



THE INFLUENCE OF NATIONAL CULTURE ON ENTREPRENEURIAL PROCESSES

J. Krijgsman

FACULTY MB
MANAGEMENT AND GOVERNANCE

EXAMINATION COMMITTEE
Dr. R. Harms
M.R. Stienstra MSc.

5th of June

The influence of national culture on entrepreneurial processes

A comparison between Mexican and Dutch entrepreneurs

Master Thesis for the Master Business Administration
Track International Management

University of Twente, Enschede, The Netherlands
Management and Governance, NIKOS

Judith Krijgsman

s1090879

j.krijgsman-1@student.utwente.nl

5th of June, 2012

Graduation committee:

1st supervisor: Dr. R. Harms

2nd supervisor: M.R. Stienstra MSc.

Preface

This thesis is submitted to the faculty of Management and Governance of the University of Twente, in fulfillment of the requirements for the degree of the Master of Science in Business Administration, with a specialization in International Management.

My thanks and appreciation goes out to my graduation committee: Dr. Rainer Harms and Martin Stienstra MSc. for their guidance, insights and consideration. Furthermore, I would like to express appreciation to Mr. Pilz Aguilar for his guidance and for giving me the opportunity to gather data among student entrepreneurs within the university IberoAmericana in Mexico City.

My gratitude also goes out to the people that participated in my research, for their input and knowledge, both from the Netherlands and from Mexico. In addition, my gratitude goes to all students and professors who helped me in the process of this project. I sincerely would like to thank my family, partner and friends for their unconditional support.

Judith Krijgsman,

June, 2012, Enschede

Management Summary

This research focuses on the understanding of the influence of national culture on entrepreneurial processes. The aim is to find out whether starting entrepreneurs in different countries apply different entrepreneurial processes. The leitmotiv in this research is the theory of Saras D. Sarasvathy on causation and effectuation, combined with theory on national culture. Causational reasoning takes a certain effect as given and focuses on selecting between means to create a particular effect, whereas effectual reasoning starts with a given set of means and allows objectives to emergence over time from the varied imagination and diverse aspirations of the entrepreneurs and the people they interact with.

Even though the positive trend in entrepreneurship publications over time, many researchers investigated the causes and elements of entrepreneurship focused on economy, underestimating the role of culture. As economies become global and opportunities for cross border operations are increasing, it is important to understand how entrepreneurs from different countries differ. A possible source for this differences among entrepreneurs is the underlying cultural values these entrepreneurs have. Because entrepreneurs grow up within a social background, they are influenced by these underlying values of their culture. Culture provides a communally held set of customs and meanings, many of which are adopted by the person, becoming part of personality and influencing interactions with the social and physical environment.

Within this research a comparison between Mexico and the Netherlands is executed, based upon their cultural values and entrepreneurial processes that the entrepreneurs apply. The national cultures of the two countries are conceptualized by means of cultural dimensions defined by the scientists Hofstede, House and Trompenaars and Hampden-Turner . The data on the entrepreneurial processes applied is gathered by means of the execution of the think aloud method by student entrepreneurs from Mexico as well as the Netherlands. Thinking aloud means that during problem solving the subject keeps talking, speaks out loud whatever thoughts come up in his or her mind, while performing a task in that moment. Furthermore, a survey is executed among the Mexican student entrepreneurs to test the dimensionality of causation and effectuation.

The cultural dimension performance orientation did not have a correlation with causation, neither did external locus of control with effectuation. However, uncertainty avoidance has a significant correlation with effectuation, uncertainty avoidance leads entrepreneurs to be less favoring of non-predictive controls. Masculinity has a significant correlation with causation, masculinity leads entrepreneurs to be less favoring of cooperation and have a

distributive perspective on competition. However, an individualistic culture has a significant correlation with effectuation, it leads entrepreneurs to be cooperative, to seek long term connections and emphasize working together. Furthermore, to go more in depth, the correlation of gender roles with causation and effectuation was explored but did not have a significant correlation. Furthermore, there is no significant correlation between personal background and the degree of use of causation or effectuation. The factor analysis on the data of the survey showed that causation as well as effectuation are multidimensional in this research, in contradiction to the theory of Sarasvathy stating that causation and effectuation are two different approaches to venture creation. A second factor analysis executed on the data, after combining questions of causation and effectuation turned out to be one-dimensional.

National culture seems to be correlated with the use of certain entrepreneurial processes among entrepreneurs with the establishment of a company. Differences of entrepreneurial activities could be noticed between Mexico and the Netherlands, however not all aspects were significantly different among the two countries. As a consequence, more in depth study can be executed into underlying cultural values influencing the profile of environmental conditions favoring entrepreneurship, such as gender roles, traditions, patriotism, importance of status, high value on relationships and high value on mutual trust.

List of tables and figures

Tables

Table 1: Hofstede's cultural dimensions.....	18
Table 2: House's cultural dimensions	19
Table 3: Trompenaars' & Hampden-Turner's cultural dimensions.....	20
Table 4: Interdependent aspects of causation and effectuation.....	25
Table 5: Causation and effectuation items and loadings.....	49
Table 6: Causation and effectuation items and loadings after second factor analysis.....	50
Table 7: Correlation matrix survey.....	50

Figures

Figure 1: Distribution of causation.....	43
Figure 2: Distribution of effectuation.....	44

Table of contents

Preface	II
Management Summary	III
1. Introduction	9
1.1 Background	9
1.2 Purpose and scope of the research	10
1.3 Research question and strategy.....	10
1.4 Research relevance	11
2. Literature review.....	12
2.1 Entrepreneurship	12
2.2 Effectuation & Causation	13
2.3 Culture.....	16
2.3.1 Cultural dimensions	17
2.3.1.1 Hofstede's cultural dimensions	18
2.3.1.2 House's cultural dimensions	19
2.3.1.3 Trompenaars & Hampden-Turner's cultural dimensions	20
2.3.2 National culture of Mexico	21
2.3.2.1 Mexican business culture.....	22
2.3.2.2 Cultural influence on entrepreneurial behavior	23
3 Hypotheses.....	25
3.1 Performance orientation and causation	26
3.2 Masculinity and causation	27
3.3 Collectivism and effectuation	28

3.4 External locus of control and effectuation	29
3.5 Uncertainty avoidance and causation	30
3.6 Gender roles and causation	31
3.7 Personal background and causation & effectuation	32
4. Methodology.....	33
4.1 Data collection	33
4.1.1 Setting	34
4.1.2 Sample.....	35
4.2 Operationalization	36
4.3 Method of analysis.....	38
5. Results	43
5.1 Causation and effectuation distribution	43
5.2 Statistical parametric testing	44
5.3 Exploratory factor analysis.....	47
5.4 Correlation matrixes on survey and think aloud data	50
5.5 Conclusion of results	52
6. Discussion and limitations.....	55
7. Conclusion, reflection and recommendations.....	58
7.1 Conclusion	58
7.2 Reflection	60
7.3 Recommendations	61
References.....	62
Annexes.....	
Appendix A: Business case	

Appendix B: Survey
Appendix C: Overview sample characteristics
Appendix D: Coding scheme
Appendix E: Distribution causation and effectuation.....
Appendix F: Distribution survey per respondent.....
Appendix G: Correlation matrix think aloud data.....

1. Introduction

This chapter outlines the background, the purpose and scope of the research. In addition, the research question and strategy are addressed followed by the relevance of the research. This research is conducted as a part of the EPIC-C project, which stands for Entrepreneurial Processes In a Cultural Context executed by NIKOS. Within this project research is executed to improve the understanding of the entrepreneurial processes used within venture creation among different countries.

1.1 Background

Evidence of a growing body of entrepreneurship articles in management journals could lend support to the view that entrepreneurship is emerging as a distinct domain (Alvaro et al., 2007). Entrepreneurship is the discovery, enactment, evaluation and exploitation of opportunities, which can be across national borders, to create future goods and services (Oviatt & McDougall, 2005). Within this positive trend in entrepreneurship publications over time, many researchers investigated the causes and elements of entrepreneurship focused on economy, unfortunately underestimating the role of culture (Hofstede et al., 2004).

Additionally, the scientist Saras D. Sarasvathy developed the concepts of causation and effectuation to describe entrepreneurial processes. Causational reasoning takes a certain effect as given and focuses on selecting between means to create that particular effect, whereas effectual reasoning starts with a given set of means and allows objectives to emergence over time from the varied imagination and diverse aspirations of the entrepreneurs and the people they interact with (Sarasvathy, 2001a).

