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New venture creation in Canada: the impact of social media usage, power distance and individualism on entrepreneurial decision- making.

Master thesis | M.C. Drent

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Master thesis

New venture creation in Canada: the impact of social media usage, power distance and individualism on entrepreneurial decision- making.

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MANAGEMENT SUMMARY

This thesis reflects on how national culture and social media impact the way entrepreneurs make decisions when creating a new venture. The focus group in this research is Canadian entrepreneurs who graduated maximum 5 years ago and are based in the city of Ottawa, Canada. Leading theory in this research was originally developed by Saras D. Sarasvathy, who concluded that entrepreneurs either make use of causational or effectual reasoning in creating new ventures. Causational reasoning refers to a process that takes certain effects as a given and focuses on selecting the right means to create a predefined goal, whereas effectual reasoning start to analyze their means and then allow their goal to emerge over time. In this research, the focus was on the perceived influence of culture on the use of effectuation and causation. In addition, the influence of social capital was recognized within effectual reasoning.

The research for this thesis has been executed based on combined theories of methodology. To measure the use of effectuation and causation, the Think Aloud method was carried out under a Canadian sample of entrepreneurs. Furthermore, several surveys were used to confirm these findings, as well as to gather insights on frequencies of social media usage among the entrepreneurs in Canada. To reinforce the findings, Canadian data on the Think Aloud method was compared to Malaysian data as previously gathered.

The results of this research pointed out that there are differences between two opposite cultures regarding the use of effectuation, but there were no statistical significant results to be found. Furthermore, no impact of social media could be demonstrated, which is probably caused by the homogeneity of the sample group studied.

Although not all results proved to be significant, differences between the decision-making of entrepreneurs could be presented when looking at the differences between Canadian culture and the Malaysian culture. Also, the behavior of Canadian entrepreneurs on social platforms seemed to be in line with the purpose of the platforms, but they are not being fully utilized. This insight can be useful for future education and the evolvement of the research field, the focus should be shifted to an approach that is in line with current technologies.

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FOREWORD & ACKNOWLEDGEMENTS

The master thesis that lies in front of you is the final part of my studies in Business Administration, International Management. After finishing my BSc. in Communication Studies, I have made the decision to switch to this master study. In essence, this project is the perfect way of finishing my studies. I was able to explore a field that was completely new to me – entrepreneurial decision-making – and combine this with research methods and theories that I was already familiar with. This way, I have shined a new light on the synergy there is between Communication Studies and Business Administration. I see the experience and knowledge that I gained in my studies and this thesis as an asset of great value in my future career.

It goes without saying that this thesis would not have been lying in front of you without the help of a few people. Thank you Martin for the chance to visit Canada and be part of your project, but furthermost thank you for your support, valuable feedback and the good conversations we have had. Not only in this project, but also in my minor project and also in my role as student assistant within NIKOS. Thank you, Prof. Dr. Linton for all you have done for me during my stay in Canada and for your time and efforts on reviewing my thesis. Thank you Rainer, for your feedback and support and the opportunity to participate in the project.

Thanks to all the respondents from Canada and the Netherlands who were voluntarily willing to participate in this study. I hope you will read this with great interest.

The biggest thank you goes out to my parents, sisters and friends. Thank you mom and dad for all that you have made possible for me. I really appreciate it.

Utrecht, December 20, 2012

Milou Carlijn Drent

STATEMENT FOR DATA USAGE

With this document I wish to declare that I hereby give my full permission to Prof. Rainer Harms and Martin Stienstra, MSc. to make use of all the data that I have gathered for this thesis. I wish them a lot of luck with the EPICC project and am foreseeing great results.

Utrecht, December 20, 2012

Milou Carlijn Drent

1. INTRODUCTION

In this chapter, an introduction of the research carried out will be given. The main concepts, being entrepreneurial processes and social media, will be outlined. Furthermore, the research questions and value of the research will be presented, since this thesis is part of the Entrepreneurial Processes In a Cultural Context project by NIKOS (University of Twente). Within this project, multiple student researchers aim to explore the relationship between national culture and entrepreneurial processes. Together with a group of 25 students, the research into entrepreneurial processes in a cultural context is carried out in over 20 countries. In this thesis, the focus lies on discovering the influence of social media usage on entrepreneurial decision-making by young entrepreneurs. In the following paragraphs, the background of the research will be outlined and the research questions will be formulated. Besides, the value of the study will be discussed and finally, the method and design of this study will be addressed.

1.1. BACKGROUND

A growing interest in entrepreneurship has emerged in the past years and research into this domain has been growing rapidly. According to Morris (1998), as cited in: Lee & Peterson (2000), the subject of entrepreneurship research exists for over two hundred years in academic literature studies. On Google Scholar, 606.000 hits were found on the word 'entrepreneurship', where 200.000 of these results were published in the past 10 years. Furthermore, the value of research into entrepreneurship was explained by Cuervo, Ribeiro & Roig (2007), who stated that the capabilities of entrepreneurs is responsible for the competitiveness of firms, who in their turn are responsible for the wealth and dynamism of a country.

The importance of the subject can also be recognized when looking at current education programs. Several bachelor as well as master studies have evolved in the past years to educate people in entrepreneurship (Zahra & Wright, 2011; Sarasvathy, 2008). Although many studies have been carried out and published to the extent of helpful resources in starting up new ventures, there seems to be a lack of literature into the future of entrepreneurship (Zahra & Wright, 2011).

Providing a definition for entrepreneurship is difficult, as the research domain can have different meanings in different contexts. According to McDougall & Oviatt (2000), scholars seem to interpret entrepreneurship around three dimensions: innovation, pro-active behavior and risk-seeking action. When adopting these three constructs, nearly all definitions seem to be taken into account. In order to provide a clear definition that will work for this thesis, the view of Gartner (1985b), as cited in: Low & MacMillan (1988) is adopted regarding the definition of entrepreneurship: *the creation of new ventures*. When using this definition, the focus is solely on establishing new firms, leaving behind the definition of entrepreneurship that exists for example in current ventures or social entrepreneurship (McDougall & Oviatt, 2000).

In the process of creating a new venture, entrepreneurs make decisions and follow processes, also known as entrepreneurial processes. Recent research published by Sarasvathy (2001), gives reason to believe that these entrepreneurial processes can differ amongst entrepreneurs due to their established aspirations and beliefs. As explained by Sarasvathy (2001), effectual reasoning in entrepreneurial processes begins with a set of given means, where entrepreneurs search for goals using these means. The opposite entrepreneurial process, causational reasoning, starts from effects to be created in the end. As proven in literature, entrepreneurs make use of both causational and effectual logic in their processes of starting up a new venture, although MBA students nowadays are mostly being taught causal reasoning (Sarasvathy, 2008). A broader explanation of effectual and causational reasoning will be addressed in the next chapter.

The decision-making process of entrepreneurs can be influenced by several factors. Although McGrath and MacMillan (1992) identified that entrepreneurs around the world can have some identical values, Hayton, George & Zahra (2002) indicate that culture is an influential factor on entrepreneurship. In spite of the fact that Hayton et al. (2002) discovered that there are many issues for future scholars to look into, further research in these domains is limited.

For the reason of identifying whether cultural differences can be of influence on using effectuation or causation logic by entrepreneurs, researchers at University of Twente started the Entrepreneurial Processes In a Cultural Context project, hereafter: EPICC (University of Twente, 2012). As mentioned previously, this thesis will be carried out as part of the EPICC project. The aim of the EPICC project lies in exploring the extent to which national culture can be regarded as an influencer for entrepreneurial processes. When there is more knowledge of contextual factors influencing entrepreneurial processes, one is able to influence the research field as such. In this thesis, the focus will be on different influencers or iterators of the effectual or causational reasoning process of entrepreneurs.

As Moroz & Hindle (2011) as well as Sarasvathy (2001) identified, most research around the topic of entrepreneurship is not yet focused on the "how" in entrepreneurship, in other words, the focus has not yet been on what entrepreneurs actually do when creating a new venture for instance. Although research by Hayton et al. (2002) indicated that culture can be an influential factor of entrepreneurship in its broadest sense, the influence of culture on specifically entrepreneurial processes and the decision making of entrepreneurs has not been measured yet. Additionally, when being mentioned, the concept culture is solely focused on organizational culture (Moroz & Hindle, 2011), whereas the focus in the EPICC project and thus this thesis is on national culture. An elaboration on national culture will follow in the coming paragraph and second chapter of this thesis.

Moroz & Hindle (2011) researched 32 different models of entrepreneurial processes in existing literature. In their conclusion, the authors indicate that further research in the domain of entrepreneurial processes needs much more attention. In addition to this, the fact that culture has not been researched yet in relation to entrepreneurial processes leads to the aim of this thesis on exploring this relationship further.

Hayton et al. (2002) propose the following general definition of culture: *"Culture is defined as a set of shared values, beliefs and expected behaviors"* (p.33). Moreover, *"Deeply embedded, unconscious, and even irrational shared values shape political institutions as well as social and technical systems, all of which simultaneously reflect* *and reinforce values and beliefs"* (p.33). In this thesis, the aim is on finding answers on the question whether and if, how much, influence national culture has on these entrepreneurial processes. Influencers in terms of national culture can be found in, for instance, perception of hierarchy or individualism. Also, differences in dealing with uncertainty can play an important role (McGrath & MacMillan, 1992). An elaboration on the former topics will be given in the following chapter.

De Carolis, Litzky & Eddleston (2009) state that research has indicated the importance of networks and social capital during the process of creating a new venture. More specific, new venture creation appears to be the result of the social network of the entrepreneur combined with their cognitive biases. De Carolis et al. (2009) found out that cognitive bias can even explain why social capital has a greater effect on the progress of creating a new venture for some (not all) entrepreneurs. Hence, since Sarasvathy (2001) indicates that the choice of either effectuation or causation is also based on the cognitive bias of the entrepreneur, a connection between the two concepts can be identified. However, research on the intersection of the concepts of social networks, new venture creation and effectuation is lacking.

The importance of research into the former can be recognized by the fact that Fischer & Reuber (2011) claim that the use of effectual thinking processes by entrepreneurs can increase the efficacy of new ventures. Also, costs of business failure have proven to be reduced, due to earlier failure and lower levels of investment of effectual firms compared to causational ones. Besides, the level of expertise correlates with the usage of effectual logic by entrepreneurs. Prior research has indicated that entrepreneurs using effectual logic are forced to make decisions within uncertain business environment, relating to the fact that they shape the market instead of treating the market as a given fact. This relates inevitably to one of the most important concepts in entrepreneurial processes, namely the recognition of opportunities. A broader outline the definition and research background on opportunity recognition is presented in chapter two.

According to Hills (1997), as cited in: Ardichvili, Cardozo & Ray (2000), entrepreneurial networks are important for the recognition of opportunities. Furthermore, the importance was acknowledged by Ardichvili et al. (2000), who claimed that social networks are one of the main factors influencing the core process of opportunity recognition. This was also acknowledged by Fischer & Reuber (2011) who stated that, in order for the entrepreneur to answer complex business issues that arise, entrepreneurs are likely to interact with other people to discuss their options to come to a decision as well as cooperative partnerships. For these entrepreneurs, this often leads to new business insights and therefore new goals to attain (Fischer & Reuber, 2011).

Social networks can be identified with the more popular term, social media. The role of social media has been researched in various fields already, but unfortunately, research into social interactions in entrepreneurship literature or even business literature is lacking (Fischer & Reuber, 2011; Greve & Salaff, 2003). Although there is support for social relations to be of influence on entrepreneurial activity (Fischer & Reuber, 2011, Greve & Salaff, 2003, Ardichvili et al. (2000)), the focus on social media in this research field is not established yet. Therefore, the specific interest of this thesis lies not only in discovering the influence of national culture on entrepreneurial processes, there is also the aim to discover what kind of role there is for social media platforms in the business decisions that effectual entrepreneurs are dealing with. As there is not much knowledge yet around this topic, the research of Fischer & Reuber (2011) will be taken as a starting point. They discovered that social media platforms such as Twitter can help entrepreneurs create and follow opportunities, the aim in this research is to find support for this statement and explore this further. Fischer & Reuber (2011) aim to propose social media as a *"corridor for opportunity creation and exploration"*, yet they state that there are several factors to be taken into account. This will be further discussed in the second chapter of this thesis.

The research by Sarasvathy (2001) has provided many insights into entrepreneurial processes already, but is not taking into account the influence of national culture or social media. An analysis of the emerging user statistics (Ipsos, 2012) of social media indicate once more that these platforms should not be underestimated in terms of proven value and future opportunities for entrepreneurs.

1.2. RESEARCH QUESTIONS

As was explained in the previous paragraph, the aim of this research is two-folded. On the one hand the aim is to explore the relationship between national culture as a context variable influencing entrepreneurial processes. Besides, as one can see that social media usage can be linked to effectuation theory, the aim is to find the same answers on that part of research. The double research question will therefore be as follows:

RQ1. *To what extent does national culture impact the use of causation versus effectuation among entrepreneurs?*

RQ2. *To what extent does usage of social media impact the use of causation versus effectuation among entrepreneurs?*

These questions are formulated to *explore* the relationships between national culture, social media and entrepreneurial processes and the research is furthermore determined on turning these findings into implications for the future. In order to give a solid based answer to these questions, the following sub-questions will be addressed in the literature framework presented in the second chapter;

1. *What are entrepreneurial processes?*
2. *What are social networks and what role can they play in the creation of new ventures?*
3. *What is national culture?*

In order to give an adequate answer to the former questions, there will be hypotheses formulated in chapter 2 after an extensive analysis of the literature around the topics national culture, entrepreneurial processes and social media. An insight into the thesis structure will be outlined in paragraph 1.4.

1.3. VALUE OF THE RESEARCH

First, the focus will be on the extent to which entrepreneurs make use of effectual and/or causational logic. As mentioned in paragraph 1.2., it has become clear that the effectual approach of the thinking process in entrepreneurship may improve business efficacy and the loss of (financial) resources will be limited (Fischer & Reuber, 2011).

Unfortunately, research into entrepreneurship education is limited (Sarasvathy, 2008). Besides, up till now it is quite unclear how entrepreneurship will develop in the future.

In order to be prepared for the future, this thesis will provide an exploratory framework of how to handle and maybe improve the readiness for the future of entrepreneurship as a research domain. Therefore, the proposition is to go along with Zahra & Wright (2011) in creating an extensive shift in entrepreneurship research. There needs to be a greater focus on what entrepreneurs actually do and put entrepreneurial processes in the center of attention.

Moreover, improving education and as a result starting up more successful ventures is a higher goal that this research is focused on. Improving entrepreneurship education has gotten little attention (Sarasvathy, 2008), but as Stevenson and Jarillo (1990) stated earlier: "…*entrepreneurship is more than just starting up new businesses. It is a process for which some skills are highly relevant. Many of those skills are teachable"* (p.25). Coming back to entrepreneurial capabilities creating the wealth and dynamism of a country, this could put any country in a better economic situation (Stevenson & Jarillo, 1990).

1.4. METHOD AND DESIGN

In order to gain knowledge around the subjects entrepreneurial processes, culture and social media, a relevant method has to be developed that can provide the thesis with an answer on both research questions. Therefore, the research method will be two-fold. In the first place, the research is based on Sarasvathy (2001). As she concluded, the Think Aloud Method has appeared to be an effective method when investigating entrepreneurship processes and therefore the decision is being made to go along with Sarasvathy (2001). In the second place, in order to gain knowledge around social media and entrepreneurial processes, two questionnaires have been developed and carried out. The questionnaires are developed based on former research. In the first place, a questionnaire of Chandler, DeTienne, McKelvie & Mumford (2011) is being replicated. Chandler et al. (2011) designed a questionnaire based on the outcomes of Sarasvathy (2001). In the second place, a questionnaire was designed based on former research of van der Krogt (2011). In his research, the focus was on exploring the relationship between Dutch entrepreneurship and social media platforms. A thorough explanation of these questionnaires will follow in chapter 3.

In short, the thesis is divided into 5 chapters. In chapter two, the focus will be on the three main research subjects stated above, being entrepreneurship in relation to effectuation & causation. Next, the thesis will elaborate on the subject of culture, exploring important frameworks provided by cultural researchers of the past decade. Furthermore, an overview of social networks and an explanation of social media evolvement will follow. This will result in several hypotheses to test.

In the third chapter, an elaboration on the method is given, used to test the hypotheses formed in the second chapter. Using the Think Aloud Method, entrepreneurs are being interviewed, using a business case of a new (fictional) venture. Afterwards, multiple questionnaires are conducted to gain information on background, experience, cultural awareness and usage of social media.

In the fourth chapter, the data gathered will be analyzed. First, the data on the think-aloud business case will be connected to effectual and causational processes by analyzing the means of effectual and causational logic used. Secondly, a connection is being made between the data outcomes of the questionnaires and the results of the think-aloud business case. Thirdly, the control variables are tested. In the fifth chapter, the hypotheses from chapter two will be either accepted or rejected, and the conclusions as well as recommendations for future research on this subject are being presented.

2. THEORETICAL FRAMEWORK

In this chapter, an outline of the existing work regarding the main topics in the EPICC project is presented. In the first place, the focus will be on entrepreneurial processes. Next, there will be an outline of the theory around effectuation and causation. Likewise, an explanation of the concept 'opportunity recognition' is given. Furthermore, different opinions and research frameworks on culture are being explained. Concluding, an outline of the upcoming research topic social media will be discussed, connecting this to the former topics. At the end of the chapter, the hypotheses for the research are being formulated.

2.1. ENTREPRENEURIAL PROCESSES

According to Bygrave & Hofer (1991), entrepreneurial processes include all the functions, activities and actions that are in direct association with the perceiving of opportunities and the creation process of organizations that pursue these opportunities. Where former research was focused on the capabilities and outcomes of entrepreneurs, the shift in research now focuses on different business decisions that entrepreneurs have to take in their processes (Low & MacMillan, 1988). The focus has shifted from the "how" to the "why" question (Stevenson & Jarillo, 1990).

As previously discussed, this thesis has adopted the view of Low & MacMillan (1988), who state the definition of entrepreneurship alongside with the research purpose of entrepreneurship, namely; "*explain and facilitate the role of new enterprise in furthering economic progress"* (Low & MacMillan, 1988). Next to explaining entrepreneurship as a word and a research field, the term entrepreneurial processes can be distinguished as an area within entrepreneurship literature, which is getting more and more attention over the past years (Moroz & Hindle, 2011). Several researchers have concluded that instead of focusing on resources to provide to (future) entrepreneurs, more attention has been given to the topic of entrepreneurial processes lately, incorporating context variables (Zahra & Wright, 2011).

In earlier research, this shift was recognized by many researchers, for example Aldrich & Martinez (2001); Busenitz, Page West III, Shepherd, Nelson, Chandler & Zacharakis

(2003); Eckhardt & Shane (2003); Corbett (2005); Steyaert (2007) and Moroz & Hindle (2011). In entrepreneurship process literature, Bygrave's definition of entrepreneurship processes is widely used, for instance by Moroz & Hindle (2011). They indicate that according to Bygrave (2004), entrepreneurship processes are as much as *"all the functions, activities, and actions associated with perceiving opportunities and creating organizations to pursue them"* (p.8). The researchers aimed to find generic and distinct commonalities of entrepreneurship processes, as there are over 30 highly fragmented entrepreneurial models reviewed. Their goal was to discover a single harmonized model that would give direction for future research and additionally, Moroz & Hindle (2011) reinforced Bygrave's (2006) statement that practical application and developments of a good theory would potentially lead to making individuals and or students better entrepreneurs. Therefore, the power of discovering a harmonized model for Moroz & Hindle (2011) lies in improving future entrepreneurs.

Following the shift in entrepreneurship literature, Eckhardt & Shane (2003) stated that researchers have shifted their attention away from research that focuses on identifying future entrepreneurs in society by focusing on a different center of attention: enterprising individuals and valuing opportunities (Venkataraman, 1997), as cited in: Eckhardt & Shane (2003). But what are exactly entrepreneurial opportunities? Eckhardt & Shane (2003) defined entrepreneurial opportunities as *"situations in which new goods, services, raw materials, markets and organizing methods can be introduced trough the formation of new means, ends or means-ends relationships"* (p. 336). The difference with non-entrepreneurial decisions in this lies in the fact that non-entrepreneurial decisions focus on maximizing scarce resources over earlier formulated means and goals, entrepreneurial decisions also involve the creation or even identification of new ends and means which were not detected or not being used by other participants of the market (Gaglio & Katz, 2001), as cited in: Eckhardt & Shane (2003).

Valuing opportunities is better known as the opportunity recognition of entrepreneurs and is considered to be the most important element to drive the entrepreneurial process (Schweizer, Vahnle & Johanson, 2010; Shane & Venkataraman, 2000). Early literature on opportunities in entrepreneurship assumes that these opportunities are always sought for, where more recent research stated that ideas and opportunities might come by chance and are then valued by entrepreneurs. This could be explained by an increased ability of entrepreneurs of passively looking for opportunities, but Schweizer et al. (2010) propose to go along with a combined view on opportunities. Entrepreneurs do create opportunities, but opportunities are also the outcome of previous experience. As mentioned in chapter one, Ardichvili et al. (2003) also recognized the importance of previously gained knowledge as a motivator for recognizing opportunities. This view on opportunities is also recognized by Corbett (2005). Furthermore, cognitive scripts in the thinking processes of entrepreneurs are partly responsible for recognizing opportunities (Venkataraman, 1997, as cited in: Corbett (2005)).

Concluding, according to various authors, many different concepts are influencing the way entrepreneurs recognize and act upon opportunities in a business environment. Discovering a unifying model for entrepreneurial processes proved to be impossible for Moroz & Hindle (2011), but they did succeed in concluding on four models out of the 32 researched. A shortlist of four theories was presented, consisting of Gartner (1985), Bruyat and Julien (2000), Sarasvathy (2001, 2008) and Eckhardt & Shane (2003). In this thesis the decision was made to go along with Sarasvathy's view on entrepreneurship processes because of the fact that the other authors do not refer to the thinking and decision-making process as much as Sarasvathy (2001, 2006, 2008) has done. Besides, she has proved the effectuation theory to be related to thinking patterns, as the research was carried out amongst entrepreneurs and non-entrepreneurs. This also implied that a difference in thinking patterns between entrepreneurs with and without expertise. The expertise concept will be discussed in the next paragraph.

Coming back to opportunity recognition, Sarasvathy (2008) stated that opportunities are made as well as found. She compares the process of opportunity 'enactment' as being comparable to the process of becoming an entrepreneur. As she claims, different situations can motivate people become entrepreneurs. For Sarasvathy (2008), the basis of opportunity creation as well as recognition can be a following of the same process she studied and called effectuation theory. Sarasvathy (2008) studied the difference between parts in the entrepreneurial process, which can be seen as the higher level of opportunity recognition. She studied the difference between entrepreneurs, according to the shift in entrepreneurship literature, and explained them in a pragmatic way (Moroz & Hindle, 2011). An elaboration on this theory will follow in the next paragraph.

