

Entrepreneurial Intent: The Influence of Culture

A Quantitative Research

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This paper describes the effect of cultures, and will be built upon the work of Hayton. Different than Hayton's work is that the culture will be measured with the tightness-looseness model of Michele Gelfand. The entrepreneurial intent will be measured with the study of Thompson. This study will contain new models and better definitions due to the fact that there was a growing critique on the model of Hofstede and a not clear definition of entrepreneurial intent. This report concludes that there was no influence of culture on entrepreneurial intent, locus of control and self-efficacy. There was a relation between culture and risk taking propensity.

1. Introduction.

Entrepreneurial activities are important for a country, it leads to technological innovation and economic growth. (Schumpeter, 1934 and Birley, 1987 as cited in (Hayton, George, & Zahra, 2002)). Wennekers & Thurik (1999) state that *“entrepreneurship matters. In open economies it is more important for economic growth than it has ever been.”* (p.51) Wennekers & Thurik used the observations that there was a shift of economic activities from big firms to small firms. They were able to prove that entrepreneurship is of great importance for the economic growth of a country. It's therefore important to know why entrepreneurial activities happen, and what causes countries to differ in entrepreneurial activities.

According to Hayton (2002) culture is such a factor that causes differences. Hayton (2002) states that economists, sociologists and psychologists observed different levels of entrepreneurial activities in different countries. Hayton explains these differences with four different associations. These include; needs and motives, beliefs and behaviors, cognition, and cultural values. We are going to focus on cultural values due to the widely held believe that cultures have an effect on entrepreneurship. (Thomas & Mueller , 2000; Guiso, Sapienza, & Zingales, 2005; Davidsson, 1995) However, we do not consider the other perspectives as unimportant, but for the scope of our study we are only focusing on cultural values.

Hayton (2002) explains that certain cultural values, as described by Hofstede, leads to more entrepreneurial activities and he explains why those cultures have more entrepreneurial activities. Geert Hofstede originally developed

an empirical model in 1981 with four different dimensions. (In 1991 a fifth dimension was added). With this model, a culture of a nation could be mapped and compared with other nations. (Hofstede, 1994) Hofstede's work is based on values, meaning that it is a familiar way of thinking about the psychological aspect of a culture. (Gelfand, Nishii, & Raver, 2007) Hofstede is considered one of the founding fathers of the cross-cultural studies. There are many studies published based upon his work, but recently criticism has been increasing on his study. McSweeney and Ailon are two of the most predominant critics. McSweeney (2002) voiced that Hofstede's model doesn't work due to the fact that it is based on single national culture, that there is only one culture in a country, but McSweeney believes that there can be multiple cultures in a country. Take for example The UK; It has at least four different nations; England, Northern Ireland, Scotland and Wales. Hofstede however considers these countries as one entity. (McSweeney, 2002) Furthermore, the questionnaires and surveys are problematic. The people who answered the questionnaire were all from the single company, IBM, working on the marketing-plus-sales branch. McSweeney points out that Hofstede's claim, which says that inside a profession the culture is the same or uniform across nations, is not true. There are intra-profession differences in a multi-national venture. Which makes the group have differences coming from other causes. (McSweeney, 2002) Also, for 15 countries the amount of respondents was below 200 for the surveys conducted by Hofstede. (McSweeney, 2002) This amount is too low and raises questions if these respondents are indeed a representative for the nation. Another scholar questioning Hofstede is Galit Ailon. Ailon (2008) used Hofstede's work schema of analysis to mirror it against itself. *“Mirroring is the use of the same sort of scrutiny that is so cleverly and methodically devised for the study*

of others on the observers." (Ailon, 2008, p. 887) Ailon found that the standardized questionnaire was built upon a paradigm of white, managerial, men, which then makes claims based upon the complete population invalid.