As economies become global and opportunities for cross border operations are increasing, it is important to understand how entrepreneurs from different countries differ. A possible source for differences among entrepreneurs is the underlying cultural values these entrepreneurs have. Because entrepreneurs grow up within a social background, they are influenced by the underlying values of their culture (Hayton et al., 2002). However, entrepreneurs around the world can possess some common values and beliefs independent of their national background (McGrath & McMillan, 1992a), culture remains a powerful cause of attitudes and clarifies main differences across entrepreneurs (Steensma et al., 2000). Culture provides a communally held set of customs and meanings, many of which are adopted by the person, becoming part of personality and influencing interactions with the social and physical environment (Dake, 1991).

Consequently, the question can be raised how culture influences entrepreneurship, does the underlying cultural value of an entrepreneur influence his or hers use of entrepreneurial processes? The cultural values indicate the degree to which a society considers entrepreneurial behaviors as taking risks, think individualistic and so on, to be desirable (Hayton et al., 2002). Entrepreneurship can be observed in all countries, but one could also notice differences across countries in entrepreneurial activities. Cultural variables influence the profile of environmental conditions favouring entrepreneurship in different countries (Baughn & Neupert, 2003)

1.2 Purpose and scope of the research

This research aims to contribute to our understanding of the influence of national culture on entrepreneurial processes. The aim is to find out whether entrepreneurs in different countries apply different entrepreneurial processes. The leitmotiv in this research is the theory of Saras D. Sarasvathy on causation and effectuation, combined with the theory on national culture. These theories will be further explained in the chapter literature review.

This research is of an qualitative and quantitative exploratory nature, as it aims to explore to what extent national culture influences entrepreneurial processes. The focus within exploratory research is on gathering information and developing ideas about a relatively less researched problem or context. The prime purpose is to develop understanding in an area that is not well understood yet. Qualitative research aims at gathering an in-depth understanding of human behavior and the reasons that govern that behavior. The focus in this research is on the country Mexico, compared to the Netherlands. In this study, literature is gathered on entrepreneurship and national culture. Entrepreneurship is elaborated into causation and effectuation, whereas national culture is elaborated into cultural dimensions defined by several scientists and into the national culture of Mexico. Data is gathered from Mexican student entrepreneurs and Dutch student entrepreneurs on the use of entrepreneurial processes in the establishment of a company.

1.3 Research question and strategy

As mentioned before, entrepreneurs around the world can possess some common values and beliefs independent of their national background (McGrath & McMillan, 1992a), however culture remains a powerful cause of attitudes and clarifies main differences across entrepreneurs (Steensma et al., 2000). So the question can be raised in how far culture influences entrepreneurship, resulting in the following research question:

‘To what extent is national culture correlated to the use of entrepreneurial processes among entrepreneurs within venture creation?’

To investigate this question, first of all a solid background of literature has to be provided, which is done by exploring scientific articles and books on the constructs of this research, entrepreneurship and culture, which can be found in chapter 2. Based upon this theoretical framework, hypotheses are formulated which make a connection between culture and entrepreneurial processes, which can be found in chapter 3. To test this hypotheses, first data needs to be gathered to understand the entrepreneurial processes of Mexican and Dutch student entrepreneurs. In this research, a think aloud business case and a survey are used to gain the necessary data from Mexican and Dutch student entrepreneurs. More in-depth knowledge on the methodology is provided in chapter 4. The results and findings are outlined in chapter 5, where the hypotheses are statistically tested by means of parametric tests, applied on the collected data. Furthermore, limitations and discussion are outlined in chapter 6 followed by a conclusion of the research in chapter 7.

1.4 Research relevance

The study of entrepreneurs and entrepreneurship has gotten more attention recently. Much of this stimulus has derived from the growing acceptance of the idea that entrepreneurship spurs the expansion of business, it creates new employment potential and it fuels economic growth (Thomas & Mueller, 2000), which makes entrepreneurship a relevant topic. It is important to understand the differences of entrepreneurs from other countries, because of the more and more emerging cross border operations.

Furthermore, the current published theoretical work on entrepreneurship shows an intensive awareness of the necessity for frameworks that will facilitate the combination of existing research and the generation of new studies that address the gaps (Lumpkin & Dess, 1996; West, 1997). The question of whether entrepreneurs across cultures are the same, is worth asking. The manageability of entrepreneurship as an international interest increases, the relevance and applicability of a special set of entrepreneurial features across cultural contexts becomes an important line of investigation (Thomas & Mueller, 2000). This entrepreneurial features can be religion, foresight and energy, passion and perseverance, initiative and drive. It is expected that entrepreneurs reflect the dominant values of their national culture (Thomas & Mueller, 2000).

2. Literature review

This chapter outlines the review of published scientific work related to the main constructs of this research. Relevant literature about these two main constructs is explored and analyzed, by gaining an insight into these construct a solid background for this research is provided. First, the literature review on the construct entrepreneurship is outlined with a focus on the entrepreneurial processes causation and effectuation. Followed by the literature review on the construct culture, where cultural dimensions are outlined based on the work of several scientist. The national culture, the Mexican business culture and the cultural influence on entrepreneurship are outlined as well.

2.1 Entrepreneurship

Entrepreneurship is defined as the discovery, enactment, evaluation and exploitation of opportunities – across national borders- to create future goods and services (Oviatt & McDougall, 2005). In addition, entrepreneurship is a process by which individuals - either on their own or inside organizations- chase chances without regard to the resources they presently control (Stevenson & Jarillo, 1989). It includes new-venture creation that is growth oriented and produces employment, along with small businesses and micro-enterprises that may arrange for self-employment but not much employment growth (Bhide, 2000). Furthermore, the entrepreneurial process involves all functions, activities and actions that are associated with the perception of opportunities and creation of organizations to pursue them (Bygrave & Hover, 1991). Entrepreneurship as a process is complex, a contextual event and the outcome of many influences (Gartner, 1988). Looking at entrepreneurship as a process, it presents the dynamics of the individual and the dynamics of the context (Gartner, 1985; Anderson, 2000).

Entrepreneurship is as much about the creation of new realities by dedicated stakeholders as it is about accurate observations of existing realities (Sarasvathy, 2008). Entrepreneurs start with three categories of sources; first, who they are, what they know, and whom they know – their own traits, tastes and abilities. Second, the knowledge groups they are in and thirdly the social networks they are part of (Sarasvathy, 2008).

Entrepreneurs realize that human effort can control the future and they need to use energies and knowledge trying to predict it (Sarasvathy, 2001b). Entrepreneurial knowledge is derived from a combination of individual experiences, visionless variation, learning from others and linking with networks (Sarasvathy, 2008). This entrepreneurial knowledge and effort can influence economic growth, moreover the entrepreneur is positioned as the source of disequilibrium in the economy in former studies (Schumpeter,

1976). However, the entrepreneur can also be seen as the trigger to the market processes that bring economy back to balance from imbalance (Kirzner, 1979).

Former, the performance of entrepreneurs was related to personality traits, which are antecedents to the performance of entrepreneurs that could explain the success or failure of the firm the entrepreneur creates (Llewellyn & Wilson, 2003). However, it has also been studied as a set of circumstances or characteristics of the firm and its surroundings as the reason of its success or its failure (Thornton, 1999). In this studies, the entrepreneurs either have the right characteristics and surroundings or they do not. Originating from this kind of entrepreneurs theory, the concept of causation and effectuation have been developed to describe entrepreneurial processes by Sarasvathy (2001a).

Opportunities are considered to be the most important element of the body of knowledge that drives the [entrepreneurial] process (Johanson & Vahlne, 2009), these entrepreneurial processes have an impact on the type of opportunities that are finally exploited (Sarasvathy, 2001a). Opportunities can be discovered, as well as created by the entrepreneur (Johanson & Vahlne, 2009). The main body of entrepreneurship research is based on the rational decision making models employed by neoclassical economics. Most entrepreneurship researchers have assumed that individuals participate in rational goal driven behaviors when pursuing entrepreneurial opportunities (Perry et al., 2011). As mentioned before, earlier studies stated that an entrepreneur either has the right characteristics and surroundings or they do not (Sarasvathy, 2001a). In the latter, potential entrepreneurs have to develop strategies and abilities for recognizing, identifying and exploiting high probable opportunities (Sarasvathy, 2008).