2.1.1. EFFECTUATION THEORY

As stated before in chapter one, effectual reasoning in entrepreneurial processes begin with a set of given means, where entrepreneurs search for goals using these means. The opposite entrepreneurial process, causational reasoning, starts from effects to be created in the end. The theory around effectuation and causation was developed by Sarasvathy (2001, 2008) and follows the shift in entrepreneurship research that was recognized before. The research of Sarasvathy (2001, 2008) represents a different view in the way that entrepreneurship is being understood (Perry, Chandler & Markova, 2011). Sarasvathy (2001) based her model on the fact that sometimes, prediction and planning is not available. This would result in an effectual way of thinking in decision-making, instead of a causal way.

When starting a new business, Sarasvathy (2001) states that effectual logic is emphasized more in the earlier stages when creating a venture, and a transition is being made to using more causal strategies when the new firm (and established market) move from an uncertain environment into a more predictable one. Besides, effectual logic is being used more in settings where uncertainty becomes a bigger issue (Perry et al., 2011).

Although the theory of effectuation focuses more on the behavioral outcome of effectual and causal processes, the theory fundamentally is built upon cognitive processes, according to Perry et al. (2011). In earlier research of Sarasvathy (1998), she researched the theory by making use of thinking aloud protocols when asking experimental subjects to continuously thinking aloud and describing what they were thinking when faced with business problems and the decisions that they would make. This way, the logic that entrepreneurs were using making a decision was extracted by thinking aloud the actual problem that was presented. After studying the relationships between the thinking aloud data and the decisions that these entrepreneurs made, Sarasvathy (2001) developed four behavioral principles that characterize effectuational and causational processes. The four principles are outlined below.

1. Affordable loss rather than expected returns

   The first one of the four principles of Sarasvathy (2001) can be explained as affordable loss opposed to expected returns. Where causational models focus on the maximization of potential returns for the decision made, selecting strategies that are optimal in their function. In reverse, effectuational models predetermine how much loss there is and is affordable for the entrepreneur. Effectuational models focus on trying out different strategies possible with the (limited) means available. An effectual entrepreneur has a preference for options that are able to create more options in the future, instead of options that maximize their returns in the current phase.

2. Strategic alliances rather than competitive analyses

   Causational models can be found for example in the Porter model of strategy (Porter, 1980, as cited in: Sarasvathy (2001)) where a technique for competitive analysis is being provided. In turn, effectuation emphasizes alliances and pre-commitments from stakeholders to avoid uncertainty and establish entry barriers from outside.

3. Exploitation of contingencies rather than exploitation of preexisting knowledge

   Causation models focus on the importance of existing knowledge (for instance: expertise) in order to gain competitive advantage. On the contrary, effectuation is being used by those who exploit contingencies that arise over time, unexpected.

4. Controlling an unpredictable future rather than predicting an uncertain one

   Causational processes make use of the predictable aspects of a future that can be uncertain. The logic in this is: *"to the extent that we can predict the future, we can control it (Sarasvathy, 2001)"*. Effectuation on the other side focuses on the aspects of the unpredictable future that can be controlled. The logic in these processes is: *"to the extent that we can control the future, we don't need to predict it" (Sarasvathy, 2001).*

In summary, when an individual (here: an entrepreneur) makes use of causal logic, he or she will focus on given goals, focusing on expected returns, emphasize competitive analyses, exploit preexisting knowledge and try to predict an uncertain future. In return, when making use of effectual logic, the entrepreneur will begin with a set of given means, focusing on affordable loss, emphasize strategic alliances, exploit contingencies and try to control an unpredictable future.

Hence, the importance is recognized of mentioning the fact that a person (here: the entrepreneur) can use both effectual and causational logic at the same time, depending on the situation. This was also addressed by Krijgsman (2012). As discussed by Sarasvathy (2001) the best entrepreneurs are even capable of using both the approaches at the same time. Making use of effectual reasoning is then driven by the perceived uncertainty and experience while causation might be used in favor of the benefits of formal planning (Gruber, 2007), as cited in: Krijgsman (2012).

Though, as proven by research of Fischer & Reuber (2011), when entrepreneurs make decisions under uncertainty, they are more likely to make use of effectual logic. In addition, entrepreneurs with greater entrepreneurial expertise tend to make more use of effectual logic when faced with decisions in uncertain business situations. Additionally, when making use of effectual logic, the entrepreneur is likely to interact with other people who can help them creating opportunities and making decisions. However, there is a lack of research on this topic. Although social interaction has proven to be a part of entrepreneurial processes (Fischer & Reuber, 2011; Kwon & Arenius; 2008 and Greve & Salaff, 2003) the role of this is quite unclear. In the following paragraph, an elaboration on the main constructs of social interaction in order to get a deeper understanding of the subject is presented.

2.2. SOCIAL INTERACTION IN ENTREPRENEURSHIP

Social interaction is often referred to as the processes that occur, where social capital is the outcome of this social interaction (Falk & Kilpatrick, 2000). Social capital is not a single entity but a variety of different entities. It inheres the structure of relations between and with actors (Coleman, 1988). Burt (1992) separates financial and human capital from social capital when acting upon an entrepreneurial opportunity. What differs social capital from the former is mainly the fact that social capital cannot be owned by someone. It is in fact owned by the parties holding a relationship. In support of this, Portes (1998, p. 7) states that, *"whereas economic capital is in people's bank accounts and human capital is inside their heads, social capital inheres in the structure of their relationships".*

Burt (1992a) states that relations with colleagues, friends and clients can create opportunities that the entrepreneur can turn into a success by successfully using their financial and human capital (to finance and create the product). It is therefore the final arbiter of competitive success. Coleman (1988) agrees with this point of view. He defends that there are different functions and purposes assigned to the concept of social capital. He adds that an important form of social capital is the potential for information. Just this piece of his work is interesting to look into for this thesis since the access to information may make entrepreneurs exploit more opportunities or create more opportunities.

Since the fact that social interaction is facilitated by social media (Fischer & Reuber, 2010), an elaboration on this topic will be presented in the following paragraph.

2.2.1. SOCIAL MEDIA

Social media is a very popular and broad term that is mainly used to indicate the usage of social networks (also called Social Networking Sites, SNS). There are many different networks online, but the popularity and user statistics differ per country. In this paragraph, the aim is to answer the following question: what exactly is social media?

In the first place, the purpose of the internet for people has changed. Where one used to go online to look up information and stay anonymous, nowadays people connect with their friends and find new friends online as well as collaborating on new information instead of just consulting the web. Going back in history, the term social media can be related far back to the Usenet, which was a worldwide system for discussion topics that made it possible for internet users to post their opinion in public. Moving on, Bruce and Susan Abelson created the system 'Open Diary' in 1998 which was an early social networking site that made it possible for diary writers to engage in an online community. Additionally, the term weblog was used for the first time. Internet access was getting widely spread and the speed of connections rose, which made it possible for the concepts to gain more popularity online. This resulted in the creation of MySpace (2003) and Facebook (2004). This is altogether known as social media. The latest additions to the term social media are virtual gaming worlds, such as Second Life (Kaplan & Haenlein, 2010). In order to give a definition instead of description of social media, there are two concepts to be discussed, namely: Web 2.0 and User Generated Content.

WEB 2.0

This term refers to the new way in which the World Wide Web is being used and developed. This means that the Web is no longer created as well as published by individuals, but is continuously modified by all users. Where Web 2.0 refers to weblogs, wiki's, Web 1.0 used to be an online encyclopedia that was not open for modification. According to Kaplan & Haenlein (2010), Web 2.0 has functioned as a platform for the evolution of social media.

USER GENERATED CONTENT

"This concept can be viewed at as the sum of all ways in which people make use of Social Media" (Kaplan & Haenlein, 2010, p.61). This term is mostly used to describe the different forms that media content can have, that are available for all public and created by end-users. This includes for instance photos, videos, audio files, blogs etc. Channels where this content can be posted on are, amongst others, YouTube, MySpace, Facebook, etc.

These definitions combined, Kaplan & Haenlein form their definition of social media as *"a group of Internet-based applications that build on the ideological and technological* *foundations of Web 2.0, and that allow the creation and exchange of User Generated Content"* (Kaplan & Haenlein, 2010, p. 61).

Within the definition of social media, Kaplan & Haenlein (2010) identified several concepts that are of influence on the category that a social medium can be put in. Summarizing, the higher social presence there is, the larger the social influence that the collaborating participants can have on each other's behavior. This is supported by the theory on Media Richness, presented by Daft & Lengel (1986), as cited in: Kaplan & Haenlein (2010). This theory is based on the assumption that all communication has a distinct goal: reaching ambiguity and reduce uncertainty. All media platforms differ in the richness they possess and the amount of information that can be transmitted in a certain timeframe. Therefore, some media platforms are more effective than others in reaching this goal.

Next to this, social interaction and self-presentation plays a role in the selection process for the different categories of social media. The extent to which individuals wish to share their personal information is dependent of the amount of self-disclosure. This sharing is done conscious as well as unconscious and interferes with the image that an individual would like to create of themselves. Self-disclosure is of utter importance in close relationships but can also exist in relationships with complete strangers. Therefore, this dimension is added to the selection criteria of social media to classify them. In the table below, Kaplan & Haenlein (2010) identify the different social media platforms and classify them in terms of media richness and self-presentation.

		Social presence/ Media richness		
		Low	Medium	High
Self-presentation/ Self-disclosure	High	Blogs	Social networking sites (e.g., Facebook)	Virtual social worlds (e.g., Second Life)
	Low	Collaborative projects (e.g., Wikipedia)	Content communities (e.g., YouTube)	Virtual game worlds (e.g., World of Warcraft)

FIGURE 1: CLASSIFICATION OF SOCIAL MEDIA BY KAPLAN & HAENLEIN (2010)

The fact that social media is growing rapidly can be supported by various authors of social media research. According to Jones (2007), over one third of the world population engages in social media activities. Additionally, according to Kaplan & Haenlein (2010), 75% of internet surfers have used social media in the second half of 2008 by joining social networks, reading blogs or submitting reviews to shopping websites. In light of the research to the social networking behavior, it is important to identify groups that are more or less *likely* to engage in social media platforms. Previous research indicated that three personality traits are central to the use of social media:

1. Extraversion: people with a higher level of extraversion behavior will be more likely to engage in social media.
2. Neuroticism: people with a higher level on neuroticism tend to be a large user group of social media.
3. Openness to experience: people that are more open to experiences tend to be *"drawn to social networking sites"* (Correa, Willard Hinsley & Gil de Zúñiga, 2010).

Concluding, social networking websites offer users a new way to connect with and learn about other people. As was have discussed previously, different social networking sites have different functions and allow users to share information for different purposes. An elaboration on the implications of this research will be given when the hypotheses at the end of this chapter are outlined.

2.3. CULTURE

Historically, the word derives from the Latin word 'colere', which could be translated as 'to build', 'to care for', 'to plant' or 'to cultivate'. Thus 'culture' usually referred to something that is derived from, or created by the intervention of humans – 'culture' is cultivated (Dahl, 2004).

Culture is a very broad term that is being used to describe several concepts. In this thesis, there is no focus on organizational culture or other forms of culture existing.

The focus of this thesis will namely be on national culture as this is also the aim of the EPICC project. A description of different views on researching this topic will be given, before one point of view is being selected.

Culture has become a very important topic in business studies in the past era (Fink, Neyer & Kölling, 2006). Not only does it determine how people in business interact, it also provides an insight into 'intercultural' communication. As borders open up and the business environment is becoming more global, an insight into these processes can be very helpful as individuals mostly grow up with a single culture. Interacting with people from different societies, nations or culture might give frictions in communication and thus in doing business (Fink et al., 2006) in the context of this thesis.

As stated by Dahl (2004), culture is a concept that is created by humans and is not only observable behavior but also the set of underlying values that underpin this behavior. According to Venaik & Brewer (2008): "most people have a general understanding of what culture entails, namely shared values, beliefs and ideals within a community". The observable behavior of culture is often listed as the combination of language, arts, religion, politics, economy and technology. In this sense, culture claims to be the opposite of nature, which in turn draws back upon the nature-nurture discussion that has gotten much attention in psychology research (MacCormack & Strathern, 1980).

According to Hofstede (2001), culture can be addressed as the collective programming of the mind which distinguishes one group or category from another (Hofstede, 2001, p.2). Outcomes of this programming are behavior that can be observed by human beings. This mental programming can be observed at three levels, ordered from unique to not unique;

1. <u>The individual level:</u> truly unique
2. <u>The collective level:</u> shared with some, but not all people

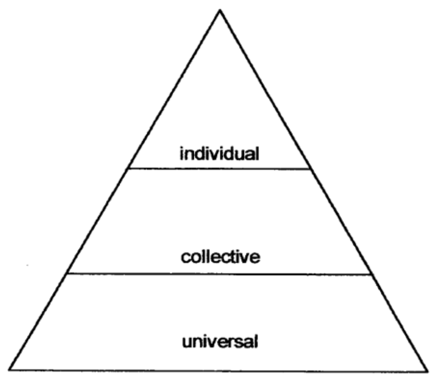

FIGURE 2: THREE LEVELS OF HUMAN MENTAL PROGRAMMING (HOFSTEDE, 2001)

3. The universal level: shared by all, or almost, forms of mankind (Hofstede, 2001).

In addition, Hofstede formulated three ways to identify culture that are more observable than the former three. These are:

1. Rituals: such as saying hello, paying respect and annual festivities
2. Heroes: such as admired persons
3. Symbols: such as words, language, artifacts (Dahl, 2004).

2.3.1. NATIONAL CULTURE

Most cultural literature is focused on national culture, and in the light of this research, the term national culture will be deployed. There are reasons why culture is mostly measured at country level, taking national boundaries as the preferred unit of analysis. Dahl (2004) mentions two reasons:

- In the first place, the nationality of an individual can easily be stated as it is a fixed given. Membership of a sub-culture is more difficult to establish and is especially difficult in cases where individuals claim to be a member of multiple sub-cultures. When using nationality for analysis, duplication is not an issue and it removes any possible ambiguity.
- Secondly, as stated by for instance Hofstede (1991) and Smith & Bond (1998), as cited in: Dahl (2004), there is eminent support for the opinion that people coming from one country will be largely shaped by the same values and norms as their fellow country residents.

There are many ways identified to research the concept of culture. The main traits in this literature can be divided in two types: culture dimension research and personality trait research (Fink et al., 2006). Additionally, in some countries in Central Europe, Fink et al. (2006) found a third culture concept which was researched: "literature on cultural standards that deals with modes of perceiving, sensing, thinking, judging, and acting" (Fink and Meierewert, 2001; Thomas, 1996, 2003; as cited in: Fink et al., 2006). According to these authors, who checked with SCIRUS, the scientific information search engine (www.scirus.com), the importance of cultural value dimensions was way above the other research fields mentioned. Additionally, according to Van der Linde (2012), the importance of cultural value dimensions is increasing rapidly; she found nearly 360,000 hits on the search words “value dimensions”. For this reason, the focus will be on cultural dimension research.

2.3.2. CULTURAL DIMENSIONS

Cultural dimensions are constructs of values, which can be measured along quantitative scales (Fink, et al., 2006).

One of the most important works in cultural research covering cultural dimensions was written by Hofstede (1980). According to Hofstede (2001), a country’s variance is presented for 49% by four out of the five dimensions identified (Power Distance Index, Individualism, Masculinity and Uncertainty Avoidance Index). Not only Hofstede (2001), but several authors of cultural dimension research could be used to analyze culture in this thesis since many research has been done in this field so far. On the basis of research into cultural dimensions, Kroeber & Parsons (1958) can be identified as pioneers. In their early research on the relationship between social system and culture, they state that *“…in the famous case of heredity "versus" environment, it is no longer a question of how important each is, but of how each works and how they are interwoven with each other”* (Kroeber & Parsons, 1958, p.2).

Secondly, Trompenaars (2003) studied cultural dimensions as well. Since the research of Trompenaars (2003) is based on the view that culture becomes visible when different groups of people solve problems, it could be interesting to have a deeper understanding of this. But, Mones (2012), Van der Linde (2012) and Van den Ham (2012) already stated that the shortcomings of this research are too large. This was caused mainly by a lack of practical approach and blurry boundaries between the dimensions. For these reasons, the research of Trompenaars (2003) will not be further taken into account.

Great similarities can be found between the research of Hofstede (1980) and the GLOBE study on culture (House, 2004). The GLOBE study identified nine cultural dimensions, of which many can be related to the initial four that Hofstede (1980) identified. The fact that the GLOBE study measured national culture on a society as well as work related level with use of the same questions in a questionnaire, makes the work of Hofstede (1980) more valuable to this research. This argument was also found and supported by Mones (2012) and Van der Linde (2012). In addition, the argument that pleads for the GLOBE study, being the fact that it is less criticized compared to Hofstede (1980) was mentioned by Venaik & Brewer (2008). But, since the GLOBE study is far more recent, there is reason to believe that there was no time yet to replicate and thus criticize or endorse it (Venaik & Brewer, 2008, as cited in: Mones (2012)).

According to Steenkamp (2001), as cited in: Krijgsman (2012), the framework that Hofstede provided is the most extensively used in different research fields such as psychology, sociology, marketing and management studies. Furthermore, according to Dahl (2004) Hofstede’s work is the most popular work in the research area of culture. Although Hofstede’s research is a general framework for analysis, his work can be easily applied to many different everyday situations. The dimensions that Hofstede created are suitable for reducing the complex nature of culture by reducing it to five dimensions. Moreover, according to Hayton et al. (2002), Hofstede’s work has proven to be valuable for explaining the behavior of people in business organizations who are the focal point in this research as well.

Hofstede has been conducting research on the topic of culture for over 30 years. His first book was published in 1980 (revised in 2001); based on the research he had done in the past years: between 1967 and 1973 he executed his research in more than 70 countries when he was with the hardware company IBM. Nowadays, the research has been extended, covering 76 countries. Hofstede is known as the most widely cited author on culture research. However, at the same time he suffers the most critique on his research method and cultural dimension theory (Jones, 2007).

The work of Hofstede is partly based on a questionnaire, supplemented by in-depth interviews which were originally developed for evaluating work values in IBM. Not surprisingly, his research is mostly focused on work values. Trompenaars (1998) also carried out research on cultural dimensions. His questionnaire for developing a theory on cultural dimensions focused on work as well as leisure situations. Concluding, both studies focus on the ultimate goal and the underlying values are derived from questions around the more outer layers of the 'onion of culture', presented in the figure below. This results in a practical approach in both researches.

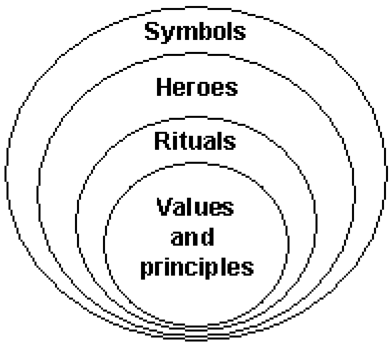

FIGURE 3: 'ONION OF CULTURE' BY HOFSTEDE & HOFSTEDE (2005).

Both Hofstede (2001) as well as his colleague Trompenaars (1998) have collected their data from questionnaires that were filled out by professionals. Although Trompenaars (1998) collected his data from different companies, instead of only within IBM, the work of Hofstede is preferred over Trompenaars since its number of participants (116.000, Hofstede, 1996) is far over Trompenaars' number of participants: 8.841 in 43 countries (Smith, Dugan & Trompenaars, 1996).

Apart from the fact that Hofstede's research has been used widely and has been of great importance because of his research based on a large data set, it also plays a significant role that he has based his research framework on former researchers on culture, for instance Kroeber & Parsons (1958) and Kluckhohn & Strodtbeck (1961), as cited in: Van der Linde (2012). Additionally, Hofstede's work integrates work from different opinions on comparing cultures which is a major strength (Van der Linde, 2012). Furthermore, the work of Hofstede has been proven to be valuable in that sense that it explains behavioral preference of people in business organizations by presenting taxonomy of cultural dimensions (Hayton et al., 2002). There is also a lot of discussion around his work, which can be explained on the one hand by the visibility of the research ('high winds blow on high hills') and on the second hand by the age of the research. The most interesting issues against Hofstede are outlined below.

- Firstly, Venaik & Brewer (2008) conclude that there are major differences and therefore some inequalities in the dimension 'Uncertainty Avoidance', as measured by Hofstede (1980). Although they see this as a certain point of action for future literature and usage of cultural dimensions, there are no problems foreseen when using the dimension in this research. Venaik & Brewer (2008) claim that this inequality mainly concerns the situations wherein the dimension is used as a predictor for international business and working with different cultures. As the focus in this research is on national culture and international trade is not taken into account, there is support for appropriately using Hofstede's dimensions when researching the concept culture in an.

- As observed by Ailon (2008), one of the weaknesses in Hofstede's research concerns the fact that the study is oriented towards the "western world" and therefore Ailon (2008) recommends to take this into account when using Hofstede's dimensions in research.

- Jones (2007) mentioned the risk of measuring cultural dimensions trough survey research. Hofstede (1998) responded to his feedback by stating that his research was not solely built on survey research (Hofstede, 1998, p. 481).

- Moreover, in his research, Hofstede (2001) regards the inhabitants of a nation (the domestic population) as a whole, being homogenous in their scores on cultural dimensions which might be questionable as most nations are grouped by ethnic units (Jones, 2007).

- Furthermore, McSweeney (2000) states that cultural dimension research on nations is not the proper way of analysis since cultures are not always bounded by national borders. DiMaggio (1997), as cited in: Jones (2007) even stated that research found that culture is indeed fragmented *"across group and national lines"* (Jones, 2007, p. 5). Hofstede replied to this critique himself, stating that national identities are the only way of measuring cultural differences, so that people are bound to this level of analysis (Hofstede, 1998, p. 481).

- As Hofstede (2001) has started his first part of the research more than 40 years ago, several cultural researchers claim that his results are old and outdated; therefore not covering today's cultural differences. As Hofstede's study has been replicated many times, for instance by Søndergaard (1994) and the outcomes have proven that cultural values do not change overnight, this comment is being rejected.

- Lastly, Jones (2007) argued that survey results of Hofstede might be biased due to different timings of the survey. Some authors (for instance: Søndergaard (1994), as cited in: Jones, 2007) questioned the influence of political issues in some countries where the research was conducted. Additionally, the missing data coming from Eastern European countries is also one of the outcomes of political instability (Jones, 2007). Amongst others, Søndergaard (1994) has therefore done a replication of Hofstede's study. As the results of this were reassuring in favor of Hofstede, this comment will not be taken into account.

When taking a closer look at the most cited authors, Hofstede's work was cited for over 54.000 times until 2010 (Tung & Verbeke, 2010). Based on the former arguments and the extensive popularity, the dimensions of Hofstede will be used in this thesis. All above criticism on the work of Hofstede can be taken into account when still making use of the dimensions in this research. Furthermore, the awareness of the fact that Hofstede himself replied to many of the criticism stated above will not alter this choice since his research was also replicated and reviewed many times and in addition, Mones (2012) and Van Der Linde (2012) confirm this. For more arguments in favor of the Hofstede dimensions, a reference to these student theses suffices.

