

New venture creation in transition economies: The case of Macedonia

Master Thesis

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Preface

This thesis is the final part of the Master in Business Administration at the faculty of Management and Governance of the University of Twente. It encompasses a study to the relationship between culture and entrepreneurial processes.

Culture and entrepreneurship are two subjects that have fascinated me for a long time. Since I was in high school I preferred to have my own small trading business instead of having a regular student job. During my university study this business became an international distribution and marketing company. My motivation for conducting the research in Macedonia is drawn from the recent turbulent history and my interest in East European cultures. Several trekkings in Ukraine, Hungary, Romania and Croatia brought me in contact with people from different cultures, each with their own interesting story. The lives of people in different, often more difficult circumstances, developed my interest for foreign cultures. Joining the Entrepreneurial Processes in a Cultural Context (EPICC) project enabled me to explore those two fields that I am highly interested in at the benefit of finishing my master's degree.

In this foreword I would like to thank a few people. First of all Mr. Stienstra and Mr. Harms for giving me the opportunity to join the EPICC project, their feedback and supervising my research. Furthermore I would like to thank Ljupco Despotovski and his team at the YES Foundation in Skopje, Macedonia. Without their help and guidance it would have been nearly impossible to find subjects for my research. In addition my gratitude goes to the entrepreneurs in Macedonia for participating in my research. Last but not least I sincerely would like to thank my partner, family and friends for their unconditional support.

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Management summary

An ever-increasing number of universities teach entrepreneurship and entrepreneurship is one of the most researched topics. Despite this, the understanding of entrepreneurship is still limited, knowledge is fragmented and unlinked by an embracing framework or explanation. As interest in entrepreneurship intensifies, new theoretical perspectives explaining the processes that underlie entrepreneurship emerge. An emerging theoretical perspective is Sarasvathy's effectuation theory. This theory states that entrepreneurs do not always take a causal, based on a logic of prediction, approach as often being taught in textbooks. Instead of this they might also choose an effectuation, based on a logic of control, approach (Sarasvathy, 2001a).

Whether an entrepreneur would choose a causation and when an effectuation approach is a question that remains. Literature shows that culture might influence entrepreneurship, though the subject lacks empirical research. Entrepreneurial process models, including Sarasvathy's effectuation theory, neglect the influence of culture. Underlining the urge to understand the influence of culture on entrepreneurship is the increasing globalization and development of emerging economies. The lack of understanding of the influence of culture on entrepreneurial processes shows a gap in literature, making the research relevant. The research also tests the influence of corruption rate and type of economy in order to validate that it is indeed culture that influences entrepreneurial processes.

Novice entrepreneurs from Macedonia and The Netherlands are compared on their cultural values and entrepreneurial behavior. The national culture of both countries is conceptualized using Hofstede's cultural dimensions. Data on the entrepreneurial behavior of 20 novice entrepreneurs in Macedonia and 20 in The Netherlands is gathered using quantitative and qualitative research methods. Subjects were asked to participate in a think aloud session, solving a business case. Quantitative research is done by asking the same subjects to fill in a survey measuring the use of entrepreneurial processes. The results of the think aloud sessions and questionnaires are analyzed to determine the influence of national culture on entrepreneurial processes.

Hofstede's cultural dimensions showed that Macedonia is a collectivistic country with a high uncertainty avoidance and high power distance. Furthermore Macedonia has a transition economy and a high corruption rate. From theory it was expected that entrepreneurs in an uncertainty avoiding culture would prefer the use of existing market knowledge since uncertainty avoidance is often related to an urge of being informed. Furthermore, it was expected that

entrepreneurs in collectivistic cultures would be focused on goals instead of means because of collectivistic group-orientation and long-term planning. Both expectations were significant validated.

A literature search on the influence of the use of alliances expected that countries with a high power distance would make less use of alliances since entrepreneurs do not like to have a position in which others have authority. Countries with a high corruption rate were expected to make more use of alliances because entrepreneurs in such countries prefer to use their family, friends and public servants willing to accept a bribe to get things done. Results showed that there was a positive correlation between corruption rate and the use of alliances, while the relation between a high power distance and the use of alliances could not be proven.

Entrepreneurs in transition economies were expected to make more use of non-predictive control since it is difficult to make predictions of the future in an unpredictable environment. Furthermore, entrepreneurs in transition economies were expected to make more use of the exploration of contingencies because they are often confronted by changing rules and regulations, resulting in unavoidable surprises. These might force them to try to make these surprises profitable. Both expectations could not be validated.

Results show that national culture and corruption does influence entrepreneurs in their entrepreneurial decision-making process, while type of economy does not seem to influence. At the other hand it could not be concluded that being an entrepreneur in a specific national culture or in a country with a high or low corruption rate predicts either a causal or effectual way of decision-making.

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List of abbreviations

ANOVA	Analysis of variance
EPICC	Entrepreneurial Processes in a Cultural Context
GLOBE	Global Leadership and Organizational Behavior Effectiveness Project
IBM	International Business Machines
IDV	Individualism
KMO	Kaiser–Meyer–Olkin
LTO	Long-Term Orientation
MANOVA	Multivariate analysis of variance
MAS	Masculinity
PDI	Power Distance Index
UAI	Uncertainty Avoidance Index

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1. Introduction

1.1. Background

Entrepreneurship research is an ever-growing subject of interest for many researchers. But why should anyone study entrepreneurship? Leaving entrepreneurship out in theories about markets, firms and organizations make the study of businesses incomplete. Entrepreneurship is a mechanism through which inefficiencies in an economy are discovered and made less severe. Entrepreneurially driven innovation in products and processes is the crucial engine driving the change process in a capitalist society (Schumpeter, 1934 as cited in Kirzner, 1997). Nowadays, entrepreneurship research is one of the most widely cited in management literature (Bruton, Ahlstrom, & Obloj, 2008). Leading journals are dedicated to the field and well-recognized conferences support its development. Entrepreneurship is being taught in Universities all around the world and more MBA programs offer courses in entrepreneurship than ever before (Bruton et al., 2008; Dew, Read, Sarasvathy, & Wiltbank, 2009). Despite this, the understanding of entrepreneurship is still limited. Compared to accounting, marketing, finance, organizational behavior and strategic management, entrepreneurship is still poorly explained in literature. Furthermore, the knowledge is fragmented, unlinked by an embracing framework or explanation (Shane, 2003). Hence this, as interest in entrepreneurship intensifies, new theoretical perspectives explaining the actions and logic that underlie entrepreneurial behavior emerge. New perspectives suggest to study the process, which is at the core of entrepreneurship, to get a better understanding of entrepreneurial behavior (Moroz & Hindle, 2011).

Traditional models of entrepreneurship used to describe the entrepreneurial process in terms of how an individual or firm takes entrepreneurial action by searching for fields where the demand for a service or product exceeds the supply in order to discover an entrepreneurial opportunity and evaluate whether it is worth to exploit. After deciding, the entrepreneur will search for resources to establish a firm that will supply the product or service to the demanding market in order to exploit the opportunity and create returns (Shane & Venkataraman, 2000). Recent research challenges these assumptions. An example of an emerging, sometimes called 'groundbreaking' (Chandler, DeTienne, McKelvie, & Mumford, 2011), theoretical perspective for describing entrepreneurial action is effectuation (Sarasvathy, 2001a). It suggests that entrepreneurs often take a different route to recognize and exploiting opportunities. Entrepreneurs focus primarily on the resources they have and are not focused on market needs. Instead of analyzing alternatives and selecting the

one with the highest expected return. They select alternatives based on what they are willing to lose in making decisions about whether to pursue an opportunity. Furthermore they maintain flexibility, avoid long-range goals and plans and thus lift the need to control the future (Chandler et al., 2011; Fisher, 2012).

Entrepreneurship is considered as an important source of innovation and it is depicted as the crucial engine driving the change process in a capitalist society (Schumpeter, 1934). At the same time, Schumpeter (1934); Weber (1930) stated that levels of entrepreneurial activity differs from country to country. Hence, the understanding of the influence of national culture on entrepreneurship would be of considerable theoretical and practical value (as cited in Hayton, George, & Zahra, 2002). Underlining the urge to understand the influence of culture on entrepreneurship is the increasing globalization and development of emerging economies (Lee & Peterson, 2001).

Entrepreneurship research has been almost exclusively focused on North America and Western Europe (Bruton et al., 2008). This also holds for Sarasvathy (2001a) effectuation theory. She researched whether entrepreneurs would take a causal or effectual approach in their entrepreneurial process, but did not take into account the eventual influence of culture. Therefore, the transferability of this theory to countries with a different culture remains in question; it is expected that entrepreneurs reflect the dominant values of their national culture (Thomas & Mueller, 2000).

Research shows that there is an association between culture and entrepreneurship (Brinckmann, Grichnik, & Kapsa, 2010; Davidsson & Wiklund, 1997; Hayton et al., 2002; Lee & Peterson, 2001; McGrath, MacMillan, & Scheinberg, 1992; Thomas & Mueller, 2000), though the influence of culture on entrepreneurial processes is a subject that lacks empirical research (Moroz & Hindle, 2011). Out of 32 entrepreneurial process models only four incorporated culture, therefore it is safe to say that the influence of national culture on entrepreneurial processes as such has been neglected (Moroz & Hindle, 2011).

1.2. Macedonia

Macedonia is independent of Yugoslavia since 8 September 1991. On this date an independence referendum was held and approved by 96.4% of votes (Nohlen & Stöver, 2010). The majority (64,2%) is ethnic Macedonian, while the largest minority are ethnic Albanians (25,2%). Macedonia is an ex-communist country. In terms of norms and values, ex-communist countries are sometimes described as survival-concerned societies. Aspects of survival-concerned societies are: unhappy and rather intolerant people, less equality between sexes, predominant materialism and the primary concern is survival (Browaeys & Price, 2008).

In order to understand entrepreneurship in Macedonia it is vital to understand its economy and the history of it. Macedonia's economic system is a transition economy. The country used to have a socialist economic system when it was part of Yugoslavia, and is trying to form a market economy. Though the Soviet Union and other Eastern European socialist countries have common origins; the economy of the Socialist Federal Republic of Yugoslavia (Yugoslavia) was quite different. After the Second World War the economy was initially organized as a planned socialist economy introducing self-management. Until then, economic democracy had not been introduced on such a large scale (Koman, 2009; Sapir, 1980). The self-management idea placed the Yugoslavian economy between a market-based and centrally planned economic system. Self-management implies that firms belonged to everyone and nobody; each employee has a vote. Furthermore, employees are the managers and the economic owners. Additionally it contributed to the development of an entrepreneurial spirit. This was not the case in other Eastern-European countries with a central planning economy with a fully restricted market. At the other hand the system is commented of being worse than the central planned system; institutional mechanisms pushed inflation and unemployment rates up, property rights were unclear and mostly undefined (Slaveski, 1997). Bribery and personal networks were widely used to avoid obligations to the government and to access assets that were in a short supply (Meyer & Gelbuda, 2006).

By the end of the 1980s, the regional republics in Yugoslavia received more freedom and responsibility, followed by the disintegration of the Socialist Federal Republic of Yugoslavia. The implemented self-management that had been in place for several decades had many effects on the regional republics and therefore also on Macedonia and its economy.

In 1991 Macedonia broke off from Yugoslavia and became independent. This resulted in losing 60% of its market and a large decline in its GDP (Koman, 2009). Macedonia has a high unemployment rate with a peak of 36% in 1997 and was and is one of the least developed republics in the former Yugoslavia. After the break-up firms were being privatized and it was allowed to set-up privately owned businesses. Suddenly the privatization became the backbone of the Macedonian economy (Šuklev, 1996). Just after the transition, skilled workers left the public companies and started their own businesses. About one-third of the existing firms were established in the years just after the transition (1989-1993). These entrepreneurs are seen as pioneers as few had any history of running a business (Ačevska, 2002).

Literature agrees that the transition and privatization process, the following war threats and ethnic tensions hit all segments of the Macedonian economy, but the

(growth) of SMEs at the hardest (Ačevska, 2002). Even though the government prioritized support to SMEs, unstable political, economic, institutional and social conditions still hinder SME growth. Despite that, SMEs, together with privatized companies, nowadays account for 98% of all enterprises in Macedonia (Ačevska, 2002). Most of the SMEs are small trading businesses like shops, kiosks, as well as small restaurants and cafes. Some of them are family owned businesses with many years of entrepreneurial experience, though most of them were former employees, or are still in paid jobs, who do not earn enough to meet their basic needs (Winkler, 2000). Formally the institutional framework changed dramatically. However, the underlying behaviors and attitudes have been carried over into the transition to a market economy. Consequently, a new kind of post-socialist capitalism emerged. On the surface it manifested formal institutional ideals from Western market economies while the behaviors and attitudes developed during the socialism persevered underneath (Ireland, Tihanyi, & Webb, 2008; Meyer & Gelbuda, 2006).

Transition economies can be characterized by a high corruption rate, high bureaucratic burdens on entrepreneurial firms and thus creating uncertainty and increasing operational and transaction costs of firms (Aidis & Adachi, 2007; Aidis, Estrin, & Mickiewicz, 2008). Nowadays there is a tremendous gap in corruption rate between East and West Europe (Tonoyan, Strohmeyer, Habib, & Perlitz, 2010). Corruption is widespread in Macedonia and is seen as a big obstacle for entrepreneurs. Research carried out under 300 Macedonian SMEs in late 2000 by Ačevska, Bartlett, and Stojanova (2002) show that almost 90% of all firms regularly face some form of corruption. This results in entrepreneurs having less confidence in politics and governmental entities. Besides corruption, SMEs have to deal with unfair competition, mainly caused by the grey economy and tax evasion.

So far there is a lack of theory on the influence of being an entrepreneur in an emerging transition economy and its characterizing high corruption rate on entrepreneurial processes. Bruton et al. (2008, p. 8) state that research on entrepreneurship in emerging economies is an “important domain” and future research should “look more deeply into the issue of how culturally bounded entrepreneurial behavior is”. In general literature agrees that corruption is a big obstacle for entrepreneurs, but it is still vague how this obstacle is tackled by entrepreneurs (Aidis & Adachi, 2007; Aidis et al., 2008; Tonoyan et al., 2010).

The influence of national culture on entrepreneurial processes could have been researched in virtually every country in the world. However, literature hints that there might be other factors that influence entrepreneurial processes. Macedonia is a country with a high corruption rate and an emerging economy in transition

from a socialist system to a market economy. This setting makes it possible to take these additional factors in account.

1.3. Purpose of the research

Entrepreneurial process theories and models do not address the influence of culture, showing a gap in literature. The influence of culture on entrepreneurship is demonstrated. Therefore it is expected to find a correlation between national culture and entrepreneurial processes. Factors that are relevant for the country of research such as type of economy and corruption rate are besides national culture taken into account to verify that national culture influences entrepreneurial decision-making processes. Based on this gap in literature, the following research question is composed:

Do contextual factors influence entrepreneurs in their entrepreneurial decision-making processes?

The contextual factors are addressed in the following sub-questions:

- 1. Does uncertainty avoidance, collectivism and power distance influence entrepreneurs in their entrepreneurial decision-making processes?*
- 2. Does the difference between transition and market economy influence entrepreneurs in their entrepreneurial decision-making processes?*
- 3. Does the degree of corruption influence entrepreneurs in their entrepreneurial decision-making processes?*

The concepts culture and entrepreneurship are elaborated in the theoretical framework in order to address the main concepts of the research question. During the research the effectuation theory on entrepreneurial processes of Sarasvathy (2001a, 2008) will be used and linked to theory on national culture in order to get a better insight on the influence of national culture, type of economy and corruption on entrepreneurial processes in general and specifically in Macedonia.

1.4. Research strategy

The following strategy is used in order to answer the research question. At first, a literature review is executed. Explained are developments in entrepreneurship research and Sarasvathy's effectuation theory. Secondly, literature on culture is explored. Several cultural frameworks are discussed and it is explained why Hofstede's value survey model will be used to explain the influence of culture on entrepreneurial processes. Besides that, the current state of research of the influence of culture on entrepreneurship is analyzed. The literature review provides a solid base to develop hypotheses to test the influence of culture on entrepreneurial processes.

Among novice entrepreneurs in Macedonia and The Netherlands data is gathered to test the hypotheses. Entrepreneurs in both countries are asked to participate in the research by solving a business case while thinking aloud and filling in a survey. The hypotheses are statistically tested using the gathered data. Once the findings are presented, conclusions will be drawn and space is left for discussion and limitations of the research.

1.5. Relevance of the research

Entrepreneurship is considered as the crucial engine for modern capitalist economies. Hence, there is a lack of understanding of entrepreneurship and in particular the influence of national culture on entrepreneurship. This makes the research relevant since it will address the gap in literature that is described as being important to understand.