Two theories of opportunity recognition are developed, namely the discovery theory and the creation theory (Alvarez & Barney, 2007). The discovery theory states that opportunities are created by exogenous shocks to an industry or market and opportunities are objective and observable, so opportunities just simply exists. On the other hand, the creation theory states that opportunities are not assumed to be objective phenomena formed by exogenous shocks to an industry or market but opportunities are created by the actions, reactions and enactment of entrepreneurs exploring ways to produce new products or services (Alvarez & Barney, 2007).

2.2 Effectuation & Causation

Causational reasoning takes a certain effect as given and focuses on selecting between means to create that particular effect. Causational reasoning seeks either to select between means to achieve those effects or to create new means to achieve specified

goals (Sarasvathy, 2008). It tries to identify the best alternative to achieve the set target and is set up through cautious planning and subsequent execution (Sarasvathy, 2001a), it seeks to identify the optimal, fastest and most efficient alternative to achieve a goal (Sarasvathy, 2001b). Causal reasoning is based on the logic, 'to the extent that we can predict the future, we can control it' (Sarasvathy, 2001b, p.6). This logic of causation provides useful decision criteria to achieve specified goals subject to environmental selection in the face of an uncertain future (Sarasvathy, 2008).

The predominant entrepreneurial decision model taught in many business schools is a goal driven model of decision making, referred to as a causation model (Sarasvathy, 2001a). This stands in line with the fact that the main body of entrepreneurship research is based on the rational decision making models employed by neoclassical economics (Perry et al., 2011). Thus, the causation model is taught in many business school, (Sarasvathy, 2008) where entrepreneurs have learned to have a clear view on what kind of market can be served and which resources they should gather.

However, more recent research on entrepreneurial processes suggests another kind of working, called effectuation, stating that entrepreneurs are not specifically focusing on one market and work with the resources available (Sarasvathy, 2008). This stresses the importance of an entrepreneurs its perceptions, rather than the environmental reality, on shaping the entrepreneurial process.

Effectual reasoning starts with a given set of means and allows objectives to emerge over time from the varied imagination and diverse aspirations of the entrepreneurs and the people they interact with (Sarasvathy, 2001a). So, effectuation starts with a given set of causes, consisting of the characteristics and circumstances of the entrepreneur, and the focus is on choosing among different effects that can be produced with the given set of means, thereby is no use of pre-set goals (Sarasvathy, 2001b). The characteristics of entrepreneurs form this main set of causes that can be combined with contingencies to create an effect that is not predefined but that gets created as an essential part of the effectuation process (Sarasvathy 2008). Connecting effectuation with the literature of opportunity recognition, (Sarasvathy, 2001a) effectuating entrepreneurs appear to involve more than just the identification and pursuit of an opportunity. It includes the creation of the opportunity as part of the implementation of the entrepreneurial process (Sarasvathy, 2001a).

The effectual logic identifies more potential markets, focuses more on building the venture as a whole and pays less attention to predictive information, worry more about

making do with resources on hand to invest only what they could afford to lose and emphasize on stitching together networks and partnerships (Dew et al., 2009). Effectual reasoning is based on the logic, 'to the extent that we control the future, we do not need to predict it' (Sarasvathy, 2001b, p.6). In other words, effectuation helps to push the basic economic world view about individuals, companies and market beyond its current frontiers (Sarasvathy, 2008).

In comparison, causation and effectuation are two really different theories of entrepreneurial process (Sarasvathy, 2008). Whereas causation processes are effect dependent, effectuation processes are actor dependent. Furthermore, causation processes are outstanding at exploiting knowledge, whereas effectuation are outstanding at exploiting contingencies (Sarasvathy 2001a). In addition, it is kind of obvious that decision units of exploration contain processes of effectuation and decision units of exploitation contain processes of causation (Sarasvathy 2001a). Unlike causation that comes to being by using cautious planning and subsequent execution, effectuation precedes with execution (Sarasvathy, 2001b). Though causation focuses on expected return and is goal driven, effectuation emphasizes affordable loss and is based on means. In addition, while causation depends upon competitive analysis, effectuation builds upon strategic partnerships. While with causation the exploitation of pre-existing knowledge is urgent, effectuation stresses the power of contingencies (Sarasvathy, 2001b). As mentioned earlier, effectuation is about reconstructing existing realities into new opportunities, whereas causal framing involves the discovery and exploitation of existing opportunities (Wiltbank et al., 2006).

The theory of effectuation enhances to the earlier theories, the connection with causal reasoning and the explicit logic of control versus prediction in human affairs. This development is important in that it outlines the existence of a way of reasoning that is not just a deviation from causal reasoning (Sarasvathy, 2001a). As an alternative, effectuation suggest a hitherto unspecified alternative logic that might unite several of the earlier theories into a newly coherent paradigm of decision making (Sarasvathy, 2001a). It is important to mention that the same person can use both effectual and causal reasoning at different times depending on what the situation calls for. Actually, the best entrepreneurs are capable of both and do use both of the approaches (Sarasvathy, 2001b). The decision to use effectuation is driven by perceived uncertainty and experience, but entrepreneurs may use causation based approaches as well, as they may be aware of the benefits of formal planning (Gruber, 2007).

2.3 Culture

The word “culture” is frequently used in everyday language to describe a number of rather different concepts. For instance, the word is often used to describe concept such as “arts and culture”, “organization culture” and so on. What all of these concepts have in common is the suggestion that culture is an intangible entity which involves a number of collective and shared artifacts, behavioral patterns, values or other concepts which taken together form the culture as a whole (Dahl, 2004). Traditionally, the word derives from the Latin word “colere”, which translated means “to care for”, “to build” or “to cultivate”. Hence, culture usually refers to something that is derived from, or created by the involvements of humans, culture is cultivated (Dahl, 1998; 2000).

In addition, culture provides a communally held set of customs and meanings, many of which are adopted by the person, becoming part of personality and influencing interactions with the social and physical environment (Dake, 1991). It is as a set of shared values, beliefs, and expected behaviors (Hofstede, 1980). Moreover, *‘culture consists of patterns, explicit and implicit, of and for behavior acquired and transmitted by symbols, constituting the distinctive achievements of human groups, including their embodiment in artefacts; the essential core of culture consists of traditional (i.e. historically derived and selected) ideas and especially their attached values; culture systems may, on the one hand, be considered as products of action, on the other, as conditional elements of future action’* (Kroeber & Kluckhohn 1952, p. 181; cited by Dahl 2004, p.2). These culturally normed behavior and patterns of socialization can stem from a combination of religious beliefs, economic and political needs etcetera (Soares et al., 2007). Culture is the complex whole which includes knowledge, beliefs, art, moral, custom and other abilities and habits attained by human as a member of society (McCort & Malhotra, 1993). Furthermore, culture is a convenient universal for the many differences in market structure and behavior that cannot readily be explained in terms of more concrete factors (Buzzell, 1968). It constitutes the most extensive effect on many dimensions of human behavior (Soares et al., 2007).

Individuals are rooted into existing cultures, where culture is something that older generations pass onto younger generations (Samover & Porter, 1991). Hence, individuals do not act in a social vacuum but act within a given set of values and cultural standards, according to their own character and interests (Fink et al., 2007). In short, culture represents a combination of individual values and beliefs (Hayton et al., 2002). Furthermore, culture exists of four layers, each of which encompasses the lower level, as it depends on the lower level, or is a result of that lower level (Hofstede, 1991). In this kind of view, culture is like an onion, a system that can be peeled, layer by layer in order

to reveal the content (Dahl, 2004). The onion model is based upon the view that culture is made up of basic assumptions at the core level (Trompenaars & Hampden-Turner, 1997).

Culture is depicted as a moderator of the relationship between contextual factors and entrepreneurial outcomes (Hayton et al., 2002). This moderating role of culture highlights that national culture acts as a promoter rather than a causal agent of entrepreneurial outcomes. National culture is captured in needs and motives, beliefs and behaviors, cognition and cultural values, on societal and individual level. Cultural characteristics transform and complement the institutional and economic context to influence entrepreneurship, which are key drivers of entrepreneurships and economic development (Hayton et al., 2002).