2.4. HOFSTEDE'S WORK

In this paragraph, a closer look on Hofstede's work will be presented and additionally, his research method is being outlined. A further elaboration will be given on the cultural dimensions he has developed and the implications it can have for cultures. Hofstede pursued his career at IBM, where he collected the data for his research by surveying IBM employees all over the world. In different countries, he conducted the same questionnaire for identifying and measuring personal values of IBM employees in their work situation. He collected this data during the years 1968 and 1972. In his first publications, Hofstede surveyed more than 116.000 employees in 40 different countries. Later, he came to a dataset of 50 countries. In a factor analysis of his data, he analyzed the answers on 32 questions and ran a factor analysis on the answers. Out of the factor analysis, initially four dimensions for cultural analysis were created. Later on, the fifth dimension was added being the Long Term Orientation Index. In the next paragraph, the five different dimensions are being discussed.

2.4.1. HOFSTEDE'S CULTURE DIMENSIONS

As mentioned before, Hofstede has developed five dimensions that he has derived from the data gathered. Attention is being given to each of the five dimensions below, explaining them in a thorough way and giving examples when possible. All explanations below are derived directly from Hofstede (2001).

Power Distance Index (PDI)

The PDI dimension measures the way that power and wealth is distributed between people in a nation, business or culture. It deals with the fact that all individuals in societies are not equal – what is the attitude of a certain culture concerning these inequalities? This inequality is endorsed by followers as much as by leaders. Countries with a higher PDI tend to have a more authorial hierarchy, where countries with a lower PDI tend to have more equal relationships within people from different authority layers in an organization. Concluding, PDI measures the extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed unequally.

Individualism (IDV)

Often regarded as the opposite of collectivism, which can be explained as the degree to which individuals are integrated in groups. In more individualistic societies, the emphasis lies on personal achievements and individual rights. People are supposed to look after themselves and their direct family only. In more collectivistic cultures, individuals are acting as members of a greater whole. People in more collectivistic cultures have large (extended) families that are served with life-long loyalty. The dimension can be seen as the difference between people's self-image that is looked at in the 'I'-form and the "we"-form. Concluding, IDV dimension is the degree of interdependence a society maintains among its members.

Masculinity (MAS)

This dimension indicates how emotional roles between genders are distributed. Countries with a high score on this dimension (masculine) are likely to have a society driven by competition, achievement and success, with success being defined by 'the winner' or 'best-in-the-field'. This system starts already early in school and will continue to be in place throughout one's life. In contradiction, a low score on this dimension (feminine) indicates that the dominant values in society are caring for others and quality of life. A feminine society is typically characterized by quality of life being a sign of success and not being too different from the crowd. Concluding, the fundamental issue here is what motivates people, wanting to be the best (masculine) or liking what you do (feminine).

Uncertainty Avoidance Index (UAI)

Determines whether a society has tolerance for uncertainty and ambiguity. It has to do with the way that a society deals with the fact that the future can never be known: should they try to control the future or just let it happen? Countries with high uncertainty avoidance tend to be more emotional and minimize the occurrence of unknown and unusual circumstances. This implies that people then try to plan their lives accordingly and holding on to rules accordingly. People within countries with low uncertainty avoidance feel more comfortable in less regulated and structured environments. In this environment, people are more accustomed to change and live by the day. Concluding, the extent to which the members of a culture feel threatened by ambiguous or unknown situations and have created beliefs and institutions that try to avoid these is reflected by the UAI.

Long-Term Orientation (LTO)

Was added to the four previous dimensions in a later stadium of Hofstede's research, namely in 1993. The dimension got discovered through a Chinese research project in

23 countries and was called Confucian Dynamism. It describes the society's search for virtue and the vision they have on time horizon. Long Term Oriented countries tend to focus more on the long-term, which includes saving and persistence. In contradiction, Short Term Oriented countries, the focus is more on the past and present, which includes deep respect for tradition, avoidance of face-loss. Therefore, business is more focused on short and fast decision-making, where Long Term Oriented countries can be more in favor of partnerships in business and relationship-building. Concluding, LTO measures the extent to which a society shows a pragmatic future-oriented perspective rather than a conventional historical short-term point of view.

2.5. HYPOTHESES

In order to see whether national culture and social media are of influence on the use of causation and effectuation in the decision making processes of entrepreneurs, several hypotheses will be developed in the final paragraph of this theoretical framework. To test whether national culture or social media are of influence of causational and effectuational decision-making, two of Hofstede's dimensions will be linked to the use of effectuation and causation. Also, in order to see whether social media and thus the usage of social platforms can be of influence, two hypotheses were formed on this subject as well, supported by the literature presented in the previous chapters. Each hypothesis formed will be outlined together with a null hypothesis, as the aim is to reject the null hypotheses (H_0) and accept the alternative hypotheses ($H_{1,2,3,4}$).

HYPOTHESIS 1. POWER DISTANCE AND EFFECTUATION

The first hypothesis focuses on the influence of the Power Distance Index dimension of Hofstede. As stated in the previous paragraph, the difference between countries with a high and low score on PDI, on a scale from 1 to 100 lies in the acceptance of the fact that power is unequally distributed. Therefore, countries with a higher PDI score exist of hierarchical institutions where members with less power rely on their bosses. In return, countries with a lower PDI score will most likely have a more flat organizational structure and power differences between managers and their subordinates are minimized (McGrath, MacMillan & Scheinberg, 1992). Furthermore, it can be expected that in countries with a lower PDI score, people are less relying on their subordinates when making decisions, but more connecting to their informal environment when in a process of decision making (Vitell, Nwachukwu & Barnes, 1993).

The effectuation principle of Sarasvathy (2003) implies that effectuators seek to make success happen and are not focused on the avoidance of failure; the need for control is therefore not being sought. In return, this means that causation is more being used by entrepreneurs that are looking for control and make use of predictions in their decision making in the process of venture creation. Coming back to the principle of Power Distance, people within countries with a lower score tend to consult their subordinates, where in countries with a higher score on Power Distance, subordinates are rather being told what to do. To clarify, individuals are less depending on instructions from higher institutions when there is a lower PDI score. So, when this planning or prediction is not available, entrepreneurs tend to use more effectuational decision making as opposed to causal decision making, according to Sarasvathy (2008).

Therefore, it can be expected that:

$H1_a$. Entrepreneurs coming from higher PDI scoring countries make more use of effectuation compared to entrepreneurs coming from lower PDI scoring countries.

In addition, the null hypothesis is formulated as follows:

$H1_0$. There is no difference between entrepreneurs from high and low PDI scoring countries with regard to the use of effectuation.

HYPOTHESIS 2. INDIVIDUALISM AND COMPETITIVE ANALYSIS

For this hypothesis, the focus lies on the use of competitive analysis opposed to the use of alliances in the decision making process of entrepreneurs as derived from Sarasvathy's principles (2001).

It can be stated that when living in a culture that is marked by collectivism, individuals tend to be more cooperative and work together. This implies that individuals in collectivistic cultures would seek for cooperation in their decision making. In return, coming from a country that is marked by a more individualistic culture means that entrepreneurs would merely avoid cooperation with stakeholders, as it is common that children already learn to think in the 'I'- form, instead of the 'we'-form that is commonly recognized in more collectivistic cultures (Hofstede & Hofstede, 2005).

Furthermore, current research suggests that cultures which are more externally focused (so, the more collectivistic cultures) encourage a more strategic view and a less operational one (Berthon, Pitt & Ewing, 2001). This would imply that people coming from more collectivistic cultures are more focused on the use of alliances (strategic) and less on competitive analysis (operational). Likewise, in more collectivistic cultures, the purpose of education lies in the 'how to do', as in more individualistic cultures, the focus is on 'how to learn' (Hofstede & Hofstede, 2005). This again supports the view of Berthon et al. (2001), where 'how to do' is more strategic, and 'how to learn' is more operational.

Also, effectuators tend to shape their environment, instead of treating the environment as a given. Therefore, it can be expected that they actively seek for cooperation to pursue their goals and turn their environment into opportunities for venture creation or exploitation (Sarasvathy, 2003). Connecting this back to the principles of Sarasvathy (2001), entrepreneurs coming from countries with a higher score on IDV and thus being individualistic would most likely avoid alliances and actively make use of competitive analysis (an operational choice). In return, entrepreneurs coming from countries with a lower score on IDV, entrepreneurs would seek for cooperation in the form of alliances (a strategic choice). In this sense, it can be expected that:

$H2_a$.Entrepreneurs coming from higher IDV scoring countries make more use of competitive analysis compared to entrepreneurs coming from low IDV scoring countries.

$H2_0$. There is no difference between entrepreneurs coming from high and low IDV scoring countries with regard to the use of competitive analysis.

HYPOTHESIS 3. SOCIAL MEDIA FREQUENCY AND EFFECTUATION

For this hypothesis, the starting point is the research of Fischer & Reuber (2011) who found out that social interaction plays a central role in the process of effectuation specifically. In their research, they found evidence for the statement that a platform like Twitter helps entrepreneurs create and act upon opportunities. Formerly, Twitter was only studied as a marketing tool, and now appeared to be a tool for recognition and creation of opportunities.

Based on the foregoing literature on opportunities, it has become clear that opportunities are of tremendous value in the decision making process of entrepreneurs. The discussion around opportunities was addressed by Sarasvathy (2003) who claimed that opportunities emerge as well as are being created. It could be expected that opportunities that pop up as a following of integration in social media processes, are most likely acted upon by effectuators as opposed to causation type entrepreneurs. This is a following of the fact that Fischer & Reuber (2011) connected the principle of ‘Affordable Loss’ (effectuational type of decision making) to social media usage, perceiving it as an effort that may or may not lead to an outcome.

As a matter of fact, Wiltbank, Read, Dew & Sarasvathy (2009) also connected the principle of effectuation to the creation of new opportunities, leaving behind the enactment upon them, which can also be a causational type of behavior. On top of that, effectuational type of behavior will lead to interaction with other people to co-create opportunities according to Read, Song & Smit (2009), as cited in: Fischer & Reuber (2011) that will in the end provide the entrepreneur with new connections and insights.

In support of this, Puhakka (2006) stated that social capital of entrepreneurs can have a positive effect on the recognition of opportunities. According to her theory, social capital *“…should facilitate an opportunity recognition process because relationships offer the needed information, make it possible to discuss business ideas and emotionally support entrepreneurs”* (p.120). This hypothesis is expressed in the figure below.

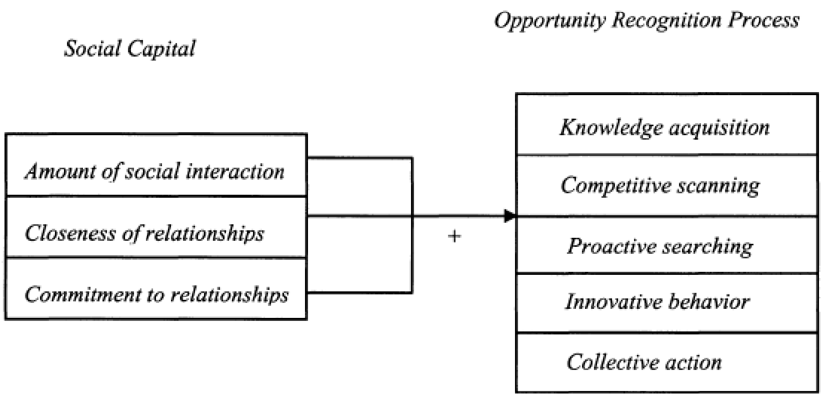

FIGURE 4: THE HYPOTHESIZED INFLUENCE OF SOCIAL CAPITAL ON OPPORTUNITY RECOGNITION BY PUHAKKA (2006)

Puhakka (2006) concluded that social interaction is on the basis and indispensable for opportunity recognition.

As the positive effect of social media usage on effectuation is already confirmed by research of Fischer & Reuber (2011), one would say that this does not need to be replicated as the focal group in this research is almost equal. But, unfortunately, Fischer and Reuber (2011) carried out their research by solely investigating business to business entrepreneurs. In this thesis research, no difference is being made between B2B entrepreneurs and B2C entrepreneurs, therefore the outcomes will possibly shine a different light on the case of effectuational decision making when using social media. Besides, where the research of Fischer & Reuber (2011) was focusing solely on Twitter for several reasons, this research aims to focus on multiple platforms. An elaboration and the choice of these platforms to study the hypotheses can be found in the methodology chapter of this thesis. In light of the foregoing, the third hypothesis is formulated as follows:

$H3_a$. Entrepreneurs who frequently make use of social media make more use of effectuation compared to less frequent users of social media.

Where the null hypothesis is formulated as:

$H3_0$. There is no difference between frequent and less frequent social media using entrepreneurs for using effectuation in the decision making process

HYPOTHESIS 4. SOCIAL MEDIA AND EXPLORATION OF CONTINGENCIES

Based on the introduction that was given for the previous hypothesis, hypothesis four builds further on this motivation. In this hypothesis, the focus lies on the ‘Exploitation of Contingencies’, which is one of the four principles of Sarasvathy (2001) that can be connected to effectual decision-making behavior. The ‘Exploitation of Contingencies’ as explained by Sarasvathy (2001), makes an effectuator treat unexpected events as opportunities. Effectuators mostly begin with a set of goals and then make their plans, where uncertainty and contingencies are being exploited as resources. It could be stated, therefore, that social media platforms are facilitating this process, rather than being used for the exploitation of preexisting knowledge. Social media platforms are defined as the corridor for ‘Exploitation of Contingencies’ and an excellent facilitator, given the fact that the audience is very broad but also responsive at the same time. Preexisting knowledge can in this sense also be connected to effectuation as it can also be a resource to reach the entrepreneur’s goals, but a greater role is to be expected for the ‘Exploration of Contingencies’.

The following hypothesis builds on the same principle as the former one, but is more specific in terms of principles that are defined by Sarasvathy (2001) as being part of effectuation theory.

$H4_a$. The more frequent an entrepreneur makes use of social media, the more exploration of contingencies will be used as opposed to exploitation of preexisting knowledge in the decision making process.

And the null hypothesis is formulated as:

$H4_{0.}$ There is no difference between frequent and less frequent social media using entrepreneurs using the exploration of contingencies as opposed to exploitation of preexisting knowledge in the decision making process.

3. METHOD

In this chapter, an explanation is being given on what basis the data for this thesis has been gathered. There will be an outline how the country of research was selected. Secondly, the different methods that are being used in this thesis are addressed. Furthermore the exact process of gathering the data for this research is being discussed. In the last paragraph of this chapter, the focus will be on the methods of analysis and statistical tests that will be executed.

As this research aims to find answers on questions on different natures and as was explained before, the nature of the data collection will be two-folded: on the one hand qualitative data will be gathered to explore the way young entrepreneurs make use of entrepreneurial processes and on the second hand quantitative data will be gathered to discover relationships between national culture, the usage of social media and the and decisions that young entrepreneurs make in these decision-making processes. This combined method-design was evaluated by Burke Johnson & Onwuegbuzi (2004), where they advocated that the research field has moved beyond that discussion of quantitative vs. qualitative data. The researchers state that both types of research provide important and useful results. As exploratory research aims to gather ideas and literally explores a less researched field, this thesis aims on finding answers on open questions and create an area where future research can build further on.

3.1. SAMPLE

In this paragraph, an outline the sample of the research will be given. This contains in the first place that there is a decision made for a country to do execute this research in. Besides, the sample of entrepreneurs who took part in the research is being presented.

3.1.1. COUNTRY OF RESEARCH

As it is known that Sarasvathy (2008) carried out her research solely in the USA, it might be worth investigating another country. Unfortunately, research opportunities are limited. Therefore, the focus has been on the resources of the EPICC project in order to find a suitable country to do research for this thesis. The decision is being made to carry out the research in Canada. There are multiple reasons for this, which is listed below.

- In the first place, Canada is a country whose culture is not significantly different from the USA, but there are definitely differences between the two. According to Hofstede (2012), there is a difference between both cultures of more than 10 points (out of a hundred) on three out of the five scales for culture research he has developed. Additionally, Wood (2000) studied both countries on ethical decision-making, and came to the conclusion that there are indeed many similarities, but the countries do not score the same results as the other. Although there are differences between Canada and the USA, one can still conduct research using the same method as they can both be put in the corner of “western-thinking” countries. According to Ji, Peng & Nisbett (2000), a distinction in thinking patterns can be made between people living in the Asian world and people living in the more western world. As Ji et al. (2000) stated, Asians tend to be more holistic in their thinking patterns, and so the decision was made not to research an Asian country for this thesis as the research design being used is similar to Sarasvathy’s (2001, 2008). In addition, Tse, Lee, Vertinsky & Wehrung (1988) already found that Canadians and Chinese people differ greatly in their decision making process. Although these two countries both do not reflect Asia as a region and the western-thinking countries, the assumption can be made that this research does indicate differences.
- Secondly, an opportunity to carry out the research in Canada emerged, as the University of Twente collaborates with the University of Ottawa. In this case, it is likely that connections in Canada might help finding entrepreneurs who will be willing to take part in the research. It means that the research does not have to start building up from the ground, but can further build on an existing network.
- Also, there are indications that social media usage in Canada is increasing rapidly. Therefore, it is interesting to research the relationship between effectuation or causation and social media in a country where the usage of these platforms is emerging. Furthermore, as one can see the same trend in for

instance the USA, the findings of this research could be increasing the validity of the research in terms of generalizing it to other countries.

- Moreover, as explained in chapter one and two, a shift in entrepreneurship literature has to be made towards focusing on what entrepreneurs actually do. Preparation for future entrepreneurs could be improved by education of entrepreneurs. Especially in Canada this seems to be relevant: prior literature suggested that training and education is an effective way to reduce the failure of small businesses in Canada specifically (Ibrahim & Soufani, 2002).

In the following sub-paragraph, the cultural dimensions of Hofstede will be outlined as applied to Canadian culture.

HOFSTEDE SCORES FOR CANADA

A description of national culture in Canada will be given in this paragraph, using the model of Hofstede (2001). When exploring this specific culture, the five dimensions that were outlined before will be addressed. In the figure below, the five dimension scores are presented for Canada, as well as the different scores for the French Canadian part (Quebec). As stated by Hofstede (2012a), although the scores apply to Canadian culture overall, *"one will likely find subtle differences between Anglophone Canadians and Francophone Canadians. Compared with their Anglophone counterparts, French-Canadians can be more formal, hierarchical, moderately relationship focused, and more emotionally expressive"* (Hofstede, 2012a).

Since the city where the research will be carried out is already known, it can be clarifying to focus on this geographical area with regard to differences in French-Canadian and English-Canadian culture. The city of Ottawa is literally on the border of Quebec, but officially situated in the province of Ontario. In the city of Ottawa, around half of the population is English-speaking, 30% is French-speaking (City of Ottawa, 2012), and 40% of the inhabitants of Ottawa are bilingual (Canadian Tourism Commission, 2012). In addition, in the region Ottawa-Gatineau, which is a cluster of two province border cities, Ottawa from Ontario and Gatineau from Quebec, 45% is English-speaking, as well as 45% of bilingual inhabitants. Only 8% of the inhabitants speak solely French in this region (Statistics Canada, 2012).

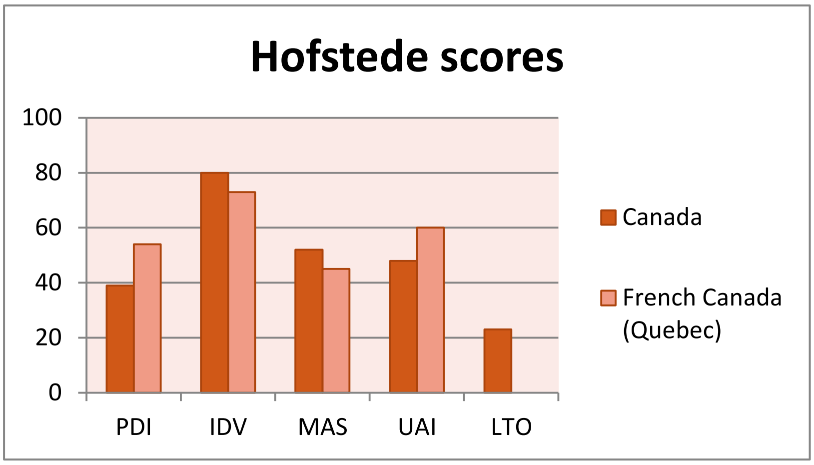

FIGURE 5: HOFSTEDE SCORES FOR CANADA AND FRENCH CANADA (HOFSTEDE, 2012).

Although Ottawa has a mixed population of French and English inhabitants, in this research the aim is to focus on the English speaking population. As a consequence of this, the research can focus on the English Canadian cultural values and the French Canadian cultural values are not being further utilized. In sum, in this thesis the English-Canadian scores of Hofstede will be used and the remark is taken into account that some respondents might reflect more French-Canadian culture as opposed to English-Canadian culture.

<u>Power Distance Index (PDI): 39 out of 100.</u>

PDI is often referred to as the extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed unequally. Canada holds a score of 39 on this dimension. This would imply that Canadian culture is marked by interdependence in their organizations and equal power distance is valued. This can also be derived from the lack of class distribution. Other cultures that have scored low on this dimension as well have a convenience-oriented organizational structure. Therefore, superiors in organizations are accessible and managers trust their employees and teams for their experience. It is likely to be very common for Canadian managers and staff to consult each other for information. When it comes to family relationships, it is to be expected that children are less expected to be obedient towards their parents compared to high PDI score countries. Concerning communication, Canadians appreciate a straightforward exchange of information.

Individualism (IDV): 80 out of 100.

The main issue addressed by this dimension is stated as the degree of interdependence a society maintains among its members. This has to do with whether people's self-image is defined in terms of "I" or "We". In more individualistic societies, people are focused more on themselves and direct family only. In more collectivistic societies, people belong to groups that take care of each other.

Canada holds a score of 80 on this dimension. It is the highest dimension score of all scores measured for Canada. 80 implies a highly individualistic culture. Quite similar to the USA, the society is *"loosely-knit"* (Hofstede, 2012). The expectation therefore is that people look after themselves and direct family. Also, in business environments, employees are expected to show initiative and being self-reliant. Hiring and promotion in organizations is more likely to be based on what one has done or can be able to.

Masculinity (MAS): 52 out of 100.

When a country scores high on this dimension, it could mean that the society is driven by competition, achievement and success. This value system starts early in school and will continue throughout people's lives. A low score on this dimension could mean that the displayed values in society are caring for others and quality of life. A more feminine society is one where the quality of life is seen as success instead of being the 'winner' or 'best in class'. The underlying motivation (either living a high quality life or wanting to be the best) is fundamental in this dimension.