Results of the research can be used to increase the understanding of the influence of culture on entrepreneurship. Textbook theories might eventually slightly change once the results of the complete EPICC project are brought to a wider scientific audience. These changes should allow a broader discussion on the topic. Education and consulting might have to be revised in order to be consistent with their target audience. This is especially relevant for Macedonia, the country of interest in this research. Multiple embassies and foreign non-governmental organizations are anxiously trying to employ their ideas on entrepreneurship in a country that is culturally different compared to their home country. The different views, and sometimes lack of understanding of local organizations often conflict with the ideas of the respective organizations. A better understanding of the influence of culture on entrepreneurship could improve the understanding why Western entrepreneurship theory does not always work out of the box in a different country.

1.6. Structure

The thesis consists of seven chapters. Chapter one is the introduction. Chapter two is the theoretical framework and will outline the current state of research on entrepreneurship and culture. Entrepreneurial process and the effectuation theory of Sarasvathy is explained. The second paragraph of chapter two is dedicated to culture. Theory on culture is explored and cultural values and dimensions are explained. Explained is why the research uses the dimensions of Hofstede to explore the influence of culture on entrepreneurial processes. Using the theory on entrepreneurship and culture the relation between the two concepts is explored. Paragraph three outlines six hypotheses. Three of them are dedicated to the cultural differences between Macedonian and Dutch entrepreneurs. The remaining three are about the influence of corruption and the influence of the type of economy on entrepreneurial processes.

Chapter three explains the used methodology to execute the research. The sample is defined and the used think-aloud method and survey are described. Furthermore, the analysis of the research in terms of used statistical tests is explained. Chapter four elaborates on the results of the research. Chapter five consists of a discussion and limitations in which the results and theory are critically evaluated. The final chapter, chapter six, draws a conclusion and gives suggestions for future research.

2. Theoretical framework

The main research question needs to be decomposed and explained before the research is conducted. This research is about two constructs: entrepreneurship and culture. First of all, entrepreneurship is explained. The second component, culture, will be later on explained. The chapter is concluded by combining these two components, resulting in a theoretical underpinning of the influence of culture on entrepreneurial processes.

2.1. Entrepreneurship

Entrepreneurship scholars haven't been able to agree on a definition for an entrepreneur (Fiet, 1996). Therefore it would be irresponsible to give a single definition of an entrepreneur or entrepreneurship. Scholars have generally regarded entrepreneurs as black boxes, acknowledging that what they do is important, but unable to define exactly what they do. This might be an explanation why there is not a general agreement on a certain definition. Usually the field of entrepreneurship is solely defined in terms of who the entrepreneur is and what this person does (Shane & Venkataraman, 2000).

2.1.1. Entrepreneurial processes

The term entrepreneurial process is often used to describe a wide range of processes stretching from the very early start of entrepreneurial thinking up until growing to a mature business (DeTienne, 2010). Many models focus on the early phases of starting and growing a business describing the entrepreneurial process as a process that begins at the nascent entrepreneurial level and ends with the establishment of a new venture (Korunka, Frank, Lueger, & Mugler, 2003). Reynolds and White (1997) extend this definition slightly and argue that the entrepreneurial process consists of four distinct phases: conception (the entire adult population), gestation (nascent entrepreneurs), infancy (fledging new firms), and adolescence (established new firms). Bygrave and Hofer (1991, p. 14) elaborate by stating that the entrepreneurial process involves "all the functions, activities, and actions associated with the perceiving of opportunities and the creation of organizations to pursue them".

The mentioned view on entrepreneurial processes is focused on new ventures. Brockner, Higgins, and Low (2004) extend this view and propose that the process may include: idea generation, idea screening, procuring necessary resources, proving the business model, rollout, maturity, renewal and growth, and decline. The use of renewal and decline in defining the entrepreneurial process is fairly new and extended by DeTienne (2010) proposing that the entrepreneurial process does not end with the creation of a new venture, but rather with the entrepreneurial exit. The entrepreneurial exit is defined as "the process by which the founders of privately held firms leave the firm they helped

to create; thereby removing themselves, in varying degree, from the primary ownership and decision-making structure of the firm” (DeTienne, 2010, p. 213). Scholars do not agree upon a definition for the entrepreneurial process. Most agree on the view that in order to have entrepreneurship you first need an entrepreneur who can identify an (entrepreneurial) opportunity (Shane & Venkataraman, 2000; Shane, 2003).

2.1.2. Entrepreneurial opportunities

The existence of opportunities that the entrepreneur eventually can exploit are being omitted in the mentioned approach on entrepreneurship. An entrepreneurial opportunity is described as a combination of resources and perceived means to generate economic value that has not yet been exploited (Baron, 2006; Shane, 2003). Shane and Venkataraman (2000, p. 220) define entrepreneurial opportunities as “those situations in which new goods, services, raw materials, and organizing methods can be introduced and sold at greater than their cost of production”. Therefore, an entrepreneurial opportunity can be explained as an opportunity to create future economic artifacts, hence involves a demand side, a supply side and the means to bring them together (Venkataraman & Sarasvathy, 2001).

Common used definitions of an entrepreneur as “a person who establishes a new organization” or “someone who perceives an opportunity and creates an organization to pursue it” (Bygrave & Hofer, 1991, p. 14), do not identify that different people identify different opportunities and are also distinct in identifying the quality of those opportunities. Furthermore it says that entrepreneurship requires the creation of a new organization. Nowadays entrepreneurship research agrees that entrepreneurship can also occur within an organization. Shane and Venkataraman (2000, p. 218) therefore came up with a definition of entrepreneurship being: “the scholarly examination of how, by whom, and with what effects opportunities to create future goods and services are discovered, evaluated, and exploited”. Consequently, the study of entrepreneurship does not only encompass who the entrepreneur is and what he does. Now it will also study the source, process of discovery, evaluation and exploitation of opportunities and the individuals who discover, evaluate and exploit them.

The nature of recognizing entrepreneurial opportunities in the entrepreneurial process and why it is so important is a topic of interest in entrepreneurship research. Opportunity recognition can be defined as “the process through which ideas for potentially profitable new business ventures are identified by specific persons” (Baron & Ensley, 2006, p. 1331). Researchers argue that entrepreneurial opportunities exist because people buying and selling in a certain market have different beliefs about the relative value of resources (Hills,

Lumpkin, & Singh, 1997). Therefore, an entrepreneurial opportunity can be explained as an opportunity to create future economic artifacts and involves a demand side, a supply side and the means to bring them together (Venkatarman & Sarasvathy, 2001). If there is a demand an entrepreneur can sell goods and services above or below the cost of production and can earn a profit or needs to take a loss by supplying the demanded resources (Shane & Venkataraman, 2000). By stating this, it is important to take in account that entrepreneurial opportunities are context depended. An opportunity in the United States may not be an opportunity in The Netherlands. The opportunity must not be obvious to everyone; there needs to be a difference in beliefs as a precondition for the existence of an entrepreneurial opportunity. When another entrepreneur tries to exploit the same opportunity the opportunity's profits will be divided. This increases competition and eventually will result in the situation that the opportunity won't be attractive anymore to exploit .

To take advantage of the supply and demand, the entrepreneur has to recognize these sides, bring them together, and needs to make a match-up. This match-up can be explained when for example Starbucks wants to open a new coffee shop. Starbucks offers the franchisee the supply and potential demand because potential customers already know the brand. The entrepreneur needs to find and recognize a suitable geographic location to make a match-up to exploit it (Venkatarman & Sarasvathy, 2001). The duration of the opportunity depends on many factors such as monopoly creation, exclusive contracts and patent protection, but also the slowness of the information diffusion about the opportunity and the inability of other entrepreneurs to pursue the opportunity (Venkatarman & Sarasvathy, 2001).

Opportunity discovery is all about recognizing supply and demand sides and taking advantage of them. If only demand exists, but supply does not, or supply exists, but demand does not, then the non-existent demand or supply has to be discovered by the entrepreneur. Especially technology has always been searching for either the demand or the supply side. An illustrative example is the graphical user interface. Xerox had this technology (supply), but Steve Jobs and Steve Wozniak discovered and exploited its demand (Venkatarman & Sarasvathy, 2001). Therefore discovery is primarily important to entrepreneurship. The actions of entrepreneurs would be much more easy to describe and could eventually be reduced to managerial rules of thumb that could be easily imitated by competitors without discovery (Fiet, 1996). Taking the fact that opportunities are present and entrepreneurs can be able to recognize them; Why do some discover opportunities and others not? It can be blind luck, but research shows that there is widespread empirical support that a key factor in the discovery of opportunities in entrepreneurial process is the engagement in an active search and alertness of the entrepreneur (Baron & Ensley, 2006). Alertness is seen as a

starting point in the process. It needs to exceed a certain level to trigger the start of recognizing an opportunity and increases the probability of an opportunity being recognized (Ardichvili, Cardozo, & Ray, 2003). Besides that, (1) access to (new) useful information and possession of prior knowledge, (2) social networks and (3) personal traits are vital for opportunity recognition (Ardichvili et al., 2003; Shane & Eckhardt, 2005; Shane & Venkataraman, 2000).

Theory on opportunity recognition might raise the question whether an entrepreneur should search for an opportunity or should he just wait until an opportunity gets on his path? Furthermore; are entrepreneurial opportunities available in the wild, waiting to be recognized and discovered, or would an entrepreneur be able to create one himself? Researchers used to assume that entrepreneurs execute a systematic search for opportunities. Nowadays scholars do not take this approach for granted anymore, but stress the idea that entrepreneurs are not in an active search for opportunities, but that it rather happens that certain people recognize the value of new information (which can lead to an opportunity) and others don't (Ardichvili et al., 2003; Kirzner, 1997). An important question in entrepreneurship research is whether entrepreneurial opportunities exist, waiting to be discovered, or do entrepreneurs create opportunities? It may have important influence on the entrepreneurial process. An entrepreneur should then create an opportunity, rather than searching for one in case opportunities are created. Sarasvathy, Dew, Velamuri, and Venkataraman (2005) argue that when there is no supply nor demand exists, one or both have to be created by the entrepreneur, resulting in the creation of new markets. Furthermore it might be an idea to learn how to create an opportunity (Alvarez & Barney, 2007).

Two internally consistent theories on how entrepreneurs might take to form and exploit opportunities exist; discovery and creation theory. Discovery theory describes opportunities as objective and observable and are created by exogenous shocks to an industry or market. They exist independent of entrepreneurs and are there to be discovered by entrepreneurs (Alvarez & Barney, 2007). Creation theory assumes that opportunities are not objective phenomena formed by exogenous shocks to an industry or market. Rather, opportunities are "created, endogenously, by the actions, reactions, and enactment of entrepreneurs exploring ways to produce new products or services" (Alvarez & Barney, 2007, p. 15). Opportunities do not exist independent of entrepreneurs and are created by entrepreneurs. Sarasvathy et al. (2005, p. 156) extends this view by stating that "opportunities do not pre-exist, either to be recognized or to be discovered. Instead they get created as the residual of a process that involves intense dynamic interaction and negotiation between stakeholders seeking to operationalize their (often unclear and unformed) aspirations and values into concrete products, services and

institutions that constitute the economy.” This view postulates an alternative to the predictive (causal) rationality way of thinking, called effectuation.

2.1.3. Causation and effectuation

Effectuation, or effectual reasoning, can be seen as a different way of reasoning compared to causal reasoning. Causal reasoning is in this case seen as achieving a pre-determined goal using a given set of means; trying to find the optimal, fastest, cheapest, most efficient, etc. alternative to achieve that given goal (Sarasvathy, 2001b). Effectual reasoning instead begins with a set of means an entrepreneur has access to and allows goals to emerge over time. These means can be related to who the entrepreneur is, his traits, tastes etc., what the entrepreneur knows, his experience, education, expertise etc. and who the entrepreneur knows, indicating their network. As these means change over time, the goal, resulting from the means, may also change (Sarasvathy, 2001a). The effectual way of reasoning is linked to entrepreneurial thinking, while causal reasoning is seen as managerial thinking. Figure 1 outlines the difference between both types of reasoning and thinking.

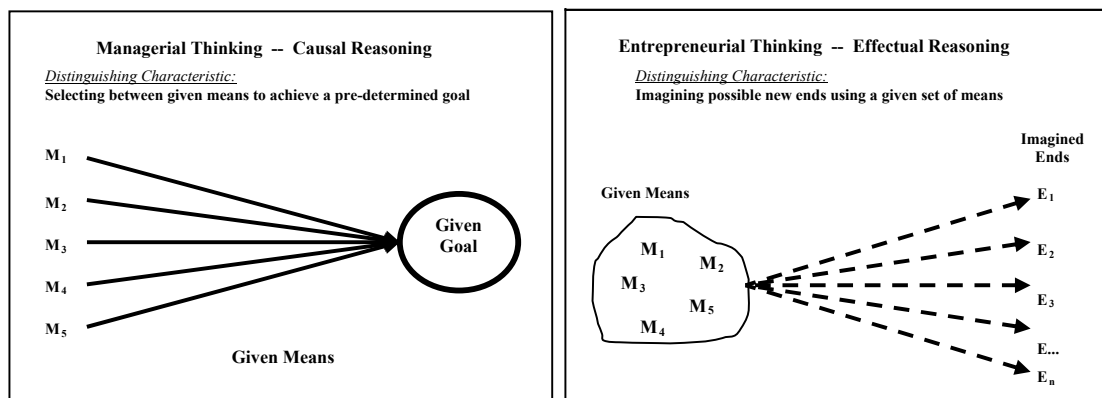


Figure 1: Managerial Thinking & Causal Reasoning vs. Entrepreneurial Thinking & Effectual Reasoning (Sarasvathy, 2001b)

Causal reasoning may or may not involve creative thinking. The thinking process is defined as creative causal reasoning when an entrepreneur generates his own means instead of selecting between given means to achieve a pre-determined goal (Sarasvathy, 2001b). Effectual reasoning is pre-determined creative because a person using this way of reasoning will imagine (= being creative) possible new goals using a given set of means. Therefore, effectual entrepreneurs focus on the creation of opportunities instead of the discovery of existing opportunities. Differences between causal and effectual reasoning have been explained by Sarasvathy (2001b) by stating that there are certain common principles of causal reasoning that stand in contrast to their opposites in effectual reasoning.

The first principle ‘expected returns vs. affordable loss’ explains that in a causal way of reasoning one is learned to analyze potential opportunities in

a market and choose target segments with the highest potential return. An effectual way would be to find a way to reach the market with minimum spending of resources such as time, effort and money. An example explanation of this principle would be an entrepreneur who is building and planning to launch a new product. An effectual entrepreneur would sense the potential market for the product using his network instead of doing traditional market research (Sarasvathy, 2001a).

The 'competitive analysis vs. strategic partnerships' principle is about building partnerships instead of doing competitive analysis. Especially starting entrepreneurs tend to make partnerships with their customers to obtain information. Sarasvathy found that entrepreneurs start "without assuming the existence of a pre- determined market for their idea", and explains that therefore a "detailed competitive analyses do not seem to make any sense to them at the startup phase" (Sarasvathy, 2001b, p. 5). The principle is related to the first principle in a way that it also focuses on the avoidance of spending resources on analyses.

The third principle 'exploitation of pre-existing knowledge and prediction vs. leveraging of contingencies' is about how to handle changes and surprises. Causal reasoning tries to minimize surprises, while effectual reasoning realizes that not all surprises are bad. Effectual reasoning tries to use these surprises as an input in the entrepreneurial process and uses the unexpected to turn it into the profitable. This is the heart of entrepreneurial expertise and great entrepreneurial firms are products of contingencies (Sarasvathy, 2008).

The fourth principle is related to the third principle and is about controlling or predicting the future, depicted as a fundamental difference in reasoning (Sarasvathy, 2001b). Effectual reasoning focuses on the controllable aspects of a future that is seen as unpredictable. The logic for this kind of reasoning is: "To the extent that we can control the future, we do not need to predict it" (Sarasvathy, 2001a, p. 252). Causal reasoning tries to predict an uncertain future. Causation processes focus on the predictable aspects of an uncertain future: "To the extent that we can predict the future, we can control it" (Sarasvathy, 2001a, p. 252). Sarasvathy and Dew (2005) extend the differences between effectual and causal logic by explaining that effectuation is about what can be done, given existing means rather than what ought to be done, given existing goals. Table 1 shows a list of decision criteria contrasting effectual against causal reasoning. The previous mentioned principles can be derived from the list of decision criteria.