This growing critique led me to the search for a framework different than the value based framework. We found this in the work of Michele Gelfand. Gelfand (2007) looked into a massive amounts of value perspective based studies and found that the subject needed to be seen from a different perspective. She proposed a different angle in which she identifies a model to look at cultures called tightness-looseness. (Gelfand, Nishii, & Raver, 2007) In this tightness-looseness model there is a tight culture in which deviant behavior is not allowed by society, and a loose culture in which deviant behavior is allowed. It has been proven that the tightness-looseness model is distinct from power distance, individualism-collectivism, and uncertainty avoidance. (Gelfand, Nishii, & Raver, 2007)

To measure entrepreneurship Hayton uses a broad definition. Hayton uses the creation of ventures which aims at growing and creating jobs but also small businesses and micro enterprises in which the aim is self-employment and not so much the employment of others. He believes that an internal locus of control, risk taking propensity and self-efficacy have an effect on entrepreneurship. These indicators will be used to compare results for the completeness of our study. Hayton (2002) believed that he could *"capture a broader interpretation"* (p. 34) with his use of the definition of entrepreneurship. However, this definition used by Hayton (2002) is too broad for us to understand the role of an individual in the creation of a new venture. This is because Hayton also encompassed entrepreneurship in existing ventures and small businesses, which

is why we believe that Thompson's definition of entrepreneurial intent works better. This has been shown in former research where Thompson's work was described as; *"significantly improved"* (Valliere, 2014), *"reliable"* (Zampetakis, Kafetsios, Lerakis, & Moustakis, 2015) Thompson's method of measuring entrepreneurial intent is commonly used. (Fitzsimmons & Douglas, 2011; Nabi, Holden, & Walmsley, 2010; Valliere, 2014; Zampetakis, Kafetsios, Lerakis, & Moustakis, 2015)

Thompson explains in his article that the existing definition of entrepreneurial intent is lacking clarity. Some studies defined entrepreneurial intent in their own way, often including other constructs such as *"career orientation, vocational aspirations, nascent entrepreneurs, outlook on self-employment, and the desire to own a business"* (Thompson, 2009, p. 669) This caused problems due to the fact that it was impossible to measure the construct 'entrepreneurial intent', in a reliable way. This led to Thompson defining the construct of entrepreneurial intent more clearly. Thompson defined entrepreneurial intent as *"self-acknowledged conviction by a person that they will set up a new business venture and consciously plan to do so at one point in the future."* (Thompson, 2009, p. 676)

Our study will set aside from other (value) studies because we lay our focus upon Gelfand's model of cultural differences, named the Tightness-Looseness model. With this study we want to map the cultures and research if they have a different outcome considering the entrepreneurial intent defined by Thompson. We will also use the indicators used by Hayton; locus of control, self-efficacy and risk-taking propensity. We use these indicators to compare the results of "entrepreneurial intent". Our research question will be as followed: what is the consequence of the different cultures as

defined by Gelfand --tight or loose culture-- on entrepreneurial intent?

The paper will continue as follows; we first are going to review theory to give us a theoretical framework to conduct our research. Then we will discuss the data set and the way we analyzed data. The data will be analyzed and discussed followed by a conclusion and future research leads.

2. Literature Review

2.1 Tightness-looseness

Michele Gelfand (2007) recognizes that the cross-cultural studies have been predominately based upon value studies. In the last couple of years there has been a growing stream of critique on the study by, among others, McSweeney (2002) & Ailon (2008). Gelfand (2007) writes that the value studies are not able to fully explain cultural differences in behavior. Gelfand (2007) further explains that there is a great focus on variance within societies with little theory on why those variances are the way they are. That has been the motivator for her paper and the introduction of the Tightness-Looseness model.

The tightness-looseness model has two key components; the strength of social norms and the strength of sanctioning. Gelfand describes social norms as *“how clear and pervasive norms are within societies”* (2007, p. 7) and she describes the strength of sanctioning as *“how much tolerance there is for deviance from norms within societies.”* (2007, p. 7) In a ‘tight culture’ the social norms are being seen as unambiguous and very clearly show to each other and the sanctioning strength is strong on the individuals who are not following these social norms. In a ‘loose culture’ however, the social norms are ambiguous and expressed through multiple channels and the sanctioning

strength is low which has a general lack of formality, order, and discipline and a high tolerance for deviant behavior. (Gelfand, Nishii, & Raver, 2007) Gelfand lay’s the focus on individuals and organizations in her study.

