up stage (p<0.01) and the young business stage (p<0.01) if we control for the effect of the other variables. Age, in general, also seems to have a significant negative impact on entrepreneurship. Being between 30 and 49 years old compared to younger than 30 years old reduces the odds with 42 % in the discovery stage (p<0.01) and 5 % in the start-up stage (p<0.05), but increase the odds with in 16 % in the young business stage (p<0.01). Being 50 years or older reduces the odds of being entrepreneurs in all three stages compared to being younger 30 years old (p<0.01). Finally, the last control variable – alertness – also seems to be a strong predictor of entrepreneurship in all three stages (p<0.01), increasing the odds of entrepreneurship by a factor of 2.05 during the discovery stage, 2.06 during the start-up stage and 1.54 during the young business stage when we control for the other variables. All these results concerning the control variables support previous research.

When we control for the above variables, knowing a person who started a business in the past two years is also a strong predictor of whether people are entrepreneurs. The coefficient B for knowing an entrepreneur is positive, which shows that having entrepreneurs in one’s social network increases the probability or the odds of being an entrepreneur. For networking in the discovery stage the odds ratio is a significant 2.15 (p<0.01). This means that for entrepreneurial networking people the odds of being an
entrepreneur in the discovery stage are 2.15 times the odds for non-networking people. In other words, personally knowing someone who started a business in the past two years increases the odds of being an entrepreneur in the discovery stage by 115% (holding the other conditions constant). In the start-up stage, for networking people the odds of being an entrepreneur are 1.90 times the odds for non-networking people (p<0.01) and in the young business stage the odds are 1.95 times the odds for networking people (p<0.01). Thus, Table 4 confirms previous research arguing that social networks impact upon a person’s tendency to be an entrepreneur, supporting the first hypothesis.

Culture Modifying the Facilitation

Table 3 shows the effects of Hofstede’s four cultural dimensions and personally knowing someone who recently started a business on individuals’ tendency to become entrepreneurs. People’s tendency to become entrepreneurs is measured on three dependent variables that represent three different stages of the entrepreneurial process.

Table 3 shows that the interaction effect of power distance and personally knowing someone who recently started a business is negative on entrepreneurship participation through all three stages. An increase with one point in Hofstede’s power distance index combined with personally knowing an entrepreneur decreases the odds that an individual is an entrepreneur with 0.9 % (p<0.01) in the discovery stage, with 1.3 % (p<0.01) in the start-up stage and with 0.6 % in the young business stage (p<0.01). It means that it is less important in countries with high power distance to know someone personally who recently started a business. Personally knowing an entrepreneur is more important in countries where people do not accept unequally distributed power such as for instance Austria, Israel and Denmark. Thus, hypothesis 2 is corroborated.

Table 3 also reveals that the interaction effect of uncertainty avoidance index and personally knowing an entrepreneur has no significant effect on individuals’ tendency to be entrepreneurs in the discovery stage and the start-up stage, but has a significant negative effect on the likelihood of being entrepreneur in the young business stages. It decreases the odds with 0.3 % (p<0.01). The results mean that it is equally important, regardless of level of uncertainty avoidance in the society, for individuals to know an entrepreneur in order to become entrepreneurs in the discovery stage and the start-up stage. Meanwhile is it less important to know in an entrepreneur in countries with high uncertainty avoidance in order to become entrepreneur in the young business stage. In countries (e.g. Argentina, Jamaica or Uruguay) where people feel threatened by uncertainty personally knowing someone who recently started a business is less important in order to be an entrepreneur in the young business stage. Thus, hypothesis 3 receives partly support.

Regarding the interaction effect of individualism and personally knowing an entrepreneur, table 3 reveals no significant effect in the discovery stage, a significant negative effect in the start-up stage and a positive effect in the young business stage. The odds decrease with 0.4 % and increase with 0.4 % in respectively the start-up stage and young business stage as a result of an one point increase in Hofstede’s individualism index combined with knowing an entrepreneur. It means that in societies with high individualism and where people mainly care about themselves (e.g. Australia, Great Britain and US) personally knowing someone who recently started a business is less important in order to become an entrepreneur in the start-up, but more in important in order to become entrepreneur in the young business stage. Thus, hypothesis 4 receives partly support.