Contrasting effectual against causal reasoning

Issue	Causal position	Effectual position
View of the future	<i>Prediction.</i> The future is a continuation of the past; can be acceptably predicted	<i>Design.</i> The future is contingent on actions by willful agents
<i>Constructs pertaining to individual decisions</i>		
Givens	<i>Goals</i> are given	<i>Means</i> (Who I am, what I know, and whom I know) are given
Decision agenda	<i>Resources.</i> What resources ought I to accumulate to achieve these goals?	<i>Effects.</i> What effects can I create with the means I have?
Basis for taking action	<i>Desired worlds.</i> Vision of a desired world determines goals; goals determine sub-goals, commitments, and actions	<i>Possible worlds.</i> Means and stakeholder commitments determine possible sub-goals—goals emerge through aggregation of sub-goals
Basis for commitment	<i>Should.</i> Do what you ought to do—based on analysis and maximization	<i>Can.</i> Do what you are able to do—based on imagination and satisficing
Stakeholder acquisition	<i>Instrumental view of stakeholders.</i> Project objectives determine who comes on board	<i>Instrumental view of objectives.</i> Who comes on board determines project objectives
<i>Constructs in terms of responses to the environment</i>		
Predisposition toward risk	<i>Expected return.</i> Calculate upside potential and pursue (risk adjusted) best opportunity	<i>Affordable loss.</i> Calculate downside potential and risk no more than you can afford to lose
Predisposition toward contingencies	<i>Avoid.</i> Surprises may be unpleasant. So invest in techniques to avoid or neutralize them.	<i>Leverage.</i> Surprises can be positive. So invest in techniques that are open to them and leverage them into new opportunities.
Attitude toward success/failure	<i>Outcomes.</i> Success and failure are discrete outcomes to be sought after or avoided, respectively	<i>Process.</i> Successes and failures are inputs into a process that needs to be managed such that failures are outlived and successes are accumulated
Attitude toward probability estimates	<i>Update beliefs.</i> Estimates are used in a Bayesian fashion—to update ones beliefs about the future.	<i>Manipulate conditionals.</i> Estimates signal which conditionals may be reified or falsified so the future can be skewed through action.
Attitude toward others	<i>Competition.</i> Constrain task relationships with customers and suppliers to what is necessary	<i>Partnership.</i> Build YOUR market together with customers, suppliers and even prospective competitors
Underlying logic	To the extent we can predict the future, we can control it	To the extent we can control the future, we do not need to predict it

Table 1: Contrasting effectual against causal reasoning (Sarasvathy & Dew, 2005, p. 390)

The original effectuation theory is build upon the investigation of expert entrepreneurs (Sarasvathy, 2001a, 2001b). Expert entrepreneurs are defined as “a person who, either individually or as part of a team, had founded one or more companies, remained a full-time founder/entrepreneur for 10 years or more, and participated in taking at least one company public” (Sarasvathy, 2008, p. 21). The differences in expert and novice entrepreneurs in relation to effectuation were not researched up until 2005. Read and Sarasvathy (2005) published an article about the relation between effectuation and entrepreneurial expertise. In literature they find relations between elements of effectual thought and of entrepreneurial expertise showing that expert entrepreneurs are more likely to use effectuation. Though, remarking at the same time, that one cannot distinguish an expert from a novice based on his degree of causal reasoning

(Read & Sarasvathy, 2005). Several issues are observed and upon these, four propositions are developed:

- Novice entrepreneurs may vary in the use of causal and effectual action, the preference for effectuation increases as they become experts.
- Expert entrepreneurs use of effectual action is not influenced by the availability of resources. Though, the more resources available to novices, the more causal their actions are likely to be.
- Successful firms are more likely to be created through effectual processes and grown through causal processes.
- Only a small subset of expert entrepreneurs will successfully make the transition from an entrepreneurial firm to a large corporation.

The suggestion that expert entrepreneurs are more likely to use effectuation is tested by Dew et al. (2009). The study showed that - in line with theory - expert entrepreneurs use an effectual logic, while novice entrepreneurs tend to use causal logic. "Results showed that expert entrepreneurs framed problems in a dramatically different way than MBA students" (Dew et al., 2009, p. 287).

Effectuation theory has recently been validated by other researchers. Read, Song, and Smit (2009) conducted a meta-analysis on historical studies using data of 9897 new ventures to validate the link between the principles of effectuation with new venture creation. It turned out that all the effectuation principles except design and affordable loss are positively related to new venture performance. Recently Chandler et al. (2011) published an empirical study in which they developed and validated measures of causation and effectuation approaches to new venture creating, based upon the work of (Sarasvathy, 2001a, 2001b). The measures were tested with two samples of entrepreneurs in young firms and are an essential validation to test effectuation and causation in practice.

2.2. Culture

2.2.1. Definition

Culture is usually referred to something that is derived from, or created by the intervention of humans (Dahl, 2004). Culture can be related to the Latin word 'cultus', translated as 'cult'. The word cult helps to understand culture; members of a cult believe in specific ways of acting, and therefore develop a culture that encompasses those beliefs. Culture has been defined in many ways in the 20th century. Kroeber and Kluckhohn (1952) identified over 160 different definitions of culture. Culture can be considered as a concept that represents a set of shared values that manifest themselves in the behavior and other artifacts of a given group. Culture is also programmed or learned, though it is shared by the members of one group (Dahl, 2004). Culture can be studied and categorized at different subcategories; International (e.g. East vs. West), National (e.g. Macedonian culture), Regional (subcultures), Business (industry or profession) and Organizational (corporate) (Fan, 2000).

Different countries are used to compare entrepreneurs. The most distinguishing aspect between these two groups is their nationality. Furthermore, national boundaries have been the preferred level of resolution, and therefore countries the preferred unit of analysis (Dahl, 2004). Nationality is easy to determine, whereas membership of a sub-culture is more difficult. People from one country are most of the time shaped by the same values and norms as their co-inhabitants. Therefore the further theoretical explanation of culture will be focused on national culture.

2.2.2. Cultural values

At the core of culture are 'values', which can be seen as the core of every culture. Kroeber and Kluckhohn (1952) define values as "a conception, explicit or implicit, distinctive of an individual or characteristic of a group, of the desirable which influences the selection from available modes, means and ends of actions". This definition is adopted by Hofstede (2001), proposing a model of four levels showing how cultures are expressed. Above values there are three levels of culture observable; rituals, heroes and symbols. Rituals are collective activities considered socially essential within a culture such as ways of greeting and paying respect to others. Heroes are persons, dead or alive, imaginary or real who are admired and serve as an example for behavior. Symbols are words, gestures, pictures and objects carrying a special meaning that are only recognized by people sharing the same culture (Dahl, 2004; Hofstede, 2001). The onion-like model is shown in figure 2. Similar onion-like models are used by other well-known researchers such as Spencer-Oatey (2004); Thompenaars and Hampden-Turner (1998).

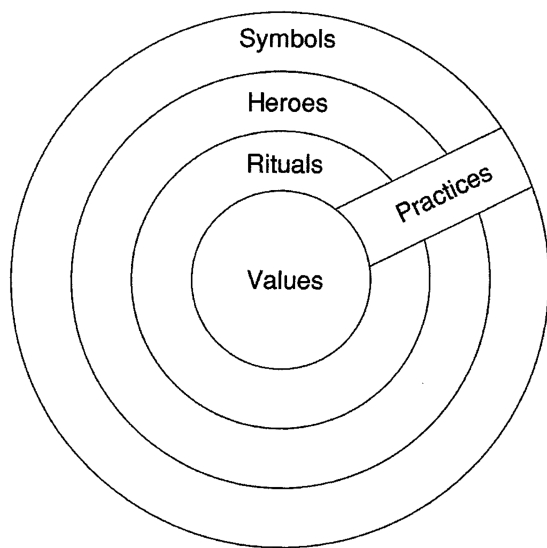


Figure 2: Values and observable levels of culture (Hofstede, 2001)

Discussed theory makes it possible to describe culture as a shared set of assumptions and values. These values manifest themselves in systems and institutions as well as behavioral patterns and non-behavioral items (Dahl, 2004). Examples are rituals, heroes, practices and symbols (Hofstede, 2001). The various levels also range from easy to observe (such as symbols) to more difficult to distinguish (such as values). Core values of a culture are not easily changed or copied by other cultures, while the outer layers are subject to change or copy.

2.2.3. Cultural dimensions

The difficulty to observe cultural values makes it hard to measure cultural differences between groups. Researchers have tried to conceptualize and create frameworks in order to classify cultural patterns and to be able to compare cultures. Nowadays researchers conceptualize cultural values in dimensions to make them measurable. Cultural dimensions are the most used explanatory variables in present cross-cultural management literature and are constructs of values, which can be measured along quantitative scales (Fink, Neyer, & Kölling, 2006). Dimensions of culture may not automatically be reflected in the behavior of each individual from that culture. The analysis of culture will reflect central tendencies and does not predict individual behavior. Therefore, the use of data from a cultural level of analysis at an individual level is inappropriate (Dahl, 2004; Hofstede, 2001).

One of the first attempts to analyze culture is made in the second half of the 20th century. Five problem areas using five basic questions that are important for all human groups are identified and set a benchmark for further research on cultural values and cultural dimensions (Kluckhohn, 1962 as cited in Fink et al.,

2006). Also Schwartz (1992) used basic human needs to develop his system of values. He investigated value orientations at a culture-level and individual-level in twenty countries. This approach distinguishes from the work of Hofstede (2001) and Thompenaars and Hampden-Turner (1998), who work at the culture-level and measure preferred states or behavior (Dahl, 2004; Fink et al., 2006). Hall and Hall (1990) developed four value dimensions; fast and slow messages, high and low context, space, and time based on 180 interviews. The work was originally intended to help U.S. managers understand the behavior of German and French employees at their workplace (Fink et al., 2006). Thompenaars and Hampden-Turner (1998) work is also related to the assumptions of Kluckhohn (1962). They indicate three problem areas: relations with other human beings, relation to time, and relation to the environment. Seven value dimensions are identified from the three problem areas: universalism versus particularism, communitarianism versus individualism, neutral versus emotional, defuse versus specific cultures, achievement versus ascription, human-time relationship and human-nature relationship.

The most often cited framework to compare different cultures is the work of Geert Hofstede (Bond, 2002). He used a quantitative questionnaire to identify and measure value orientations from IBM staff across the globe in the 1970s. He derived four value dimensions: power distance, individualism/collectivism, masculinity/femininity and uncertainty avoidance. Later he added a fifth dimension: long term orientation (Fink et al., 2006). The framework of Hofstede can be applied easily and reduces the complexities of culture and its interactions into five relatively easily understood cultural dimensions (Dahl, 2004). Furthermore, all dimensions are empirically verifiable and validated by data from different sources (Hofstede, 2001).

In the early 1990s, Robert House and colleagues initiated the Global Leadership and Organizational Behavior Effectiveness Project (GLOBE). The initial idea was to improve the work of Hofstede by indentifying the impact of cultural values on organizational pratices and leadership and was carried out in 61 countries (House, Javidan, Hanges, & Dorfman, 2002). The project studied norms and stereotypes apart from leadership. The norms revealed cultural dimensions of which some of them are related to the work of Hofstede.

2.2.4. GLOBE vs. Hofstede

Several approaches to classify culture are discussed in this paragraph. The following section will summarize the pros and cons of the work of Hofstede, Hall & Hall, House et al., Schwartz and Thompenaars & Hampden-Turner and the GLOBE study. Explained is why it is decided to use the value dimensions of Hofstede over the GLOBE study in this research.

As indicated before, the work of Hall and Hall (1990) was intended to help U.S. managers abroad. Furthermore the high/low context as the time concept lack statistical data and are both very ambiguous, which makes it difficult to use them in an analytical approach (Dahl, 2004). The work of Thompenaars and Hampden-Turner (1998) is tested by Hofstede (1996). He found that only two dimensions could be confirmed statistically. Furthermore their research is criticized to be based upon imagination and national indices (Minkov, 2011). Schwartz's approach to ask for values might incline respondents to choose more utopian answers, which in turn may not be reflected in their actual behavior (Dahl, 2004). After all, two approaches to describe culture are left: the GLOBE study and the work of Hofstede.

The GLOBE study is inspired by the Hofstede model and expanded it from five dimensions of national cultures to 18 (Hofstede, 2006, 2010). The high number of dimensions is a first point of critic (Smith, 2006). Hofstede (2006) argues that according to a classic, highly cited article by Miller (1956), useful classifications should not have more than seven categories, plus or minus two. Confusing in the GLOBE study is that they used terms from publications of Hofstede, but gave them a different meaning without explaining (Hofstede, 2010). This is the case for the terms 'values', 'practices' and 'organizational culture'.

GLOBE's type of questions, analysis of the data and the aggregating data from individuals to the national level is questionable. It is questioned whether the questionnaire items captured what the researchers were looking for. It is argued that asking 'as is' questions assumes that people are in a position to compare their society with other societies (Smith, 2006). This is mainly because in order to make a useful comparison between societies one needs international experience and an open mind. Furthermore, Hofstede's work take differences in national wealth in account, where GLOBE doesn't (Smith, 2006).

Another comment is about the issue that one half of the respondents of the GLOBE participants received a questionnaire asking about culture in the format 'in this society', the other half received a questionnaire with the same culture related questions in the format 'in this organization' (Hofstede, 2006, 2010). This is surprising because earlier works found that national culture and organizational culture are different phenomena. Therefore it is stated that there is a fundamental difference between the GLOBE approach and the approach by Hofstede (Hofstede, 2006, 2010).

The work of Hofstede is also criticized. A major limitation is indicated by Søndergaard (1994) by stating that Hofstede only used attitude-survey questionnaires and not other research instruments to validate the findings. This critic is acknowledged by Hofstede (2002) by stating that they indeed should not

be the only way. Another comment is about nations being the units of analysis. Some researchers state that nations are imagined communities, culture is fragmented across group and national borders and difficult to operationalize (DiMaggio, 1997; McSweeney, 2002). Hofstede (2002) confirms that nations are not the best units for studying cultures, but argues that they are usually the only kind of units available and are better than nothing.

Also criticized is the use of outdated data retrieved from employees from one single company (IBM) in a time that the memories of the second World War were still fresh and the cold war was ongoing (McSweeney, 2002; Newman & Nollen, 1996). In a reply Hofstede (2002) argues that any set of functionally equivalent samples from national populations can supply information about differences between national cultures and therefore the sample from IBM, consisting of a large number of countries, is well matched. Furthermore, the use of one single company eliminates the influence of management practices and corporate policies (Jones, 2007). Hofstede also has a different view on the outdated data issue. He argues that the found dimensions are assumed to have centuries-old roots, do not change overnight, and are successfully replicated and validated afterwards (Hofstede, 2002; Søndergaard, 1994).

Other criticism is about the dimensions. Some argue that they are developed in a Western cultural context and should be used with caution in other cultural contexts (Ailon, 2008). Hofstede using too few dimensions to describe culture is another complaint. He partially agrees and invites researchers to come up with additional dimensions, though additional dimensions should only be “both conceptually and statistically independent from the five dimensions already defined and they should be validated by significant correlations with conceptually related external measures” (Hofstede, 2002, p. 2).

Both the GLOBE study and the work of Hofstede received criticism. National cultures with differences in national wealth are compared in this research. Hofstede's research sets national culture at the dependent variable and controls differences in national wealth. It is questioned whether the GLOBE study researched national culture or organizational culture because they used the same type of questioning to measure both (Hofstede, 2006, 2010). Several researchers were able to replicate and confirm the work of Hofstede. The dimensions are widely used and received a large amount of citations that it can be seen as a 'super-classic' (Baskerville, 2003; Søndergaard, 1994). Furthermore, most behavioral studies on cultural values and entrepreneurship are built upon Hofstede's research (Hayton et al., 2002). Summing up the pros and cons of both studies, it is decided to use the dimensions of Hofstede.

Leading arguments in the choice to use the work of Hofstede is that: (1) it is still unclear whether GLOBE studied national culture or organizational culture (2) the high number of dimensions used by GLOBE are widely criticized, (3) Hofstede controlled differences in national wealth, where GLOBE doesn't (Hofstede, 2006, 2010; Miller, 1956; Smith, 2006). Furthermore, a practical reason to choose for the work of Hofstede is that it is easy to replicate. This is a big favor when analyzing a country like Macedonia, which has no cultural measures available.

2.2.5. Hofstede's cultural dimensions

As mentioned before, the cultural dimensions identified by Hofstede are individualism-collectivism, uncertainty avoidance, power distance, masculinity-femininity and long term orientation. These dimensions are used to describe the Macedonian culture. The next section will briefly explain the dimensions.

Power distance is defined by Hofstede (2001, p. xix) as "the extent to which the less powerful member of organizations and institutions accept and expect that power is distributed unequally". The basic problem involved in this dimension is the degree of human inequality. Different societies handle human inequality differently. Societies with a high power distance will have an unequal distribution of power, which is likely not to be questioned by less powerful participants of a society. This is often seen in boss-subordinate relationships, resulting in subordinations that are less likely to question decisions from higher levels. Low power distance societies tend to stress equality and opportunities for everyone. This could for example imply that subordinates would quicker approach and/or contradict their superiors and perceive themselves to be more equal.

Hofstede (2001, p. xix) defines uncertainty avoidance as "the extent to which a culture programs its members to feel either uncomfortable or comfortable in unstructured situations". Herein are unstructured situations new, unknown and surprising compared to the usual. The dimension is about the extent to which a society tries to control the uncontrollable (Hofstede, 2001). This often translates in the situation that high uncertainty avoidance societies are rule-oriented with a lot of laws, regulations and control mechanisms. Societies with a low uncertainty avoidance are less concerned with rules, open to changes and are comfortable with unstructured new situations.