Gelfand describes a couple of indicators of a culture. One of these indicators is: broad socialization and narrow socialization. (Gelfand M. E., 2011) Tight cultures have a narrow socialization in which people have higher restraints and the people’s behavior is monitored and sanctioned if defiant. In loose cultures there is a broad socialization in which there is less restraint and the monitoring and sanctioning systems are less developed. (Gelfand M. E., 2011, p. 3)

Gelfand further describes the psychological adaptations of the individuals in a tight or loose culture; felt Accountability, knowledge structures, self-guides, regulatory strength, and decision-making styles. Two psychological adaptations, felt accountability and self-guides, which are representatives for entrepreneurial intent.

Felt accountability is defined as *“the subjective experience that one’s actions will be subject to evaluation and that there are potential punishments based on these evaluations.”* (Gelfand M. E., 2011, p. 5) She further explains that there is accountability in both cultures, tight and loose, but within tight one it is more felt. Self-guides are divided into two opposing sub-categories: ideal self-guides, which indicates internally what a person hopes and aspires to be, and ought to self-guides, which indicate what a person believes is his or her responsibilities based upon descriptions of close others or the generalized society. (Gelfand M. E., 2011, p. 6) She thinks that people in a tight culture have more of an ‘ought to’ self-guides which focuses on not making mistakes. So instead of making a profit, they

focus on making the least amount of losses. In a loose culture this is the opposite.

Also, loose cultures differ in risk-avoidance behaviors. In a loose culture people tend to have more focus on promotion and behave positively towards errors. In contrast, within tight cultures people follow rules and try to conform.

2.2 Entrepreneurial intent

Entrepreneurial intent was, before the work of Thompson, not clearly defined. This was caused by a large amount of studies (Thompson, 2009) in which the definition of entrepreneurial intent was considered somewhat to be self-explanatory. This problem was caused by two different reasons; the first reason is that it is conflicting with the definition of “entrepreneurial intentions” which is the desire and longing of an entrepreneur who is already undertaking entrepreneurial activities. Second, in the problem caused by the impreciseness of the term entrepreneur. Another problem was that the studies before Thompson’s were not measuring “entrepreneurial intent” in a uniform way.

Thompson (2009) frames his definition as follows: entrepreneurial intent happens after thinking about being an entrepreneur in the future. So individuals without any thoughts about becoming an entrepreneur are not considered individuals with entrepreneurial intent. On the other hand, a person who is undertaking steps to become an entrepreneur is a step beyond an individual with only entrepreneurial intent. (Thompson, 2009) The individual has entered the stage of a nascent entrepreneur. A nascent entrepreneur is defined by Wagner (2004) as “*people who are engaged in creating new ventures*”. Thompson explicitly mentions that an entrepreneurial intent is necessary but not sufficient to become a nascent entrepreneur. This is because not all individuals with entrepreneurial intent become

nascent entrepreneurs. For example, some individuals are not able or do not want to undertake actions to become an entrepreneur, meaning that they *do* have entrepreneurial intent but are not nascent entrepreneurs due to the lack of action. Nascent entrepreneurs however, have entrepreneurial intent because, as Thompson states “*All new firms set up by individuals, or groups of individuals outside the formal context of existing firms, begin with some degree of planned behavior on the part of those individuals.*” (Thompson, 2009, p. 670) Entrepreneurial intent is not the reason why individuals want to be an entrepreneur, it only tells us *if* they are thinking about being an entrepreneur. We can see entrepreneurial intent as the step previous to entrepreneurship.

Thompson (2009) defines three components of entrepreneurial intent with the six questions formed in his study. The first one is straight forward: people are asked if they intend to set up a company in the future. The other two are less straight forward, these are the desire to be self-employed and the entrepreneurial orientation. These later two constructs are made by Thompson to include the people who are not becoming nascent entrepreneurs but still have entrepreneurial intention.