Finally, regarding Hofstede’s fourth dimension masculinity, table 3 shows a significant positive interaction effect of high masculinity and personally knowing an entrepreneur on all three dependent variables. An one point increase in the masculinity index combined with personally knowing an entrepreneur increases the odds of being an entrepreneur in the discovery stage with 0.4 % (p<0.01), in
the start-up stage with 0.3 % (p<0.01) and in the young business stage with 0.5 % (p<0.01). Thus, in societies where masculinity is high (e.g. Italy, Switzerland and Venezuela) and where achievement and success are important, personally knowing entrepreneurs is more important throughout the whole entrepreneurial process. Thus, hypothesis 5 is corroborated.

**DISCUSSION AND CONCLUSION**

In this paper, we have investigated the influences of cultural factors and social network structure on whether or not an individual, anywhere in the world, becomes an entrepreneur. Specifically, we have investigated the effect of each of Hofstede’s four cultural dimensions combined with personally knowing someone who recently started a business on entrepreneurship participation. We tested the effect on three dependent variables, each representing three different stages of the entrepreneurial process. Previous studies have compared the effects of social network structure on entrepreneurship participation *between countries* and assumed that differences are due to an unspecified construct called ‘national culture’ (Arenius and Kovalainen 2006; De Clercq and Arenius 2006; Klyver et al. 2007). This study transcends national boundaries. It focuses instead on the differences *between cultural mechanisms* irrespective of country.

We found, not surprisingly in accordance with previous studies, that personally knowing someone who recently started a business positively affects individuals’ likelihood of becoming entrepreneurs. This applies to all three stages of the entrepreneurial process. Two other hypotheses were fully supported (H2 and H5). Accordingly, this study shows that individuals who live in societies with high power distance are less dependent on knowing other entrepreneurs in order to become entrepreneurs themselves. This applies regardless of which stage of the entrepreneurial process that is considered. In societies where people accept unequally distributed power, personally knowing someone who recently started a business is less important. This might be because entrepreneurs living in societies with high power distance are more dependent on access to people placed in high positions with high status. People who recently started a business are still low in the societal hierarchy and still have not access to non-redundant resources. Therefore, they have few valuable resources they can provide to their friends. Instead, what might be important to individuals in these countries is personal knowledge of someone with a high social status and with access to the well-established business community. They might be able to provide potential entrepreneurs with non-redundant resources. The main entry barrier that entrepreneurs face in societies with high power distance is if they do not know someone already with high social status and long-term experience in the business community. Without contacts like those even personally knowing someone why recently started a business might not be enough to successfully enter the business community.

On the other hand, in societies with low power distance and where people do not accept unequally distributed power, it becomes important to know personally someone who recently started a business. In societies where it matters less which position people occupy, it becomes more important to know someone who can share their recent experiences instead of having the ‘right position’. In societies like this it is not about the ‘right position’, but about knowing people who can share their experience.

It was also shown in this study that it more important personally to know other entrepreneurs for individuals who live in societies with high level of masculinity compared to individuals who live in societies less masculine oriented. Accordingly, in societies where achievement and success is important it seems that knowing other entrepreneurs is relatively more important. Entrepreneurship has often been associated with values such as need for achievement (McClelland 1961). In societies where masculine values are dominant people who are already successful in business might function as strong role models and resource providers for their friends. In societies where masculine values are less dominant, entrepreneurship is not perceived in the same way as a preferable career choice. In such countries it might be more important to occupy positions that support other values, like for instance family values.
Therefore, personal knowledge of someone who recently started a business might not be influential as a role model. This interpretation might be clearer if we consider a more extreme example. If a person does not perceive being a criminal as preferable career having close friends who are criminals would be less influential compared to a person who perceive being a criminal as a preferable career.