2.3.1 Cultural dimensions

Thus far, literature has mainly concentrated on two types of cultural constructs namely cultural dimensions and personality characteristics (Fink et al., 2007). Cultural dimensions measure values, which are a conception, distinctive of an individual which influences the selection from available modes, means and ends of action (Fink et al., 2007). Personality characteristics are dispositional motives used by individuals in goal attainment (Buss, 1991). Cultural dimensions are the most widely used explanatory variable in cross-cultural management literature (Fink et al., 2007).

Several researchers discuss the choice of dimensions most appropriate for conceptualizing and operationalizing culture (Clark, 1990; Dorfman & Howell, 1988; Hofstede, 1980; Schwartz, 1994; Smith et al., 1996), several scientists developed dimensions to operationalize cultures. Several dimensions could be appropriate, for instance Hofstede's framework of dimensions is the most extensively used national cultural framework in psychology, sociology, marketing and management studies (Steenkamp, 2001). Furthermore the dimensions of Globe could be appropriate, as the dimensions of the Globe study are selected based upon a review of literature relevant to the measurement of culture in prior large sample studies and on the basis of the existing cross culture theory (Chhokar et al., 2008). Furthermore, a major strength of the Globe study is the deployment of diverse methodologies, both quantitative and qualitative, to enhance the robustness and richness of the findings (Chhokar et al., 2008). Furthermore, the cultural dimensions of Trompenaars and Charles Hampden-Turner are widely accepted in business circles (Dahl, 2004).

2.3.1.1 Hofstede's cultural dimensions

Even though the work of Hofstede (1980) provides a relatively general framework for analysis, the framework can be applied to numerous everyday intercultural encounters. Hofstede's framework is useful as it decreases the complexities of culture into five comparatively easily understood cultural dimensions (Dahl, 2004). The cultural dimensions identified are individualism-collectivism, uncertainty avoidance, power distance, masculinity-femininity and long term orientation. The score of a country on these dimensions indicate the fundamental values of a society, which forms the core of a national culture.

	Mexico	Netherlands
Uncertainty Avoidance	82	53
Masculinity – Femininity	69	14
Individualism - Collectivism	30	80

Table 1: Hofstede cultural dimensions, based on source Hofstede 2001

The cultural dimensions which will be applied in this research are uncertainty avoidance, individualism-collectivism and masculinity. The level of uncertainty avoidance in Mexico is high and for the Netherland relatively high or average. Mexico has a masculine culture and the Netherlands a feminine culture. Furthermore, Mexico is a collectivistic country, in contradiction the Netherlands is individualistic.

The cultural dimension uncertainty avoidance is 'the extent to which the members of a culture feel threatened by uncertain or unknown situations' (Hofstede, 1994, p.113) and different societies adapt to this uncertainty in different ways (Hofstede, 2001). Ways of dealing with uncertainty belong to the cultural traditions of societies and these are transferred and strengthened through basic establishments such as family, school and the state (Hofstede, 2001). These ways of dealing with uncertainty are reflected in collectively held values of the members of that particular society. The roots of this collectively held values are non-rational, and they may lead to collective behavior in one society that may seem unusual and unintelligible to members of other societies. Coping with inevitable uncertainties is a non-rational process that different individuals, organizations and societies revolve in different ways, the main underlying dimension is the tolerance for uncertainty. This tolerance for uncertainty is partly a matter of individual personality and partly a matter of collective culture (Hofstede, 2001).

The cultural dimension masculinity, as opposed to femininity, 'pertains to societies in which social gender roles are clearly distinct (in example: men are supposed to be assertive, tough, and focused on material success whereas women are supposed to be more modest, tender, and concerned with the quality of life); femininity pertains to societies in

which social gender roles overlap (in example: both men and women are supposed be modest, tender, and concerned with the quality of life)' (Hofstede, 1994, p. 82-83). The duality of the sexes is an essential fact with which different countries and societies cope in diverse ways. This duality of sexes is at the core of our cultural norms (Chetwynd & Hartnett, 1978). People from masculine countries tend to be more aggressive and less modest than of feminine countries. Masculine cultures take a distributive perspective on competition and view the world in terms of winners and losers (Steensma et al., 2000).

Individualism and collectivism describe the relationship between the individual and the collectivity that surmounts in a given society (Hofstede, 2001). It can be reflected in the way certain people live together and has many inferences for values and behavior (Hofstede, 2001). 'Individualism pertains to societies in which the ties between individuals are loose: everyone is expected to look after himself or herself and his or her immediate family' (Hofstede, 1994, p.51). Collectivism as its opposite relates to societies in which people from birth on are integrated into strong, solid in-groups, which throughout people their lifetime continue to protect them in exchange for unhesitating loyalty (Hofstede, 2001).

2.3.1.2 House's cultural dimensions

Another framework for analysis is the Globe study, which investigated the relationship between societal culture and organizational behavior. The Globe study stands for the Global Leadership and Organizational Behavior Effectiveness project (Chhokar et al., 2008). Within this project nine cultural dimensions are identified, which are partly in common with the cultural dimensions of the scientists Hofstede and Trompenaars. The nine cultural dimension are performance orientation, human orientation, uncertainty avoidance, in-group collectivism, power distance, gender egalitarianism, future orientation, assertiveness and institutional collectivism (Dorfman et al., 2012).

	Mexico	Netherlands
Performance orientation	4,10	4,32

Table 2: House's cultural dimensions, based on source Chhokar et al. (2008)

The cultural dimension which will be applied in this research is performance orientation. The performance orientation of Mexico is relatively high as well as in the Netherlands,

Performance orientation measures the degree to which a society encourages and rewards group members for performance improvement and excellence (Chhokar et al., 2008). Performance orientation was derived from McClelland its work on need for achievement (House et al., 2002). Performance orientation focuses on performing on a good level

because people see good performance as a way to obtain awards from others (Kohli et al., 1998). Persons with a performance orientation are focused on being judged and showing confirmation of the ability of being successful (Ames and Archer 1988). These persons with a performance orientation exist only if they see their selves as being very skilled (Kohli et al., 1998). A high score of performance orientation stands in relation with a great amount of new companies (House et al., 2004) and consequently entrepreneurship.

2.3.1.3 Trompenaars & Hampden-Turner's cultural dimensions

Another way of classifying culture can be done based upon value and behavior patterns, executed by Trompenaars and Hampden-Turner (1997). Seven value orientations were identified, which some of them can be regarded as almost identical to Hofstede its dimensions (Dahl, 2004). The seven value dimension that were identified by the scientists are universalism-particularism, communitarism-individualism, neutral-emotional, defuse-specific cultures, achievement-ascription, human time relationship and human nature relationship.

	Mexico	Netherlands
Internal – External locus of control	External locus of control	Internal locus of control

Table 3: Trompenaars & Hampden-Turner's cultural dimensions, based upon source Saunders, 1958; Kluckhohn & Strodtbeck, 1961; Heller, 1966, Madsen, 1973; Mirowsky et al., 1984.

The cultural dimension which will be applied in this research is internal-external locus of control. Mexico has a strong external locus of control, whereas the Netherlands has a strong internal locus of control.

Internal or external locus of control refers to an individual its beliefs that he or she has control over events (Rotter, 1975; Terborg, 1985). People that believe in internal control are convinced that they are primarily responsible for and in control of what happens to them, people that believe in external control are convinced that other people or forces beyond them determine main events in their lives (Spector & O'Connel, 1994). Belief in external control is a socially transmitted conception of reality that characterizes some countries more than others and has consequences for the emotional quality of life (Mirowsky et al., 1984). This belief in external locus of control means that people assume that outcomes of situations are controlled by forces external to one itself, such as powerful others, blessing, destiny or chance (Mirowsky et al., 1984). Belief in internal locus of control, is the expectation that outcomes are contingent to one its own intentions, choices and behavior (Mirowsky et al., 1984).

2.3.2 National culture of Mexico

Mexico is one of the largest economies in the world and it was the first Latin American member of the Organization of Economic Co-operation and Development and a firmly established upper and middle income country and can differ a lot from other countries. Mexico can be considered to be a newly industrialized country and an emerging power. The economy of Mexico is strongly linked to its NAFTA partners, the North American Free Trade Agreement (Sobarzo, 1992). Not only, does Mexico have a different economic climate as for example European countries, it also differs a lot in culture. Different perception of dealing with uncertainty, time perception and so on can be present (Martinez, 1998).