The individualism/collectivism dimension measures the tightness between individuals in a society and is defined as "the degree to which individuals are supposed to look after themselves or remain integrated into groups, usually around family" (Hofstede, 2001, p. xx). The dimension describes the relation between the individual and the collectivity and is reflected in the way people live

together and look after each other. In some cultures individualism is seen as alienating, but in other individualism is seen as a blessing (Hofstede & Hofstede, 2005). In business practice individualism would implicate that employees are expected to stand up for their rights. In a collectivistic culture employees are loyal to the company and expect the company to take care for their well-being.

The fourth dimension, masculinity vs. femininity explains “the distribution of emotional roles between the genders” and is all about what implications the differences between the sexes have for the emotional and social roles of the genders (Hofstede, 2001, p. xx). To find out whether a country is masculine or feminine one could ask what motivates individuals in their life. For masculine societies competitiveness, achievements and recognition are important. People tend to be task and performance oriented, are more likely to take risks and aim on earning a lot of money and privileges. Often the corporate life is regarded as more important than the overall well-being. Feminine societies focus more on relationship building and well-being. Social relationships are important, as well as the quality of life. People are more often comfortable with being average.

The dimension long term orientation is defined as “the extent to which a culture programs its members to accept delayed gratification of their material, social, and emotional needs” (Hofstede, 2001, p. xx). Long term orientation is based on the teachings of Confucius and aims on the extent a society values personal stability, traditional values and whether it is focused on times that have passed and the current or on the future. In short-term oriented countries people would like to see quickly results of their work, while long-term orientation stands for persistence. The reason that this dimension was not found earlier can be addressed to the Western oriented mind of the researchers who compiled the questionnaire to measure the other mentioned dimensions. The dimension was found using the “Chinese Value Survey”, an instrument developed by Bond around 1985. It was assumed that Hofstede’s questionnaire was biased by Western values and therefore a questionnaire based on Confucian values measuring the degree to which a society values long term orientation was composed.

Hofstede collected culture data in Yugoslavia at a subsidiary of IBM in 1971. The data got reanalyzed in 1993 and showed quite similar results (Hofstede, 2001). The scores from 1971 will be used in further research since there is no more recent data. Scores can be found in table 2. The low score on IDV is a score that fits a communist country. In 1971, Yugoslavia was a communist country and communist political systems presuppose a certain level of cultural collectivism (Hofstede, 2001). Literature also explains that communist regimes have shaped people in those countries to become uncertainty avoiding since their basic

necessities have always been assured by the authorities of the erstwhile governments (Paul, 2008).

	Netherlands	Yugoslavia
PDI	38	76
IDV	80	27
MAS	14	21
UAI	53	88
LTO	44	

Table 2: Hofstede scores The Netherlands and Yugoslavia (Hofstede 2001)

2.2.6. Culture and entrepreneurship

It is important to verify whether culture influences entrepreneurship to continue the exploration of culture and entrepreneurship. It could be questionable whether culture would have an influence on entrepreneurial processes in case it has already been proven that there is no link between culture and entrepreneurship.

It is generally accepted that there is an association between culture and entrepreneurship (Lee & Peterson, 2001; McGrath, MacMillan, & Scheinberg, 1992). Already in the early 1900's famous economist Schumpeter (1934) and sociologist (Weber, 1930) stated that levels of entrepreneurial activity differs from country to country and thus from culture to culture. Only the last two decades this relation is being researched empirically (McGrath, MacMillan, Yang, & Tsai, 1992). New business creation rates vary from culture to culture, argued to be the result of different cultures carrying different beliefs about desirability and feasibility of starting a company (McGrath, MacMillan, & Scheinberg, 1992). Most studies on this subject are based upon the work of Hofstede and indicate that entrepreneurial activity is higher in cultures that are low in power distance and uncertainty avoidance and high in individualism and masculinity (Hayton et al., 2002). Studies furthermore suggest that countries are not equal in their capabilities of fostering entrepreneurship (McGrath, MacMillan, & Scheinberg, 1992). Therefore, culture is important because it influences the beliefs, values and motives of individuals (Hayton et al., 2002). Research on social structures, which influences culture, indicate that when examining entrepreneurship the context in which the entrepreneur lives has to be taken into account (Jack & Anderson, 2002). Values and beliefs among others in an entrepreneur's environment may motivate the entrepreneur more or less to go into business. Culture influencing the psychological characteristics and cognition of individuals, creating a larger supply of potential entrepreneurs can be a conceptual foundation for the relation between national culture and entrepreneurship (Busenitz & Lau, 1996; Davidsson & Wiklund, 1997). Research shows that

cognition scripts such as arrangements, willingness and ability can be related to the decision to start a business (Mitchell, Smith, Seawright, & Morse, 2000).

While entrepreneurial activity might differ across cultures, entrepreneurial behavior has underlying factors in common across cultures. Being an entrepreneur seems to put similar challenges in place, regardless of their context. To start a company, entrepreneurs require: “foresight and energy, passion and perseverance, initiative and drive” (Thomas & Mueller, 2000, p. 290). In addition, McGrath, MacMillan, and Scheinberg (1992) suggest that entrepreneurs from different countries share certain values that differentiate them from non-entrepreneurs.

The increasing globalization and development of emerging economies is another development making the research on culture and entrepreneurship more relevant (Lee & Peterson, 2001). These actors prompts questions about the depth and persistence of cultural differences, and whether or not these will hold during market reforms and opening of borders (McGrath, MacMillan, Yang, et al., 1992). Entrepreneurship research have always been almost exclusively focused on North America and Western Europe (Bruton et al., 2008). The North American culture of individualism and achievement dominated the worldview of entrepreneurship as a consequence. The transferability of this view on entrepreneurship to countries with a different culture remains in question; it is expected that entrepreneurs reflect the dominant values of their national culture (Thomas & Mueller, 2000). Nowadays, it is often easily said that any differences found in economies and entrepreneurial activity between countries is due to the cultural differences (Bruton et al., 2008). Therefore it is even more interesting to understand the actual influence of culture on entrepreneurship by researching the cognitive maps and behavior of the entrepreneur.

One could imagine other possible influences on entrepreneurial processes besides culture. It would be relevant to find out whether being in a transition economy or not and corruption rate has influence with regard to the country of research. In general, literature agrees that corruption is a big obstacle for entrepreneurs, creating uncertainty and increasing operational and transaction costs of firms (Aidis & Adachi, 2007; Aidis et al., 2008; Tonoyan et al., 2010). So far there is a lack of theory on the influence of being an entrepreneur in a transition economies and its characterizing high corruption rate on entrepreneurial processes.

Multiple hypotheses are developed to find out whether culture has an influence on entrepreneurial processes. Furthermore, a crosscheck is performed to improve the validity of the research by testing whether corruption rate and being in a transition economy or not has influence on entrepreneurial processes.

2.3. Hypotheses

2.3.1. Uncertainty avoidance and existing market knowledge

Uncertainty avoidance is defined by Hofstede (2001, p. xix) as “the extent to which a culture programs its members to feel either uncomfortable or comfortable in unstructured situations”. This often translates in the situation that high uncertainty avoidance societies are rule-oriented with a lot of laws, regulations and control mechanisms. At the same time they feel threatened by the unknown and the ambiguous (Money & Crotts, 2003). Societies with a low uncertainty avoidance are less concerned with rules, open to changes and are comfortable with unstructured new situations. Uncertainty avoidance influences information search and is often related to an urge to be informed about a certain situation before one starts with it (Wilson, 1997). Especially from personal sources rather than impersonal sources such as mass-media (Dawar, Parker, & Price, 1996). Research in the travel industry shows that consumers from cultures characterized by higher levels of uncertainty avoidance do more extensive information search and often choose for a ‘safe’ package deal to avoid risk and surprises (Litvin, Crotts, & Hefner, 2004; Money & Crotts, 2003). Furthermore, Sarasvathy (2008) argues that when information is missing, predictive and formal business planning techniques are less effective.

Being informed upfront can be related to effectuation theory. Causal entrepreneurs prefer to exploit existing knowledge instead of exploiting contingencies that happen unexpectedly (Sarasvathy, 2008). Furthermore, surprises might be interpreted as threats to the business success in countries where uncertainty avoidance is high (Brinckmann et al., 2010). Therefore it is expected that:

Hypothesis 1: The more uncertainty avoidance is emphasized in a culture, the more an entrepreneur will focus on existing market knowledge.

A positive correlation is expected between uncertainty avoidance and entrepreneurs focusing on existing market knowledge. Yugoslavia scores significantly higher on uncertainty avoidance than The Netherlands. Communist regimes have shaped people in the respective countries to become uncertainty avoiding since their basic necessities have always been assured by the authorities of the erstwhile governments (Paul, 2008). Therefore it is expected that Macedonian entrepreneurs make more use of existing market knowledge compared to Dutch entrepreneurs.

2.3.2. Collectivism and goals

The individualism/collectivism dimension measures the tightness between individuals in a society (Hofstede, 2001, p. xx). The dimension describes the relation between the individual and the collectivity and is reflected in the way people live together and look after each other. Individualism is seen as alienating in some cultures, but in others individualism is seen as a blessing (Hofstede & Hofstede, 2005).

People think different about making decisions and setting goals in individualistic cultures compared to people in collectivistic countries. Goals are often self-oriented and focused on short-term planning, while goals are based on group-orientation and long-term planning in collectivistic countries (Hofstede, 2001; Tiessen, 1997).

Different opinions about treating goals in different types of cultures can be related to effectuation theory. Sarasvathy (2001a) states that in causation models decision makers are assumed to be independent. Furthermore she expects that effectuation oriented entrepreneurs are less likely to use long-term planning and are instead likely to be focused on the short-term. Therefore it is expected that:

Hypothesis 2: The more a culture is characterized by collectivism, the more goal-driven an entrepreneur will be

Consequently, a positive correlation between collectivism and the entrepreneur making goals is expected. Additionally, the hypothesis suggests that collectivistic countries emphasize on setting long-term goals instead of setting short-term goals that can be altered afterwards using their collected experience in the entrepreneurial process. It is expected that Macedonian entrepreneurs are more likely to set goals instead of using means compared to entrepreneurs in The Netherlands since Yugoslavia scores 27 a on the individualism/collectivism index and The Netherlands 80.

2.3.3. Power distance and the use of alliances

Power distance is defined by Hofstede (2001, p. xix) as “the extent to which the less powerful member of organizations and institutions accept and expect that power is distributed unequally”. The basic problem involved in this dimension is the degree of human inequality. People are different in the circumstances they have been born and human inequality is therefore seen as unavoidable (McGrath, MacMillan, & Scheinberg, 1992). Countries that score high on the power distance scale have often hierarchical institutions and large differences in living standards

of its members. Low power distance cultures believe in minimizing power differences between people and equal distribution of wealth (Hofstede, 2001).

McGrath, MacMillan, and Scheinberg (1992) explain that entrepreneurs are expected to exhibit higher power distance values than career professionals, whether the culture is high or low on power distance. Entrepreneurship is a route to a higher position and entrepreneurs would tend to endorse a greater amount of differentiation between himself and others. Following this, it seems logical that entrepreneurs would be less likely to endorse having a position in which others have authority. This proposition is underlined by Hagen (1967) who found that entrepreneurs like to be independent and can't accept authority.

Effectuation theory emphasizes alliances and precommitments from stakeholders. The theory explains that entrepreneurs who have an effectuation mindset allow stakeholders to participate actively in shaping the enterprise and thus allowing them to set goals for the enterprise. This accounts for stakeholders who are already in the enterprise, but also for possible stakeholders who may come on board later (Sarasvathy, 2008). This theory seems to be contradicting to the type of entrepreneur explained by McGrath, MacMillan, and Scheinberg (1992) who does not like to have a position in which others have authority. Therefore it is expected that:

Hypothesis 3: The higher the power distance in a culture, the less use of alliances by an entrepreneur

The hypothesis suggests a negative correlation between power distance and the use of alliances. Yugoslavia scores 76, whereas The Netherlands scores 38. It is expected that Macedonian entrepreneurs make less use of alliances compared to Dutch entrepreneurs since power distance is higher in Yugoslavia.

2.3.4. Corruption and the use of alliances or partnerships

Official institutions such as Transparency International find that Macedonia has a high corruption rate. The corruption Perceptions Index ranks countries according to their perceived levels of public-sector corruption. Macedonia ranks on the 69th out of 182 places on the index with a score of 3.9, where 0 is highly corrupt and 10 is very clean. The Netherlands scored in comparison a 8.9, placing it at the 7th place (Transparency International, 2011). Literature points that corruption is a big obstacle for entrepreneurs in Macedonia (Tonoyan et al., 2010). Research carried out under 300 Macedonian SMEs in late 2000 by Ačevska et al. (2002) show that almost 90% of all firms regularly face some form of corruption.

Corruption also influences entrepreneurship. A high corruption rate results in entrepreneurs having less trust in anonymous others and institutions (Radaev, 2003; Tonoyan, 2005). There is a correlation between trust and corruption; the higher the corruption rate, the lower the general trust (Uslaner & Badescu, 2004). In countries with a high corruption rate entrepreneurs often develop a trust that is person and situation specific; in corruption research called 'particularized trust'. This particularized trust of the entrepreneur translates into trust in family, friends and public servants willing to accept a bribe and creates a closed network (Ahlstrom & Bruton, 2006; Aidis & Adachi, 2007; Aidis et al., 2008; Tonoyan, 2005). The idea of particularized trust can be related to effectuation theory; effectual entrepreneurs emphasize alliances and start to build partnerships right from the start (Sarasvathy, 2008).

Corruption is related to cultural values. High power distance countries are more corrupt than low power distance countries and individualism is negatively associated with corruption (Getz & Volkema, 2001; Triandis et al., 2001). Moreover, several researchers have noticed a relationship between collectivism and corruption (Davis & Ruhe, 2003; Husted & Estudios, 1999). Group loyalty, favoring family members and friends and at the same time the existence of public office holders to accept bribes got researched in Spain, Italy and Venezuela showing a connection between collectivism and corruption (LaPalombara, 1994).

Entrepreneurs do not trust market research that is publicly available and they expect to have a tough time doing market research on their own in countries where corruption is high. They prefer to use their partnerships in their (closed) network to circumvent unnecessary bureaucracy to 'get things done' (Kaufmann, Hellman, Jones, & Schankerman, 2000; Tonoyan et al., 2010). Therefore:

Hypothesis 4: The higher the corruption rate, the more use of alliances by an entrepreneur

The hypothesis suggests a positive correlation between the corruption rate and the use of alliances by an entrepreneur. It is expected that Dutch entrepreneurs will make less use of alliances compared to their colleague entrepreneurs in Macedonia since the corruption rate is high in Macedonia and low in The Netherlands.

2.3.5. Transition economies and the use of non-predictive control

Transition markets are often described as turbulent and unpredictable (Aidis & Adachi, 2007; Aidis et al., 2008; Meyer & Gelbuda, 2006). Rules and behavior are unclear and changing and usually there is a lack of basic institutional framework and support, reliable physical infrastructure and a shared value system in an

economy in a transition process (Bruton et al., 2008; Kolvereid & Obloj, 1994; Meyer & Gelbuda, 2006; Meyer & Peng, 2005; Obloj, Obloj, & Pratt, 2010). This context creates a difficult situation for entrepreneurs in which they have to manage their business in great uncertainty and unpredictability (Mainela & Puhakka, 2009).

Tangible resources such as financing, technology, and logistical systems of entrepreneurial firms are more restricted in transition economies compared to mature economies creating an addition to the difficult situation (Bruton & Rubanik, 2002). The result is that entrepreneurs in transition economies need to be extra proactive, and work harder to acquire and leverage their intangible resources (Knott, Bryce, & Posen, 2003).

Transition of the politico-economic system from socialism is described as an open-ended process with an uncertain outcome (Ireland et al., 2008). It is difficult to make predictions of the future in a transition economy since it creates an unpredictable environment. Furthermore, entrepreneurs in such countries rely on human agency in the form of their social network (Mainela & Puhakka, 2009). It is difficult to acquire, and exploit, technological resources in transition economies. Therefore it is expected that:

Hypothesis 5: Entrepreneurs in transition economies will make more use of non-predictive control as entrepreneurs in market economies.

A positive correlation between entrepreneurs in a transition economy and the use of non-predictive control is expected. It is expected that entrepreneurs in Macedonia make more use of non-predictive control as entrepreneurs in The Netherlands since Macedonia is a transition economy and The Netherlands a market economy.

2.3.6. Transition economies and the exploration of contingencies

The privatization in post-socialist economies is characterized by the entry of small start-ups and spin-offs from state-owned enterprises (Berkowitz & Holland, 2001). These SMEs quickly overcame the break-up of state-owned enterprises and were able to turn the somehow unexpected into the profitable (Ačevska, 2002; Ačevska et al., 2002). Furthermore, small enterprises are usually more responsive to a fast-changing consumer demand than state-owned enterprises and large formerly state-owned enterprises (Berkowitz & Holland, 2001).