The results concerning uncertainty avoidance and individualism are less clear and harder to interpret. For both cultural values, significant results were not found for all three dependent variables. This might indicate that the impact only matters in some stages of the entrepreneurial process, but it might also indicate that the results are weak.

There are no significant differences in importance of personally knowing other entrepreneurs in the discovery stage and the start-up stage between countries with different level of uncertainty avoidance. However, it seems like entrepreneurs living in societies where people in general strongly feel threatened by uncertainty, personally knowing other people who recently started a business is less important to participate in the young business stage. It might indicate that although entrepreneurs who know each other share their experience they also increase the level of anxiety. They might introduce new challenges and activities to consider before they appear and in that sense they increase the feeling of anxiety. People who live in societies with high anxiety level therefore rely less on people who recently started a business in the young business stage in order to avoid feelings of uncertainty.

No significant combined effect of living in a society with high individualism and personally knowing other entrepreneurs was found on people’s tendency to participate in the discovery stage. However, a negative combined effect was found for the start-up stage whereas a positive combined effect was found for the young business stage. Thus, for entrepreneurs in the start-up stage, living in societies where people have relatively strong concerns about their own well-being, the help entrepreneurs may obtain from other people who recently started a business is less important compared to the help obtain in societies where people care more for others. However, as entrepreneurs move forward personally knowing other new entrepreneurs becomes more important in societies characterized by high individualism. This might be due to the competitive behavior that newly established businesses experience. In societies with high individualistic values, the competitive behavior is intense and more market oriented. One way to survive such market conditions is to rely on trust and personal relations in the market. Through such relationships, market barriers are reduced and it becomes easier for entrepreneurs to survive the first years.

We recognise at the outset that it is a major limitation of this study that the data set only contains only one measure of social networks. Despite this limitation, the study is valuable for its power of falsification. With respect to hypothesis 1 it could be argued that if it turned out that there is no difference between entrepreneurs and non-entrepreneurs as to whether their network includes an entrepreneur or not, one would be very hard-pressed to remain comfortable with the idea that networks matter at all to the process of entrepreneurship. Further, with respect to hypotheses 2 to 5 it could be argued that if it turned out that there is no difference in the effect of knowing an entrepreneur in different cultures one would be very hard-pressed to remain comfortable with the idea that networking behaviour is culturally dependent. In short, even with only measure of social networks this study demonstrates the importance of entrepreneurial networking as cultural dependent behaviour.

Thus, the results presented in this study to some extent confirm previous evidence of cultural differences in networking practice adopted by entrepreneurs (e.g., Dodd and Patra, 2002; Staber and Aldrich, 1995) and argue against simple universal networking activity. The study indicates that entrepreneurial networking behaviour might differ among entrepreneurs living in different cultures, and that different cultural values have different impact. In 1980, Lonner introduced different universal relationships into the cross-cultural management literature. The term ‘simple universal’ means a phenomenon is constant worldwide. ‘Variform universal’ refers to a general relationship that holds across
countries, but which is moderated by culture. ‘Functional universal’ refers to situations where relationships are the same within groups. These three dimensions allow researchers to think more carefully and with greater sophistication about the nature of universality (Dickson, Hartog & Mitchelson, 2003). It is not longer a matter of either being totally universal or totally cultural determined.

This study shows that variform universality prevails. It shows that cultural differences exist in networking practice. Different cultural values moderate importance of entrepreneurial networking; however, importance of entrepreneurial networking applies to every single culture. Because this study investigated how different cultural values influence the importance of personally knowing other entrepreneurs, and not how the importance of knowing entrepreneurs differs across countries, this study can not say anything about the functional universality.