The culture of Mexico is a reflection of the history of Mexico and a mix of Meso-American culture with Spanish culture (Lomnitz-Adler, 1992). The cultural values of Mexico are based upon the country its background (Chhokar et al., 2008). The common Mexican culture is grounded in Indian culture and during the past five centuries the Meso-American people have been subjected to an oppression which affected all of their lives and their cultures, however Meso-American civilization is still present and alive (Lomnitz-Adler, 1992). Main events in the history of Mexico are represented by five periods, namely the ethnic civilizations before 1520, the Spanish invasion and colonization which was from 1520 till the year 1810. In addition, the independence and establishment of the nation from 1810 till 1910 and uniting institutions and economic and political transition from 1910 till 2000 and Mexico today (Chhokar et al., 2008).

The Mexican culture brings certain values with it, for instance Mexicans value their family highly, they place a great importance on personal relationship, the courtesy and signs of respect are high valued (Martinez et al., 1998). There is a strong social support role of the Mexican extended family (Grebler et al., 1970; Moore, 1976). Furthermore, there is a pronounced emotional sensitivity that characterizes Mexicans (Martinez et al., 1998). Mexico has a warm, close culture which emphasizes communication through psychical as well as verbal contact (Stephens & Greer, 1995). Furthermore, the people in Mexico are relatively natural, positive and social and the average Mexican likes to celebrate. The Mexicans place much value on tradition and live a relaxed and happy life. In addition, Mexicans have a communal lifestyle, are hospital and value respect and status (Kolland, 1990).

Based upon the cultural dimensions of several scientists, Mexico its national culture is measured on several aspects. Based upon the work of Hofstede (2001), Mexico turned out to be a collectivistic country, which is high on uncertainty avoidance and on power distance. In high uncertainty avoidance countries, like most of the Latin continent, people

feel uncomfortable without the structure of a system of rules (Acosta et al., 2004). Furthermore, (Hofstede, 2001) Mexico scores high on being masculine and a term often associated with this masculinity is “machismo”, which is usually attributed to Latin American countries, particularly Mexico (De Vos & Hippler, 1969; Lewis, 1961). In addition, within the Globe study Mexico is defined as being relatively high on performance orientated (Chhokar et al., 2008).

Furthermore, fatalism is identified as a characteristic of Mexican culture (Heller, 1966; Madsen, 1973), which is a generalized expectation that outcomes of situations are determined by forces external to one itself (Rotter, 1966). Fatalism is therefore a belief in an external locus of control over the events in life (Ross et al., 1983). More scientists propose that Mexicans are likely to believe in external control (Saunders, 1958; Kluckhohn & Strodtbeck, 1961; Mirowsky et al., 1984), which is one of the cultural dimensions of Trompenaars (Trompenaars & Hampden, 1997). Internal locus of control is dominant in individualistic cultures (Mueller & Thomas, 2000) and external control reflects the value of masculinity (Hayton et al., 2002).

2.3.2.1 Mexican business culture

Because of the continually influence of the control of family in Mexican businesses, the individual entrepreneur applies considerable power in the decision making process of Mexico its economic affairs (Camp, 1989). The Mexican entrepreneur is the person who assumes the financial risk and creates and develops what is usually a family business and is also most frequently the manager (Martinez, 1998). Unlike Western industrialized nations, where state and entrepreneurs develop detached, a frank entrepreneurial class did not exist in Mexico before the 1910 Revolution. After the revolution, the government played a leading role in the development of this entrepreneurial class (Camp 1989). The intimate relationship between family and business is considered to be natural and compatible by the Mexican entrepreneur (Davis, 1968).

The Mexican culture has several characteristics and traditions, concerning relationships, time and decision making. Personal networks and relationships play a big role in business success in Mexico, this reliance on well-developed relationships and networks can be remarked in several business areas. In a culture as Mexico's, there is a high value on relationships and mutual trust and status indicators are important for Mexican executives and entrepreneurs (Stephens & Greer, 1995). Establishing a more personal relationship between supervisors and workers is in particular important to establish loyalty (Acosta et al., 2004) and between Mexican supervisors and subordinates a greater social and professional distance is maintained between themselves (Martinez et al., 1998). In

addition, the Mexican culture promotes teamwork, as Mexicans concern for each other, there is team spirit and a need for association (Stephens & Greer, 2004). In addition, an informal and formal duality characterizes Mexican management and organizational behavior. Moreover, there is an elastic concept of time and a more tolerant attitude towards meeting deadlines in Mexico (Martinez et al., 1998). In Mexican businesses, decision making authority has a tendency to be centralized, somewhat undemocratic and is retained among top level managers, this is because of the acceptance of status differences between managers and subordinates and a clear separation of work roles (Stephens & Greer, 2004).

Mexico is one of the most entrepreneurial countries in the world, about 25 percent of Mexico its workforce is entrepreneurial. Entrepreneurship rate estimates from the OECD rank Mexico at the first of the list of 28 member countries, the Global Entrepreneurship Monitor rank Mexico fourth in its listing of 41 countries (Fairlie & Woodruff, 2000). The entrepreneurial perception of perceived opportunities is rather high in Mexico with 43,5 percent as well as the perceived capabilities of the entrepreneurs with 60,6 percent. Comparing Mexico with other countries, the perception of entrepreneurships as a good career choice and the high status of entrepreneurs is rather low in Mexico. Mexico is an efficiency driven economy and the entrepreneurship rate is 5,7 percent, the new business ownerships 4,0 percent and early stage entrepreneurial activity 9,6 percent. Comparing female and male early stage entrepreneurship, the male rate is 11 percent and the female rate is 8 percent in Mexico (Kelley et al., 2011).

2.3.2.2 Cultural influence on entrepreneurial behavior

Entrepreneurial activities are considered as an important source of technological innovation, (Schumpeter, 1934) and also economic growth mentioned by Birley (1987), but the question can be raised how national culture relate to levels of entrepreneurial activity. Understanding the influence of national culture on entrepreneurship is of considerable theoretical and practical value (Hayton et al., 2002). Entrepreneurship can be observed in all countries, but one could also notice differences across countries in entrepreneurial activities. Cultural variables influence the profile of environmental conditions favouring entrepreneurship in different countries (Baughn & Neupert, 2003).

Cultural values indicate the degree to which a society considers entrepreneurial behaviors as being risk taking and independent thinking to be desirable (Hayton et al., 2002). Cultures that value and reward this kind of behavior promote a tendency to promote and introduce radical innovation. In contradiction, cultures that support conformity, group interests and control over the future are not likely to show risk taking and entrepreneurial behavior (Hayton et al., 2002).

The potential for and frequency of entrepreneurship has been shown to be associated to a great extent with the occurrence of certain cultural values (Thomas & Mueller, 2000). The claim that there is a greater tendency or propensity toward entrepreneurship in some countries than in others points out the implicit role of culture in the theory of entrepreneurship (Thomas & Mueller, 2000). Differences in entrepreneurial activity can be explained by cultural and religious factors (Thomas & Mueller, 2000) and cultural values, such as individualism and collectivism, can be linked to the level of inventiveness in a society (Shane, 1992).

3 Hypotheses

In order to answer the research question about the cultural influence on entrepreneurial processes, a link has to be made between the constructs culture and entrepreneurship. Within this research, the leitmotiv is the research of Sarasvathy on causation and effectuation combined with the theory of national culture. The relationship between the cultural dimensions, explained in the literature review, and the entrepreneurial processes needs to be further explored. In order to be able to do this, hypotheses are formulated.

The cultural dimensions applied in this research are the dimensions with a link to causation and effectuation features. Furthermore, the cultural dimensions used are the most significant for Mexico and had enough available data for Mexico as well as for the Netherlands. The combination of cultural dimensions is based upon theoretical framework, elaborated per hypothesis in the paragraphs underneath. By basing the hypothesis on theory, a comprehensive research can be executed.

Sarasvathy (2008) identified the principles of causation and effectuation, which are interdependent among another and can be used within this research. These are shown in the table underneath.

Causal	Effectual
Goal driven	Means based
Expected return	Affordable loss
Competitive analysis	Use of alliances or partnerships
Existing market knowledge	Exploration of contingency
Predictions of the future	Non predictive control

Table 4: Interdependent aspects of causation and effectuation, based on source Sarasvathy 2008

3.1 Performance orientation and causation

Performance orientation is a cultural value that refers to the extent to which a society encourages and rewards group members for performance improvement and excellence (Chhokar et al., 2008). Performance orientation focuses on performing on a good level, as people see good performance as a way to obtain awards from others (Kohli et al., 1998). Persons with a performance orientation are focused on being judged and showing confirmation of the ability of being successful (Ames & Archer, 1988). Individuals with a performance orientation view this ability to be a fixed, uncontrollable personal attribute (Bell & Kozwloski, 2002).