Unavoidable is the political economy in transition economies. Rules and regulations often change when a new government gets elected. The instability and lack of experience with political freedom increase the ease with which

political change may occur, leaving the development of an entrepreneurial culture uncertain (Ireland et al., 2008).

Being an entrepreneur in a small economy in transition is challenging. Existing market research and knowledge is scarce and not trusted. Turbulence, unpredictability, unclear rules and a lack of tangible and intangible frameworks, infrastructure and support are previously explained characteristics of a transition economy. Changes in the political economy surprise entrepreneurs and are unable to avoid. This might force the entrepreneur to try to turn unexpected events into something profitable. Therefore it is expected that:

Hypothesis 6: Entrepreneurs in transition economies are expected to make more use of the exploration of contingencies as entrepreneurs in market economies.

Consequently, a positive correlation is expected between entrepreneurs in transition economies and the exploration of contingencies. Therefore it is also expected that Macedonian entrepreneurs do more exploration on contingencies such as unexpected surprises than Dutch entrepreneurs.

3. Methodology

The chapter methodology describes the methodological part of the research. The goal is to give a comprehensive overview of how the data is collected and how it is analyzed. This includes the selection of the participants, design of the interview, the surveys and operationalization of the analysis.

3.1. Data collection

The type of research on the influence of culture on entrepreneurial processes is exploratory. This type of research is usually used in preliminary stages when the topic or issue is new, which is the case in this study (Babbie, 2012). Data collection is of qualitative and quantitative nature. Qualitative research is done to gather an in-depth understanding of the problem. Quantitative methods are used to seek empirical support for the hypotheses outlined in chapter two.

The main research instrument and qualitative method to collect data for this research is a business case that deals with entrepreneurial processes, originally made by Sarasvathy (2008). The case is used to research effectuation and is slightly altered by Mr. Stienstra of the University of Twente. It consists of 10 decision-making problems in which the subjects have to imagine themselves to be an entrepreneur in setting up a coffee corner, asking how they would act in the given situations. The subjects were asked to fill out a questionnaire to validate the answers. The case is based upon the think aloud method, explained in the next section.

3.1.1. Think aloud

Previous chapters show that entrepreneurs work in different ways. Some entrepreneurs might want to try to control situations, while others are not so much concerned on keeping control over what happens in the future. It is essential to find a method to get an understanding why an entrepreneur follows a certain way in the entrepreneurial process. Asking an entrepreneur why he is acting like he is acting won't work; entrepreneurs are used to do their job, most of the time they are not used to explain it (Van Someren, Barnard, & Sandberg, 1994). In case an entrepreneur is asked why he acts the way he acts it is likely that he will create a reconstruction from his memory since entrepreneurs are usually good storytellers (Sarasvathy, 2008). Furthermore he might be tempted to describe the way he acts in formal and theoretical terms, which he might have learned during his education. Alternatively the subject might try to give desirable answers that the researcher in the opinion of the subject is looking for. The way the entrepreneur is acting might therefore be inconsistent towards the observed answers. Research has shown that such methods may be subject to retrospective bias are not very reliable (Van Someren et al., 1994).

A different approach might be to look at the way the entrepreneur acts and try to describe it. This approach would also be invalid since it would examine the results of the thought processes and not the thought processes themselves. What is needed is direct data on the ongoing thinking process during the execution of tasks the entrepreneur performs. Asking entrepreneurs to work on a task while they are speaking out their thoughts could retrieve this direct data. This would be a direct method to gain insight in the knowledge and the cognitive processes of the entrepreneur. Such a method should give an understanding why an entrepreneur follows a certain way in executing a task. It should give understanding in the knowledge that he uses, the cognitive processes and the strategies resulting from this.

What is left is to become aware of the cognitive processes of the subject. Ericsson and Simon (1980, p. 223) state that a cognitive process can be seen as “a sequence of internal states successively transformed by a series of information processes”. These successive states can be described as information structures that are brought into and become available in the short-term memory store. Now the cognitive process needs to be triggered so the information, which is brought into the short-term memory store by the cognitive process, can be processed further and verbalized directly. The concurrent verbalization allows the researcher to look directly inside the black box of the cognitive process (Sarasvathy, 2008).

The ideal method to get information about the subject's information processing is to ask them to 'think aloud' while they work on a task that triggers their cognitive information processing. Subjects need to be asked to verbalize every thought, without trying to explain, analyze or interpret, as they emerge when working on the task. Think aloud processes are usually described in a 'verbal protocol'. The term verbal protocols is used to describe the verbalization of human subject's thoughts and successive behaviors while they perform cognitive tasks (Ericsson & Simon, 1993). The think aloud method is about asking people to think aloud while solving a problem and analyzing the resulting verbal protocols. The method has its roots in psychological research and is not something new. Already back in the beginning of the 20th century researchers started to develop and use it. Van Someren et al. (1994) suggest that the think aloud method is a unique source of information and can be used by social scientists that want to know more about cognitive processes. Nowadays the think aloud method is generally seen as a useful method by many scientists. It enables them to look directly inside the black box of cognitive processing and dramatically increases the amount of behavior that can be observed (Ericsson & Simon, 1993; Sarasvathy, 2008). Hence, the think aloud method is used to gather the data for this research.

The on the think aloud method based business case consists of 10 decision-making problems related to entrepreneurial decision-making. The verbalized thoughts are recorded and later coded during the think aloud sessions. At forehand the subjects have to read an instruction explaining what their role is. The instruction explicates that they are asked to speak up their mind while making the case and tells them that the supervisor is only there to make sure the interviewee keeps thinking aloud. Emphasis is on the fact that there are no right or wrong answers and that they are free to make assumptions.

Subjects were asked to fill out a questionnaire containing 17 questions about general entrepreneurship issues to validate the research. The reason for adding a questionnaire as a second data collection method is twofold. At first, the survey is used to validate the decision-making processes captured during the think aloud sessions. Subjects might have behaved different and the results of the survey should reveal this. Secondly, the survey captures questions such as age, level of education, religion etc. This information can be used to analyze whether entrepreneurs with specific education, religion etc. tends to use an effectuation or causation approach. The questionnaire is made by Chandler et al. (2011) who did a validation study on causation and effectuation processes and can be found in appendix A. The answers are measured on a 5-point Likert scale, ranging from 'strongly agree' to 'strongly disagree'. Originally, the questionnaire is intended for entrepreneurs who have their own venture. They were asked to try to imagine what they would do in an eventual future situation in case the entrepreneurs did not (yet) have their own company. The questionnaire was emailed afterwards the think aloud session to the subjects since most entrepreneurs were tired after a think-aloud session that often took 1.5 to a maximum of 2 hours. Additionally the subjects were asked to fill out a questionnaire concerning cultural values. This is done in order to verify the scores measured by Hofstede in 1971 and 1993. U Hofstede's 2008 version of the Values Survey Module is used. The survey consists of 34 multiple-choice questions using a Likert scale that ranges from 1 to 5. The survey can be found in appendix B.

3.1.2. Sample

Some criteria were set before selecting subjects: They should be ethnic Macedonians, born and raised in Macedonia; this should ensure they have Macedonian cultural characteristics. They should attend a university study or recently finished it. They either need to be in the process of starting a company or already (co-own) a company in regard with their entrepreneurial aspirations. Sarasvathy (2008, p. 48) wonders whether expert entrepreneurs are the only group of human beings who use effectual logic and adds "my guess here is no". The question whether non-expert entrepreneurs would use effectual logic is the main motivation to conduct this research among novice entrepreneurs. In small

countries such as Macedonia and The Netherlands it would be difficult to find expert entrepreneurs, making it a second driver.

It is tried to get a heterogeneous sample with a size of around 20 subjects by selecting subjects with different educational backgrounds. This size should be sufficient to find an eventual correlation. Nielsen (1994) suggests that less than ten test subjects should already be enough to retrieve critical information. The final number of subjects is 20. Educational backgrounds are most of the time in IT, Economics and Marketing and Communication studies. Of those study backgrounds, 75% is attending or finished a bachelor study, while 25% got a master degree or finished it. Average years of university education is 4,7 years, while the average years of work experience is of 4,2. Age of the entrepreneurs lies between 20 and 38 with a mean of 26. Parents are most of the time employed in privately held companies with an income in the middle half. Religion is Christian Orthodox or none. Macedonians are eager to learn foreign languages: the best-selling product on Groupon in Macedonia is language courses. While the older people usually speak a bit German, the younger generations are more interested in English. A Macedonian who finished university in the past five years and that is not able to speak English decently is rare. Therefore, the Macedonian subjects were given an English version of the think aloud case.

A sample of Dutch nascent entrepreneurs is retrieved from the EPICC project to compare the behavior of the Macedonian entrepreneurs with Dutch entrepreneurs. The sample consists of 20 novice entrepreneurs who participated in a think aloud session conducted by members of the EPICC project.

3.2. Analysis

All think aloud sessions are recorded using a voice recorder and resulted in an audiotape of each session. The first part of the analysis involves writing transcripts, often called protocols, of the audiotapes. Protocols are written because it is very hard to analyze think aloud sessions directly from audio recordings (Van Someren et al., 1994). Transcribing the protocols is done as verbatim as possible. Pauses, silences and stammering is included since this can be relevant for the analysis. It is vital to find a way to identify whether the entrepreneur show effectuation or causation behavior once finished. This is done by mapping the cognitive process into protocols.

3.2.1. Coding

The mapping of cognitive processes into protocols is done by means of a coding scheme. The protocols can be compared with the scheme and coded once the coding scheme is ready. This means assigning labels to parts of text in the protocol following the coding scheme (Van Someren et al., 1994).

The coding scheme specifies how elements of effectuation or causation can be identified in the data. Coding the protocols is done using a coding scheme developed by Sarasvathy (2008) and can be found in table 3. Each text element in the protocols is analyzed and assigned a causal or effectual category. An element coded with a 'B' could for example explain that the entrepreneur prefers to do competitive analysis instead of building partnerships or using alliances. It is explained why it is chosen to assign a category to the text parts in addition,. This is done in order to enable easy verification of the coding. Verification of the coding to improve the inter-rater reliability is done by asking other members of the EPICC research project to code a part of a protocol and compare it with the coding of the researcher. The differences in coding were negligible.

Causal	Effectual
G – Goals	M – Means
R – Expected returns	L – Affordable loss
B – Competitive analysis	A – Use of alliances or partnerships
K – Existing market knowledge	E – Exploitation of contingencies
P – Predictions of the future	C – Control by prediction
X – Causal (no subcategory given)	N – Effectual (no subcategory given)
Z – Emphasis on analysis of data	D – Distrusting or opposing (market) research

Table 3: Causal and effectual coding scheme (Sarasvathy, 2008, p. 55)

The coded protocols are processed in SPSS. 7 causal and 7 effectual variables are created for each problem area in the business case. The number of occurrences of a causal or effectual category assigned text element is for each problem area entered. The sum of occurrences of each category is computed into a new variable that represents the dependent variables used in the hypotheses. The variable effectuation is created by summing up the effectual categories, while summing up the causal categories created the variable causation.

3.2.2. Statistical analysis

The data is statistically analyzed in order to reject or keep the hypotheses once the protocols are coded. The first step in the analysis is to test whether the data is modeled by a normal distribution. This is important in order to determine which tests are going to be used to test the hypotheses. Three common procedures are well known to assess whether a sample of independent observations comes from a population with a normal distribution: graphical methods such as histograms and boxplots, numerical methods such as skewness and formal normality tests. Known normality tests are the Shapiro-Wilk test, Kolmogorov-Smirnov test, Lilliefors test and Anderson-Darling test. Recent

comparison shows that the Shapiro-Wilk test is the most powerful, followed by the Kolmogorov-Smirnov test (Farrell & Rogers-Stewart, 2006; Keskin, 2006; Razali & Wah, 2011). Hence, the Shapiro-Wilk test will be used to determine the normality.

A parametric test is used in case there is a normal distribution. For the comparison of independent measures of two groups an analysis of variance (ANOVA) is used. An ANOVA test instead of an independent measures t-test is used to make sure type I errors won't influence the results. There are several types of ANOVA tests. In order to determine the correct test, first the hypotheses need to be analyzed. In case they have more than one dependent variable a multivariate analysis of variance (MANOVA) should be used. However, this is not the case; all hypotheses contain one dependent variable. Therefore the one-way ANOVA will be used to test for differences between the two independent groups. A non-parametric test is used in case there is no normal distribution. In order to compare independent measures of two groups a Mann-Whitney U test (also called the Mann-Whitney-Wilcoxon or Wilcoxon rank-sum test) is used and can be thought of as the non-parametric equivalent of the independent measures t-test.

The business case consists of 10 decision-making problems related to entrepreneurial decision-making. The overall causation and effectuation scores are used when analyzing the hypotheses. However, since the business case is about starting a business, growing it and finally selling it, it could be assumed that entrepreneurs start with for example causal reasoning and finish with effectual reasoning. Assuming they become virtually an expert entrepreneur, while being a novice entrepreneur at the beginning.

Besides that it is analyzed whether Macedonian and Dutch entrepreneurs followed the same type of reasoning at each decision-making problem. This information could be of used to analyze why for example Macedonian entrepreneurs choose an effectual way of reasoning while solving financing problems as Dutch entrepreneurs choose a causal way of reasoning.

3.2.3. Regression analysis

A regression analysis is executed to test the relationship between a dependent variable and multiple independent variables. The analysis explains the relationship and strength of it between the variables. Regression analysis usually starts with the determination of the Pearson product-moment correlation coefficient. The correlation coefficient is a measure of the strength and direction of association that exists between two variables. Regression analysis is usually the next step after a correlation analysis. It is used to predict the value of the dependent variable using the value of the independent variable. The dependent

variables are causation and effectuation and independent variables are gender, age, years of university education, study background, level of study background, years of work experience, religion, children, marital status, years of international experience, parents income and family background. A regression analysis will provide an R and R². The R value represents the correlation which can lie between -1 and 1. An R of -1 represents a strong, negative correlation, while an R of 1 represents a strong positive correlation. The R² value indicates how much of the dependent variable can be explained by the independent variable. In an ideal situation the R² of the regression analysis of age and causation can for example be 0,60. This means that 60% of the variability in causation can be explained by the age of the entrepreneur (De Veaux, Velleman, & Bock, 2008).

Though 60% of the variability is explained, 40% isn't yet explained. The remaining 40% might be explained by another independent variable. A regression analysis with two or more independent variables is called a multiple regression analysis and can be used to predict the unknown value of a variable from the known value of two or more variables (De Veaux et al., 2008).

3.2.4. Factor analysis

A factor analysis is often used to ensure that the questions asked in a survey relate to the construct that is intended to measure (Field, 2005). Hence, it can be used to examine inter-relationships among variables and the common underlying dimensions (Chandler et al., 2011). Sarasvathy (2001a) proposes that causation and effectuation are two different approaches to new venture creation. This suggests a two-factor solution in which causation items should load on one-factor and effectuation items should load on another (Chandler et al., 2011). An exploratory factor analysis is conducted for the variables measured in the think aloud case and the questions from the validation survey in order to verify whether causation and effectuation are two constructs or one multidimensional.

Before executing the factor analysis, the factorability of the data was examined. This is done by means of Bartlett's test of sphericity and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy. The Bartlett test is significant if the p-value is lower than 0,005. The KMO value should be greater than 0,5. The KMO statistic varies between 0 and 1. A value of 0 indicates that the sum of partial correlations is large relative to the sum of correlations, indicating diffusion in the pattern of correlations and a factor analysis is likely to be inappropriate. Values close to 1 indicate that patterns of correlation are relatively compact and a factor analysis should be reliable. Values greater than 0,5 are regarded as acceptable (Field, 2005). There needs to be some kind of relationships between the tested variables for a factor analysis to work. Bartlett's test tests the hypothesis whether the correlation matrix of the tested variables is a matrix with all correlation coefficients zero. This test needs to be significant with a p-value

lower than 5% in order to reject this hypothesis. Interpretability of the factors can be improved through rotation. Rotation maximizes the loading of each variable on one of the extracted factors while minimizing the loading on all other factors. The choice of rotation depends on whether or not you think that the underlying factors should be related (Field, 2005). To stay unbiased orthogonal as well as oblique rotations are used. Next step is a parallel analysis and scree analysis of the eigenvalues to determine the number of factors to extract from the data.

3.2.5. Reliability and correlation

Reliability of a research can be tested in various ways. Internal consistency is a measure based on the correlations between different items on the same test. It measures whether several items that propose to measure the same general construct produce similar scores. Cronbach's alpha is the most common measure of internal consistency and is often used for testing a survey with multiple Likert questions that form a scale and needs a determination whether this scale is reliable. The Cronbach's alpha and the individual correlations will be examined for both the causation as the effectuation items in the survey data and the think aloud data.

Next to the internal consistency of the data it is analyzed whether both research methods correlate with each other. Expected is that subjects scoring high on causation during the think aloud session also score high on causation with regard to the answers of the survey. Hence, the same accounts for effectuation. Besides that it is expected that when a subject scores high on effectuation items in the think aloud session or the survey he scores low on causation and vice versa.