Canada holds a score of 52 on this dimension and can therefore be characterized as a moderate 'masculine' society. Canadians do strive to attain high standards of performance in both work and leisure areas, but the overall tone is more modest towards achievement and winning, especially compared to the USA. Canadians tend to have a good work-life balance and are more likely to take time off to enjoy their leisure time. Canadians do tend to be hard workers and as a rule of thumb, *"Canadians strive to attain high standards of performance in all endeavors"* (Hofstede, 2012).

Uncertainty Avoidance Index (UAI): 48 out of 100.

This dimension explains the way a society deals with the fact that the future cannot be known. As a result, should one try to control the future or just let it happen? This double meaning comes inseparably with anxiety and different cultures react different on this anxiety. The dimension measures the extent to which members of the culture feel threatened by this anxiety or maybe try to avoid this.

Canada scores a 48 on this dimension and therefore can be categorized as an uncertainty accepting culture. This stands for the easy acceptance of new ideas, innovative products and a willingness to try something new or different, whether it pertains to technology, business practices, or consumer products (Hofstede, 2012). Canadians also also tend to be tolerant of ideas and opinions from any other person and are in favor of the freedom of speech. Additionally, Canadian culture is not focused on rules and regulations. Moreover, Canadians tend to be less emotional and express their feelings less compared to cultures that score higher on this dimension.

<u>Long Term Orientation (LTO): 23 out of 100.</u>
This dimension relates to Confucius and can be perceived as the way a society deals with the search for virtue. It explains to what extent a society is focused on the future and tends to look forward as opposed to a short-term point of view and a historical perspective, often referred to as conventional.

Canada scores a 23 on this dimension and can therefore be classified as a short-term oriented culture. As a following of that, it is a culture that focuses on traditions and fulfilling social obligations. As a result, Canadian businesses tend to use performance on a short-term basis, where profits and losses are being issued on a quarterly basis. This disembogues into individuals striving for quick wins within the work place, instead of attaining long-term goals. The absolute truth is something Canadians tend to look for.

COUNTRY OF COMPARISON

As the hypotheses formulated in the previous chapter focus on the two dimensions of Hofstede, namely PDI and IDV, the aim is to support the analysis later on in this thesis with a comparison country. When comparing Canada on these two dimensions with a country that holds Hofstede scores on the complete opposite side, the hypotheses have a bigger chance to be either rejected or accepted. In light of the EPICC project, there is access to comparable Think Aloud data of several countries. When comparing the two dimensions of Hofstede, the Malaysian data proved to be best suitable since the PDI is 104 (compared to 39 for Canada) and the IDV is 26 (compared to 80 for Canada). Pointing to PDI, the Malaysian score is even recognized as the highest one amongst all countries studied by Hofstede (2012b). With regard to IDV, Canada's score of 80 is ranked 4th of all countries studied by Hofstede (2012a). As these scores of Canada and Malaysia are somewhat extreme in comparison to each other, it could be expected that on these two dimensions, Malaysia will reflect complete opposite results on the use of effectuation and causation. Therefore, the Malaysian data will be used, as gathered by Van der Linde (2012). It goes without saying that permission for the usage of this data is being provided by Van der Linde.

3.1.2. THE SAMPLE

This paragraph will outline how respondents for the research were approached and asked to take part in the interview session. Furthermore, the sample of entrepreneurs that took part in the research will be presented.

In order to find (student) entrepreneurs to participate in the research, the first step for the researcher was to connect with local organizations promoting entrepreneurship. The established contact person in Ottawa suggested a few organizations to be contacted. One of these resources, being Invest Ottawa, provided the researcher with a list of recent participants in their Summer Program (Invest Ottawa, 2012). Moreover, a lecturer in Entrepreneurship at the University of Ottawa has been lobbying for respondents in his own network as well. The aim was on using the snowball technique, which means nothing more than the first entrepreneur nominates the next (Fischer & Reuber, 2011). This way, the social capital of the entrepreneurs was exploited in order to get in touch with other entrepreneurs fairly easily.

From experience, it became clear that some entrepreneurs were not willing to participate when company data like turnover was needed. For this reason, the Think Aloud sessions were conducted anonymously. Names are not being used in the research; instead all interviewees were given a code number, consisting of the country name (CAN) and the number of the interview ranging from 1 to 20 in order of recording date. Although there was asked for company data, the researcher has not forced the entrepreneurs to fill out this data.

3.1.3. DESCRIBING THE SAMPLE

For this research, the goal was to interview solely student entrepreneurs or recently graduated students up to four years of experience in entrepreneuring. This decision is being made because the group of student entrepreneurs is easily accessible compared to the Fortune 500 companies that Sarasvathy (2008) studied. This decision was being made because there might be variance in data when using entrepreneurs from different levels of expertise in setting up a business (Perry et al., 2011). Lastly, as the pilot study was conducted on a comparable group of "non-experienced" entrepreneurs, as well as the Malaysian sample, the aim was to keep the groups as homogeneous as possible.

The sample size used for the research in Canada is twenty entrepreneurs (*n*=20). Although this might seem small, even a smaller amount of entrepreneurs to study will provide the research with rich and extensive data for analysis, thanks to the Think Aloud Method (Nielsen, 1994). The 20 Canadian entrepreneurs that were interviewed studied at different schools, namely: The University of Ottawa (*n*=12), Carlton University (*n*=5), University of Guelph (*n*=1) and Algonquin College (*n*=2). The most valuable demographics of the 20 Canadian entrepreneurs are outlined in Table 1: Demographics of Canadian entrepreneurs.

BIOGRAPHIC		***n***	**Percentage**
Total sample		20	100%
Sex			
	Male	16	80%
	Female	4	20%
Religion			
	None	9	45%

	Christian	4	20%
	Muslim	3	15%
	Other	4	20%
Age			
	17-20	3	15%
	21-24	6	30%
	25-30	11	55%
Study level			
	Bachelor	17	85%
	Master	3	15%
Study background			
	Economics/Finance	9	45%
	Engineering (Electrical/Civil)	6	30%
	Communications/Media	4	20%
	IT/Software Engineering	1	5%
Marital status			
	Single	15	75%
	Living together	5	25%

TABLE 1: DEMOGRAPHICS OF CANADIAN ENTREPRENEURS

3.2. THE THINK ALOUD METHOD

As the aim of the research is to find answers on how entrepreneurs think and make decisions in the way they create a new venture, it could be the easiest way to just go out and ask them. Though, van Someren, Barnard & Sandberg (1994) concluded that asking subjects to their thinking processes will not give correct data. Subjects will most likely find questions of this nature difficult and, most importantly, they will not give a proper reflection of the thinking process that they have conducted in the past (van Someren et al., 1994). Therefore, the authors propose to make use of the Think Aloud method. This method was also used by Sarasvathy in earlier research, and as she claimed *"… think-aloud verbal protocols are a fruitful method for studying the decision-making processes of entrepreneurs"* (Sarasvathy, 2008, p.21).

Sarasvathy (2001) supported this decision with the argument that entrepreneurs who are experienced in 'entrepreneuring' are usually good story-tellers as well (Lounsbury & Glinn, 2001, as cited in: Sarasvathy, 2001), which might lead to biased outcomes of entrepreneur’s former experience.

Duncker (1945) was one of the first researchers to study the Think Aloud method. It was first used for collecting data on problem solving issues. For over 30 years now scientists have used this method to create a deeper insight into cognitive phenomena and problem solving (Ericsson & Simon, 1984; Sarasvathy, 2008). More recently, researchers have also adopted this method to study more management related subjects (Isenberg, 1984). Likewise, the Think Aloud Method has been used to study navigation behavior of people that are looking for detailed information (van Waes, 1998) This could be applied to business cases as well, when entrepreneurs are looking for information to signify their business ideas.

Although there are multiple ways to investigate people’s thinking patterns, the use of the Think Aloud Method in this specific research problem is preferred because of the possibility for the researcher to derive direct data from *“… the black box of cognitive processing, because of the structure of the brain’s short term memory system”* (Sarasvathy, 2008, p.13). Supported by Ericsson & Simon (1981), the increase in quantity of observed behavior is an important reason to make use of this method, compared to a respondent working under silent conditions. Additionally, due to the fact that Sarasvathy executed the method in a successful way in her aim to find answers on causation and effectuation types of questions, in this thesis the decision is being made to make use of this research method, subsequent to Sarasvathy (2008).

Explained by Kuusela & Paul (2000), as cited in: Sarasvathy (2008), retrospective reasoning will not deliver the same results as reasoning in current problems. Therefore, the idea of asking entrepreneurs about how they have set up their current or most recent venture will not provide this research with correct data. In order to be able to ask entrepreneurs about their thinking process in a current situation, a fictive business case has been developed to let the entrepreneurs walk through. This will provide a continuous process. After collecting and recording this think-aloud data, the recorded verbalized thoughts of the subjects will be translated into text. Afterwards, the text will be coded and analyzed in such a way that Sarasvathy (2008) has done. In the next paragraphs, an explanation will be given of how the subjects of the research have been selected, how the pilot study has been executed and the case that the respondents are confronted with is being outlined. On top of that, the transcription and coding process will be presented in the third paragraph.

Still, one needs to be aware of the fact that the Think Aloud Method has its pros as well as cons. The pros to make use of this method have been discussed previously; however, there are some methodological issues that need to be taken into account when executing the method. As stated by Preece, Rogers & Sharp (2002), as cited in: Nielsen, Clemmensen & Yssing (2002) users might find it difficult to speak aloud when the task becomes demanding. This could be the case when the respondent needs to process large amounts of data or has to make a tough decision based on fragmented information. They state that the respondent might feel awkward. A moment of silence can be the outcome (Preece, Rogers & Sharp (2002), as cited in: Nielsen, Clemmensen & Yssing (2002). To overcome this, they suggest having respondents working together, for example talking to each other. Yet, due to the content of this research this solution is not applicable. Instead, the interviewer must perform the task to stimulate the respondent in a discrete way in thinking aloud when needed. The role of the interviewer will be further discussed in paragraph 3.4.2

3.2.1. PILOT STUDY

To ensure that the execution of the Think Aloud Method in this research is conducted in a proper way, it was decided to make use of a pilot study. As it is not the first nature of researchers to conduct a Think Aloud Session due to its scarce use, practicing Think Aloud Sessions can be fruitful to the validity of the study. Also, executing a Think Aloud session and executing the coding in a pilot study is highly recommended by Van Someren et al., (1994). They recommend a pilot study to overcome several teething troubles related to the case as well as the coding procedure.

In this case, five Think Aloud sessions were organized in the Netherlands with Dutch student entrepreneurs (*n*=5). Additionally, the interviewer was in the first session supervised by an experienced interviewer, who was able to observe the process during the session. After the first session, the interviewer of this research received feedback. Additionally, it is an advantage that by conducting this pilot study; the interviewer could get familiar with the case Coffee Inc. as well as with the interviewing session itself. At the end of the pilot study Think Aloud sessions in Dutch, the process was reviewed with the respondents to make sure that the case was well understood. Furthermore, by executing the surveys on Dutch respondents, ambiguities in these could be adjusted before executing the Think Aloud sessions in Canada.

3.3. SURVEY RESEARCH

In this paragraph, a summary is given of the several surveys that were conducted as part of the research. An explanation around the surveys will be given, followed by what their purpose is and how they contribute to the data collection and analysis.

3.3.1. THE SOCIAL MEDIA SURVEY

In order to gather information around social media behavior of Canadian young entrepreneurs, a survey was developed. Not only was the aim of the survey to measure the frequencies of social media usage, there was also the aim to find reasons behind the use of social media platforms.

The design of the survey is based on van der Krogt (2011) who designed the questionnaire to get a better view on the actual use of social media amongst Dutch entrepreneurs. As the target group of Van der Krogt (2011) is comparable with the target group of this research (namely, young entrepreneurs), the decision is being made to go along with his questionnaire. In order to make a selection of social media platforms to question, an elaboration on the different platforms can be found below.

PLATFORM SELECTION

Country statistics on social media definitely exist. Due to availability of internet connections or for instance the political situation in a country, social media platforms might be used more or less compared to other countries. In the case of the Netherlands, Van der Krogt (2011) selected the four most popular platforms as stated by Kaplan & Haenlein (2007). These platforms included Twitter, Facebook, LinkedIn and Hyves (a solely Dutch social media platform). In the case of Canada, the following platforms were found, including their user statistics. All platforms can be used in

English. Please take note of the fact that, although numbers seem to be roughly identical, different sources claim different numbers as not all social media platforms wish to publish their numbers. Regardless, these numbers give an indication of the use in Canada. The numbers are extracted from Ipsos (2012) and Webfuel (2012).

Platform	Number of users	Penetration of population	Penetration of online population
Facebook	18 504 240	54.81%	70.56%
Twitter	+/- 10 000 000	+/- 30%	+/- 37%
LinkedIn	Over 5 000 000	15%	19%

TABLE 2: USER STATISTICS OF SOCIAL MEDIA PLATFORMS IN CANADA (34 MILLION INHABITANTS AND 27 MILLION ACTIVE INTERNET USERS)

Moreover, according to many statistical analysis websites, these three platforms together form the group of most visited websites and most popular social media platforms around the world. Therefore, it can be justified to use these three platforms in the questionnaire. A description of the different platforms can be found in the following paragraphs.

FACEBOOK

Facebook is a social network platform which launched its website early 2004. In October 2012, Facebook's CEO Mark Zuckerberg announced that Facebook reached its one billion users. Facebook users create a personal profile and can add others as friends to their profile. Also, they are able to send private messages, 'like' other people's posts or companies and join groups such as their workplace group or high school community. The users are provided with a so-called 'timeline' which shows them the most recent or important posts from friends. Facebook allows users starting from the age of 13 (Facebook, 2012).

TWITTER

Twitter is designed as a website that offers a social networking trough blogging service, enabling its users to send and read messages that are called tweets. Tweets are nothing more than text messages of no more than 140 characters which are displayed on the profile page of the user. Tweets are either open to public or restricted. Subscribing to see other people's messages on Twitter is named 'following'. Following means that you will be able to see others messages in your 'timeline'. Every user is able to send messages and receive messages through the Twitter website or applications. In October 2012, Twitter handles about 340 million tweets a day from about 500 million users (Twitter, 2012).

LINKEDIN

LinkedIn is a social networking site, founded in 2002, that is focused on doing business and is mainly being used for professional networking. Users create their own profile page, displaying your education, professional experience, hobbies, qualities and personal contact information. With this personal profile, users get in touch with others trough 'connecting'. Profiles are strictly professionally organized and can be closed for public sharing. Users are able to recommend each other through writing short recommendations for each other that will appear on their profile. As a matter of fact, LinkedIn functions as a marketplace for job-seekers. LinkedIn hosts over 175 million profile pages from more than 200 countries en territories (LinkedIn, 2012).

The questionnaire created based on research of Van der Krogt (2011) can be found in Appendix 7.

3.3.2. THE EFFECTUATION SURVEY

As introduced in chapter 1, a questionnaire was conducted among the respondents, based on research of Chandler et al. (2011). An example of the questionnaire can be found in Appendix 6. Due to the fact that the questionnaires were conducted in person and immediately after completing the Think Aloud session, the response rate was 100% (*n*=20).

In this questionnaire, the aim was to collect several biographical and demographical data but besides that, a copy of the research of Chandler et al. (2011) was conducted. Originally, Chandler et al. (2011) developed the effectuation survey to measure whether causation and effectuation are indeed two different concepts. As Sarasvathy (2001) stated: entrepreneurs make use of either causation or effectuation in the different stages of starting up a venture. Therefore, when conducting a factor analysis, items should either load on the effectuation construct or the causation construct (Chandler et al., 2011). According to Van der Linde (2012), it is important to keep in mind that Chandler et al. (2011) solely focused on decision making in the startup phase, not taking into account other business decisions like investments and market development.

The questionnaire based on Chandler et al. (2011)'s research consists of 17 questions, to be answered on a 5-point Likert scale ranging from 'do not agree' to 'fully agree'.

3.4. EXECUTION OF THE RESEARCH

In this paragraph, the focus will be on the exact execution of the research. A description of the case "Coffee Inc." will be given and the setting and execution of the interviews will be presented. Attention will be given to the role of the interviewer in the Think Aloud sessions and furthermore, an insight into the sample of the research is provided.

3.4.1. THE CASE COFFEE INC.

The case that is being used in this research (see APPENDIX 3. The case) is based on the case as used by Sarasvathy (2001; 2008). The case that Sarasvathy has used has been adjusted in some ways. In the first place, the supervisors of the EPICC project (Martin Stienstra, MSc. and Prof. Rainer Harms) made their adjustments to the case. Secondly, the case was adjusted the case when decision was being made to use it in Canada as well. These adjustments will be discussed later on in this paragraph.

The case is titled *'Coffee Inc.'* and addresses ten business 'problems'. The entrepreneur is asked to start his or her own coffee corner on University campus and is expected to make his or her own decisions when doing so. All ten problems reflect issues or opportunities that entrepreneurs can be faced with when starting up a venture of this nature. At the end of the case, the entrepreneur faces the decision to sell the company to competitor Starbucks or go public.

Because this research was carried out in Canada, some alterations were made with regard to the English language and local economy aspects. These alterations were based on the feedback of the Dutch pilot sessions as well as the feedback of native English-Canadians who were not taking part in the study. The alterations from the original case are listed below.

- All prices in the Canadian case are converted to Canadian dollars and round numbers. There were problems to be expected when making use of Euros or USA dollars, because Canadians could have problems with adjusting to a different currency.
- Every time 'the Netherlands' was mentioned, this was converted into 'Canada'.
- The competitors mentioned in the Dutch and English case were replaced by actual competitors on the local market in Ottawa and Canada overall as was recognized that the Dutch/English competitors were not all present in Canada (see Table 7: Overview of Competition in Coffee business).
- Also, the turnover level of competitors was adjusted to meet actual results of the Canadian coffee business (converted to real prices per cup as observed in Ottawa).
- Problem 7 was altered after the Dutch pilot study sessions because of the flow of the Think Aloud session. The exclusive shop was renamed into *Exquisite* for easier referrals. Also, the products that the shop would offer were adjusted for a better understanding.

3.4.2. SETTING & EXECUTION

As mentioned before, the interviewer practiced the Think Aloud sessions by conducting five Think Aloud sessions with Dutch entrepreneurs as they were easily accessible in the Netherlands. These interviews have taken place in January 2012. In two weeks' time, the sessions were carried out. The first Dutch Think Aloud session has been supervised by an experienced interviewer, to make sure that the interviewer was able to conduct the interview by herself afterwards.

All Canadian interviews have been executed in the city of Ottawa, Ontario. A time period of seven weeks (March-April 2012) has been made available to gather the data in Canada. All interviews have been executed in a one-on-one situation. The interviews were recorded by using a laptop with a connected microphone. The software program Audacity was used to make sure that voices could be clearly recognized for the data analysis afterwards.

Most interviews took place in a quiet office at the University of Ottawa. Some of the interviews (about 30%) took place in the entrepreneur's office, in order to meet their preferences. The interviewer made sure that in all settings, the interview was carried out in an environment that did not distract the entrepreneur's attention and was quiet enough to have good recording quality. Before starting the Think Aloud session, the interviewer made sure that the entrepreneur was aware of the procedure and expectations. The exact procedure of the Think Aloud session is outlined below.

THE THINK ALOUD SESSION

First of all, the interviewer made sure that all documents were ready and that the computer was ready to record before the entrepreneur would come in. A glass of water was provided, as well as a pen and a piece of paper. The interviewer made ensured that before every Think Aloud session; there was a good look on the instruction document for interviewers in the EPICC project (see APPENDIX 1. Guidelines for instructors in the research).

When the entrepreneur was entering the office at University of Ottawa, he or she would be asked to take a seat and a short introduction chat would follow. After this, the entrepreneur was provided with an instruction document (see APPENDIX 2; Material for the student entrepreneurs). The document states the procedure of the interview and also pays attention to the role of the interviewer. After the entrepreneur read the document, the interviewer made sure that there were no questions from the entrepreneur's side anymore. In order to get used to thinking aloud during their task, the entrepreneur were asked to execute a warming-up task. The entrepreneurs were asked to count the number of windows or doors in their parental house. This gave the interviewer the opportunity to adjust the entrepreneur's thinking aloud, without interrupting the real case. This is recommended by Ericsson & Simon (1998), who stated that it lets the interviewee practice in allocating their full attention to the task while thinking aloud. After the exercise, the interviewer started the recording device and the entrepreneur started reading the case introduction, followed by answering the questions that arise in the first problem.

After having completed the ten business decisions, the entrepreneur was asked to answer some questions around the procedure of the Think Aloud session (see APPENDIX 5. Interview questions – referring to the case). The purpose of these questions lies in checking the performance of the interviewer, for instance whether there was enough time made available for the session. Analyzing the data outcomes of these interview questions, there were no issues detected with regard to the role of the interviewer or other complications.

After completing the interview questions, the entrepreneur was asked to fill out the additional surveys as mentioned in the previous paragraphs. Completing the surveys meant the end of the session for the entrepreneur.

THE ROLE OF THE INTERVIEWER

As stated by van Someren et al. (2004), the role of the interviewer (or: experimenter) is a passive role. The experimenter's presence is only meant to make sure that the subject (or: entrepreneur) keeps talking out loud while working on the case. This was done based on Ericsson & Simon (1993), who give a few examples (p.80-81). Ericsson & Simon (1993) recommend doing so after pauses of 15 seconds to one minute. As one can see in the protocols that were extracted from the data, the interviewer made use of the following citations when encouraging the entrepreneur to keep thinking aloud or explaining his or her thoughts:

- *"If you think anything, please speak out loud"* (CAN14)
- *"Don't forget to share your thoughts on this"* (CAN14)

Next to this, the interviewer ensured that when questions arose from the entrepreneurs' side, they were being answered. Due to the fact that the interviewer could not share any details concerning the case and is supposed not to interfere (Ericsson & Simon, 1993, p. 82), these questions were mostly answered with citations like:

- *"If it's not clear, you can make an assumption"* (CAN01, CAN02, CAN03, CAN04, CAN13 etc.)
- *"….Completely up to your own imagination"* (CAN02)

3.5. METHOD OF ANALYSIS

In order to analyze the data gathered, all 20 interviews had to be transcribed into text. The interviews were transcribed exactly according to the sound file. Based on the advice of Van Someren, Barnard & Sandberg (1994), the transcriptions of this research were typed out as verbatim as possible, which means that they were typed out in exactly the same words as were used originally. This was done due to the fact that the research aims to gain an insight into decision-making processes. This includes typing out moments of silence, as it is advised by Van Someren et al. (1994). Typing out moments of silence gives the researcher an insight into the process, especially at moments where the entrepreneur might have difficulties with answering a question of the case. As it improves validity, a second person can be asked to listen to the audio tape and check the protocol (often mentioned as *reviewing*; Van Someren et al., 1994, p. 48). This has been done once as a practice.