Half of the amount of companies created will fail within two years (Hisrich & Brush, 1986). It has become evident that starting up a company goes hand in hand with risk and error. In a tight society it is common to have a mindset in which a person is scared of change and errors. In a loose society people are open to change and seek ways to find new ways to improve by breaking the status quo. (Gelfand M. E., 2011) When wanting to start up a business an individual is prepared to go off the beaten path and seek up change and possible mistakes. So we believe that:

Hypothesis 1a.

*H0: Individuals who are living in a **loose** culture have a bigger propensity to start up a company.*

The second construct was the desire to be self-employed. People who are not self-employed are being monitored by their boss and have to follow rules. With other words, a boss will tell you what to do, how to do it and afterwards will check if you have done it right. This fits into a narrow socialization, in which rule obedience is important and part of the tight society. We believe that people who are in a loose culture do not want to have a boss (as described above), and prefer to be self-employed. Self-employment leads to more exploration and more lenient rules. Because when you are self-employed, you're able to undertake action in your own terms. So we believe that:

Hypothesis 1b.

*H0: Individuals who are living in a **loose** culture have a bigger propensity to desire self-employment.*

Our third construct is about entrepreneurial orientation. People who participation in orientation about entrepreneurship are building upon what that person wants to be. This is called an ideal self-guide. We think that if people determine for themselves what their hopes and aspirations are, makes them able to focus on subjects which interest them, including entrepreneurship. So we believe that:

Hypothesis 1c.

*H0: Individuals who are living in a **loose** culture have a bigger propensity to have a higher entrepreneurial orientation.*

2.3 Internal locus of control

Internal locus of control is defined by Mueller (2001, p. 55) as; "An individual perceives the outcome of an event as being either within or

beyond his or her personal control and understanding. An internal believes that one has influence over outcomes through ability, effort, or skills. Rotter's (1966) in Mueller (2001) In other words; internal locus of control is the belief that people believe they influence what happens by their effort, ability and skills. We use the questions from Mueller questionnaire to determine the internal locus of control. It's long believed that internal locus of control was a key construct to entrepreneurial intent. In regards to our independent variable tightness-looseness we believe that a loose culture has a positive influence on internal locus of control. The psychological adaptations of Michele Gelfand about her tightness-looseness model shows us why we think a loose culture has a positive influence on internal locus of control, especially the decision-making adaptation. This states that there are two cognitive styles: Adaptor (tight) and innovator (loose). "Adaptors prefer to derive ideas for solution to problems by using established procedures (...) Innovators prefer to challenge established rules and procedures, ignore constraints of prevailing paradigms, and derive ideas from outside the system" (Gelfand M. E., 2011) We think that persons who are innovators are likely to be an 'internal'. This is because internals seem more likely to try to influence outcomes by challenging the established rules and procedures. We believe that in a tight culture, in which people behave like adaptors, people have a low internal locus of control because they use established procedures thinking they don't have an influence on the outcomes.

So our second Hypothesis will be as follows:

*H0: Individuals who are living in a **loose** culture have a bigger propensity to have a higher internal locus of control*

2.4 Self-efficacy

Self-efficacy defined as “*an individual’s confidence in his ability to successfully perform entrepreneurial roles and tasks.*” (Zhao, 2005, p. 1265) The results of Zhao’s (2005) study evidently showed that individuals *choose* to become entrepreneurs. With other words, becoming an entrepreneur is a decision by an individual. This supports the idea of entrepreneurial intent because (Zhao) explains that people with a high efficacy are confidence that her or he is able to perform certain tasks and reach certain goals. People who have a certain entrepreneurial expectation and a high self-efficacy tend to engage in entrepreneurial activities. We believe that because loose cultures have an ideal self-guide that individuals in a loose culture have a higher self-efficacy. Because of the ideal self-guide, people set goals for their own. To set these goals self-efficacy is needed for the fact that people would otherwise constantly set goals for themselves in which they don’t believe they will succeed. So, self-efficacy is needed in a loose culture, having ideal self-guide, to sustain the goals set by the individual. In the questionnaire we used, there were three questions developed by Zhao. These three questions are rated on a 5 point scale ranging from; not accurate at all to very accurate. We will use this scale to test our third hypothesis.