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REFERENCES

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Table 1: Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>All adults</th>
<th>Entrepreneurs in discovery stage</th>
<th>Entrepreneurs in start-up stage</th>
<th>Entrepreneurs in young business stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean age</td>
<td>42</td>
<td>34</td>
<td>36</td>
<td>37</td>
</tr>
<tr>
<td>% female</td>
<td>51 %</td>
<td>39 %</td>
<td>38 %</td>
<td>35 %</td>
</tr>
<tr>
<td>% Know an entrepreneur / Entrepreneurial networking</td>
<td>35 %</td>
<td>62 %</td>
<td>63 %</td>
<td>64 %</td>
</tr>
<tr>
<td>N</td>
<td>218,974</td>
<td>20,437</td>
<td>9,831</td>
<td>7,144</td>
</tr>
</tbody>
</table>

Table 2: Logistic Regression

<table>
<thead>
<tr>
<th></th>
<th>Model 1 Discovery stage</th>
<th>Model 2 Start-up stage</th>
<th>Model 3 Young business stage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Exp(B)</td>
<td>B</td>
</tr>
<tr>
<td>Know an entrepreneur / Entrepreneurial networking (netw)</td>
<td>0.77 **</td>
<td>2.15</td>
<td>0.64 **</td>
</tr>
<tr>
<td>Gender</td>
<td>-0.22 **</td>
<td>0.80</td>
<td>-0.16 **</td>
</tr>
<tr>
<td>Age (reference is young)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mid (30-49 years old)</td>
<td>-0.55 **</td>
<td>0.58</td>
<td>-0.57 *</td>
</tr>
<tr>
<td>Old (50+ years old)</td>
<td>-1.54 **</td>
<td>0.22</td>
<td>-0.73 **</td>
</tr>
<tr>
<td>Competence</td>
<td>1.35 **</td>
<td>3.86</td>
<td>1.72 **</td>
</tr>
<tr>
<td>Alertness</td>
<td>0.72 **</td>
<td>2.05</td>
<td>0.72 **</td>
</tr>
<tr>
<td>Constant</td>
<td>-2.43 **</td>
<td>0.09</td>
<td>+4.36 **</td>
</tr>
<tr>
<td>N</td>
<td>159,587</td>
<td></td>
<td>218,974</td>
</tr>
<tr>
<td>Nagelkerke R²</td>
<td>0.23</td>
<td></td>
<td>0.16</td>
</tr>
</tbody>
</table>

Table 3: Effect of Hofstede's Four Dimensions and Entrepreneurial Networking On Entrepreneurship Participation

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Discovery stage</td>
<td>Start-up stage</td>
<td>Young business stage</td>
</tr>
<tr>
<td>Know an entrepreneur/Entrepreneurial networking (netw)</td>
<td>1.105 **</td>
<td>3.020</td>
<td>1.403 **</td>
</tr>
<tr>
<td>Gender</td>
<td>-0.239 **</td>
<td>0.788</td>
<td>-0.185 **</td>
</tr>
<tr>
<td>Power distance</td>
<td>0.009 **</td>
<td>1.010</td>
<td>0.011 **</td>
</tr>
<tr>
<td>Uncertainty Avoidance</td>
<td>-0.003 **</td>
<td>0.997</td>
<td>-0.001</td>
</tr>
<tr>
<td>Individualism</td>
<td>-0.020 **</td>
<td>0.980</td>
<td>-0.011 **</td>
</tr>
<tr>
<td>Masculinity</td>
<td>0.002 **</td>
<td>1.002</td>
<td>0.013 **</td>
</tr>
</tbody>
</table>

**INTERACTION EFFECTS:**

|                                |                          |                      |                      |
| Power * netw                   | -0.009 ** | 0.991 | -0.013 ** | 0.987 | -0.006 ** | 0.994 |
| Uncertainty * netw            | 0.000 | 1.000 | 0.000 | 1.000 | -0.003 ** | 0.997 |
| Individualism * netw          | -0.001 | 0.999 | -0.004 * | 0.996 | 0.004 * | 1.004 |
| Masculinity * netw            | 0.004 ** | 1.004 | 0.003 * | 1.003 | 0.005 ** | 1.005 |

| Constant                      | -1.623 ** | 0.197 | -4.829 ** | 0.008 | 3.818 ** | 0.022 |

N=159,587 N=218,974 N=218,974
Nagelkerke R² = 0.27 Nagelkerke R² = 0.18 Nagelkerke R² = 0.15

* P< 0.05
** P< 0.01