Typing out exact protocols is very time-consuming but unfortunately unavoidable because of the fact that a coding process is needed (Van Someren et al., 1994). Subsequently, the coding will be discussed as well as the analysis of the protocols.

3.5.1. CODING

In research of this form, usually coding the data transforms raw data into useful data. The goal of coding in this research is to construct a mapping between the model and how the mental process is flowing in the protocols. This process of mapping is done by coding (Van Someren et al., 1994). In order to code the transcripts, a coding scheme is needed. In this research, the basis of the coding scheme was based on the scheme from Sarasvathy (2001; 2008) which she used in her research as well. Besides that, the coding scheme was adjusted by the researchers of the EPICC project based on earlier usage of the coding scheme. The coding legend is presented in the following table:

Causation	Effectuation
G: Goal driven	M: Means based
R: Returns	L: Affordable loss
B: Competitive Analysis	A: Alliances
K: Existing market knowledge	E: Exploration of contingency

TABLE 3: CODING SCHEME BASED ON SARASVATHY (2001) AND ADJUSTED BY THE EPICC RESEARCHERS

All Canadian transcripts were being analyzed and the previous codes were assigned to different lines of the transcript. As there is a risk of the coding process being subjective, the researcher made sure that at the beginning of the coding process, there is an explanation for each code assigned to a line or multiple lines. In addition, the coding of the transcripts was done in collaboration with one of the fellow students Mones (2012) in order to gain more reliability and less subjectivity. The first coded interview has been coded by Martin Stienstra, MSc. as well, to make sure that the interrator reliability was high enough. According to Fleiss (2003), values between 0.40 and 0.75 are acceptable without any training on the coding. The interrator reliability in this protocol appeared to be reliable (κ = 0.65).

3.5.2. DATA ANALYSIS

All statistical tests have been executed within SPSS 20.0. The results of these tests are being presented in the following chapter. After having imported the data in a new datasheet of SPSS, the variables that were not needed in this research were being left out. Because of the fact that there was decided to use a comparison country for some of the hypotheses, the Malaysian data was added as well. The additional data provided consisted of n=22 entrepreneurs, where the Canadian data set consisted of n=20. For this reason, n=2 Malaysian entrepreneurs were excluded from the file. This was done randomly.

With regard to the fact that some demographic data will be used, the following variables were recoded:

- Gender was split up in either ‘female’ or ‘male’

- Age was split up in different groups, namely: 17-20, 21-24 and 24-28 (also supported by Correa, Willard Hinsley & Gil de Zúñiga, 2010).
- Educational background was split up four categories, namely: ‘Economics’, ‘Communications’, ‘IT’ and ‘Engineering’.

Because of the fact that hypotheses focusing on social media require a frequency standard, the variables of LinkedIn, Facebook and Twitter were recoded into different groups. Where Correa et al. (2010) scored the frequency of social media use on a ten-point Likert scale, this data is divided into ‘daily’, ‘weekly’, ‘monthly’, ‘yearly’ and ‘never’. As this research is convinced by the fact that smaller groups are desirable for more effective test results, the frequency variables of LinkedIn, Facebook and Twitter were recoded. An important decision is being made here in order to have the data ready for statistical analysis. As can be stated that there is a major difference between entrepreneurs who make daily use of platforms (which could also mean multiple times a day) and entrepreneurs who make weekly, monthly or yearly use of platforms, all groups are recoded into two variables namely: ‘frequent’ and ‘not frequent’.

TEST ON HOFSTEDE SCORES

One cannot have missed the fact that some criticism exists around the scores that Hofstede collected when being with IBM (see for instance the arguments that Van der Ham, 2012 gives), the aim was to support the country scores of Canada by collecting a small sample of the Hofstede questionnaire. The 20 Canadian entrepreneurs were asked to fill out an online questionnaire containing the VSM questions. Only a sample of (n=11) questionnaires was completed by the entrepreneurs. As n=3 out of these eleven have either a combined nationality (namely, Chinese-Canadian and Russian-Canadian) or a different nationality (Iranian) than Canadian, differences in country scores compared to the scores on the Hofstede scales are to be expected. Because of the small dataset of these Hofstede scores of Canada, they will not be taken into account. Therefore, the Hofstede scores of Canada by Hofstede (2012) will be treated as a given fact and will not be checked for this specific sample.

RELIABILITY

In this research, one is able to analyze whether the two methods that were used to gather the causation and effectuation data are reliable, according to statistical tests. The assumption in this is that entrepreneurs, who score high on the effectuation part of the Think Aloud session, would have the same score on the questionnaire of Chandler et al. (2011) since they both aim to measure this. The topic of instrumental correlation will be addressed once it is clear what the reliability of both methods separately is.

After conducting both methods, a reliability factor can be calculated for both the Think Aloud sessions as well as for the questionnaire of Chandler et al. (2011). Cronbach’s alpha will firstly be calculated for both parts of the questionnaire (effectuation and causation) as well as for the Think Aloud data (effectuation and causation). Cronbach’s alpha is one of the most reliable methods used in social research to study reliability in a questionnaire. Weak correlations between the different items of the questionnaire will lower Cronbach’s alpha. The alpha can have a value somewhere between 0.0 and 1.0. In most literature studies, an alpha of at least 0.7 is required, but DeVellis (2003) recommends to start with 0.6 where any result below 0.6 is unacceptable in his opinion. DeVellis (2003) does indicate that an alpha between 0.7 and 0.8 is respectable. All values higher than 0.8 are really reliable and will inevitably lead to right conclusions (DeVellis, 2003; Swanborn, 2007). In chapter four, the Cronbach’s alpha for both the effectuation part of the questionnaire as well as the causation part will be presented.

CONSTRUCT VALIDITY

In order to measure whether causation and effectuation are indeed two different concepts that are being measured by the Think Aloud method and the Chandler et al. (2011) questionnaire, construct validity can be measured by the use of a factor analysis of the two methods. But, as Van der Linde (2012) already ran a factor analysis on the Malaysian data compared to a Dutch sample of the data, the factor analysis on the Think Aloud data appeared to be loading on three instead of two constructs and appeared to be multidimensional. As the results are not expected to be different in this research, the factor analysis outcome of Van der Linde (2012) will be leading. Additionally, these results were also found for the Chandler et al. (2011) questionnaire.

STATISTICAL ANALYSIS

To test the formulated hypothesis, several tests have been used. First of all, the data of the different hypotheses were being tested on normality in order to know which other tests were appropriate to use in the research. In the first place, the Kolmogorov-Smirnov was used several times. Although this test has less power compared to the Kurtosis test that was also being used, it is a more frequently used method and mostly used for smaller samples. For smaller samples, this test is easier to interpret. For the normality test, a significance level of 5% (α=0.05) is being maintained, which is a choice that is made often in social research (Raftery, 1995). This in turn means that when the value of *P* is lower than 0.05, the Null-hypothesis ($\mu1 = \mu2$) can be rejected.

Secondly, for hypothesis one and two, the independent sample T-test is being used. The choice for the independent samples T-test is being made because of several reasons. In the first place, the data was normally distributed, which makes it possible to use the test. Secondly, there are two independent groups being studied (namely, a sample of Canadian entrepreneurs and a sample of Malaysian entrepreneurs). Thirdly, the test compares means of the two groups, which require not having the biggest variance.

Furthermore, for the third and the fourth hypothesis, as well as for the checking of correlation between effectuation and causation with demographics, correlation analysis was executed by means of the Pearson correlation efficient. This test was chosen because it calculated the two sided correlation, and there was no awareness of what correlation the thesis was looking for, it could be either positive or negative. In addition, the Pearson correlation coefficient is able to work with different values, such as different groups of ages.

For the results on the social media questionnaire, most of the data was calculated by using the function 'descriptive statistics' in SPSS, which allows the user to have a look at the means, totals as well as the percentages and cumulates of several variables together.

4. RESULTS

In order to give a complete picture of the results, the scores for the Canadian entrepreneurs on the different methods that were tested are outlined. First, an elaboration on the Think Aloud data will be given, outlining the distribution of effectuation and causation among the twenty Canadian entrepreneurs studied. Next, the results of the social media questionnaire will be presented. In the third paragraph, the results of testing the hypotheses will be presented. Finally, in paragraph four, correlation analysis is being executed on the demographic variables and the Think Aloud data, to see whether these are of influence. In paragraph five, the reliability of the different research methods is being tested.

4.1. RESULTS THINK ALOUD DATA

Below a figure is presented where the percentage distribution of the effectual and causational decision making is outlined for the 20 Canadian entrepreneurs.

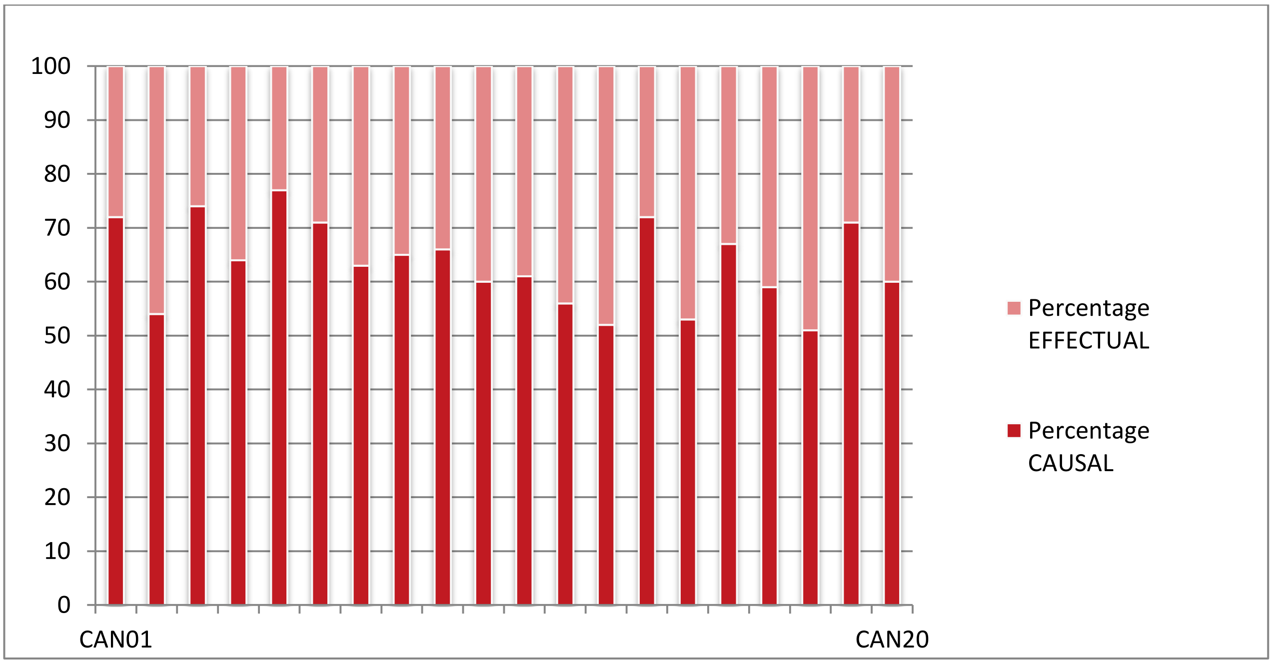

FIGURE 6: DISTRIBUTION OF EFFECTUATION AND CAUSATION

As one can see immediately, the Canadian entrepreneurs make more use of causal decision making as opposed to effectual decision making. However, statistical analysis should provide a more thorough insight into the different hypotheses that were formulated. The outcomes on the hypotheses testing in will be outlined in paragraph 4.3. First, the focus will be on the outcomes of the social media survey as filled out by the Canadian entrepreneurs.

4.2. SOCIAL MEDIA RESULTS

In this paragraph, the results of the social media survey will be outlined, in order to provide more insights on the usage and the underlying constructs of using social media. In general, it can be concluded that all 20 Canadians that have filled out the survey use social media. One of them uses social media only for business purposes; two of them use social media for private use only. Most of the entrepreneurs (*n*=17, 85%) use social media for business purposes as well as private use. Therefore, it can be expected that this sample is a representative one, since most of the entrepreneurs actually use social media in their business environment. In the table below, an outline of the different frequencies for the most important constructs of the questionnaire is being given.

Platform	LinkedIn	Facebook	Twitter
How often do you use...?			
Daily	3	**12**	**14**
Weekly	**6**	**6**	0
Monthly	**4**	1	1
Yearly	2	0	1
Never	5	1	**4**
Does… meet your needs?			
Yes	**6**	**13**	**14**
No	0	3	**0**
I don't know yet	5	3	2
Who is your target group when using…?			
General audience	1	2	3
Colleagues in industry	3	0	1
Customers	1	1	0
All of the above	**10**	**12**	**11**

TABLE 4: FREQUENCIES ON SOCIAL MEDIA CONSTRUCTS

It is important to mention that the only comment to the target group questions was concerned Facebook and contained family and friends. Furthermore, the Canadian entrepreneurs were asked what, according to them, was the added value of the three different platforms. In the table below, these answers are summarized into different clusters to make it clearer. Also, the number of Canadian entrepreneurs that answered the question was indicated in the table.

What do you see as the added value of … in terms of business purposes?	
LinkedIn (*n*=15)	- Gaining intelligence about people that I'm meeting with - Networking - Hiring - Marketing - Connect with like-minded people
Facebook (*n*=17)	- Promotion/marketing tool (directly/sharing content) - Facebook Marketplace - Observe customer behavior - Connections that would not be possible otherwise - Business opportunities - Hiring
Twitter (*n*=16)	- Developing brand/brand awareness - Marketing - Meeting & connecting - Communicate business messages/broadcast news - Personal and transparent element - Finding the location of the business - Direct support/customer interaction

TABLE 5: ADDED VALUE OF SOCIAL MEDIA

After executing the survey on social media, not many statistical tests could be executed except for descriptive statistics. The fact is that many information regarding the use of these platforms lies in the open questions and the amount of Canadian entrepreneurs out of the sample that make use of the platforms. As presented in Table 4: Frequencies on social media constructs, Twitter is being used the most by the Canadian entrepreneurs, 70% of the respondents use this platform daily, which is almost all the respondents that are using Twitter (*n*=16). Facebook is a very widely used platform among the entrepreneurs; the amount of users out of the respondents is 95%, of which 60% uses the platform daily. For LinkedIn, the usage is significantly less compared to the other platforms; 30% uses the platform weekly, which is the biggest group. 25% of the entrepreneurs do not use LinkedIn at all.

Furthermore, interesting information that was derived from the protocols is that (*n*=7) entrepreneurs were using social media as a tool in the creation of a venture during the case. This accounts for 35% of the entrepreneurs, which can be called a significant amount. Most of the times, social media was being used as a marketing tool, because of the fact that it is for free and would allow the entrepreneurs to reach out to many people at once.

4.3. RESULTS ON THE HYPOTHESES

In this paragraph, the results on the four hypotheses formulated in chapter two will be discussed. The statistical analysis will retain or reject the null hypothesis and hopefully accept or reject the alternative hypotheses $H1_a$,$H2_a$,$H3_a$ and $H4_a$.

HYPOTHESIS 1. POWER DISTANCE AND EFFECTUATION

For this hypothesis, the Canadian scores are being compared with the Malaysian scores. On average, the Canadian entrepreneurs use effectuation 37% of the time, where Malaysian entrepreneurs use effectuation 38% of the time. Given this data, it is unlikely that the two countries differ significantly on the use of effectuation. A Kurtosis test on the data (see Figure 7: Kurtosis and skewness of causation) showed that for the causation data of both countries, a *negative 'Skew'*[1] is recognized, which could mean that the data is not normally distributed. The null hypothesis on the normality of the data is therefore that the data is normally distributed, where the alternative hypothesis says that the data is not normally distributed. When executing the Kolmogorov-Smirnov test, (P= 0.200) which is not lower than α=0.05. Because of these results, the alternative hypothesis of normality can be rejected and it can be assumed that the data is normally distributed for the effectuation and causation use of Canadian as well as Malaysian entrepreneurs.

Then, independent samples T-test was executed on the use of effectuation and causation by Malaysian and Canadian entrepreneurs. This resulted in a two-tailed P=0.608. Since the hypothesis is one-sided, P=0.304 and therefore it can be concluded that there is no significance found for the alternative hypothesis (α=0.05). The alternative hypothesis $H1_a$ can therefore not be accepted.

[1] A negative *Skew* means that the mass of the contribution is concentrated on the left of the figure

$H1_a$. Entrepreneurs coming from higher PDI scoring countries make more use of effectuation compared to entrepreneurs coming from lower PDI scoring countries.

Furthermore, the null hypothesis was retained until proven otherwise.

$H1_0$. There is no difference between entrepreneurs from high and low PDI scoring countries with regard to the use of effectuation.

HYPOTHESIS 2. INDIVIDUALISM AND COMPETITIVE ANALYSIS

The second hypothesis also compares the means of the Canadian and Malaysian data on the Think Aloud case. On average, Canadian entrepreneurs make for 42% of the time use of competitive analysis, where Malaysian entrepreneurs use competitive analysis 72% of the time. Given these percentages, it is likely that these countries can significantly differ on the usage of competitive analysis. Firstly, the same tests for normality were executed as they were for the previous hypothesis. The Kolmogorov-Smirnov test was executed on the data of competitive analysis as well as alliances. The null hypothesis on the normality of the data is therefore that the data is normally distributed, where the alternative hypothesis states that the data is not normally distributed. When executing the Kolmogorov-Smirnov test, (P= 0.200 for Canada and P=0.168 for Malaysia) which is not lower than α=0.05. Because of these results, the alternative hypothesis of normality can be rejected and it can therefore be assumed that the data is normally distributed for the effectuation and causation use of Canadian as well as Malaysian entrepreneurs. Because the data is again normally distributed, the independent sample T-test is executed. The Levene's test does not give a significant result F (P=0.594) so the focus is on the two-sided significance level, which is (P=0.000). Since P is significant on α=0.05 level, the null hypothesis can be rejected. Significance for the results was found but the alternative hypothesis cannot be accepted either because of a different direction of outcomes.

$H2_a$.Entrepreneurs coming from higher IDV scoring countries make more use of competitive analysis compared to entrepreneurs coming from low IDV scoring countries.

$H2_0$. There is no difference between entrepreneurs coming from high and low IDV scoring countries with regard to the use of competitive analysis.

HYPOTHESIS 3. SOCIAL MEDIA FREQUENCY AND EFFECTUATION

For hypothesis three, again is checked whether the data is normally distributed. In this case, the focus lies on the Canadian data only as the questionnaire was not distributed in other countries. As discussed before, Canadians make use of 37% effectuation in their decision making. Firstly, the Kolmogorov-Smirnov test was executed on the data of frequency of the three different platforms. It appears that (P=0.372, P=0.350 and P=0.371), which are all three not lower than α=0.05. It can therefore be assumed that the data is normally distributed. In addition, the test of normality on solely the effectuation data of Canadian entrepreneurs accounted for a (P=0.130). Also the Canadian data for effectuation is normally distributed.

When running a Pearson correlation test on the data, the following results are present. For LinkedIn and effectuation, the correlation between the variables is 0.299 but not significant on α=0.05 level (P=0.200). For Facebook and effectuation, the correlation between the variables is -0.207 but again not significant on α=0.05 level (P=0.382). Furthermore, the Twitter data and effectuation appeared to have a correlation of 0.271 but also this data was not significant on α=0.05 level (P=0.249). This means that the alternative hypothesis can be rejected and the null hypothesis will be retained until proven otherwise.

$H3_a$. Entrepreneurs who frequently make use of social media make more use of effectuation compared to less frequent users of social media.

$H3_0$. There is no difference between frequent and less frequent social media using entrepreneurs for using effectuation in the decision making process

HYPOTHESIS 4. SOCIAL MEDIA AND EXPLORATION OF CONTINGENCIES

For the fourth hypothesis, the usage of 'Exploration of Contingencies' was being used 51% of the time by Canadian entrepreneurs, compared to 49% usage of 'Preexisting Knowledge'. When running a test of normality on this data specifically, the Kolmogorov test presented (P=0.200) which is not lower then α=0.05 and therefore it can be assumed that this data is normally distributed. Next, normality does not need to be calculated for the platform data, since this was already done in the previously discussed results on hypothesis three.

Now a Pearson correlation test is being executed for the three platforms separately, the following results were found. For the LinkedIn data and 'Exploration of Contingencies', the correlation was 0.141 but (P=0.554) and therefore not significant on α=0.05 level. For the Facebook data and 'Exploration of Contingencies', the correlation was -0.116 but (P=0.628) and therefore not significant on α=0.05 level. Furthermore, for the Twitter data and 'Exploration of Contingencies', the correlation was 0.162 but (P=0.495) and therefore also not significant on α=0.05 level.

In the light of these results, the alternative hypothesis can be rejected and the null hypothesis will be retained until proven else wise.

$H4_a$. The more frequent an entrepreneur makes use of social media, the more exploration of contingencies will be used as opposed to exploitation of preexisting knowledge in the decision making process.

$H4_0$. There is no difference between frequent and less frequent social media using entrepreneurs using the exploration of contingencies as opposed to exploitation of preexisting knowledge in the decision making process.

4.4. CORRELATION ANALYSIS

In this paragraph, a correlation analysis is being executed on the Think Aloud data and several demographics as defined in chapter three, namely:

- Gender
- Age
- Educational background

These variables were, as discussed in chapter three as well, recoded into smaller groups with the aim of recognizing correlation earlier.

With this test, the aim is to discover additional correlation between demographic variables selected and the use of causation and effectuation amongst Canadian entrepreneurs. The results of the correlation analysis executed can be found in the table below.

Correlations

		Subject_Age	Subject_Sex	Subject_study	CAUSAL_ALL	EFFECTUAL_ALL
Subject_Age	Pearson Correlation	1	,068	,191	-,239	,534*
	Sig. (2-tailed)		,776	,419	,310	,015
	N	20	20	20	20	20
Subject_Sex	Pearson Correlation	,068	1	,228	,162	,251
	Sig. (2-tailed)	,776		,335	,496	,285
	N	20	20	20	20	20
Choose one category	Pearson Correlation	,191	,228	1	-,398	-,280
	Sig. (2-tailed)	,419	,335		,082	,232
	N	20	20	20	20	20
CAUSAL_ALL	Pearson Correlation	-,239	,162	-,398	1	,196
	Sig. (2-tailed)	,310	,496	,082		,409
	N	20	20	20	20	20
EFFECTUAL_ALL	Pearson Correlation	,534*	,251	-,280	,196	1
	Sig. (2-tailed)	,015	,285	,232	,409	
	N	20	20	20	20	20

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

TABLE 6: CORRELATION OF DESCRIPTIVES AND CAUSAL/EFFECTUAL DATA

As derived from the former table, 'age' is positively correlated with the use of effectuation. This correlation is marked with an asterix, (*P*=0.534). Since α=0.015 it can be concluded that this correlation is significant on α=0.05 level. All other expected correlations are not statistically significant on α=0.05 level.