Our third hypothesis will be as follows:

*H0: Individuals who are living in a **loose** culture have a bigger propensity to have a higher self-efficacy.*

2.5 Risk taking propensity

Another personal trait considered to be positively related to entrepreneurial intent is ‘risk taking propensity’. (Lüthje, 2003) Lüthje conducted a study on students of MIT to test a model of entrepreneurial intent. One of the indicators was risk taking propensity. Her study showed that there is a strong correlation

between risk taking propensity and entrepreneurial intent. To understand why this is, we need to picture that being employed bears little risk. You do your job which is outlined, controlled and monitored by your boss. Although pay is generally less, the risk is way smaller. But as an entrepreneur you bear way more risk because you see chances to gain from opportunities seen by the individual. Sometimes these opportunities are misjudged by an entrepreneur, the competition might be to fierce or another entrepreneur might have a better product which makes your product obsolete. There are a lot failures an entrepreneur could encounter, not saying however that a company where an employee works is not able to also have these risk, but it is less likely. We think that risk taking propensity is more likely to be higher in a loose culture. This has to do with the psychological adaptations in a loose culture, especially the decision-making styles. In a loose culture the decision-making style has been described as an ‘innovator’ with the following characteristics: “*Original and risk seeking, yet also as undisciplined, impractical, and disrespectful of customs.*” (Gelfand, Nishii, & Raver, 2007) As seen above, the innovator style has a tendency to take risks, which risk taking propensity is all about.

So our fourth hypothesis we be as followed:

*H0: Individuals who are living in a **loose** culture have a bigger propensity to risk taking.*

3. Method

3.1. Scales

In this research the input variable is Tightness-looseness by Gelfand and our output variables are; entrepreneurial intent, which is divided into three different components, locus of control, self-efficacy and risk taking propensity. In which, Tightness-looseness and

entrepreneurial intent are measured on a 6 point scale. They specifically choose the 6 point scale because they stated that there is no neutral standpoint. Locus of control, Self-efficacy and risk taking propensity are measured on a 5 point scale. First of all, we have to change the reversed items in the questions by Thomson and Gelfand. This is done with the recode into different values under transform in SPSS, in which we changed the scores of Thompson from 1=very untrue to 6=very untrue. Gelfand was 1=strongly disagree changed to 6=strongly agree. To measure if a culture is tight or loose we use the empirical study of Michele Gelfand (Gelfand M. E., 2011). In which the questions were introduced which Gelfand used to determine tightness-looseness. These question are used by us in the questionnaire to measure the tightness or looseness of a culture seen by the participant. Gelfand used the within-subject standardization to standardize the data. She does this by subtracting the items which have the same scores as the mean from the individual given responses for all the items. (Gelfand M. E., 2011).

Thompson developed his questions in a couple of stages. In the first one he used a pool of several post-graduate students from different countries to generate ideas for items to measure entrepreneurial intent. He reduced the set by removing indistinctive items, items considering leaving a job, specific short time periods, items only relevant in certain countries and items considering certain types of business and not others, were removed. (Thompson, 2009)

The second study, consisting of 16 items and 7 distracter items which were left-over from the omitted items in study one. These left-over items were assessed by the focus group participants. After item purging and the applying of the Cronbach's coefficient of reliability, there were 6 items left with 4

distracter items. In the next 6 studies the validity of the construct was tested and they all passed.

The six questions asked by Thompson are divided between three components; Intent to start up a business, entrepreneurial orientation and the desire to be self-employed. Each of these components are represented by two questions. Considering we believe that a loose culture has a positive effect on all the constructs of "entrepreneurial intent", we use the definition as a whole. But it is interesting to see how these different constructs hold up. So in our analysis we do use them separately.