Performance orientation was derived from McClelland its work on need for achievement, this need from achievement is derived from the admiration and rewards for success (House et al., 2002). In relation, goal orientation is viewed as the adoption and pursuit of specific goals in achievement context (Elliott & McGregor, 2001; Grant & Dweck, 2003). Goal orientation is a construct that suggest that individuals hold either a learning or performance orientation towards tasks (Dweck, 1989). Moreover, being goal driven has a consistent direct relationship with performance (Bell & Kozlowski, 2002).

Performance orientation leads individuals to be focused on performing well, to achieve admiration and rewards for success. It rests on the individuals to perform optimally in their work capacity. Performance orientation would lead entrepreneurs to be focused on performance and to adopt and quest specific goals. As a consequence, it can be expected that:

H1: The more performance oriented a national culture is, the more goal driven (causational) the entrepreneur will be.

Consequently, a positive correlation between performance orientation and the entrepreneur being goal driven, as part of causation, can be expected. This suggest that within countries with a high score on performance orientation, the use of causation as an entrepreneurial process will be higher than the use of effectuation. Mexico is defined as a country high on performance orientation, as well as the Netherlands (House et al., 2002). The score of Mexico on performance orientation is 4,10 and the score of the Netherlands is 4,32. Since the performance orientation is higher in the Netherlands, it can be expected that Dutch entrepreneurs are being more goal driven than Mexican entrepreneurs.

3.2 Masculinity and causation

Masculinity is a cultural value that refers to the societies in which social gender roles are clearly distinct, for instance men are supposed to be assertive, tough, and focused on material success whereas women are supposed to be more modest, tender and concerned with the quality of life (Hofstede, 1994). People from masculine countries tend to be more aggressive and less modest than of feminine countries. Moreover, in a masculine culture people are taught to appreciate strong and independent heroes who personalize superiority (Steensma et al., 2000).

Masculine cultures take a distributive perspective on competition and view the world in terms of winners and losers. In addition, people in a masculine country have a competitive mindset, whereas feminine countries have a cooperative mindset. Furthermore, in a masculine culture, having a cooperative mindset can be seen as a weakness (Steensma et al., 2000) and in addition, making use of cooperative strategies can reduce competition (Porter, 1985). Thus, societal values in terms of masculinity influence entrepreneurial attitudes towards cooperation (Steensma et al., 2000). In relation, detailed competitive analysis is executed as market research as an opposite to cooperation by means of partnerships or alliances (Saravathy, 2008).

A masculine culture leads individuals to have a distributive perspective on competition, to be less accepting of cooperative strategies and to see cooperation as a weakness. A masculine culture would lead entrepreneurs to emphasize on competitive analysis and to be less accepting of cooperative strategies. As a consequence, it can be expected that:

H3: The more masculine a national culture is, the less cooperation by means of alliances or partnerships (effectual) the entrepreneur will use.

Consequently, a negative correlation between masculinity and the entrepreneur using cooperation by means of partnership or alliances, as a part of effectuation, can be expected. Masculine culture could therefore favor competitive analysis. This suggests that within countries with a high score on masculinity, the use of causation as an entrepreneurial process will be higher than the use of effectuation. Mexico is defined as a masculine country, whereas the Netherlands is defined as being a feminine country (Hofstede, 2001). The score of Mexico on masculinity is 69, whereas the Netherlands only scores 14. Since masculinity is higher in Mexico, it can be expected that Mexican entrepreneurs make less use of cooperation by means of alliances and partnerships than Dutch entrepreneurs.

3.3 Collectivism and effectuation

Collectivism is a cultural value that pertains to societies in which people from birth are integrated in cohesive groups, which throughout their lifetime give them protection in exchange for unhesitating loyalty (Hofstede, 2001). Members of collective societies search out and value long-term group connections that are similar to an extended family (Triandis, 1993). Collectivism occurs when the demand and interests of groups take priority over the desires and needs of individuals. In a collectivistic culture, people look out for the wellbeing of the groups to which they belong, even if such actions sometimes require that personal interests be omitted (Wagner, 1995).

Several scientists found collectivism to be generally cooperative, collectivistic people seem to enjoy working together (Cox et al., 1991; Earley, 1989). Furthermore, people from Hispanic (collectivistic) groups behave more cooperatively than others (Cox et al., 1991). Strong evidence indicates that members of a collectivistic national culture often opt to cooperate (Wagner, 1995), in contradiction to individualistic national cultures that shows a tendency to avoid cooperation (Gabrenya et al., 1983). Collectivistic people are likely to seek out and contribute to cooperative endeavors (Wagner, 1995). It can be expected that there is more cooperation among people in a collectivistic culture than among people in an individualistic culture (Chen et al., 1998).

A collectivistic culture leads individuals to be cooperative, to work together and to seek long-term group connections. A collectivistic culture would lead entrepreneurs to be cooperative, to seek long term group connections and emphasize working together. As a consequence, it can be expected that:

H4: The more collectivistic a national culture is, the more alliances or partnerships (effectual) the entrepreneur will use.

Consequently, a positive correlation between collectivism and the entrepreneur using alliances and partnerships, as a part of effectuation can be expected. This suggest that within collectivistic countries the use of effectuation as an entrepreneurial process will be higher than the use of causation. Mexico is defined as a collectivistic country, whereas the Netherlands is defined as an individualistic country (Hofstede, 2001). The score of Mexico on individualism is 30 and the Netherlands scores 80. Since collectivism is high in Mexico, it can be expected that Mexican entrepreneurs make more use of alliances and partnerships than Dutch entrepreneurs. It will be interesting to see the results of hypotheses 3 and 4, because both characteristics of the Mexican culture, masculinity and collectivism, indicate other use of entrepreneurial processes.

3.4 External locus of control and effectuation

The cultural value external locus of control refers to an individual's beliefs that he or she has control over events (Rotter, 1975; Terborg, 1985), this cultural value distinguishes societies on the degree to which members believe the environment can be controlled. People that believe in external control are convinced that other people or forces beyond them determine main events in their lives (Spector & O'Connell, 1994), these external forces can be powerful others, blessing, destiny and chance (Mirowsky et al., 1984). Belief in external control is a socially transmitted conception of reality that characterizes some countries more than others and has consequences for the emotional quality of life (Mirowsky et al., 1984).

Cultures with an external locus of control are comfortable with change and adapt easily to their environment or situation (Trompenaars & Hampden-Turner, 1997). External locus of control cultures attribute outcomes of events to external circumstances (Rotter, 1975). In relation, contingencies can be explored as they arise in the environment. Exploration of contingencies is about treating unexpected situations as an opportunity, being flexible to change and adapt to unexpected situations (Sarasvathy, 2008).

External locus of control leads individuals to believe in external forces such as destiny and chance (Mirowsky et al., 1984). Individuals within a culture with an external locus of control are comfortable with change, can easily adapt to situations and the unexpected. External locus of control could lead entrepreneurs to adapt easily to situations, be comfortable with change, making use of contingencies as they arise and emphasizing the positive side of the unpredictability. As a consequence, it can be expected that:

H5: The more external locus of control a culture is, the more focused on exploring contingencies (effectual) the entrepreneur will be.

Consequently, a positive correlation between the external locus of control and the entrepreneur exploring contingencies, as a part of effectuation can be expected. This suggests that within countries with an external locus of control the use of effectuation as an entrepreneurial process will be higher than the use of causation. Mexico is defined as a country with an external locus of control (Saunders, 1958; Kluck-hohn & Strodbeck, 1961; Heller, 1966, Madsen, 1973; Mirowsky et al., 1984.), whereas the Netherlands is a country with an internal locus of control. Since external locus of control outweighs in Mexico, it can be expected that Mexican entrepreneurs make more use of exploring contingencies than Dutch entrepreneurs.

3.5 Uncertainty avoidance and causation

Uncertainty avoidance is a cultural value that refers to the extent to which the members of a culture feel threatened by uncertain or unknown situations and different societies adapt to this uncertainty in different ways (Hofstede, 2001). Ways of dealing with uncertainty belong to the cultural traditions of societies and are transferred and strengthened through basic establishments such as family, school and the state (Hofstede, 2001). The cultural value of uncertainty avoidance focuses on the extent to which members of a society are able to cope with uncertainty of the future, without experiencing too much stress (Ayoun & Moreo, 2008).