4.5. RELIABILITY ANALYSIS

THINK ALOUD DATA

As was introduced in chapter three, reliability is calculated for the Think Aloud data. It appeared that Cronbach's alpha for the effectuation items of the Think Aloud data was 0.66. According to DeVellis (2003) this is an acceptable level of reliability. Furthermore, Cronbach's alpha for the causation items of the Think Aloud data was 0.58 which is too low according to DeVellis (2003) in order to be reliable.

CHANDLER ET AL. (2011) QUESTIONNAIRE

The Cronbach's alpha of the first nine questions was 0.71 which is a reliable score according to DeVellis (2003). Therefore, the construct 'causation' was measured in an effective way using the Chandler et al. (2011) questionnaire. For the questions measuring the construct of 'effectuation', this is completely different. Cronbach's alpha of the last eight questions of the questionnaire appeared to be 0.27 which is too low to be reliable. However, it is possible to heighten the Cronbach's alpha when deleting some questions from the questionnaire. From the analysis it has become clear that when deleting the last question of the questionnaire (*"Our decision making has been largely driven by how much we could afford to lose"*), the Cronbach's alpha would be 0.48. Since this value of Cronbach's alpha is not even close to 0.6, it cannot conclude that 'effectuation' was measured by the questionnaire of Chandler et al. (2011). In spite of the positive Cronbach's alpha for the causation part, one can state that the questionnaire in general does not measure the constructs that were supposed to be measured. For this reason, the results on the questionnaire of Chandler et al. (2011) will not be discussed further in the analysis.

5. CONCLUSION AND DISCUSSION

In this chapter, there is a combined view on the research. First, the conclusion will be drawn based on the smaller conclusions of the hypotheses, the correlation analysis and the results of the social media questionnaire. After concluding on all different research methodologies, the results on the main research questions are provided. Furthermore, this chapter contains the discussion on the research. There will be a great focus on the limitations of the research, regarding the literature framework, the sample as well as the research method chosen. Lastly, recommendations for the future will be made, based on the shortcomings of this research as observed by the interviewer and researcher.

The purpose of this research was to provide knowledge around effectuation, national culture and social media usage, in order to contribute to entrepreneurship as a research domain. Furthermore, improving the knowledge around entrepreneurial processes might lead to tailored education, since the skills needed for starting up a venture are sometimes be teachable (Stevenson and Jarillo, 1990). Overall, economies can profit as well from these new insights into decision making and creating more successful businesses is relevant for any economy in the world.

This chapter will elaborate on the results found on the hypotheses. Furthermore, the correlation analysis on different demographics will be outlined as well as a general conclusion of the social media questionnaire.

5.1. CONCLUSIONS

HYPOTHESIS 1. POWER DISTANCE AND EFFECTUATION

The first hypothesis tested was formulated as follows:

H1. Entrepreneurs coming from higher PDI scoring countries make more use of effectuation compared to entrepreneurs coming from lower PDI scoring countries.

For this hypothesis, it was expected that when comparing Canadian and Malaysian entrepreneurs, Malaysian entrepreneurs would score a relatively higher percentage on the use of effectuation, compared to their Canadian counterparts. This was based on the fact that Malaysia holds a score of 104 on the PDI dimension of Hofstede (2012), compared to 39 for Canada. Based on the raw data, one could see that Canadians used effectuation 37% of the time in their decision-making, while Malaysian entrepreneurs used effectuation 39% of the time. Therefore, the chance on a statistically significant difference between both countries was small. After executing the statistical tests, no significance for the alternative hypothesis was found and therefore it was rejected.

The null hypothesis was retained, stating that there is no difference between entrepreneurs coming from high and low scoring PDI countries when using effectuation or causation. This research was not able to identify differences in the use of effectuation or causation based on the fact whether a country has a greater or smaller Power Distance based on Hofstede' s (2012) research.

HYPOTHESIS 2. INDIVIDUALISM AND COMPETITIVE ANALYSIS

The second hypothesis was formulated as follows:

H2.Entrepreneurs coming from higher IDV scoring countries make more use of competitive analysis compared to entrepreneurs coming from low IDV scoring countries.

For this hypothesis, it was expected that when comparing Canadian and Malaysian entrepreneurs, Canadian entrepreneurs would make more use of competitive analysis in their decision making process as opposed to the use of alliances. This was expected because Canada holds a score of 80 on the IDV dimension of Hofstede (2012), compared to 26 for Malaysia. It could be stated that Canada has a more individualistic culture, compared to the Malaysian culture which is classified as more collectivistic. When analyzing the raw data, one could see that the Canadian entrepreneurs used competitive analysis 42 % of the time, compared to Malaysian entrepreneurs who use competitive analysis 72% of the time. There is a difference recognized in these scores, however, it is the other way around as was expected and formulated in the hypothesis. After statistical analysis, it also appeared that the difference was significant. Based on these results, the null hypothesis could be rejected. A difference was recognized, but it was the other way around. Therefore, the alternative hypothesis could not be accepted either. This research was able to identify a statistical significant difference of the use of causation based on the fact whether a country is more individualistic or collectivistic based on Hofstede' s (2012) research.

HYPOTHESIS 3. SOCIAL MEDIA FREQUENCY AND EFFECTUATION

Hypothesis three was focusing on the influence of social media frequency on the use of effectuation and causation by entrepreneurs. Based on former research, the third hypothesis was formulated as follows:

H3. Entrepreneurs who frequently make use of social media make more use of effectuation compared to less frequent users of social media.

This hypothesis focused solely on the Canadian entrepreneurs, as there was no data available for their Malaysian counterparts. As was discussed before, the use of effectuation among Canadian entrepreneurs was 37% of the time. It could be expected that Canadian entrepreneurs using social media frequently, would also use more effectuation as opposed to causation in their decision-making. The analysis was carried out for the three platforms separately, as differences between them would be interesting since they all carry a different purpose.

From the statistical analysis it became clear that there was a positive correlation recognized between LinkedIn and effectuation, but it was not significant. Also, a negative correlation between Facebook and effectuation was recognized, but this correlation was also not significant. Furthermore, a positive correlation between Twitter and effectuation was recognized, but again this was not significant.

Based on the foregoing results, no significant correlation was recognized between the frequency of social media use and the use of effectuation in the decision-making of entrepreneurs. The null hypothesis was retained and the alternative hypothesis was rejected. This research was not able to identify statistical significant differences between the use of effectuation or causation based on the user frequency of social media by entrepreneurs.

HYPOTHESIS 4. SOCIAL MEDIA AND EXPLORATION OF CONTINGENCIES

The last hypothesis was formulated as follows:

H4. The more frequent an entrepreneur makes use of social media, the more exploration of contingencies will be used as opposed to exploitation of preexisting knowledge in the decision making process.

Based on the previous hypothesis and former research, it could be expected that when using social media more frequently, entrepreneurs would make more use of 'Exploration of Contingencies' as opposed to 'Preexisting Knowledge'. From the raw data, it could be concluded that there was almost no difference between the uses of these two principles by Canadian entrepreneurs: 51% of the time they used 'Exploration of Contingencies'. This could also be expected based on the results on the former hypothesis testing. The statistical tests confirmed this assumption: there were no significant correlations found between the use of LinkedIn, Facebook and Twitter and the use of 'Exploration of Contingencies'. Based on the fact that no significant correlations were found, the alternative hypothesis was rejected and the null hypothesis was retained. This research was not able to identify differences in choice between principles of effectuation and causation based on the user frequency of social media by entrepreneurs.

CONCLUSION ON CORRELATION OF DEMOGRAPHICS AND EFFECTUATION

Secondly, three demographics were put in a correlation analysis with regard to the use of effectuation and causation by Canadian entrepreneurs. Based on this statistical analysis, only one demographic appeared to be positively correlated and statistically significant, namely 'age'. 'Age' appeared to correlate with the use of effectuation. This implies that the older the entrepreneur is, the more effectuation he or she will use. As this concept was addressed by Sarasvathy (2001) as well, a link can be made here. Sarasvathy links the concept of effectuation to the logic that is used by experienced entrepreneurs. This research confirms the statement of Sarasvathy (2001) as the correlation between age and the use of effectuation was recognized. That is, when age also predicts the amount of years in entrepreneuring. From the data it can be derived that the older the entrepreneur is, the more years he or she has spent working.

Therefore, the conclusion can be drawn that more experienced entrepreneurs make more use of effectuation in their decision-making compared to their less experienced counterparts.

CONCLUSIONS ON SOCIAL MEDIA SURVEY

Based on the former analysis of the different statistics on the three different platforms, a conclusion can be drawn with regard to the usage, the goals and the audience that entrepreneurs try to reach when using the platforms.

The lower use of LinkedIn can be explained by the fact that it is a medium that focuses on networking between people and can be interpreted as a platform more suitable for 'older' people or at least people with more experience. Though, it is interesting to see that the goals of Twitter are recognized by the users in the sample of this research; marketing, networking, hiring, connecting with like-minded people. It can therefore be concluded that, although the platform is not widely used yet among young entrepreneurs, there is a future in it.

Facebook appeared to be a widely used platform, with entrepreneurs using it either every day or at least every week. Only 10% of the sample appeared to use it a lot less (monthly or never). It can therefore be concluded that Facebook is a popular platform, which mostly meets the needs of the entrepreneurs (65% of the time). Furthermore, entrepreneurs see Facebook as a marketing and promotion tool, as well as a tool for business opportunities. It is interesting to see this comment to be submitted, as it exactly addresses the expectations of Fischer & Reuber (2011). Furthermore, Facebook is seen as a platform for hiring, observing the behavior of customers and establishing connections that would not exist otherwise. Also this comment draws back upon the fact that social media platforms can be used for the recognition of and or the enactment upon opportunities. It can therefore be concluded that Facebook is a valuable platform for many reasons and that it is already widely adapted by entrepreneurs in this research. Also, the goals of Facebook are known and being acted upon.

Twitter was the most popular platform in terms of usage by the Canadian entrepreneurs studied; 70% uses Twitter daily, which is a fairly large amount. Only 20% never uses Twitter. Out of all the entrepreneurs that make use of Twitter, only 10% is not sure whether the platform meets their needs. In terms of pursuing goals, Twitter is mostly used for marketing purposes, PR activities and direct customer support. These goals are clearly different than the goals pursued by the use of Facebook and LinkedIn. It can therefore be concluded that Twitter is a widely used and highly appreciated platform that is able to add value to the entrepreneurs' businesses in a different form than Facebook and LinkedIn does. This also draws back upon the research of Fischer & Reuber (2011) who solely studied Twitter for several reasons.

With regard to the target group that entrepreneurs are aiming to reach, this is almost equal for the three platforms; in general, they all aim to reach a general audience, colleagues as well as customers. It can therefore be concluded from this group of respondents that the three platforms are not being used for a specific targeted audience.

Concluding, a lot of feedback was derived from the questionnaire. According to the Canadian respondents, all three platforms are helpful sources to grow a business. Usage of social media clearly helps Canadian entrepreneurs to find people who can assist them to grow their business or their network. Additionally, social media platforms like Twitter and Facebook allow them to connect easily and effectively to their customers. The platforms are to a great extent being used for direct and targeted marketing. Although there are still some skeptical users or non-users to be identified among the respondents, training and optimal usage will most likely allow young entrepreneurs of this caliber to grow faster. Also, it is expected that they will work more effectively since their resources are close to them. These results are also supported by similar research of Van der Krogt (2011).

5.2. RESPONDING TO THE RESEARCH QUESTIONS

After drawing conclusions on the hypotheses, correlation analysis and the social media survey, it is possible to formulate an answer to the research questions that were presented in the first chapter. The first research question was formulated as follows;

RQ1. *To what extent does national culture impact the use of causation versus effectuation among entrepreneurs?*

After the analysis executed, it can be concluded that there is evidence gained that national culture impacts the use of causation or effectuation when creating a new venture. There were differences recognized in using causation and effectuation by Canadian and Malaysian entrepreneurs studied. Although not all differences were statistically significant, there is certainly a basis created for future research on the topic of culture as an influencer of entrepreneurial decision making. Recommendations for future research will be further addressed in paragraph 5.3.

The second research question was formulated as follows;

RQ2. *To what extent does usage of social media impact the use of causation versus effectuation among entrepreneurs?*

After the executed analysis of the two hypotheses and additional information gathered, it can be concluded that there is no significant evidence gained to state that the use of social media impacts the use of causation versus effectuation in entrepreneurial decision making.

Despite the divergent hypotheses formulated to gather a broad insight, not many differences between groups were proven to be significant. Although there was a positive correlation recognized between the age of the entrepreneur and using more effectuation, as well as the positive connection between IDV and the use of alliances. The reasons behind this will be discussed further in the paragraphs on limitations of the research.

5.3. LIMITATIONS

LITERATURE FRAMEWORK

In the first place, the four hypotheses formed were on the basis of this research. As effectuation theory was connected to two principles of Hofstede (1980), it is important to keep in mind that there is some criticism on his work on cultural dimensions. In the first place, there were no problems to be expected to use Hofstede's (1980) framework, since the focus was on Canada and Hofstede mostly based his research on a Western ideology perspective. Given the fact that Malaysia was used as a country for comparison, it could be that comparing a Western and Asian country is not the right thing to do in this research.

Secondly, Hofstede (1980) based his research solely on respondents that were employees at IBM. Since the focus group in this research is different in terms of age, working experience and international experience, it could be that Hofstede's values are not valid for this specific group of people.

But, the differences between the scores of Canada and Malaysia on PDI and IDV varied that much (Hofstede, 20120) that they were on the complete opposite side of each other in the country rankings of Hofstede. Therefore, the assumption was made that although differences could exist, the complete opposite scores could signify the differences with regard to Western-Asian and group of respondents.

There was definitely awareness in this research of the criticism that Hofstede (2001) has received in the past (McSweeney, 2002). Some of the arguments were mentioned in chapter two, while it was mentioned as well that Hofstede replied too many of the criticism himself. However, Hofstede (2001) actually did reply to the criticism and did not become shy on it. In this research, it was also decided to still make use of his research because it covered that many countries in the world and because it is a reliable model of cultural dimension research.

Although initially, there was a plan to collect VSM questionnaires of the Canadian entrepreneurs as well, this research failed to collect enough surveys from native and mother-tongue English-Canadian entrepreneurs. However, there is a recommendation resultant from this failure. For future research, it is recommended to at least collect as many VSM questionnaires as respondents in the research, ideally ($n \geq 20$).

The last comment on Hofstede (1980) in this paragraph regards the fact that he classifies cultures being for instance 'collectivistic' when holding a certain score on the IDV dimension. The question raises here; what exactly is a high (or: low) score according to Hofstede and when can be decided whether a culture is really collectivistic or more individualistic? Although in this research the same indications (high and low) were used, it is recommended to look further into this issue and decide on a framework of high-low before starting the research.

There are also question marks to be placed at the research of Fischer & Reuber, which was the other basis of this research. Fischer & Reuber (2011) stated that effectual entrepreneurs might be more successful due to earlier failure of inevitable unsuccessful businesses, but it is important to keep in mind that the possibility should be considered that although effectual processes may have positive consequences for entrepreneurial firms, they may also have negative sides such as unproductiveness and recurring evaluations of available means and effects.

SAMPLE

In this paragraph, the focus is on possible variances that can occur in the the sample of entrepreneurs.

With regard to geographical differences, the native language spoken can be of influence. Although this issue was addressed extensively in the third chapter of the thesis, it could be that Anglophone Canadian respondents are influenced by their native French family members or friends. For this reason, cultural differences should still be taken into account as a possible source of influence.

It is fair to state here that the decision to base the research in Ottawa only, has been one of practical reasons. Although Ottawa inhabits over 800.000 people, 2 high schools and 2 universities and therefore enough entrepreneurs to research, it would have been interesting to see how entrepreneurs from other cities or provinces in Canada differ from the entrepreneurs from Ottawa. Because of this fact, generalizing the results of this study is only possible for university or college students from Ottawa with a maximum of five years entrepreneurial experience after their graduation. Besides, collecting a sample like this would have been able in a university in other countries as well, therefore the proposition and advice for future researchers on this topic is to collect a similar sample of entrepreneurs in different cities to limit differences in educational background and level of experience.

Furthermore, it could be expected that there is variance in the mental state of participants, which could have been of influence on the Think Aloud sessions. Firstly, there were some respondents that took part in the research out of courtesy. Next, there were participants who were asked to participate because their professor/teacher asked them to. It could be that these participants were less motivated and therefore did not speak up all the thoughts they had.

When looking at the conclusions and the statistic test results in this research, it is a pity that not many differences that were recognized could also be turned into findings because there was no statistical significance found most of the time. Reasons for this missing significance with regard to hypotheses three and four could be because of the quite homogeneous group of respondents in terms of social media usage. If the research would have been able to collect a group of frequent users as well as a control group of less frequent users, the results might have been more significant.

There is also a risk of having included biased respondents in the research. Some respondents of the research and the pilot study as well could have been familiar with the principle of effectuation. Once they have started working on the case, they could have recognized the concept of the research and redirected that to effectuation theory. In case they did so, it could be that their answers are influenced because of the knowledge that they have around the principle.

Finally, there could be a variance in the data of the pilot study, the Canadian sessions and the Malaysian sessions due to timing differences. There is approximately a three months difference between conducting the first and the last Think Aloud session. This difference in timing could have been of influence on the thinking patterns of the respondents due to developments in the world and global news on entrepreneurship or economy. In addition, the Canadian sessions were conducted closer to the end of the school year, which is normally a stressful period for students. They could have been rushing or stressed, and this could have influenced their mental state as well. Furthermore, since there is a financial crisis going on in the Netherlands, it could be that the pilot study was influenced and respondents were reflecting behavior that was more conservative than their actual behavior.

RESEARCH METHOD

In this research, the Think Aloud method was used to collect the verbalized thoughts of entrepreneurs regarding their decision making process. Although there are some objections to the Think Aloud method presented in chapter three, there are also factors that support the use of the Think Aloud Method. In the first place, the case Coffee Inc. used in this research was previously used in many other research projects. With the help of several interviewers reconstructing the case, the case has now been used in over 200 interviews, which is an indication that the quality of the case is improving with every Think Aloud session being executed.

One of the main concerns around the Think Aloud method is the fear that subjects do not answer the questions in the case according to their own thoughts. They could be afraid that their answer might sound stupid or that they are perceived as less informed. They could be afraid that their analyses are worse compared to other participants. Moreover, subjects of the research all have a different level of experience in entrepreneuring. This could cause the fact that some of them are familiar with the business problems presented in the case and some are not. Their responses on these questions could therefore differ. This was also derived from the cases, mainly during the third problem of meeting payroll. Where CAN11 mentioned: *"I would never have maxed out all of my credit cards to buy stock"*, this is the opposite of CAN16, who stated that *".. I was in a situation like this when I did not have enough money to pay the payroll"*. These opposite experiences could influence the decisions that entrepreneurs make. Although there is awareness of the fact that comparing a complete homogenous group is impossible, this effect should be taken into account in the future.

Although interruptions during the Think Aloud sessions hardly ever occurred, it could still be possible that even the smallest interruptions have had a disturbing effect on the respondents of the Think Aloud case. In some situations, phones rang or there was a knock on the door from someone who was looking for anything. These situations occurred a few times and cannot have been of great influence.

Therewithal, the coding process in this research is a point of discussion. Although the first coding session was found reliable when looking at the interrator-reliability, the process remains a subjective one. Results could have been different or more significant when all the coding processes would be tested on reliability with the use of interrator-reliability.

Also, the reliability of the surveys used in this research is a point of discussion. As the Cronbach's alpha of the Chandler et al. (2011) questionnaire was too low, it was decided not to be used. Since this questionnaire is derived from greater research and being used in other thesis studies as well, it is surprising to see that Cronbach's alpha was too low. However, it could be that the sample studied in this research is not representing Canadian culture and decision making.

There is awareness of the fact that the sample size used in this research is small (n=20) and when comparing Malaysia and Canada, (n=40). However, one must admit that due to time limits, but also because of the fairly limited scope of the research, this was the maximum number of participants possible. Executing the Think Aloud method as well as the coding process in this form has appeared to be very time consuming. Finding the entrepreneurs, setting a date, conducting the session, transcribing, coding and computing the data into SPSS has been the biggest chunk of time in this research. Since the fact that also several questionnaires were being conducted, one could argue that a simplified method would be accurate enough for a small sample size like this. However, the use of the Think Aloud method has appeared to be a fruitful method when studying the use of effectuation and causation and according to the rich data that was collected when using the method, a small sample size can be enough in this type of research to draw fair conclusions.

THE CASE COFFEE INC.

In the first place, possible variances can have occurred in the data because of economic reasons related to the case Coffee Inc. As the case used was originally developed in the Netherlands and afterwards carried out in different countries, adjustments had to be made to tailor the case to the specific country of research. In hindsight, the interviewer has observed a different 'coffee drinking culture' in Canada as opposed to the Netherlands. Although the average coffee intake per person is almost equal in Canada in the Netherlands, namely 3, 2 cups a day (Ipsos, 2012; CBS, 2012), Canadians tend to drink more coffee out of home. Where Dutch people drink their coffee mostly at work or at home, Canadians get their coffee on the way or go out of their homes and offices to get their coffee. For this reason, it could be expected that Canadian respondents are in possession of more knowledge or experience compared to Dutch or Malaysian people when it comes to coffee shops. For instance, the problems around setting up the coffee corner related to competitors and gathering information to start up the business could be different from a Canadian perspective, as the respondents are more likely to have their opinions ready about the current coffee business in their country. Also, their vision on competitors might be very clear compared to participants in other countries.

In addition, there are some concerns around problem number seven-two. This question asks the entrepreneur to choose between a more entrepreneurial spirit or move to a more corporate view on the business. Many respondents were confused with this question and had to be directed in the right way. Almost all respondents interpreted this question as if they had to go corporate, which is an issue that is addressed later on, in problem ten. Because of this unclear question, suggestions are that this problem needs to be re-written to avoid wrong data.

5.3. SUGGESTIONS FOR THE FUTURE

Although there were suggestions presented in the past chapter, this paragraph will list a few issues that need to be taken into account for future research on the topics entrepreneurial processes, national culture and social media. These issues are listed below, divided into a part for duplication of the research and a part focusing on education, as the conclusion in the former chapter indicated this to be a point of attention.

DUPLICATING THE RESEARCH

In the first place, results could have more significance when making use of more homogeneous groups of respondents. This suggestion does mainly concern the grouping of businesses and age. In this research, the purpose of the twenty different businesses that the entrepreneurs were pursuing, were very granulated and ranged from food production and selling to social services and landscaping. It might provide future research with more consistent results when focusing on a narrower target group with regard to the business purposes of entrepreneurs being studied. Coming back to the fact that a homogeneous group would not be that ideal for research on social media, it is proposed to use a control group for this part of the research, consisting of fairly non frequent users of social media.