We won't use the distracter items due to the fact that the questionnaire done by Stienstra has already a lot of questions coming from other theories. By adding distracter questions the amount of questions could be too big and cause respondent fatigue. Thompson defined in his study that entrepreneurial intent is for when you think about starting up a business but you haven't yet. So we need to remove all the subjects who already started up a business.

3.2. Sample

Our sample consist of students of universities of applied sciences. We believe that students are representative of the population. Höst (2000) wrote an article about using students as subjects, in which they compared students and professionals. They concluded that there was no significant difference between the correctness of the students and that of the professionals. (Höst, Regnell, & Cleas , 2000) This makes it valid to believe that we can use the students of the University of Twente, Münster and Saxion as our sample. The total amount of questionnaires handed out was 5000, and 759 people responded. (Response rate: 15.18%) From that group of 759 people, 324 people filled in all the questions, excluding 435 people. Thompson's definition states that nascent entrepreneurs are excluded. Thus

excluding people who already started a company. From that group of 324 people, 280 remain. 87.9% of 280 consist out of Dutch (70.7%) and German (17.1%). The remaining 12.1% consist out 26 different nationalities, no nationality had more than 3 respondents. After excluding these small groups we had two groups left; Dutch and German. We use these two groups because they are the two biggest groups of the survey. Respectively $n=198$ and $n=48$. The other nationalities had 3 participants or less which makes them too small to give any valid or reliable conclusions about their cultures

3.3. Analysis

We first want to know if our data is normally distributed. This is because it matters which test we should use. To test if the variable is normally distributed, we used the Kolmogorov-Smirnov test and the Shapiro-Wilk test. This will determine which test we are going to use. Both tests have a significance level of $P < 0.05$. The scores of the Kolmogorov-Smirnov test and the Shapiro-Wilk test is, for all the variables, low. ($P < 0.001$). The scores of the test are smaller than the significance level meaning that our variables are not normally distributed according to the Kolmogorov-Smirnov test and the Shapiro-Wilk test. This means that we cannot use the T-test or an Anova-test because those tests need normally distributed variables. The test that we are going to use is a non-parametric test, between (two) group(s), called the Mann-Whitney U test. This will test if there is a significant difference between the tested variables. The Mann-Whitney U test makes it possible to use several variables in one test. Which in our case, with one independent variable and six dependent variables, makes it very applicable. According to our hypotheses we suspect that there is a positive relationship between loose cultures and entrepreneurial intent, locus of control, self-efficacy and risk taking propensity. So what we expect to see

here is that if one culture is more loose than the other, that the culture with the higher looseness has also a higher entrepreneurial intent, locus of control, self-efficacy and-or risk taking propensity. Visa-versa, if one culture has a lower looseness than we expect the entrepreneurial intent, locus of control, self-efficacy and/or risk taking propensity to be lower. In this case our H0 hypotheses will be confirmed. And the H1 hypotheses will be confirmed if the culture has no positive effect on our variables.

Our control variable will be the Masculinity-Feminine dimension of Hofstede. The data used for control variable will come from the questionnaire. We use four questions made by Hofstede to determine the level of Masculinity. We can use the scores of these questions to calculate the masculinity scores. This function is given by Hofstede in his manual. However we will not use the consistent variable in this measurement. The difference between the two groups is of an importance. The scale ranging from 0 to 100 used by Hofstede will not be applied.

4. Results

4.1 Findings

In 3.3 we described the results of the Kolmogorov-Smirnov test and the Shapiro-Wilk test. They showed us that our variables were not normally distributed.

Our independent variable tightness-looseness (Dutch = 3.828 and German = 4.076) shows that the German culture is seen as tighter than the Dutch group, in our experiment. However we need to prove that these two groups are significantly different from each other. The significant level of the Mann-Whitney U test is $P < 0.05$. Our score of the variable tightness and looseness, is $P = 0.024$. This score is lower than our significance level. So the Mann-Whitney U test tells us that the Dutch and the German

group significantly are different than each other. The Dutch group scores lower than the German group.