4. Results

The use of causation and effectuation by entrepreneurs in respectively The Netherlands and Macedonia is expressed in percentages. A distribution of the percentages for the five causation/effectuation categories for both countries can be found in figure 3. Entrepreneurs from both countries do not seem to differ much. On average, Macedonian entrepreneurs use 53% effectuation and 47% causation. Dutch entrepreneurs use 50% effectuation and 50% causation. It can be noticed that there are differences in behavior when looking more in-depth at the results. Choosing a goals or means based approach and making predictions of the future or non predictive control are scored almost the same. Dutch entrepreneurs score higher on expected returns and competitive analysis, while Macedonians score higher on existing market knowledge. A table of the underlying data can be found in appendix C.

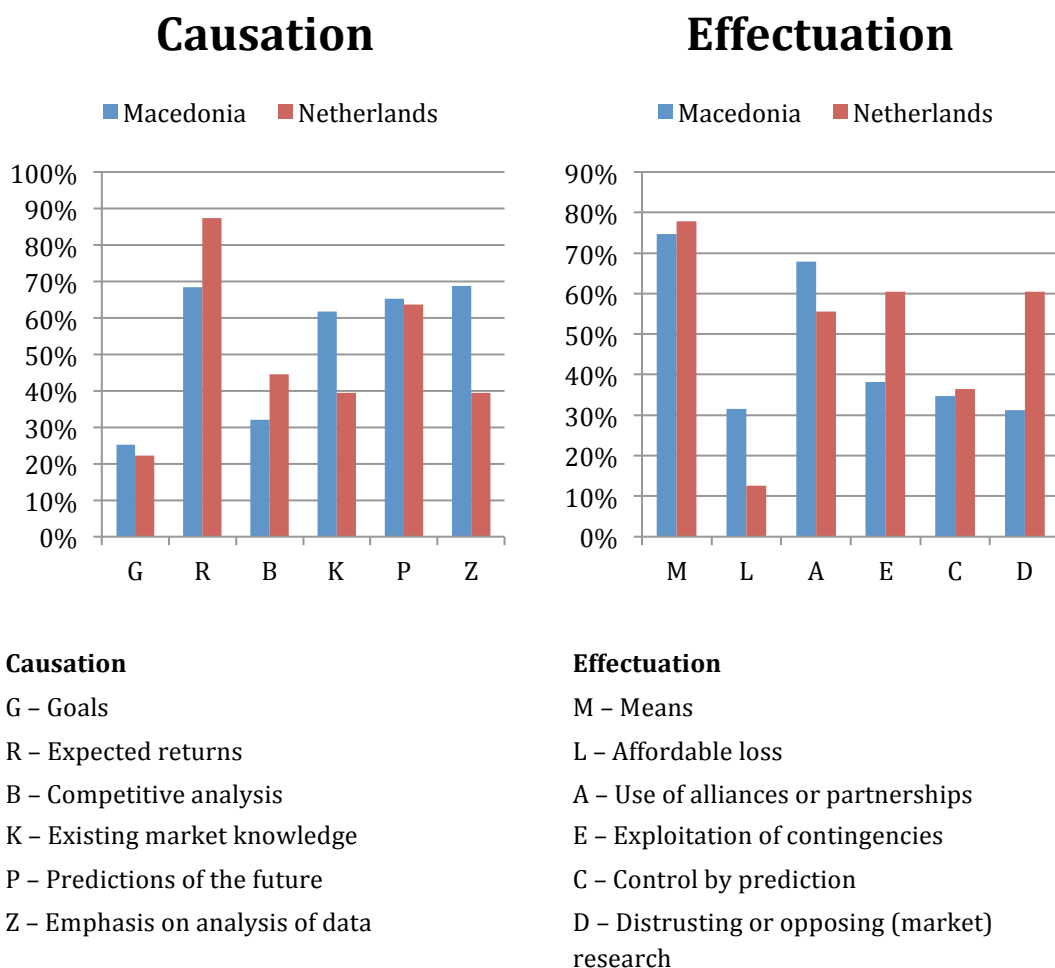


Figure 3: Distribution causation and effectuation in Macedonia and The Netherlands

4.1. Hypotheses

The hypotheses outlined in paragraph 2.6 are statistically tested using the methods described in paragraph 3.2. Each hypothesis will be recalled, verified whether there is a normal distribution, and the test characteristics are given.

4.1.1. Uncertainty avoidance and existing market knowledge

Hypothesis 1: The more uncertainty avoidance is emphasized in a culture, the more an entrepreneur will focus on existing market knowledge.

Figure 3 shows that Macedonian entrepreneurs make more use of existing market knowledge compared to Dutch entrepreneurs. This is in line with the theoretical explanation of the hypothesis. With an alpha of 5% both the Kolmogorov-Smirnov (0,001) and the Shapiro-Wilcoxon (0,000) test indicate that there is no normal distribution. This results in the use of a Mann-Whitney U test. The test results in a p-value of 0,000. With an alpha of 5% it fails to reject the hypothesis.

4.1.2. Collectivism and goals

Hypothesis 2: The more a culture is characterized by collectivism, the more goal-driven an entrepreneur will be

Theory explains the expectation that Macedonian entrepreneurs would be more goal-driven compared to Dutch entrepreneurs. Figure 3 shows that this is the case, but it is impossible to determine whether this is statistically significant. The Kolmogorov-Smirnov value is 0,002 and the Shapiro-Wilcoxon 0,000, thus there is no normal distribution and a Mann-Whitney U test can be executed. The Mann-Whitney U test gives a p-value of 0,365. With an alpha of 5% the hypothesis is rejected.

4.1.3. Power distance and the use of alliances

Hypothesis 3: The higher the power distance in a culture, the less use of alliances by an entrepreneur

The theoretical underpinning of the third hypothesis shows that Macedonian entrepreneurs are expected to make less use of alliances compared to their Dutch counterparts. Figure 3 shows that this is not the case. A normality test shows that there is no normal distribution: the Kolmogorov-Smirnov is 0,000 and the Shapiro-Wilcoxon is 0,002. Testing the hypothesis using a Mann-Whitney U test shows a p-value of 0,000. Hence, it fails to reject the hypothesis. However, the distribution on the use of alliances among entrepreneurs shows that in Macedonia the use of alliances was higher than in The Netherlands. There is significant evidence that Macedonian entrepreneurs do not make less use of alliances compared to Dutch entrepreneurs.

4.1.4. Corruption and the use of alliances or partnerships

Hypothesis 4: The higher the corruption rate, the more use of alliances by an entrepreneur

Corruption research linked to effectuation theory shows that it can be expected that in countries with a high corruption rate entrepreneurs make more use of alliances. It is expected that Macedonian entrepreneurs make more use of alliances compared to Dutch entrepreneurs since The Netherlands has a low corruption rate and Macedonia a high. Figure 3 shows that Macedonian entrepreneurs do make more use of alliances compared to Dutch entrepreneurs. Normality tests show that there is no normal distribution: the Kolmogorov-Smirnov is 0,000 and the Shapiro-Wilcoxon is 0,002. Therefore a Mann-Whitney U test is conducted. The test results show a p-value of 0,000, hence the hypothesis fails to be rejected.

4.1.5. Transition economies and the use of non-predictive control

Hypothesis 5: Entrepreneurs in transition economies will make more use of non-predictive control as entrepreneurs in market economies.

Figure 3 shows that the use of non-predictive control is almost the same among Dutch and Macedonian entrepreneurs. Expected was that entrepreneurs in Macedonia make more use of non-predictive control than Dutch entrepreneurs. A test on normality shows that there is no normal distribution; Kolmogorov-Smirnov (0,000) and Shapiro-Wilcoxon (0,000). Therefore a Mann-Whitney U test is executed. The resulting p-value is 0,005. With an alpha of 5% the hypothesis can just be rejected.

4.1.6. Transition economies and the exploration of contingencies

Hypothesis 6: Entrepreneurs in transition economies are expected to make more use of the exploration of contingencies as entrepreneurs in market economies.

The use of causation and effectuation outlined in figure 3 shows that Dutch entrepreneurs make more use of the exploration of contingencies compared to Macedonian entrepreneurs. This is not in line with theory. It was expected that Macedonian entrepreneurs would make more use of the exploration of contingencies. Testing on normality shows that there is not a normal distribution; the Kolmogorov-Smirnov and Shapiro-Wilcoxon are both 0,000. Thus, a Mann-Whitney U test is executed. The resulting p-value is 0,004. With an alpha of 5% the hypothesis fails to be rejected. At the same time this shows that there is significant evidence that Macedonian entrepreneurs do not explore contingencies more than Dutch entrepreneurs.

4.2. Individual problem analysis

The two different groups of entrepreneurs are compared in figure 4 and 5 for each decision-making problem. Three problem area's show differences while the use of causal and respectively effectual reasoning is fairly equally distributed.

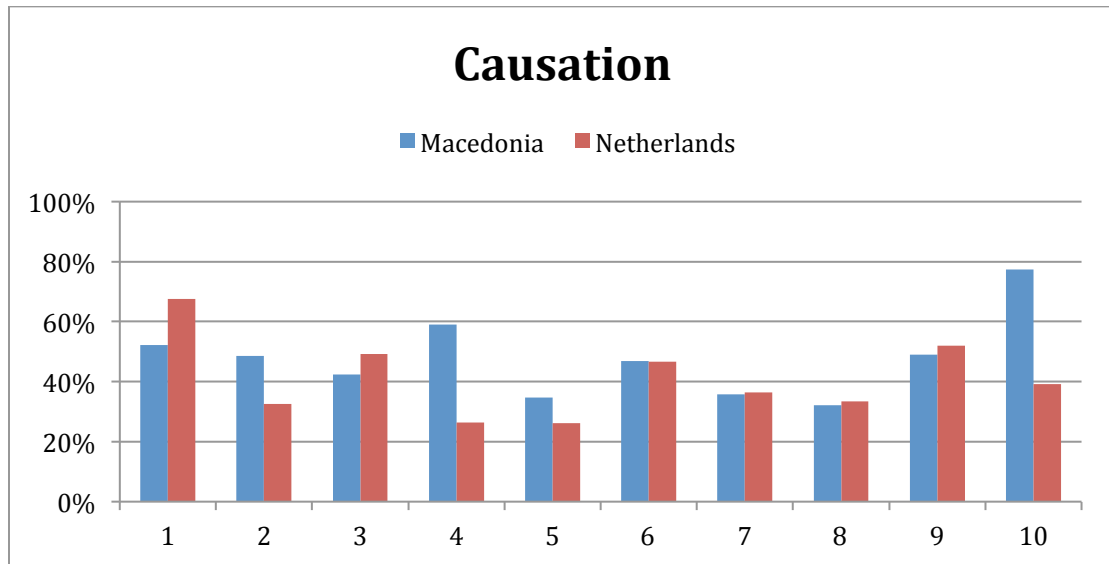


Figure 4: Use of causation per problem for Macedonia and The Netherlands

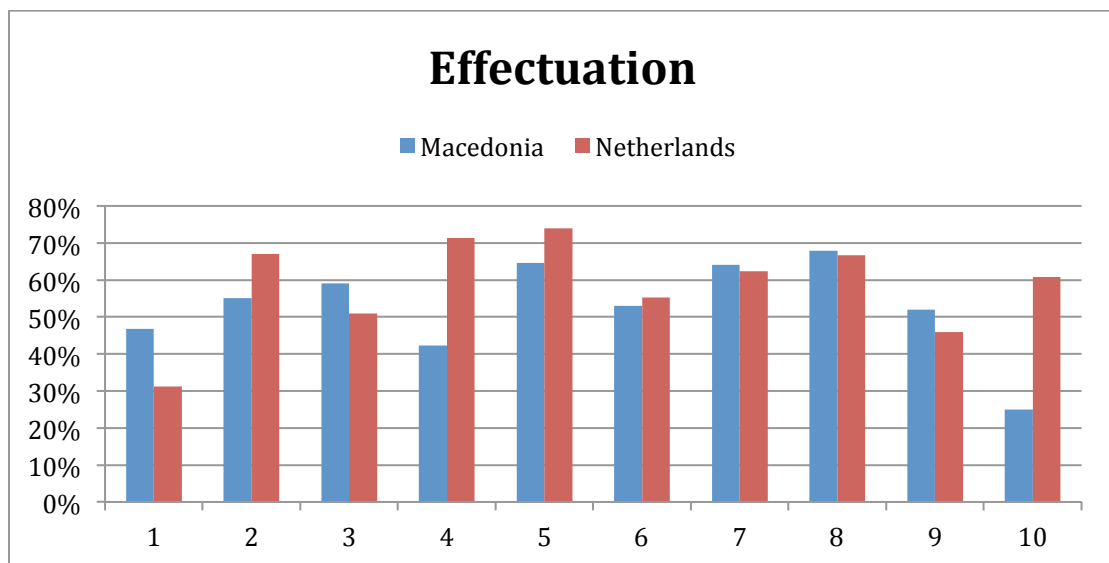


Figure 5: Use of effectuation problem for Macedonia and The Netherlands

Kolmogorov-Smirnov and the Shapiro-Wilcoxon test indicate that there is no problem normally distributed at an alpha level of 5%. Hence, a Mann-Whitney U test is executed to find out whether the differences for each problem are significant. Test results show that the distributions of problem 1 (0,030), problem 2 (0,033), problem 4 (0,00) and problem 10 (0,033) are significant not the same.

Further can be observed that the use of causation slightly declines and effectuation slightly increases as the decision-making problems are being solved among Dutch entrepreneurs. The same trend can be observed when problem 10 is left out for the Macedonian data.

4.3. Regression analysis

Paragraph 3.2.3 describes that besides causation and effectuation also other variables are measured: study background, level of study background, years of university education, years of work experience, age, gender, religion, children, marital status, years of international experience, parents income and family background. Correlation is measured between causation, effectuation and the abovementioned variables minus a few. The variable children is left out because none of the subjects had children. Marital status is left out since only one subject was married. Parents income is left out since all subjects answered this the same. The correlation matrix can be found in appendix D. Most of the correlations are between -0,1 to 0,1 and are by rule of thumb regarded as none or very weak. Values ranging from -0,3 to -0,1 or 0,1 to 0,3 are seen as weak. A few weak relationships are visible and will be further analyzed in two multiple regressions analyses.

Causation and religion (-0.405), years of international experience (-0,132) and family background (0,428). The multiple regression analysis on causation results in an R of 0,511 and R² of 0,261. Hence, only 26,1% of the variance in causation can be explained by a combination of the aforementioned variables. Table 4 shows the contribution of each variable to the model.

Variable	Beta	Standard Error	Significance
Religion	-1,004	,754	,192
Years of international experience	-,271	,300	,374
Family background	4,457	2,065	,038

Table 4: Results multiple regression analysis causation

Effectuation and study background (0,159), years university education (-0,125), religion (-0,392), years of international experience (-0,131) and family background (0,231). The multiple regression analysis on effectuation results in an R of 0,442 and R² of 0,195. Hence, only 19,5% of the variance in effectuation can be explained by a combination of the aforementioned variables. Table 5 shows the contribution of each variable to the model.

Variable	Beta	Standard Error	Significance
Study background	1,693	1,751	0,341
Years university education	-,641	1,064	0,551
Religion	-1,501	,891	0,101
Years of international experience	-,055	,379	0,886
Family background	2,077	2,488	0,410

Table 5: Results multiple regression analysis effectuation

4.4. Factor analysis

The factorability of the think aloud data and the survey data is analyzed before executing the factor analysis. The Bartlett test shows a p-value of < 0,001 and is significant for the think aloud data. The KMO value is 0,664. Both values show that a factor analysis is appropriate for these data. A parallel analysis and scree analysis of the eigenvalues is used to determine the number of factors to extract from the data and resulted in retaining three factors. Results of the factor analysis can be found in table 1 in appendix E.

The Bartlett test shows a p-value of < 0,001 and is significant for the survey data. The KMO value is 0,538. Both values show that a factor analysis is appropriate for these data. A parallel analysis and scree analysis of the eigenvalues is used to determine the number of factors to extract from the data and resulted in retaining three factors. Results of the factor analysis can be found in table 2 in appendix E. Both orthogonal and oblique rotations were used. The items loading on each factor were identical using both methods.

4.5. Reliability and correlation

The Cronbach's alpha for causation items in the think aloud data was 0,468 suggesting that the scale is not internally consistent. Leaving out the item 'x' would improve the Cronbach's alpha to 0,742 and is done when computing a new variable for the causation items in the think aloud data.

Cronbach's alpha for the effectuation items was 0,490 suggesting that the scale is not internally consistent. Leaving out the item 'n' and 'means' would improve the

Cronbach's alpha to 0,662 and is done when computing a new variable for the effectuation items in the think aloud data.