What the case is concerned, there is a short list of adjustments proposed to improve the case, based on the experiences in this research. The following points in the case were in this research unclear to the respondents. Below, the issues are listed that came up at least more than once during the Think Aloud sessions:

- Most participants were immediately familiar with the fact that they were the entrepreneur in the case themselves and started up a coffee shop at their university. Hence, a few participants had to be reminded of this fact when they elaborated on the questions in the first two problems; they thought of the entrepreneur being a third person.
- A few respondents had difficulties with the issue in problem number 7-2. According to them, the introduction of the partner was a surprise and they did not know who entered the company as a partner. In most of these cases, the respondents assumed immediately that Greg was suddenly the partner on board. This was not obstructing the case process, but is still an issue to be taken into account for future research using this case.
- Most of the participants (about 90%) interpreted problem 7-2 as going public instead of keeping the entrepreneurial focus on the business. Therefore, the

recommendation is to adjust this for future research, since the interviewer had to guide almost every respondent in the right direction.

- It was recognized that most of the entrepreneurs distrust the data provided at least once in the case. After discussions with the Canadian respondents that took part in the Think Aloud sessions, it appeared that the numbers of for example actual sales, coffee price per cup and IPO were not always realistic. For future research, this should be adjusted in collaboration with someone who is aware of the market situation of the venture that has to be created during the case.

Supported by Van der Linde (2012), it is recommended for future research to use a sample of either novice or expert entrepreneurs. Therefore, in this research the entrepreneurs interviewed have a maximum of 4 years in finishing their degree. Still, because of the correlation between age and the use of effectuation, it is highly recommended to study homogeneous groups of entrepreneurs.

EDUCATION

As was mentioned in the first chapter of this research, more and more educational programs are being developed or in place to teach individuals about entrepreneurship (Sarasvathy, 2008; Zahra & Wright, 2011). This is helpful for the future of entrepreneurship, since according to Stevenson and Jarillo (1990), some of the skills needed for entrepreneuring are teachable. Moreover, as can be concluded that age, when correlated to entrepreneurial experience, creates a greater use of effectuation, this could be drawn back to the conclusion of Fischer & Reuber (2011) who state that effectual new venture creation is in the end more profitable than causational new venture creation.

Not only is education the responsibility of schools, also parents of children can play a role. Ibrahim & Soufani (2002) recognized that the role of family can encourage young people to be risk-taking, independent and show innovative behavior such as entrepreneurship. Therefore, future research could include the role of parents and other family to test whether this impacts the use of effectuation or causation during the creation of a new venture.

Furthermore, it was demonstrated that social media platforms and the usage of it can have a positive effect. Although many respondents in the research were familiar with the platform and extensive users, it is recommended that future scholars are being trained on these platforms, in order to maximize and unlock their full potential with regard to the recognition and creation of opportunities.

REFERENCES

Berthon, P., Pitt, L.F. & Ewing, M.T. (2001). Perceived Decision-Making Context Corollaries of the Collective: The Influence of Organizational Culture and Memory Development on Perceived Decision Making Context. *Journal of the Academy of Marketing Science (2001)*. DOI: 10.1177/03079459994515

Burt, R.S. (1992). The social structure of competition. In N. Nohria and R. Eccles (eds.), *Networks and Organizations: Structure, Form and Action.* Boston, MA: Harvard Business School Press, 57-91.

Bygrave, W. D., & Hofer, C. W. (1991). Theorizing about Entrepreneurship. *Entrepreneurship: Theory & Practice, 16*(2), 13-22.

Canadian Tourism Commission (2012). *City/Town: Ottawa.* Retrieved on October 16th, 2012, from: http://caen.canada.travel/city/ottawa

CBS (2012). *Nederlanders drinken minder koffie*. Retrieved on June 23rd, 2012, from: www.cbs.nl/nl- NL/menu/themas/inkomen-bestedingen/publicaties/artikelen/ archief/2007/2007-2344-wm.htm

Chandler, G. N., DeTienne, D. R., McKelvie, A., & Mumford, T. V. (2011). Causation and effectuation processes: A validation study. *Journal of Business Venturing, 26*(3), 375-390.

City of Ottawa (2012). *Language and Culture*. Retrieved on October 16th, 2012, from: http://ottawa.ca/en/social_com/immigration/choose/language/

Coleman, J.S. (1988). Social Capital in the Creation of Human Capital. American Journal of Sociology, Vol. 94, Supplement: Organizations and Institutions: Sociological and Economic Approaches to the Analysis of Social Structure (1988), S95-S120.

Correa, Willard Hinsley & Gil de Zúñiga (2010). Who Interacts on the Web? The Intersection of user's personality and social media use. *Computers in Human Behavior, 2010*. DOI: 10.1016/j.bbr.2011.03.031

Cramer, D. & Howitt, D. (2004). *The Sage dictionary of statistics: a practical resource for students in the social sciences*. Thousand Oaks: Sage.

Cuervo, A., Ribeiro, D. & Roig, S. (2007). *Entrepreneurship: Concepts, Theory and Perspective.* Berlin Heidelberg: Springer Verlag.

Dahl, S. (2004). Intercultural Research: The Current State of Knowledge. Middlesex University Discussion Paper, 26, 1-22.

De Carolis, D.M., Litzky, B.E. & Eddleston, K.A. (2009). Why Networks Enhance the Progress of New Venture Creation: The Influence of Social Capital and Cognition. *Entrepreneurship Theory and Practice, 33* (2), 527-545.

DeVellis, R.F. (2003). Scale Development. Theory and Applications. Thousand Oaks, California: SAGE Publications.

Ericsson, K.A. & Simon, H.A. (1993). Protocol Analysis. Verbal Reports as Data. USA, Massachusetts: Massachusetts Institute of Technology.

Ericsson, K.A. & Simon, H.A. (1998): How to Study Thinking in Everyday Life: Contrasting Think-Aloud Protocols With Descriptions and Explanations of Thinking, Mind, Culture, and Activity, *5*(3), 178-186.

Facebook (2012). *Key facts.* Retrieved September 3rd, 2012, from: http://newsroom.fb.com/Key-Facts.

Falk, I. & Kilpatrick, S. (2000). What is social capital? A study of interaction in a rural community. *Sociologia Ruralis, 1*(40), 87-110.

Fink, Kölling & Neyer (2006). Understanding Cross-Cultural Management Interaction: Research into Cultural Standards to Complement Cultural Value Dimensions and Personality Traits. *International Studies of Management & Organization, 36*(4), 38–60.

Fischer, E. & Reuber, A.R. (2011). Social interaction via new social media: (How) can interactions on Twitter affect effectual thinking and behavior? *Journal of Business Venturing, 2011.* DOI 10.1016/j.jbusvent.2010.09.002.

Greve, A. & Salaff, J.W. (2003). Social Networks and Entrepreneurship. *Entrepreneurship Theory & Practice, Fall 2003,* 1-22.

Hofstede, G. (2001). Culture's consequences. International differences in work related values. Beverly Hills, CA: SAGE.

Hofstede, G. & Hofstede, G.J. (2005). *Cultures and Organizations: Software of the Mind.* Columbus, OH, USA: McGraw-Hill.

Hofstede, G. (2006). Riding the waves of commerce: a test of Trompenaars' "model" of national culture differences. *International Journal Intercultural Relations*, *20*(2), 189-198.

Hofstede, G. (2012a). *What about Canada?* Retrieved on November 3rd, 2012, from: geert-hofstede.com/canada.html.

Hofstede, G. (2012b). *What about Malaysia?* Retrieved on November 3rd, 2012, from: geert-hofstede.com/malaysia.html.

House, R. (2004). *Culture, leadership, and organizations: the GLOBE study of 62 societies.* Thousand Oaks, CA, USA: SAGE Publications.

Invest Ottawa (2012). *Helping Ottawa Entrepreneurs.* Retrieved on November 4th, 2012, from: http://entrepreneurship.investottawa.ca/

Ipsos (2012). *Nearly Four-in-ten Canadian adults (37%) have visited online social networks and three-in-ten have (29%) have a personal profile on one.* Retrieved September 3rd, 2012, from: http://www.ipsos-na.com/news-polls/pressrelease.apx?id=3664

Ipsos (2012). *Canadians Take Their Coffee Seriously: Most drink it daily and claim to suffer if they have to go without*. Retrieved on May 16th, 2012, from: ipsos-na.com/news-polls/pressrelease.aspx?id=5016.

Ipsos (2012). *The Ipsos Canadian Inter@ctive Reid Report.* Retrieved on May 16th, 2012, from: ipsos.ca/common/dl/pdf/Ipsos_InteractiveReidReport_FactGuide_2012.pdf

Jones, M.L. (2007). *Hofstede - Culturally questionable?* Oxford Business & Economics Conference. Oxford, UK, 24-26 June, 2007.

Ji, L. J., Peng, K., & Nisbett, R. E. (2000). Culture, control, and perception of relationships in the environment. *Journal of Personality and Social Psychology, 78,* 943–955.

Krijgsman, J. (2012). *The influence of national culture on entrepreneurial processes.* Master thesis, University of Twente, 2012. Retrieved on October 3rd, 2012, from: essay.utwente.nl/61638/1/MSc_J_Krijgsman.pdf

Kroeber & Parsons (1958). The concepts of culture and social system. *The American Sociological Review, 23),* 582-3.

Kwon, S.-W. & Arenius, P. (2010). Nations of entrepreneurs: A social capital perspective. *Journal of Business Venturing 25*(3), 315-330.

Lee, S.M. & Peterson, S.J. (2000). Culture, Entrepreneurial Orientation, and Global Competitiveness. *Journal of World Business, 35* (4), 401-416.

LinkedIn (2012). *About*. Retrieved September 3rd, 2012, from: http://press.linkedin.com/About.

Low, M. B., & MacMillan, I. C. (1988). Entrepreneurship: Past research and future challenges. *Journal of Management*, 14, 139–161.

MacCormack, C., & Strathern, M. (1980). *Nature, culture and gender.* Cambridge: Cambridge University Press.

McGrath, R. G., & MacMillan, I. C. (1992). More like each other than anyone else? A cross-cultural study of entrepreneurial perceptions. *Journal of Business Venturing, 7,* 419-429.

McGrath, R.G., MacMillan, I.C. & Scheinberg, S. (1992). Elitists, risk-takers, and rugged individualists? An exploratory analysis of cultural differences between entrepreneurs and non-entrepreneurs. *Journal of Business Venturing, 1992.* DOI: 10.1016/0883-9026(92)90008-F

Moroz, P.W. & Hindle, K. (2011). Entrepreneurship as a Process: Toward Harmonizing Multiple Perspectives. *Entrepreneurship Theory & Practice, 2011.* DOI: 10.1111/j.1540-6520.2011.00452.x

Nielsen, J., Clemmensen, T. & Yssing, C. (2002). Getting access to what goes on in people's heads? - Reflections on the think-aloud technique. *NordiCHI, October 19-23,* 2002.

Oviatt, B. M., & McDougall, P. P. (2005). Defining international entrepreneurship and modeling the speed of internationalization. *Entrepreneurship: Theory and Practice*, *29*, 537-553.

Perry, J.T., Chandler, G.N. & Markova, G. (2011). Entrepreneurial Effectuation: A Review and Suggestions for Future Research. *Entrepreneurship Theory and Practice,* March. DOI: 10.1111/j.1540-6520.2010.00435.x

Portes, A. (1998) Social capital: Its origins and applications in modern sociology. *Annual Review of Sociology, 24* (1), 1-24.

Puhakka, V. (2006). Effects of social capital on the opportunity recognition process. *Journal of Enterprising Culture, 14*(2), 105-124.

Raftery, A.E. (1995). Bayesian Model Selection in Social Research. *Sociological Methodology, 25,* 111-163.

Sarasvathy, S.D. (1998). *How do firms come to be? Towards a theory of the pre-firm. Dissertation.* Carnegie Mellon University, Pittsburgh, PA.

Sarasvathy, S.D. (2001). Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency. *The Academy of Management Review, 26*, 243-263.

Sarasvathy, S.D. (2008). *Effectuation: Elements of Entrepreneurial Expertise*. Cheltenham: Edward Elgard Publishing Limited.

Smith, P.B., Dugan, S. & Trompenaars, F. (1996). National culture and the values of organizational employees: a dimensional analysis across 43 nations. *Journal of Cross-Cultural Psychology, 1996***,** DOI: 10.1177/0022022196272006

Søndergaard, M. (1994). Hofstede's consequences: A study of reviews, citations and replications. *Organization Studies, 15,* 447-456.

Statistics Canada (2012). *Visual Census – Language Canada.* Retrieved October 16th, 2012, from: http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/vc-rv/index.cfm?Lang=eng

Steenkamp J. (2001). The role of national culture in international marketing research. *International Marketing Review, 18*(1), 30–44.

Steyaert, C. (2007): 'Entrepreneuring' as a conceptual attractor? A review of process theories in 20 years of entrepreneurship studies. *Entrepreneurship & Regional Development: An International Journal, 19* (6), 453-477.

Stevenson, H.H. & Jarillo, J.C. (1990). A Paradigm of Entrepreneurship: Entrepreneurial Management. *Strategic Management Journal, Special Issue: Corporate Entrepreneurship, 11,* 17-27

Swanborn, P.G. (2007). Evalueren. Het ontwerpen, begeleiden en evalueren van interventies: een methodische basis voor evaluatie-onderzoek. Amsterdam: Boom Onderwijs.

Tse, D.K. Lee, K., Vertinsky, I. & Wehrung, D.A. (1988). Does Culture Matter? A Cross-Cultural Study of Executives' Choice, Decisiveness, and Risk Adjustment in International Marketing. *Journal of Marketing*, *52*, 81-95.

Tung, R.L. & Verbeke, A. (2010). Beyond Hofstede and GLOBE: Improving the quality of cross-cultural research INTRODUCTION. *Journal of International Business Studies*, *41*(8), 1259-1274.

Twitter (2012). *About Twitter.* Retrieved September 3rd, 2012, from: http://twitter.com/about.

University of Ottawa (2012). *Destination 20/20.* Retrieved on October 16th, 2012 from: http://destination2020.uottawa.ca/our-values.html

Van den Ham, R.A. (2012). *The influence of national culture on entrepreneurial processes.* Master thesis, University of Twente, 2012. Retrieved on November 18, 2012, from: essay.utwente.nl

Van der Krogt, J. (2011). *The influence of social media on nascent entrepreneurship in the Netherlands.* Master thesis, Tilburg University, 2011. Retrieved on May 21st, 2012, from: arno.uvt.nl/show.cgi?fid=120842

Van der Linde, N. (2012). *The influence of national culture on entrepreneurial processes in Malaysia.* Master thesis, University of Twente, 2012. Retrieved on October 3rd, 2012, from: essay.utwente.nl/61709/1/MSc_N_vander_Linde.pdf

Van Someren, M.W., Barnard, Y.F. & Sandberg, J.A.C. (1994). *The Think Aloud Method; a practical guide to modeling cognitive processes.* London: Academic Press.

Van Waes, L. (1998). Evaluating on-line and off-line searching behavior using thinking-aloud protocols to detect navigation barriers. *Proceedings of the 16th annual international conference on Computer documentation, NY, USA*, 180-183.

Venaik S. & Brewer, P. A. (2008). Contradictions in national culture: Hofstede vs GLOBE. In: Cantwell, J. and Kiyak, T., Proceedings of the 50th Annual Meeting of the Academy of International Business. *50th Annual Meeting of the Academy of International Business (AIB)*, Milan, Italy, 274-274.

Vitell, S. J., Nwachukwu, S.L. & Barnes, J.H. (1993). The effects of culture on ethical decision-making: An application of Hofstede's typology. *Journal of Business Ethics, 12,* 753-60.

Webfuel (2012). *Canadian social media statistics 2011.* Retrieved September 3rd, 2012, from: http://www.webfuel.ca/canada-social-media-statistics-2011/.

Wiltbank, R., Read, S., Dew, N., Sarasvathy, S.D. (2009). Prediction and control under uncertainty: outcomes in angel investing. *Journal of Business Venturing, 24,* 116–133.

Wood, G. (2000). A Cross Cultural Comparison of the Contents of Codes of Ethics: USA, Canada and Australia. *Journal of Business Ethics, 25*(4), 287-298.

APPENDIXES

APPENDIX 1. GUIDELINES FOR INSTRUCTORS IN THE RESEARCH

Guidelines for instructors in the research

Note: This document is confidential. The subjects should not have prior information about the experiment because the content of the document has been leaked. Even after the experiment this document remains confidential because chances are that more subjects later (from inside and outside the university) will participate in the experiment

1 Introduction

This document discusses the role of the experimenter when examining 'the impact of national culture on entrepreneurial processes”. In Section 2, the purpose and design of the study will be discussed. Then the tasks of the experimenter will be explained one by one.

2 Purpose and scope of the research

The purpose of this study is to find out how people go about setting up a business. This applies in particular to determine which processes they follow through.

An example in the personal sphere: you live in a dorm and it's your turn to cook. There are students who first pick a recipe from the Internet, then buy the ingredients as prescribed by the recipe, and then going to the supermarket to buy products. When they get back, they start cooking exactly as the recipe indicates. They add ingredients at the right moment, exactly in accordance with the recipe, and they come up with a delicious meal. There are also students who first go and see what they have in the fridge already. Then they use that was is available, and nothing more. On the basis of intuition they throw together some ingredients. They do not really at exactly what time they have to add ingredients. The result: a delicious meal. This is also how entrepreneurs differ from each other. Some do everything very structured, others do it by gut-feeling. These differences we want to measure in this study. If those differences exist, which are then influenced by culture? This is a later step. In this study we initially measure processes.

We learn how student entrepreneurs (from now on; subjects) work, by asking at least 20 subjects during so-called "Think Aloud sessions" to go through a case. While doing this, the experimenter is asked to make sure they Think Aloud while doing this. What they say (and think) is recorded and transcribed. The typed text is analyzed, i.e. it ensures that certain variables and the form are covered. Also, after the test session an interview with the subject will take place to hear how they think they performed the task at hand.

By forging links between the variables it is expected that subjects will work differently on the case while following different processes. The same experiment will later be repeated in other countries. This part of the study for you is of no importance.

3 The tasks of the experimenter

Each experimenter is participating in a / several test session(s) (pilot studies) with cooperation of one or two subjects. If two sessions are possible, then the test sessions are ideally scheduled immediately after another in order to prevent the subjects to talk with each other about the assignment and thus influence each other.
During the test sessions, the leader of the study (normally; Martin Stienstra) is available for assistance and answering questions.

The experimenter has the following tasks:

1. Ensuring that the session(s) go well. This means:

- Giving the case to the subject

- Ensure that the subject keeps thinking aloud

- To answer any questions

- To make sure the recorder is working properly

- Collect any notes that the subject has created

2. The role of the experimenter during the test session is explained in the appendix. You do not hand out this document, but take it several times to make it clear what is expected of you and you can give answers to any questions from the subject.

3. Conducting the interview after the test session. The structure of the interview and the questions are set out in Annex 2.

4. Performing a first encoding of typed 'Think Aloud protocols' in the subject / two subjects on which the experimenter led the execution.

APPENDIX 2. MATERIAL FOR THE STUDENT ENTREPRENEURS

Material for the student entrepreneurs

The experiment and your role in it.

Introduction

The purpose of this study is to find out how people go about setting up a new company. This applies in particular to determine what processes they go through while starting their own business.

An example in the personal sphere: it is your turn to cook. There are people who first retrieve a recipe from the internet, then write a note on the ingredients, and then going to the supermarket to buy products. When they get back, they follow exact the instructions stated in the recipe and thus create a delicious meal. There are also those who first go and see what they have in the fridge already, grab some kitchen utensils and start cooking. On intuitive they throw some ingredients together although it’s not entirely clear whether it will be at the right moments. The result: a delicious meal. This is also how entrepreneurs differ from each other. Some do everything very structured, others do it by feel. These differences we want to measure in this study.

We would like to ask you to speak your mind while making the case.

Below is some information regarding the purpose of the case and how it should be executed. Furthermore, some guidance that can help you verbalizing your thoughts and the role of the experimenter are explained. Read the information carefully. Then the experimenter will ask if everything is clear. If so, you will get a short exercise to practice thinking aloud. Then the experimenter gives you the case. Think Aloud as soon as you are instructed.

The purpose of the assignment

The purpose of the command you will execute is: setting up a new company, a coffee corner. Information with respect to the coffee corner can be found in the case. The idea is that you verbalize what you think while going through the case.

Your contribution to this research is not only theoretically important. The results will be used in a later phase of the study to gain more insight into the workings of more experienced entrepreneurs with large, publicly traded companies. Based on this knowledge we will get insight in the processes of entrepreneurial businesses. The fictional company is very similar to companies in the real practice which the processes must be improved. The way you execute the case also largely determines what improvement proposals can later be made to such companies.

The execution of the case

You are not bound by what you think in general or what you might think is logically correct but may find your own logic. Again, there is not one correct way of how to proceed. Many ways of following the steps may be appropriate.

If you need some factual information (e.g. technical details of coffee machines) that you cannot find in the background you may formulate assumptions (for example, assume that such a device should be able to produce 50.000 cups of coffee before a service is due). Do this only when absolutely necessary.

Take, if you think it makes sense, notes. It may be difficult to assign responsibility entirely from your memory to perform and the risk that during the execution of the case the order gets lost. Incidentally, you may feel free to start over completely or partially.

The task

You have maximum two hours available for this task. Then a short interview will follow.
You can use pencil and paper and, if you want, a calculator (e.g. on your mobile phone).

The role of the experimenter

The experimenter is only present to make sure you verbalize your thoughts and record your actions. He or she does not give you any additional information. If you forget to share your thoughts by speaking, the experimenter can point this out.

Thinking aloud

Remember, during the execution of the assignment, to keep talking aloud. Speak every thought that comes to your mind immediately, even if you believe it has nothing to do with the assignment or if you are not sure if the idea is correct. We will analyze how the case runs instead of looking at the "rightness" of your thoughts but especially to the completeness of its appearance.
Try not to notice, explain, or summarize to the experimenter.

APPENDIX 3. THE CASE

The case

Introduction

In the following experiment, you will solve ten decision problems. All these problems arise in the context of building a new company for an imaginary product. A detailed description of the product follows in this introduction.

Before you start on the product description and the problems, I do need one act of creative imagination on your part. I request you to put yourself in the role of the lead entrepreneur in building this company – e.g. you have very little money of your own to start this company , but you have about five years relevant working experience in the area.

Description

Since some time, you have been thinking of starting a coffee-corner at your university. Your inspiration for this came from the fact that when you, as a student, wanted to get a fresh cup of coffee, there was no possibility. You did not like the coffee from the machines which are available in the university buildings. Next to that, you had to pay an amount of money which was in no relation to the quality of the coffee. You have been working in a coffee corner in your hometown for 5 years so you know what goes around.

You saw the success of other coffee corners, but since these were from expensive franchisers, you thought that it should be possible to start your own. In several reports in newspapers and magazines you read that there is an increasing demand for drinking coffee in your home country.

You have taken all possible precautions regarding intellectual property. The name of your company is C*offee, Inc*.