In cultures with a high level on uncertainty avoidance people are more easily threatened by ambiguous situations, the people have a preference for structures, regulation and knowledge to reduce the perceived ambiguity (Brinckmann et al., 2010). In countries with a high level of uncertainty avoidance, people rely on more extensive forms of planning to cope with uncertainty (Shane, 1993) and explicit plans and predictions are of greater normative importance (Hofstede, 1991). However, in countries with a low uncertainty avoidance level people are more tolerant of uncertainty, people are more responsive to information that is not in line with established ideas or plans and are more inclined to improvise decision making in the light of ambiguity (Brinckmann et al., 2010) In relation, there is a reduced use of predictive strategies to control uncertain situations.

Uncertainty avoidance leads individuals to have a favoring perspective on explicit plans and predictions and to be less favoring of flexibility and openness to change. A culture high on uncertainty avoidance would lead entrepreneurs to be less favoring of non-predictive controls. As a consequence, it can be expected that:

H2: The more uncertainty avoidance in a national culture, the less non predictive control (effectuation) the entrepreneur will use.

Consequently, a negative correlation between uncertainty avoidance and the entrepreneur using non predictive control, as a part of effectuation, can be expected. This suggest that within countries with a high score on uncertainty avoidance, the use of causation as an entrepreneurial process will be higher than the use of effectuation. Mexico is defined as a country high on uncertainty avoidance, more than in the Netherlands (Hofstede, 2001). The score of Mexico on uncertainty avoidance is 82, whereas the Netherlands only scores 53. Since high uncertainty avoidance is higher in Mexico, it can be expected that Mexican entrepreneurs make less use of non-predictive control than Dutch entrepreneurs.

3.6 Gender roles and causation

Gender and power relations within Mexican families define the actions and roles of individual members and are visible in the existing differentiation of male and female roles (Beneria & Roldain 1987; Chant 1991; LeVine 1993). Traditionally, the men has the culturally defined obligation to provide for the economic maintenance of their families and protect female members (LeVine 1993). Women are seen as subordinate to men, primarily responsible for domestic duties and are fundamental to the integrity of the family (Kanaiaupuni, 2000). This centrality of women their domestic roles is not only found in Mexico but has been a central feature of many societies throughout history (Fraser, 1991).

The involvement of women entrepreneurial activity is increasing around the world. Women represent an increasing share of the labor force in nearly all regions of the world, and the gender gap in economic activity rates is narrowing (Weeks, 2001). More recently, the central role of women is emphasized (Gutmann, 2007). Thirty percent of business owned in Mexico is women-owned. Women business owners are found to be somewhat younger than their male counterparts and the business owned by women are a bit smaller and younger. Women in Mexico are, less likely than males, to have access to credit to grow their businesses and being taking seriously is one of the greatest challenges facing women business owners (Weeks, 2001).

Education and training programs providing valuable and information, is used between half and three-quarters of women business owners. However, bachelor degrees and graduate school percentages are higher for men than for women (Weeks, 2001). In relation, in many business schools a causation model is taught as a predominant entrepreneurial decision model (Saravathy, 2008). Interesting are the differences between men and women in Mexico, based upon culture and on education. Since men have a higher percentage of higher education, it could be expected that this causational model is applied more by male entrepreneurs. Women are more challenged to explore contingencies, use a more effectual approach as education level can be lower and causation is not taught. The gender discrimination makes it hard for women to overcome traditional norms and expectations to get education (Kanaiaupuni, 2000).

Furthermore, the access to credit is easier for men to gain than women. The access to credit asks for a lot of planning in Mexico and it can be linked to causation. The rewards that human capital investments yield may disproportionately privilege men, and as a consequence discourage investment by women (Kanaiaupuni, 2000). Furthermore,

women usually initiate change and have an initiating role for challenge (Gutmann, 2007). Therefore, it can be expected that:

H7: Male entrepreneurs will make more use of the causal approach as means of setting up a business venture than will female entrepreneurs.

Consequently, a positive correlation between male entrepreneurs and the use of causation can be expected. Expected is, that the male entrepreneurs will apply the causal approach more than female entrepreneurs. Because of the fact that women are more challenged to get education, so get the causation business models taught. Furthermore, the difficulties with gaining access to credit and their initiative for change could lead women to explore contingencies.

3.7 Personal background and causation & effectuation

To gain a little more insight into the use of entrepreneurial processes and the causes, it could be interesting to see whether independent variables have an influence on using a certain entrepreneurial process. Independent variables such as age, gender, religion and family background could have an influence on using causation or effectuation.

Backgrounds of individuals could lead individuals to favor different approaches, as a domestic population, and in this case sample, is not homogeneous as a whole. It is not always possible to see a domestic population as homogeneous, because most nations consist of different ethnic groups (Nasif et al., 1991). Personal background could influence entrepreneurs to use a certain entrepreneurial process more often. As personal traits and characteristics can be used to explain differences in for example culture (Savani et al., 2011), it is interesting to involve them in the research on causation and effectuation. As a consequence, it can be expected that:

The degree of causation is influenced by age, gender, religion, family background and/or nationality.

The degree of effectuation is influenced by age, gender, religion, family background and/or nationality.

It could be expected that these qualitative domestic backgrounds of entrepreneurs have an influence on the degree of causation or effectuation.

4. Methodology

This chapter outlines the methodology of the research. First the data collection will be outlined, with a focus on the setting, the sample and the execution of the research. Followed by the operationalization where the method will be explained. Furthermore, the method of analysis is discussed and the reliability and validity of the research.

4.1 Data collection

This research is of an qualitative and quantitative exploratory nature as it aims to explain to what extent national culture influences entrepreneurial processes. The focus within exploratory research is on gathering information and developing ideas about a relatively less researched problem or context. The value of exploratory research could be that it clears ground for other kinds of research, or that it throws up interesting ideas and differences between more well-studied topics, and those that are less well studied. The prime purpose is to develop understanding in an area that is not well understood yet.

To understand the entrepreneurial processes of entrepreneurs, one obvious way to get to understand them is just to ask them how they make their decision and cognitive actions. However, when entrepreneurs try to give you an answer to this question the answer will probably be incomplete or incorrect 'because they construct this account from memory' (van Someren et al., 1994, p.1). Different psychologists have demonstrated that this kind of accounts are not very reliable. What will be needed is more direct data on the ongoing thinking processes during working on a certain task (van Someren et al., 1994). A possibility for this is to ask these entrepreneurs to work on a business case and to instruct them to speak aloud. What they say can then be recorded and can be used as data for the analysis of the processes they use to solve the business case. There is a very direct method to gain insight in the knowledge and methods of human problem-solving (van Someren et al., 1994).

There is evidence that think aloud protocols are a fruitful method for studying the decision making processes of entrepreneurs (Sarasvathy, 2008). The idea behind this method is to have subjects in a problem solving or a decision making experiment, where they think aloud while solving problems or making decisions. The method requires two preliminary tasks, a sample of entrepreneurs and a set of typical decision problems need to be presented in a business case. The essential logic behind the use of the think aloud method is summarized as: 'While retrospective recall allows subjects to make up good stories about how they believe they solve problems, and stimulus-response methods force researchers to deduce the subjects decision making processes after the fact, concurrent

verbalization allows the researcher to look directly inside the black box of cognitive processing, because of the structure of the brain's short term memory system' (Sarasvathy, 2008, p.13). There is a great increase in the quantity of behavior that can be observed when a subject is performing a certain task while thinking aloud, compared to the exact same subject working under silent conditions (Ericsson & Simon, 1981). The first preliminary task, the sample of entrepreneurs will be further outlined underneath, when the sample is explained. The second preliminary task is the business case. This business case provides a set of typical decision problems within the entrepreneurial process. The business case used can be found in appendix A in native language of the subject, Spanish.

Sarasvathy did a good job of articulating the constructs of causation and effectuation, but the research of Chandler et al. (2011) takes the next critical step in advancing the research. This is the development of validated measures of both causation and effectuation processes to use these measures to test the dimensionality of the constructs (Chandler et al., 2011) and the associated distinctiveness of each suggested (Sarasvathy, 2008). To move the research stream from a nascent to an intermediate phase it is necessary to develop and validate qualitative measures to measure causation and effectuation as well (Edmondson & McManus, 2007). Therefore, in this research a survey is used as well. Surveys are chiefly used in studies that have individuals as units of analysis, which is the case in this research as well. The survey can be found in appendix B, also in the native language of the sample subjects, Spanish.