4.1.1 Propensity to startup a company

H1a: Individuals who are living in a loose culture have a bigger propensity to start up a company.

The Mann-Whitney U test shows that there is no significant difference ($P=0.477$) between the Dutch group ($F=3.379$) and the German group ($F=3.219$). We expected the German group to have a higher score on “intent to startup a company” due to the looser culture of the German group. Our hypothesis 1a is rejected because the intent to startup a company is not higher for the German group.

4.1.2 Self-employment

H1b: Individuals who are living in a loose culture have a bigger propensity to desire self-employment.

The Mann-Whitney U test shows that there is no significant difference ($P=0.797$) between the Dutch group ($F=3.040$) and the German group ($F=3.000$). We expected the German group to have a higher score on “desire to be self-employed” due to the looser culture of the German group. Our hypothesis 1b is rejected because the “desire to be self-employed” is not higher for the German group.

4.1.3 Entrepreneurial orientation

H1c: Individuals who are living in a loose culture have a bigger propensity to have a higher entrepreneurial orientation.

The Mann-Whitney U test shows that there is no significant difference ($P=0.724$) between the Dutch group ($F=2.171$) and the German group ($F=2.208$). We expected the German group to have a higher score on “entrepreneurial orientation” due to the looser culture of the German group. Our hypothesis 1c is rejected because the “entrepreneurial

orientation” is not higher for the German group.

4.1.4 Internal locus of control

H2: Individuals who are living in a loose culture have a bigger propensity to have a higher internal locus of control.

The Mann-Whitney U test shows that there is no significant difference ($P=0.165$) between the Dutch group ($F=3.633$) and the German group ($F=3.743$). We expected the German group to have a higher score on “internal locus of control” due to the looser culture of the German group. Our hypothesis 1c is rejected because the “internal locus of control” is not higher for the German group.

4.1.5 Self-efficacy

H3: Individuals who are living in a loose culture have a bigger propensity to have a higher self-efficacy.

The Mann-Whitney U test shows that there is no significant difference ($P=0.208$) between the Dutch group ($F=3.727$) and the German group ($F=3.875$). We expected the German group to have a higher score on “self-efficacy” due to the looser culture of the German group. Our hypothesis 1c is rejected because the “self-efficacy” is not higher for the German group.

4.1.6 Risk taking propensity

H4: Individuals who are living in a loose culture have a bigger propensity to risk taking.

The Mann-Whitney U test shows that there is significant difference ($P=0.030$) between the Dutch group ($F=3.654$) and the German group ($F=3.910$). The risk taking propensity is higher in the German group with the looser culture. This means that our hypothesis 4 is confirmed. The people of our research in the group with the looser culture has a higher risk taking propensity.

4.1.7 Masculinity and Femininity

The Dutch group ($F=-8.3503$) and the German group ($F=-1.4583$) score on the Mann-Whitney U test ($P=0.520$) higher than the significant

level. These result shows us that there is no significant difference between the masculinity dimensions between the two groups. Interestingly, Thompson's entrepreneurial intent, locus of control and self-efficacy are also not significantly different. Meaning that if we used the masculinity dimension of Hofstede we had accepted the hypotheses for these variables. However, the hypothesis of risk taking propensity is rejected, due to its significant difference between the two groups.

4.2 Discussion & Conclusion

What is the consequence of the different cultures as defined by Gelfand (tight or loose culture) on entrepreneurial intent? Since our research rejected 5 out of 6 hypotheses, we don't think cultures as measured by Gelfand have an influence on entrepreneurial intent. We couldn't see a significant change with the variables of Thompson's entrepreneurial intent (including: propensity to startup a company, desire to be self-employed and entrepreneurial orientation), locus of control and self-efficacy. This leads us to believe that tightness-looseness does not have an influence on entrepreneurial intent. However, our control variable has shown us different results. We would have 5 out of 6 hypothesis accepted if masculinity was our independent variable instead of tightness-looseness.