The used survey consists of 17 questions where 9 measure causation and 8 measure effectuation (Chandler et al., 2011). Cronbach's alpha for the causation items in the survey data was 0,782 suggesting that the scale is internally consistent. Leaving out the question 'We organized and implemented control processes to make sure we met objectives' would improve the Cronbach's alpha slightly to 0,820. All causation related questions were included when computing a new variable for the causation items in the survey data.

Cronbach's alpha for the effectuation items was 0,340 suggesting that the scale is not internally consistent. Leaving out two questions that correlated the worst with the other questions did only improve the Cronbach's alpha to 0,455; still being internally inconsistent. Removing more questions in order to improve the reliability would be inappropriate. Hence, the effectuation items of the survey are excluded in further analyses.

The correlation matrix comparing the computed totals of effectuation and causation for both the think aloud data and survey data can be found in appendix F.

5. Discussion and limitations

This chapter discusses the results outlined in chapter 4. Explained are the results and possible explanations for results that were not expected. Furthermore the chapter addresses limitations of the research.

5.1. Discussion

Hypothesis one expected that the more a culture emphasizes uncertainty, the more an entrepreneur will focus on existing market knowledge. Statistical analysis shows that Macedonian entrepreneurs indeed focus on existing market knowledge compared to Dutch entrepreneurs.

The second hypothesis argues that the more a culture is characterized by collectivism, the more goal-driven an entrepreneur will be. Analyzing the distribution of the use of causation and effectuation principles shows that in both countries entrepreneurs prefer to use means instead of goals. However, it is statistically proven that Macedonian entrepreneurs make more use of goals compared to Dutch entrepreneurs. It was expected that Macedonian entrepreneurs would make more use of goals. The individualism/collectivism index shows a vast difference in the scores, being 27 for Yugoslavia and 80 for Macedonia.

Hypothesis three expected that entrepreneurs in a country with a high power distance would make less use of alliances since entrepreneurs do not like to have a position in which others have authority. This hypothesis could not be validated and results showed that Macedonia, with a high power distance, scored significantly higher on the use of alliances compared with The Netherlands. An explanation of this unexpected outcome could be that the difference in power distance is nowadays negligible (see table 6). Making use of alliances might alternatively also be explained as being a universal trait of an entrepreneur. Literature describes that entrepreneurs are expected to reflect the dominant values of their national culture, but might also share some universal traits (Thomas & Mueller, 2000). A third explanation might be the outcome of hypothesis four. Hypothesis four expected that countries with a high corruption rate would make more use of alliances and was proven to be statistically significant. This outcome confirms the findings of others researchers (Ačevska et al., 2002; Aidis & Adachi, 2007; Aidis et al., 2008; Tonoyan, 2005; Tonoyan et al., 2010) and observations during interviews that corruption has an influence on entrepreneurship. Corruption was a returning subject in most of the interviews. Many entrepreneurs claimed that it was close to impossible to start a business in Macedonia without facing corruption. An entrepreneur setting up a gadget store in Skopje explained that bribery is a common business practice. When importing

goods you either have to pay sky-high import fees or bribe the customs officials for example

Also the influence of being an entrepreneur in a transition economy is tested besides culture and corruption. Expected was that the use of non-predictive control by entrepreneurs in a transition economy would have been higher than when an entrepreneur lives in a country with a market economy. Results show that there was no significant difference. Hypothesis six, testing the influence of being in a transition economy, expected that entrepreneurs in a transition economy would make more use of the exploration of contingencies. This hypothesis could not be proven. Instead, entrepreneurs in a market economy such as in The Netherlands make more use of the exploration of contingencies. An explanation could be that the size of the economy expressed in GDP of The Netherlands is 80 times bigger compared to Macedonia: 800 vs. 10 billion dollar (International Monetary Fund, 2012). A bigger economy creates more chances and can give the entrepreneur the realization that a bad surprise could be turned into an opportunity. Transition economies are often characterized by instability, lack of political freedom and changing rules and regulations, leaving the development of an entrepreneurial culture uncertain (Ireland et al., 2008). Still it is questionable whether the factor being an entrepreneur in a transition economy or not would influence the entrepreneurial decision-making process.

An analysis on the use of causation and effectuation on a per problem base shows that Macedonian and Dutch entrepreneurs most of the time choose the same direction, though there are some remarkable differences. At problem four, about financing the business, Dutch entrepreneurs use significantly more effectuation, while Macedonians go for a causation approach. An explanation for this can be that financing a SME in Macedonia is seen as very difficult (Bruton & Rubanik, 2002; Karajkov, 2009). Hence the entrepreneurs might see themselves to be forced to choose a 'safe' planned approach to financing their business. Problem ten shows also a significant difference in the use of causation and effectuation. Macedonian entrepreneurs choose a causal way of exiting their business, while the Dutch go for an effectual way. A reason for this difference might be that labor force mobility is still low in Macedonia. This is mainly a result of attitudes among working people (also supported by the socialist system) that one's workplace should not change during one's career and should be as close as possible to one's place of residence (Micevska et al., 2001). Hence, entrepreneurs prefer to keep their business, set new goals, make predictions of the future and keep it as it is instead of selling it (partly) and thus allowing people who come on board of the company to determine the goals and relying more on non-predictive control. Overall it can be observed that the use of causation slightly declines and effectuation slightly increases as the decision-making problems are being solved among Dutch entrepreneurs. The same trend can be observed when problem 10

is left out for the Macedonian data. An explanation for this phenomenon could be that entrepreneurs start the think aloud session with the feeling that they should apply what they have learned in at university. Gradually they discover that it is not about recalling what they used to learn, but is more about how they would do it, resulting in effectual reasoning.

The regression analysis shows a few weak relationships between the use of causation or effectuation and the additional measured variables. A weak negative correlation is found between causation and religion and causation and years of international experience. The declining use of causation when the years of international experience are inclining can be explained by the idea that it is more difficult to use a causal way of decision-making such as predicting the future, acquiring market knowledge, analyzing competitors and setting clear goals in a culture you are not familiar with. Hence, an entrepreneur might be forced to make less use of a causal way of decision-making. The multiple regression analysis was able to explain 26,1% of the variance in causation, making it impossible to draw conclusions on whether a specific variable or a group of variables could explain the use of causation. A weak positive correlation is found between effectuation and study background. A possible explanation can be that entrepreneurs who followed a study in the direction of economics, business, finance or entrepreneurship do not learn an effectuation approach. Entrepreneurs with a technical background often do not learn a specific approach to entrepreneurship and might be inclined to make more use of effectuation. Weak negative correlations are found between effectuation and the level of study background, gender and religion. Having a master degree reduces the use of effectual reasoning compared to having a bachelor degree. An explanation might be that a causal approach to entrepreneurship is often learned in universities, while effectuation is not (Sarasvathy, 2008). Instead of attending a master's study, starting a business might give entrepreneurs a heading start in the use of effectuation. The multiple regression analysis was able to explain 19,5% of the variance in effectuation, making it impossible to draw conclusions on whether a specific variable or a group of variables could explain the use of effectuation.

Factor analysis for the think aloud data shows that causation as well as effectuation items load on three factors, suggesting that causation as well as effectuation is a multidimensional construct. Factor analysis on the survey data shows that effectuation items did not load together, while causation items tended to load together. Hence, suggesting that causation is a uni-dimensional and effectuation a multidimensional construct. This finding seems to validate the findings of Chandler et al. (2011) who found the same, though with stronger evidence.

Reliability of the research is measured by means of Cronbach's alpha. The causation and effectuation items of the think aloud data are internally consistent according to Cronbach's alpha. The scale for causation items of the survey is also internally consistent, though the effectuation items scored a Cronbach's alpha of 0,340. This suggests that the scale is not internally consistent. Leaving out two questions that correlated the worst with the other questions did only improve the Cronbach's alpha to 0,455; still being internally inconsistent. Removing more questions in order to improve the reliability would be inappropriate. Hence, the effectuation items of the survey were excluded in further analyses. An explanation for the inconsistency could be that the questions on effectuation were located at the end of the survey. Subjects might have been less motivated to think about the questions and answered them randomly.

The correlation matrix shows that the correlation for causation items from the survey with causation items from the think aloud data is 0,367. This is a moderate relation and shows that both methods seem to measure the same. Expected was a negative relation between causation items and effectuation items. Hence, the correlation coefficient is moderate to strong at 0,506 for causation items in the survey and effectuation items from the think aloud data. Correlation for the causation items from the think aloud data and effectuation items from the think aloud data show a strong relationship with a correlation coefficient of 0,692. This suggests that entrepreneurs use causation and effectuation principals at the same time.

The cultural component of the research is based on the work of Hofstede, but is often criticized (DiMaggio, 1997; McSweeney, 2002; Newman & Nollen, 1996; Søndergaard, 1994). Arguments that hold when using this theory in the context of Macedonia is that the theory is developed in a Western cultural context. Literature suggests that it should be used with caution in other cultural contexts (Ailon, 2008). Nowadays the work is also criticized of being outdated. Though the cultural values for Yugoslavia were replicated in 1993, the original data still dates from 1971. All subjects were asked to fill in Hofstede's public available 'Values Survey Module 2008' (VSM 08) in order to validate the cultural values. This module is a questionnaire developed for comparing culturally influenced values and sentiments of similar respondents from two or more countries (Hofstede, Hofstede, Minkov, & Vinken, 2008). Table 6 shows the calculated scores of the dimensions of national culture. The data from 1971 shows a typical communist cultural profile with a low score on IDV and a high score on UAI compared to The Netherlands. The newly measured data shows a different view. Power distance got reduced, uncertainty avoidance is nowadays the same and Macedonia became even more individualistic than the Netherlands.

	Netherlands (?)	Netherlands (2012)	Yugoslavia (1971/1993)	Macedonia (2012)
PDI	38	-2	76	-10
IDV	80	54	27	60
MAS	14	-2	21	35
UAI	53	-65	88	-65
LTO	44	28		6

Table 6: Hofstede scores The Netherlands and Yugoslavia (own calculated)

Based on 20 subjects the sample was small, thus can be seen as a set of outliers. However, it gives an insight in the cultural characteristics of young Macedonian entrepreneurs. Hypothesis two argued that it was expected that Macedonian entrepreneurs would make a lot more use of goals compared to Dutch entrepreneurs because of the large difference on the IDV score. An IDV score that is quite similar to The Netherlands can explain the equal distribution of entrepreneurs being goal-driven.

The use of the think aloud method is an aspect of the research that can be discussed. Culture differs in several dimensions (Hofstede & Hofstede, 2001). Hence it is not strange to ask the question whether a specific research design would fit in every culture; a one method fits all approach. Research methods are influenced by the culture where it originates and therefore it corrupts the data when using the same method in a completely different cultural context (Chavan, 2005). The think-aloud method is widely used in Europe and America and is based on the idea that participants are able to verbalize their thoughts and feel comfortable to say whether they disagree or agree with something. This assumption is in contrary to the cultural aspects on talking and thinking in certain cultures. In India for example, one will not easily say that something is bad or good because of a particular reason. People tend to accept a given situation and would then find a 'work-around' for it (Chavan, 2005). Many Europeans and Americans learn that they are a unique person. People in East Asian cultures learn that they are ordinary people, not that unique and similar to others in their environment (Fiske, Kitayama, Markus, & Nisbett, 1998). Collectivistic cultures are seen as drivers behind this. In collectivistic cultures individuals tend to express the opinion that they think the majority of the people hold; they find it difficult to express their own opinion (Chavan, 2005). This could also hold for Macedonia since it has a collectivistic culture. There might be more influences on thought processes besides culture. Somebody hearing his or her own voice while thinking aloud might increase the self-awareness of the person. This extra awareness might influence the effect of talking on thinking. Nevertheless, verbal reports of thinking processes (thinking aloud) continue to

be widely accepted and used as valid data for analysis of many cognitive processes. Hence, it should be used with care when using it in a different cultural context (Ericsson & Simon, 1980; Kim, 2002).

5.2. Limitations

During this research Macedonian entrepreneurs solved a business case while thinking aloud in English. While none of them had problems understanding the case, English is not their native language. Hence, subjects might have been thinking in Macedonian while speaking English. Nuances could have been altered or left out during this translation.

The sample size of 20 subjects could be another limitation. Nielsen (1994) suggests that less than ten test subjects should already be enough to retrieve critical information. However, the external validity would have been improved if the sample was larger. Furthermore the generalizability of the research could have been improved when expert entrepreneurs were also researched, though this would have been difficult for Macedonia as well as The Netherlands.

A third limitation is the generalizability of the research. 17 out of the 20 researched entrepreneurs are from the capital of Macedonia, Skopje. Macedonia is a small country and roughly 35% of the total population of 2 million lives in Skopje; still it needs to be taken into account that the results might have been different when entrepreneurs from the more rural areas of Macedonia were included.

A fourth limitation is the use of Hofstede's cultural dimensions when researching entrepreneurs. The dimensions are derived by surveying employees at IBM or subsidiaries of IBM. Entrepreneurs are often depicted as being different compared to wage employees, making the use of cultural dimensions derived from surveying wage employees a fourth limitation.

A fifth limitation is the inter-rater reliability. Verification of the coding to improve the inter-rater reliability is done by asking other members of the EPICC research project to code a part of a protocol and compare it with the coding of the researcher. Differences in coding were negligible. However, the reliability could have been improved by analyzing it statistically using a test such as Fleiss' kappa (Van Someren et al., 1994).

A sixth limitation is the use of multiple independent variables to explain the dependent variable 'use of alliances'. Hypothesis three tried to explain the use of alliances by power distance while hypothesis four tried to explain it by corruption rate. Analyzing the independent variables separately makes it difficult to draw a conclusion since they might correlate.

6. Conclusion and recommendations

The last chapter will outline the conclusions based upon the results and the discussion of the results. First an overall conclusion is given, followed by a short conclusion for each hypothesis. The chapter ends with practical recommendations and recommendations for future research.

6.1. Conclusion

The hypotheses and additional analysis of the results show that there are differences in the use of causation and effectuation among entrepreneurs across the two analyzed countries. The previous chapter shows that out of six three hypotheses are rejected. Hypothesis one, two and three compared entrepreneurs from Macedonia and The Netherlands on cultural characteristics. Two out of the three hypotheses testing the influence of national culture got accepted. Hypothesis four, testing the influence of corruption rate got accepted. Hypothesis five and six on being an entrepreneur in a transition economy got both rejected. In an answer to the research question and the three sub-questions:

Do contextual factors influence entrepreneurs in their entrepreneurial decision-making processes?

- 1. Does uncertainty avoidance, collectivism and power distance influence entrepreneurs in their entrepreneurial decision-making processes?*
- 2. Does the difference between transition and market economy influence entrepreneurs in their entrepreneurial decision-making processes?*
- 3. Does the degree of corruption influence entrepreneurs in their entrepreneurial decision-making processes?*

It can be concluded that contextual factors influence entrepreneurs in their entrepreneurial decision-making processes, but not all contextual factors mentioned in the sub-questions. Uncertainty avoidance, collectivism and corruption does influence entrepreneurs in their entrepreneurial decision-making processes, power distance and type of economy seems not. It cannot be concluded that being an entrepreneur in a specific national culture or in a country with a high or low corruption rate could predict either a causal or effectual way of decision-making.

Hypothesis one expected that the more a culture emphasizes uncertainty, the more an entrepreneur will focus on existing market knowledge. The distribution already shows that Macedonia makes more use of existing market knowledge compared to Dutch entrepreneurs. Statistical analysis shows that Macedonian

entrepreneurs indeed focus on existing market knowledge compared to Dutch entrepreneurs. This is in line with the theoretical explanation of the hypothesis that explains that entrepreneurs in countries with a high score on uncertainty avoidance are expected to focus more on existing market knowledge

The second hypothesis argues that the more a culture is characterized by collectivism, the more goal-driven an entrepreneur will be. It got proven that Macedonian entrepreneurs are more goal-driven compared to Dutch entrepreneurs.

Hypothesis three and four are the result of a theoretical search on what could influence the use of alliances. From literature it was expected that entrepreneurs in a country with a high power distance such as Macedonia would make less use of alliances. At the same time it was expected that countries with a high corruption rate would make more use of alliances. Since Macedonia has a high corruption rate and a high score on power distance either one of the hypothesis had to be rejected. The distribution on the use of causation and effectuation principles among entrepreneurs in both countries already showed that Macedonian entrepreneurs make more use of alliances compared to Dutch entrepreneurs. Statistical tests confirm this insight. Hence, it can only be concluded that entrepreneurs in a country with a high corruption rate make more use alliances.

Also the influence of type of economy is tested besides the influence of corruption. Expected was that entrepreneurs in transition economies such as in Macedonia make more use of non-predictive control and the exploration of contingencies as entrepreneurs in market economies such as in the Netherlands. The distribution on the use of non-predictive control among entrepreneurs in Macedonia and The Netherlands shows that there is virtually no difference. Statistical analysis also shows no difference and therefore the hypothesis is rejected. The use of the exploration of contingencies is not equal across both countries. Entrepreneurs in The Netherlands make significantly more use of it than entrepreneurs in Macedonia.