Problem 1: Identifying the market

Before we have a look at some market research data, please answer the following questions -- one at a time:

1. **Who could be potential customers for your coffee corner?**

2. **Who could be potential competitors of your coffee corner?**

3. **What information would you seek about potential customers and competitors -- list questions you would want answered.**

4. **How will you find out this information -- what kind of market research would you do?**

5. **What do you think are the growth possibilities for this company?**

Problem 2: Defining the market

In this problem you have to make some marketing decisions.

Based on *secondary market research* (published sources, etc.), you estimate that there are three major segments who are interested in drinking coffee at your coffee corner:

Segment	Estimated total size
Students	40.000
Staff members	20.000
Visitors (annually)	10.000

- The estimated value of regular coffee sales in your home country is C$448 Million
- The estimated value of specialized coffee sales C$100 Million.

Both are expected to grow at a minimum rate of 5% p.a. for the next 5 years.

The following are the results of the primary (direct) market research that you have completed.

Survey #1 – Students, staff members and visitors were asked via questionnaires to express their interest in a coffee corner. Also, they were asked to indicate what they were willing to spend on coffee.

In total, 1000 people were asked and 500 filled out the questionnaire.

Willing to pay (C$)	Students (%)	Staff members (%)	visitors (%)
0,50 – 0,75	52	26	45
0,75 – 1,00	30	38	32
1,00 – 1,25	16	22	15
1.25 – 1,75	2	9	8
1,75 – 2,50	0	5	0
Total	100	100	100

Survey #2 -- The prices of coffee, offered during lunch breaks in between lectures

Willing to pay (C$)	Students (%)	Staff members (%)	visitors (%)
0,50 – 0,75	65	21	51
0,75 – 1,00	25	49	42
1,00 – 1,25	10	19	7
1.25 – 1,75	0	8	0
1,75 – 2,50	0	3	0
Total	100	100	100

Survey #3 -- Focus Group of educators (high school and community college teachers and administrators)

Staff members of the university who participated in the focus group found the plan of the coffee corner very interesting – but indicated that the range of coffee could potentially be expended before they would be willing to spend C$1,50iiiiii or more. With the current offer, they would be willing to pay C$1,00 - C$ 1,25 and would demand a bonus system in which they could save up for discounts after a certain amount of coffee drunk.

Both at the lunch and the focus group, participants are very positive and enthusiastic about the coffee corner. They provide you with good feedback on specific features and also extend suggestions for improvement. But the staff members are particularly keen on going beyond the regular coffee aspect; they make it clear that much more diversity would be required in trying to market the product to them. They e.g. indicate that there are companies which might be capable of printing advertisement on cups for discounts on the coffee.

Based on all your market research, you arrive at the following **cost estimates for marketing** your product.

Internet	C$200 upfront + C$50 per month thereafter
Newspapers	Relatively cheap -- but ads could cost C$500 upfront
Cinema	C$2000 to C$4000 per month, with C$1000 upfront
Commercials on Local TV	C$5000 to C$10.000 upfront

Direct advertisement elsewhere (think of sport-canteens, handing out lighters with advertisement, etc.): Involves recruiting and training 'sales representatives'

Competition

None of the following four possible competitors sell cheap quality cups of coffee in the centre of your hometown - you are unique in this respect.

Company	**General price level per cup of coffee**	**Revenue**	**Where to be found**
Starbucks	C$ 5,00	C$6.5 billion	Large cities / global
Second Cup	C$ 4,00	C$225 million	Large cities / mostly USA
Coffee Bean	C$ 4,50	C$130 million	Large cities / global

Tim Horton's	C$ 2,50	C$25 million	Large cities / Canada

TABLE 7: OVERVIEW OF COMPETITION IN COFFEE BUSINESS

The coffee corner companies are making a *net return of 25% on sales*.

At this point, please take your time and make the following decisions: (Please continue thinking aloud as you arrive at your decisions)

1. Which market segment/segments will you sell your product to?

2. How will you price your product?

3. How will you sell to your selected market segment/segments?

Problem 3: Meeting Payroll

You have started the company on a shoestring, using face to face promotion as your primary source of marketing. You are six months into marketing your product. You have priced the products at the low end of the surveys at 0.50 – 0.75 Canadian $. You have about 3000 customers per month. Based on numerous suggestions provided by your customers, you believe you can start selling special coffees in the range of 1.25 – 1.50 Canadian $. This would especially be the case when you would redesign the interior of the coffee corner to make it into a more upscale coffee corner.

You have invested the last of your savings and maxed out your credit cards in order to make sure you have the coffee asked for in stock-- You need this to participate in a competition on where 'Architecture meets Catering', where you will get a lot of exposure.

You have four employees -- and you are out of cash to meet the next payroll. You estimate a need of 30.000 Canadian $ to survive the next three months and to come up with a super cool store-design to be able to participate in the competition. You have the following four options:

1. Borrow from your boy/girlfriend's parents -- they are not overly wealthy, but could probably get their hands on 30.000 Canadian $ if they need to
2. Borrow from some old friends from the university and your old student job
3. Convince your parents to take out a(n extra) mortgage on their house
4. Convince your employees to wait out the period

Which of these options would you choose? Why?

Problem 4: Financing

Your store design has won the first prize in the new talent category at the 'architecture meets catering' competition. This in turn has led to inquiries from large coffee suppliers such as Nestlé B.V. to market the concept (with full multi-media exposure) nationally. You estimate that it will take you six months to develop the concept in more detail and about three months after that to actually roll it out on three main channels -- web, national newspapers and national TV. The coffee will be priced at 4.00 Canadian $ per unit. You estimate that you will need 150.000 Canadian $ to break-even (by the third quarter of the second year) -- this includes enhancing the concept, putting in place excellent (support) staff, full-blown advertising and web links, and the development of a small direct sales staff for selling on site.

You estimate the following sales projections for the first five years (You are at the beginning of Year 1 now):

	Year 1	Year 2	Year 3	Year 4	Year 5
Sales	C$ 100,000	C$ 150,000	C$ 300.000	C$500.000	C$1 M
Profits	C$ < 0	C$ 20.000	C$40.000	C$200.000	C$300.000

You have three financing options:

Option 1

A venture capitalist who specializes in start-up companies in catering and adjacent areas, is willing to finance you C$ 150.000 for 48% of your company.

Option 2

A friend of the family who has extensive experience in catering is eager to go into partnership with you -- for 33% of the company. He is able to invest C$150.000 but wants to work for the company at a base salary of C$ 40.000 per year. He agrees to accept a minimum level of C$ 30.000 for the first two years to keep his family going and defer the rest to when the company starts making money. You like and respect this man and have no personal feelings against him.

Option 3

You can continue the company with internal cash flow -- grow at a much slower pace.

1. Which option would you choose? Why?

2. If the venture capitalist is also willing to take only 33% of the company, which option would you choose?

Problem 5: Leadership/Vision

You have found the financing and have signed a contract with two major coffee suppliers to market your product. You have hired new staff and moved into new premises. A national newspaper is doing a series of stories on local entrepreneurs and wants to do a story on you -- you know that this interview would be a defining moment in the development of your company and you see this as an opportunity to convey to the world (and to your new employees) your vision for your company's future. This newspaper article series has been very successful; it routinely gets picked up by other national papers and TV networks. One of the reasons for its success is its headline which consists of a one-line quote that captures the entrepreneur's vision for the company -- to be achieved by the year 2012.

You have come up with several possibilities for the one-liner:

1. Starbucks is the past - *Coffee inc* is the future.
2. We aim to have at least a thousand employees by the year 2014.
3. The fastest growing coffee caterer.
4. Invest in *Coffee inc* — Enjoy the Canadian tradition.

1. **Which one of the above do you choose? Why? If you do not choose any of them and want to come up with an alternative idea, please do so.**

Problem 6: Product Re-development, Part One

You are almost at the end of your 5th year of operation -- you have just managed to break-even (later than you were expecting). You have opened the doors to all three segments (students, staff & visitors). Sales, while they are steady and continuous, are rather 'colorless' and you start doubting whether you will ever reach your growth targets.

You decide to conduct a serious market research initiative in order to find out how to grow your sales. You organize focus groups with both existing customers and potential new customers. The main problem seems to be the "great deviation" between the regular coffee and the specialized products. Over 90% of the participants in your focus groups find the regular products very interesting. But when it comes to the specialized coffees, there is a clear division of opinion. The participants who primarily enjoy the regular coffees almost *never* bother to go and buy more expensive coffees and wonder why all that '*elite stuff*' is there; and those who are primarily interested in the specialized coffees think that the regular products downgrade the atmosphere.

1. **How do you respond to this feedback?**

Problem 6: Product Re-development, Part Two

You go back to the origins and think of a concept which could provide solutions to both parties. You come up with a solution in which you have 1 existing shop and 1 new shop. Shop number 1 (the existing shop) is for more regular coffees, the new shop is for exclusive coffees and teas. With the exclusive shop one should think of specialized Asian, South American and African coffee specialties, which would result in a total amount of 30 different types of coffee. Teas will come in a variety of 20 types. Also, exclusive cupcakes and pastries are sold. Next to this, customers can also borrow books, read newspapers and have access to free wireless internet.
In the regular coffee booth, you plan to sell 8 different regular coffees, like plain cappuccino, espresso, etc. and add 5 regular teas (e.g. China Blossom and Rooibos) and a limited variety of donuts and muffins.

You first start to promote the idea with the exclusive shop with a variety of 15 different coffees and 15 different teas, and also a smaller variety of cupcakes and pastries than you eventually will include. This together with free newspapers and free wireless internet is what you show to the focus group. It turns out that especially the exclusive shop is being received very enthusiastically and customers are willing to pay 2 to 2,5 times as much as asked previously.

One of the requirements, however, is that you have to extend to what you had in mind (the 20 teas, 30 coffees, the books, newspapers and free wireless internet). You have to decide **whether to undertake this massive concept change or to focus completely on one of the two concepts.** If you choose to extend, this will cost you as much as 200.000 Canadian $ and a separate marketing effort.

Which of the two options do you choose? Why?

Year	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Estimated Sales (C$M)	0.10	0.50	1	6	12	18	24	30

Actual Sales (C$M)	0.14	0.48	0.84	2.8	4.2

Assuming you have decided to go in for the extension, you have to choose one of the following three options:

1. Undertake the redesign effort in-house
   Estimated Cost: C$250.000

2. Out-source the redesign to the new company within your home-country
   Estimated Cost: C$ 200.000

3. Out-source the redesign to the new company outside your home-country
   Estimated Cost: C$ 100.000

Which option do you choose? Why?

Problem 7: Growing the Company, Part One

You are almost at the end of the 6th year of business. You are now running two types of shops—under the umbrella of Coffee inc.

- *Plain Coffee* (sales between 1.00 – 5.00 Canadian $) where you sell a limited amount of regular coffees and teas and a basic amount of donuts, muffins and chocolates
- *Exquisite* (sales between 5.00 – 15.00 Canadian $) where you offer the 'complete picture'

Your number of outlets and therewith the new coffee shop managers has grown to twenty from the original three and you are continuing to expand your sales force and develop an even better concept of *Exquisite* for more upscale areas in town. Greg Thomas, who is an excellent salesman (dealing with the regular coffees previously) and has led the sales team since Day One, has clearly not kept up with the issues of growing the company -- he is definitely not the person to lead the new *Exquisite*. How will you deal with this situation?

Year	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
						Revised		
Estimated Sales (C$M)	0.10	0.50	1	6	12	6	12	20
Actual Sales (C$M)	0.14	0.48	0.84	2.8	4.2	8.6		

Would you:

1. **Fire him?**
2. **Hire a new sales manager to head the sales team? If so, would you consult with Greg before doing so? How would you break the news to him?**

Please feel free to elaborate on any other way to deal with the situation.

Problem 7: Growing the Company, Part Two

Although the company has been growing for a while now, you are trying to keep the entrepreneurial spirit of the company alive. But you have started to notice that your partner is fostering a more "corporate ambiance" -- long and unnecessary meetings, complicated organization charts, colorful expense accounts, "consultants" to "optimize market potential", and so on. When you try to discuss this with him, he argues that it is time for the company to go "corporate" -- that such a "professional" image would actually be good for the bottom line.

Year	1	2	3	4	5	6	7	8
						Revised		
Estimated Sales (C$M)	0.10	0.50	1	6	12	6	12	20
Actual Sales (C$M)	0.14	0.48	0.84	2.8	4.2	8.6	20	27.5

How will you deal with this situation? Do you think it is time for *Coffee Inc*. to go "corporate"?

Problem 8: Hiring Professional Management

You are now in the 8th year of your company. You are doing very well -- surpassing growth targets and building reliable market share. Your sales are C$27.5 Million and you project a growth rate of at least 25% per year for the next three years.

Year	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
						Revised		
Estimated Sales ($M)	0.10	0.50	1	6	12	6	12	20
Actual Sales ($M)	0.14	0.48	0.84	2.8	4.2	8.6	20	27.5

Your Board's advice is to hire professional management to run the company so you can focus on issues of new growth and new strategic initiatives. Assuming you have already developed a short list of three high-potential candidates to interview for the position of *CHIEF OPERATING OFFICER (COO)*, how would you prepare for the interview?

List questions you would ask, techniques you would use, and critical issues you would take into account in hiring this person.

Problem 9: Goodwill

At this point, you are approached by the principal of an inner city school in your area, who also works with 10 other schools such as hers -- she believes that *Exquisite* could be a perfect learning environment for her students in her Catering study program.

She requests you to work with a couple of really enthusiastic teachers to develop some elementary learning materials for the students to work on in the *Exquisite* shops. The project would mean not only an investment of C$100.000 (approx.) for modifications, but also a substantial chunk of your time for about six months during development and then about 10 sessions of guest lectures and classroom participation per year for a couple of years at least.

Note: Your sales are C$27.5 Million and you project a growth rate of at least 25% per year for the next three years.

Will you take the initiative for this project?

If not, why not?

If yes, would you:

- **a) Donate the product?**
- **b) Sell it at cost?**
- **c) Sell it at your regular profit margin?**

Why?

Problem 10: Exit

You are now in the 10th year of your company -- *Exquisite* is a great success and thanks to your new targeted strategies, even *Plain Coffee* is growing satisfactorily. You have acquired three other profitable catering concepts. You reached C$45 Million in sales and project that you will reach C$70 Million within a year. At this time you face two possible directions for your company:

Direction 1

Your accountants and bankers think that this is a good time for you to take the company public. The Initial Public Offering (IPO; new stocks) market is booming and catering is in a solid upward trend. They estimate you should make an initial public offering of 2 million shares at C$30 per share. The company has a total of 12 million shares outstanding.

Direction 2

At this point in time, Starbucks approaches you and makes an offer for your company -- it seems they have decided to get in on the more exclusive segment and have decided to enter the arena through acquisitions -- they see you as a perfect fit for their strategy and offer you C$300 Million.

Year	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
						Revised				
Estimated Sales (C$M)	0.10	0.50	1	6	12	6	12	20	30	45
Actual Sales (C$M)	0.14	0.48	0.84	2.8	4.2	8.6	20	27.5	38	70

Which of the above two directions do you choose? Why?

End of case interview—please proceed to questionnaires

APPENDIX 4. BIOGRAPHIC INFORMATION QUESTIONNAIRE

Biographic information questionnaire

Name of Interviewer: ______________________________

Name of Interviewee: ______________________________

Email for future contact: ______________________________

Number of interview: ______________________________

Student of ______________________________ (discipline, e.g. Business Administration),

Level ______________________________ (Bachelor, Master, PhD; other)

______________________________ (Name of University) in ________________________ (City)

______________________________ (Name of Country)

Years of university education: ______________ (years)

Years of working experience: ______________ (years)

Years of working experience with entrepreneurship/leadership component OUTSIDE own company ________ (years)

Date of birth: ____

Sex: male / female

Place of birth: ____

Country of birth: ____

Nationality: ____

Religion: ____

Marital status: single / living together / married

Children: yes / no

International experience: __________________ years

As _________________________ (Student/ worked / raised as a kid / .... other)

In ____ (City, country)

Family background: at least one parent employed in private company / employed as public servant / entrepreneur

Parents income (in rel. to country average): lower quartile / middle half / upper quartile

APPENDIX 5. INTERVIEW QUESTIONS – REFERRING TO THE CASE

Interview questions - referring to the case

1. At what points in the case did you choose an option or direction that was not mentioned in the case description?

2. In case you chose an option not mentioned in the case description, could you explain what the alternatives were and what your motives were for selecting your option of choice?

3. Were there any moments when you felt like you could not precede with the assignment, for example because of missing background information, unclear questions, or for another reason? In case this happened, how did you deal with this situation – how did you proceed?

4. In this assignment, you came up with a way of starting and growing a new venture. Could you explain your rationale for this in a nutshell?

5. If you had to do the assignment again, would you do anything differently?

6. Was there enough time to execute the assignment?

7. Did you find it difficult or annoying to discuss your ideas while working through the case?

8. Do you feel that you have been able to express your thoughts properly and completely?

APPENDIX 6. STUDENT COMPANY QUESTIONNAIRE

Student company questionnaire

Code number interview: ______________________________

Name of Student Company: ______________________________

Website of Company: ______________________________

Short description of student company (what business are you in):

____

____

____

Founding date: ______________________

Founding place: ______________________

Number of founders (including entrepreneur): ______________________

Current # FTE (including all founders): ______________________

Annual turnover in C$: ______________________

1. To what degree did you start your enterprise because you had no other option for work?

Not at all	**A little**	**Somewhat**	**To a large extent**	**Absolutely**

2. To what degree did you start your enterprise because you wanted to become independent or increase your income?

Not at all	**A little**	**Somewhat**	**To a large extent**	**Absolutely**

Please answer the following questions reflecting on your own company.

Have a look at the following statements. Now, indicate to what extent you agree or not agree to the statement.

	Do not agree	Agree little	Agree somewhat	Mostly agree	Fully agree
We analyzed long run opportunities and selected what we thought would provide the best returns					
We developed a strategy to best take advantage of resources and capabilities					
We researched and selected target markets and did meaningful competitive analysis					
We designed and planned business strategies					
We organized and implemented control processes to make sure we met objectives					
We had a clear and consistent vision for what we wanted to do					
We designed and planned production and marketing efforts					
The ultimate product/service that I used to launch this business was quite similar to my original conception					
Our decision making has been largely driven by expected returns					
The ultimate product/service that I used to launch this business was quite different from my original conception					
It was impossible to see from the beginning where we wanted to end					
We have allowed the business to evolve as opportunities have emerged					
We evaluated the set of resources and means we had at our disposal and thought about different options					
We experimented with different products and/or business models					
We started out very flexibly and tried to take advantage of unexpected opportunities as they arose					
We used a substantial number of agreements with customers, suppliers and other organizations and people to reduce the amount of uncertainty					
Our decision making has been largely driven by how much we could afford to lose					

APPENDIX 7. SOCIAL MEDIA QUESTIONNAIRE

Social media questionnaire

Code number interview: ______________________________

1. *Do you use social media?*

    - ☐ Yes, for private use
    - ☐ Yes, only for business purposes
    - ☐ Yes, for business purposes and private use
    - ☐ I don't make use of social media (end of questionnaire)

2. *Do you use LinkedIn?*

    - ☐ Yes
    - ☐ No (please proceed to 2nd page)

3. *How often do you make use of LinkedIn?*

    - ☐ Daily
    - ☐ Monthly
    - ☐ Weekly
    - ☐ Yearly

4. *When did you start using LinkedIn?*

    - ☐ Less than 6 months ago
    - ☐ 1 year - 2 years ago
    - ☐ 6 months - 1 year ago
    - ☐ More than 2 years ago

5. *Did LinkedIn satisfactorily meet your needs?*

    - ☐ Yes
    - ☐ I don't know (yet)
    - ☐ No

6. *Which target group are you trying to reach when using LinkedIn?*

- ☐ A general audience
- ☐ Customers
- ☐ Colleagues in the same industry
- ☐ All of the above
- ☐ Other, namely: ____

7. *What do you see as the added value of LinkedIn in terms of business purposes?*

APPENDIX 8. FIGURES OF RESULTS

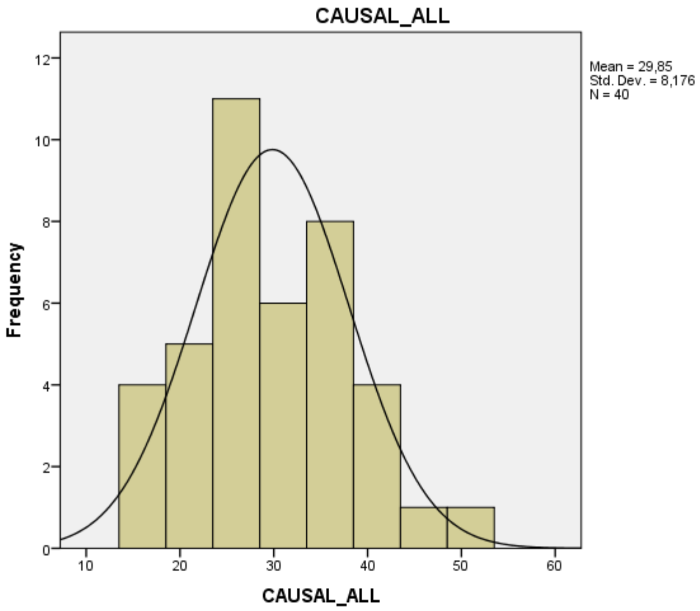

FIGURE 7: KURTOSIS AND SKEWNESS OF CAUSATION

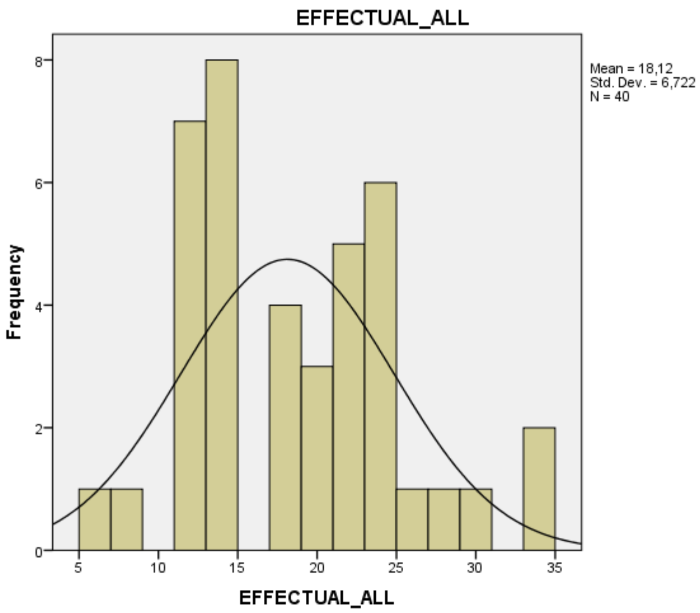

FIGURE 8: SKEWNESS OF EFFECTUATION INDEPENDENT SAMPLES TEST