This questions of our study is representative for the Gelfand study. We do have to notice that our two groups are, although distinct from each other, quite similar. This could explain the similar outcomes of the variables for the German and Dutch group. To compare our results we looked at the original studies of tightness-looseness and masculinity. In the study of Gelfand (2011) , in which she scored 33-nations, the Netherlands have a score of 3.3 and the former West- and East Germany respectively 6.5 and 7.5, in this study 0 is loose and 12 is tight. We see here that, contrary to our results, Germany (the former west and

east) scores higher than the Netherlands, meaning its culture is seen as tighter, and the differences between the two countries are bigger than the differences in our study. At least 3.2 in the original study compared to 0.25 in our study. The masculinity dimension has the same problem in our study. The original scores of Hofstede for the dimension of masculinity are 66 (Germany) and 14 (Netherlands). The differences of Hofstede (52) is much larger than the differences in our research (6.9). This leads us to think that our sample might not be representative. This could be because the universities are close to each other, 60 km apart. This could mean that the students of the universities are in the same culture, as Gelfand and Ailon pointed out. Cultures are not bound to borders. In a different perspective, Michael Savvas (2001) had a lack of differences too. He conducted a cross-national study, in which he found no significant differences between groups. However when he changed his sample from students to post-graduates he found a significant difference. He concluded that the similar western education caused similar perceptions of their culture.

4.3 Further research

For further research it would be interesting to look at countries further apart in distance and in scores from each other. For example China and the USA, due to the big differences the results could be clearer. The results could be different than ours. Also, a sample including post graduates could give us a better picture due to the evidence Savvas delivers. People who are not in the western education system might provide us with a better view of their culture.

5.0 Annex

Variables	Kolmogorov-Smirnov test scores	Shapiro-wilk test scores
Tightness-looseness	.000	.000
Thompson entrepreneurial intent	.000	.000
Thompson: intent to startup company	.000	0.000
Thompson: Desire to be self-employed	.000	.000
Thompson: Entrepreneurial orientation.	.000	.000
Self-efficacy	.000	.000
Locus of control	.000	.000
Risk taking propensity	.000	.000

Table 1. Test of normality of variables

Nationality	Dutch			German		
	Mean	N	Std. Deviation	Mean	N	Std. Deviation
Tightness-Looseness	3,828	197	0.657	4.076	48	0.717
Thompson entrepreneurial intent	2,863	198	1.002	2.809	48	1.116
Thompson: intent to startup company	3,376	198	1.342	3.219	48	1.533
Thompson: Desire to be self-employed	3,040	198	1.257	3.000	48	1.361
Thompson: Entrepreneurial orientation.	2,172	198	0.948	2.208	48	1.162
Locus of control	3,633	198	0.562	3.743	48	0.529
Self-efficacy	3,727	198	0.476	3.875	48	0.475
Risk taking propensity	3,655	198	0.703	3.910	48	0.746

Table 2. Descriptive data outcome variables

	Tightness-Looseness	Thompson entrepreneurial intent	Thompson: intent to startup company	Thompson: Entrepreneurial orientation	Thompson: Desire to be self-employed	Locus of control	Self-efficacy	Risk taking propensity
Asymp. Sig. (2-tailed)	.024*	.534	.477	.797	.724	.165	.208	.030*

Table 3. Mann-Whitney U test with grouping variable nationality (* = significant)

Group	German	Dutch
Mean score	-1.458	-8.350
N	48	198

Table 4. Masculinity dimension

	Geert Hofstede's masculinity vs. femininity	Thompson entrepreneurial intent	Thompson desire to start venture	Thompson orientation.	Thompson desire to be self-employed	Locus of control	Self-efficacy	Risk taking propensity
Asymp. Sig. (2-tailed)	.520	.534	.477	.797	.724	.165	.208	.030*

Table 5. Mann-Whitney U test with grouping variable nationality (* = significant)

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