6.2. Recommendations

Recommended is to repeat the research with a larger sample size from different parts in Macedonia. A larger sample would improve the reliability and generalizability. The sample can be stretched to include other types of entrepreneurs such as expert entrepreneurs. Reliability could be improved by executing the think aloud session in the native language of the subject.

The solely use of Hofstede's cultural dimensions creates limitations. For future research it is advised to include other cultural dimensions as well to find out if

this would lead to different results. The current research shows that besides national culture other factors might influence the entrepreneurial process as well. Future research might want to search for psychological characteristics or other underlying cultural values.

Practically, embassies and foreign non-governmental organizations in Macedonia might want to keep cultural differences in mind while collaborating with local organizations and entrepreneurs. A better understanding of the influence of culture on entrepreneurship could improve the understanding why Western entrepreneurship theories do not always work out of the box in a different country.

Entrepreneurs and firms from different cultures and from countries with different types of economy planning to enter a foreign market should always keep these differences in mind. Failures can often be addressed to a lack of understanding of 'how things are done' in the target country. A firm might want to reconsider their internationalization plans if they are for example not willing to pay bribes in a country with a high corruption rate.

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Appendix A: Causation and effectuation questionnaire

Please answer the following questions on the basis of reflecting on your own company. Have a look at the following statements. Now, circle 1 answer out of 5, in which you indicate you are totally agreeing with the statement.

1 = totally agree

2 = agreeing

3 = neither agreeing, nor disagreeing

4 = disagree

5 = totally disagree

1.	I analyzed long run opportunities and selected what I thought would provide the best returns.	1	2	3	4	5
2.	I developed a strategy to best take advantage of resources and capabilities	1	2	3	4	5
3.	I researched and selected target markets and did meaningful competitive analysis 12345	1	2	3	4	5
4.	I designed and planned business strategies	1	2	3	4	5
5.	I organized and implemented control processes to make sure we met objectives 1	1	2	3	4	5
6.	I had a clear and consistent vision for what I wanted to do	1	2	3	4	5
7.	I designed and planned production and marketing efforts	1	2	3	4	5
8.	The ultimate product / service that I used to launch this business was quite similar to my original conception	1	2	3	4	5
9.	My decision-making has been largely driven by expected returns	1	2	3	4	5
10.	The ultimate product/service that I used to launch this business was quite different from my original conception	1	2	3	4	5
11.	It was impossible to see from the beginning where I wanted to end	1	2	3	4	5
12.	I have allowed the business to evolve as opportunities have emerged	1	2	3	4	5
13.	I evaluated the set of resources and means I had at our disposal and thought about different options	1	2	3	4	5
14.	I experimented with different products and / or business models	1	2	3	4	5

15.	I started out very flexibly and tried to take advantage of unexpected opportunities as they arose	1	2	3	4	5
16.	I used a substantial number of agreements with customers, suppliers and other organizations and people to reduce the amount of uncertainty	1	2	3	4	5
17.	My decision-making has been largely driven by how much we could afford to lose	1	2	3	4	5

Appendix B: Values Survey Module 2008 Questionnaire

Please think of an ideal job, disregarding your present job, if you have one. In choosing an ideal job, how important would it be to you to ... (please circle one answer in each line across):

- 1 = of utmost importance
- 2 = very important
- 3 = of moderate importance
- 4 = of little importance
- 5 = of very little or no importance

01. have sufficient time for your personal or home life	1	2	3	4	5
02. have a boss (direct superior) you can respect	1	2	3	4	5
03. get recognition for good performance	1	2	3	4	5
04. have security of employment	1	2	3	4	5
05. have pleasant people to work with	1	2	3	4	5
06. do work that is interesting	1	2	3	4	5
07. be consulted by your boss in decisions involving your work	1	2	3	4	5
08. live in a desirable area	1	2	3	4	5
09. have a job respected by your family and friends	1	2	3	4	5
10. have chances for promotion	1	2	3	4	5

In your private life, how important is each of the following to you: (please circle one answer in each line across):

11. keeping time free for fun	1	2	3	4	5
12. moderation: having few desires	1	2	3	4	5
13. being generous to other people	1	2	3	4	5
14. modesty: looking small, not big	1	2	3	4	5

15. If there is something expensive you really want to buy but you do not have enough money, what do you do?
1. always save before buying
 2. usually save first
 3. sometimes save, sometimes borrow to buy
 4. usually borrow and pay off later
 5. always buy now, pay off later
16. How often do you feel nervous or tense?
1. always
 2. usually
 3. sometimes
 4. seldom
 5. never
17. Are you a happy person ?
1. always
 2. usually
 3. sometimes
 4. seldom
 5. never
18. Are you the same person at work (or at school if you're a student) and at home?
1. quite the same
 2. mostly the same
 3. don't know
 4. mostly different
 5. quite different
19. Do other people or circumstances ever prevent you from doing what you really want to?
1. yes, always
 2. yes, usually
 3. sometimes
 4. no, seldom
 5. no, never
- 20 . All in all, how would you describe your state of health these days?
1. very good
 2. good
 3. fair
 4. poor
 5. very poor
21. How important is religion in your life ?
1. of utmost importance
 2. very important
 3. of moderate importance
 4. of little importance
 5. of no importance
22. How proud are you to be a citizen of your country?
1. not proud at all
 2. not very proud
 3. somewhat proud
 4. fairly proud
 5. very proud

23. How often, in your experience, are subordinates afraid to contradict their boss (or students their teacher?)

- 1. never
- 2. seldom
- 3. sometimes
- 4. usually
- 5. always

To what extent do you agree or disagree with each of the following statements?
(please circle one answer in each line across):

- 1 = strongly agree
- 2 = agree
- 3 = undecided
- 4 = disagree
- 5 = strongly disagree

24. One can be a good manager without having a precise answer to every question that a subordinate may raise about his or her work

1 2 3 4 5

25. Persistent efforts are the surest way to results

1 2 3 4 5

26. An organization structure in which certain subordinates have two bosses should be avoided at all cost

1 2 3 4 5

27. A company's or organization's rules should not be broken - not even when the employee thinks breaking the rule would be in the organization's best interest

1 2 3 4 5

28. We should honour our heroes from the past

1 2 3 4 5

Some information about yourself (for statistical purposes):

29. Are you:

1. male
2. female

30. How old are you?

1. Under 20
2. 20-24
3. 25-29
4. 30-34
5. 35-39
6. 40-49
7. 50-59
8. 60 or over

31. How many years of formal school education (or their equivalent) did you complete (starting with primary school)?

1. 10 years or less
2. 11 years
3. 12 years
4. 13 years
5. 14 years
6. 15 years
7. 16 years
8. 17 years
9. 18 years or over

32. If you have or have had a paid job, what kind of job is it / was it?

1. No paid job (includes full-time students)
2. Unskilled or semi-skilled manual worker
3. Generally trained office worker or secretary
4. Vocationally trained craftsperson, technician, IT-specialist, nurse, artist or equivalent
5. Academically trained professional or equivalent (but not a manager of people)
6. Manager of one or more subordinates (non-managers)
7. Manager of one or more managers

33. What is your nationality?

34. What was your nationality at birth (if different)?

Appendix C: Distribution use of causation/effectuation

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	% C/E
Causation																						
G	0	1	4	1	8	4	3	1	10	10	0	3	4	0	3	3	5	3	3	4	70	25
R	2	4	4	1	5	5	5	12	9	6	4	1	9	2	2	4	5	4	5	4	93	68
B	3	3	6	2	6	6	3	3	4	2	1	5	2	2	1	2	2	1	3	2	59	32
K	2	6	10	3	17	6	2	3	6	4	3	6	3	4	9	2	3	4	5	4	102	62
P	1	3	8	3	9	6	14	13	10	7	2	5	7	0	2	3	3	8	6	3	113	65
Z	1	3	3	0	1	7	3	2	2	0	0	0	0	0	0	0	0	0	0	0	22	69
X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	9	20	35	10	46	34	30	34	41	29	10	20	25	8	17	14	18	20	22	17	459	100
%	43	71	61	71	58	68	39	53	51	50	32	53	33	32	28	33	45	48	56	37	47	
Effectuation																						
M	1	1	1	1	2	3	23	14	23	11	7	10	26	7	20	17	9	11	8	12	207	75
L	1	1	3	0	7	0	3	2	3	7	1	0	3	5	2	0	2	1	0	2	43	32
A	5	4	8	2	11	5	12	4	8	8	7	4	10	1	9	7	4	3	6	7	125	68
E	0	1	0	0	5	2	7	3	4	2	4	3	6	3	7	3	1	6	1	5	63	38
C	4	1	9	1	6	4	2	4	1	1	2	1	6	1	5	2	5	1	2	2	60	35
D	1	0	0	0	1	2	0	3	0	0	0	0	0	0	1	0	1	0	0	1	10	31
N	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	100
Total	12	8	22	4	34	16	47	30	39	29	21	18	51	17	44	29	22	22	17	29	511	100
%	57	29	39	29	43	32	61	47	49	50	68	47	67	68	72	67	55	52	44	63	53%	

Table 1: Distribution use of causation/effectuation among Macedonian subjects

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	% C/E
Causation																						
G	1	1	2	5	3	0	2	3	4	4	2	5	0	1	4	2	3	1	2	4	49	22
R	1	4	1	2	3	5	0	5	4	6	4	3	2	5	2	3	2	6	6	5	69	87
B	1	1	2	3	1	3	1	1	2	1	2	2	1	3	2	2	1	1	1	1	32	44
K	2	1	2	0	1	1	1	1	2	0	1	1	1	1	0	0	0	0	0	0	15	39
P	1	1	1	2	2	1	1	3	5	3	1	2	1	3	1	3	5	2	1	3	42	64
Z	2	1	2	0	1	1	1	1	2	0	1	1	1	1	0	0	0	0	0	0	15	39
X	5	4	3	6	6	5	5	3	4	3	5	3	7	5	8	4	5	4	7	5	97	77
Total																						
Total	13	13	13	18	17	16	11	17	23	17	16	17	13	19	17	14	16	14	17	18	319	100
%	45	45	50	51	52	57	42	47	66	59	53	59	29	59	46	52	40	44	61	53	50	
Effectuation																						
M	6	6	4	2	6	4	5	11	9	4	11	7	19	9	13	10	18	14	6	8	172	78
L	0	0	1	0	1	0	1	0	0	0	0	1	1	1	1	0	1	0	1	1	10	13
A	5	2	4	2	3	2	5	2	2	2	1	2	1	1	1	0	1	2	1	1	40	56
E	1	1	0	5	2	2	1	2	0	2	0	0	3	0	1	1	1	0	0	1	23	61
C	0	3	3	0	0	1	1	0	1	1	2	1	2	1	3	0	0	1	2	2	24	36
D	1	1	0	5	2	2	1	2	0	2	0	0	3	0	1	1	1	0	0	1	23	61
N	3	3	1	3	2	1	1	2	0	1	0	1	3	1	0	1	2	1	1	2	29	23
Total																						
Total	16	16	13	17	16	12	15	19	12	12	14	12	32	13	20	13	24	18	11	16	321	100
%	55	55	50	49	48	43	58	53	34	41	47	41	71	41	54	48	60	56	39	47	50	

Table 2: Distribution use of causation/effectuation among Dutch subjects

Appendix D: Correlation matrix causation, effectuation and independent variables

		causation	effectuation	study background	study background level	years university edu.	years work exp.	age	gender	religion	years international exp.	family background
causation	Corr.	1	.540**	.026	.081	.049	-.031	.095	.035	-.405**	-.132	.428**
	Sig.		.000	.874	.618	.764	.848	.562	.830	.010	.417	.006
	N	40	40	40	40	40	40	40	40	40	40	40
effectuation	Corr.	.540**	1	.159	-.064	-.125	-.091	-.066	.073	-.392*	-.131	.231
	Sig.	.000		.328	.694	.443	.577	.686	.656	.012	.420	.152
	N	40	40	40	40	40	40	40	40	40	40	40
study background	Corr.	.026	.159	1	-.180	-.119	-.353*	-.213	-.241	-.055	-.113	-.174
	Sig.	.874	.328		.265	.466	.026	.188	.134	.734	.486	.284
	N	40	40	40	40	40	40	40	40	40	40	40
study background level	Corr.	.081	-.064	-.180	1	.582**	.240	.471**	.329*	-.011	.127	.032
	Sig.	.618	.694	.265		.000	.135	.002	.038	.944	.436	.846
	N	40	40	40	40	40	40	40	40	40	40	40
years university education	Corr.	.049	-.125	-.119	.582**	1	.382*	.665**	.290	.071	.418**	.191
	Sig.	.764	.443	.466	.000		.015	.000	.070	.664	.007	.237
	N	40	40	40	40	40	40	40	40	40	40	40
years work experience	Corr.	-.031	-.091	-.353*	.240	.382*	1	.685**	.117	.309	.187	-.021
	Sig.	.848	.577	.026	.135	.015		.000	.472	.052	.248	.896
	N	40	40	40	40	40	40	40	40	40	40	40
age	Corr.	.095	-.066	-.213	.471**	.665**	.685**	1	.226	.219	.248	.107
	Sig.	.562	.686	.188	.002	.000	.000		.162	.174	.123	.512
	N	40	40	40	40	40	40	40	40	40	40	40
gender	Corr.	.035	.073	-.241	.329*	.290	.117	.226	1	-.119	.423**	.158
	Sig.	.830	.656	.134	.038	.070	.472	.162		.466	.007	.331
	N	40	40	40	40	40	40	40	40	40	40	40
religion	Corr.	-.405**	-.392*	-.055	-.011	.071	.309	.219	-.119	1	.227	-.422**
	Sig.	.010	.012	.734	.944	.664	.052	.174	.466		.158	.007
	N	40	40	40	40	40	40	40	40	40	40	40
years international exp.	Corr.	-.132	-.131	-.113	.127	.418**	.187	.248	.423**	.227	1	.160
	Sig.	.417	.420	.486	.436	.007	.248	.123	.007	.158		.323
	N	40	40	40	40	40	40	40	40	40	40	40
family background	Corr.	.428**	.231	-.174	.032	.191	-.021	.107	.158	-.422**	.160	1
	Sig.	.006	.152	.284	.846	.237	.896	.512	.331	.007	.323	
	N	40	40	40	40	40	40	40	40	40	40	40

Appendix E: Exploratory factor analysis

	Causation/ Effectuation	Factor		
		1	2	3
We analyzed long run opportunities and selected what we thought would provide the best returns	C	,748		
We developed a strategy to best take advantage of resources and capabilities	C	,638		
We researched and selected target markets and did meaningful competitive analysis	C	,887		
We designed and planned business strategies	C	,774		
We organized and implemented control processes to make sure we met objectives	C			,444
We had a clear and consistent vision for what we wanted to do	C		-,655	
We designed and planned production and marketing efforts	C	,734		
The ultimate product/service that I used to launch this business was quite similar to my original	C	,438	-,543	
Our decision-making has been largely driven by expected returns	C	,474		-,416
The ultimate product/service that I used to launch this business was quite different from my original	E			
It was impossible to see from the beginning where we wanted to end	E	-,457		,643
We have allowed the business to evolve as opportunities have emerged	E			
We evaluated the set of resources and means we had at our disposal and thought about different options	E	,429	,645	
We experimented with different products and/or business models	E		,541	
We started out very flexibly and tried to take advantage of unexpected opportunities as they arose	E	-,713		
We used a substantial number of agreements with customers, suppliers and other organizations and	E	,653		
Our decision-making has been largely driven by how much we could afford to lose	E			,483

Table 1: Exploratory factor analysis survey data

	Causation/ Effectuation	Factor		
		1	2	3
G - Goals	C	,610		
R - Expected returns	C	,487		,486
B - Competitive analysis	C	,650	-,602	
K - Existing market knowledge	C	,790		
P - Predictions of the future	C	,793		
Z - Emphasis on analysis of data	C		-,578	,513
M - Means	E		,796	
L - Affordable loss	E	,718		
A - Use of alliances or partnerships	E	,844		
E - Exploitation of contingencies	E	,557	,511	
C - Control by prediction	E	,620		
D - Distrusting or opposing (market) research	E			,615

Table 2: Exploratory factor analysis think aloud data

Appendix F: Correlation matrix causation, effectuation survey and think aloud items

		causation survey	effectuation survey	causation think aloud	effectuation think aloud
causation survey	Pearson Correlation	1	-,008	.367*	.506**
	Sig. (2-tailed)		,967	,030	,002
	N	35	31	35	35
effectuation survey	Pearson Correlation	-,008	1	-,053	-,191
	Sig. (2-tailed)	,967		,776	,304
	N	31	31	31	31
causation think aloud	Pearson Correlation	.367*	-,053	1	.692**
	Sig. (2-tailed)	,030	,776		,000
	N	35	31	40	40
effectuation think aloud	Pearson Correlation	.506**	-,191	.692**	1
	Sig. (2-tailed)	,002	,304	,000	
	N	35	31	40	40