4.1.1 Setting

The research setting, known as the environment within which studies are run, is important for the experimental design, the kind of data that can be collected and the analysis of the results. When applying a think aloud method, it is important that the subject feels at ease at the location and setting that is going to be used. The subject should feel comfortable and the location should be quiet, a glass of water should be available for the subject and even the chair should be comfortable. The situation should be totally focused on the task that needs to be performed and the experimenter present should interfere as less as possible, to not influence the subject. It could be a good option to explain that the experimenter is interested in the way people solve certain problems and not in hidden thoughts or emotions. The purpose of the research should be clear and it should be clear that there are not hidden motives behind the research. It should be explained how the data is being handled, privacy protection is not only a legal practice but also a matter of ethics. It is important to make the subject at ease, as nervous subjects may hinder his or her speaking out loud process (van Someren et al., 1994). It is important to schedule the

think aloud sessions and arrange a quiet study setting to facilitate thinking aloud (Lundgrén-Laine & Salantarä, 2010).

4.1.2 Sample

The target group for this research are student entrepreneurs and the sample size used within this research is twenty subjects per country. Even a small number of subjects will provide rich and extensive data for analysis by the means of this think aloud method (Nielsen, 1994). Studies using the think aloud method as a collection method have focused on rich and in-depth data, as in foremost qualitative research and the sample sizes have been quite small (Lundgrén-Laine & Salantarä, 2010). The type of sampling used for this research is quota sampling. This is a type of nonprobability sampling in which units are selected into a sample based upon characteristics. The units of analysis are individuals and the characteristics are pre-specified, so that the complete sample will have a similar spreading of characteristics assumed to exist in the population being studied. Pre-specified characteristics are the distribution of men versus women, age, religion, educational level, a variety of study directions, furthermore all subjects should be student entrepreneurs, which can be specified in being an entrepreneur while still studying till a maximum of three years of graduation.

The sample of students entrepreneurs of this research is compared to the general population of Mexico. The distribution of men and women in the sample is about the same as in the population. For every 100 women there are 95.4 men (Instituto Nacional de Estadística y Geografía, [INEGI], 2011a). In the used sample, 55% of the subjects are men and 45% are women, see figure 1 in appendix C. The distribution of religion in the sample is the same as in the population. Catholic religion is predominant in Mexico with 89% (INEGI, 2010), the used sample reflect this by 90% of the subjects being catholic, see figure 2 in appendix C. Due to social and economic importance of family firms across the world, it is interesting to see whose parents have a firm. In the GUESSE study on entrepreneurial intentions and activities of students across the world, 67% of the entrepreneurs in Mexico had a family business background (Sieger et al., 2011). In the sample used 60% of the entrepreneurs at least have one parent that is entrepreneur. This family business background of the used sample is shown in figure 3 in appendix C. The years of existence of the companies in the sample have an average of 1,7 years.

All the subjects selected within this research have a high educational level, the so called “superior studies” at universities in Mexico, this can be compared with master or postgraduates. Only 17,8% of the Mexican population has a degree in superior university studies, within the age range of 24 and older (INEGI, 2011b). The average age of the

subjects in the sample is 27 years old, this could be attributed to the observation that Mexicans wait longer to start or finish their university studies because of financial matters, a current job or family matters. The level of income of the parents of the entrepreneurs is in the middle half or upper half shown in figure 4 in appendix C, since the level of study implies a certain level of income in Mexico. In addition, in superior studies in Mexico, the highest amounts of students and graduates are in the study fields of social sciences and businesses, followed by education and humanity and the study field of medicines, engineering and technology (INEGI, 2011c). In the sample used in this research, a variety of study fields are included, in this sample business studies is the biggest amount as well, shown in figure 5 in appendix C. Mexico is one of the countries with the richest variety of university offerings in general (Sieger et al., 2011), in the sample this distribution is equal, shown in figure 6 appendix C. In the GUESSS study gaining a higher income was important in their choice to become an entrepreneur for 81% of the entrepreneurs, a score of 5.69 out of 7 (Sieger et al., 2011). In the sample the distribution is similar as 90% of the subjects became an entrepreneur to gain a higher income, see figure 7 in appendix C. Furthermore, the average number of intended founding partner in Mexico is 1,47 however in the sample used the average is 2,15 founders.

4.2 Operationalization

The ideal instruction for gaining information about the subjects their information processes is to ask them to think aloud, while they are performing a certain task. 'Under this instruction, the subjects will verbalize their thoughts as these enter consciousness, that is, when they are first needed' (Ericsson & Simon, 1981, p.3). In this way, the subjects are able to follow their normal series of thoughts while they verbalize them simultaneously. 'The subject is asked to talk aloud, while solving a problem and this request is repeated if necessary during the problem-solving process thus encouraging the subject to tell what he or she is thinking' (van Someren et al., 1994, p.26). Thinking aloud means that during problem solving the subject keeps talking, speaks out loud whatever thoughts come up in his or her mind, while performing the task in that moment. Unlike other techniques that can be used for gathering verbal data, in this process there are no interruptions or questions as the subject is encouraged to give a concurrent account of his thoughts and to avoid interpretation or explanation of what he or she is doing, he or she just has to concentrate on the task that needs to be performed (van Someren et al., 1994).

The think aloud method is focusing on a challenging task while concurrently giving verbal expression to thoughts entering attention (Ericsson & Fox, 2011). In addition, think aloud is a usability evaluation method used to gain insight into how people work with a product

or an interface (Guan et al., 2006). The most commonly used approach is, concurrent think aloud, where users work on typical tasks while at the same time verbalizing what they are thinking and doing. This approach has been used within this investigation. Thinking aloud protocols are the most widely used methods in usability testing (Boren & Ramey, 2000).

This method traditionally had applications in psychological and educational research on mental processes, but also for the knowledge attainment in the context of building knowledge based computer systems (Jaspers et al., 2004). The think aloud approach is a unique source of information on thought processes: it generates direct data on the ongoing thought processes during task performance (Jaspers et al., 2004). A think aloud method is a way to get know people their thoughts and to have them verbalize while engaged in a task or situation. The tasks are articulated within a simulated situation and the think aloud approach is to perform cognitive assessment. In a standard think aloud method, experimenters have subjects verbalize their thoughts while performing some task, and responses are then recorded for following evaluation (Davison et al., 1997) This standard think aloud method is applied within the investigation of the EPIC-C project. The thinking a loud method, is a method which does not lead to a lot of disturbance of the thought process. The subject is solving a problem while talking is done almost automatically. In the data gathered there is no delay and the subject just extract the thoughts as they come into mind (van Someren et al., 1994). Another benefit found is that the think aloud method compared to other observation methods links the thinking processes of the subject with coexisting perceptions, thus revealing information available in the working memory (Lundgrén-Laine and Salanterä, 2010).

Furthermore, the survey used is a good method available for the researcher to collect original data for describing a population which is too big to observe directly. The information is gained by self-administered questionnaires in which the respondents are asked to complete the questionnaire themselves. A five point Likert scale is used and the questions used are based upon the research of Chandler et al. (2011) where they develop measures to test the dimensionality of the constructs causation and effectuation and the associated distinctiveness.

Consequently, the execution of the research needs to be explained in further detail. Before executing the research the subjects are given an instruction message, the core of this message is that the subjects have to perform the case speaking out loud, what comes up their minds (van Someren et al., 1994). The researcher provides detailed descriptions of procedures to give a clear introduction to the subjects, which is really important (Ericsson & Fox, 2011). The researcher encourages the participant to speak constantly and

informs the subject that a reminder will be given if he or she falls silent. In addition, the subject is given an opportunity to practice thinking aloud. This practice phase gives the subject the chance to get familiar with the think aloud process, but also gives the researcher the opportunity to train the subject in keep verbalizing his thoughts. The sessions of the business case are started when the subject is comfortable with the task of having to talk out loud. The researcher explains to the subject that the process will be voice recorded and that the researcher is not entitled to give answers to questions asked. The experimenter does not answer questions as its role is a constrained one, when the subject is working on the business case. A subject is only interfered when he or she stops to talk. Furthermore, the researcher checks his recording device regularly during the think aloud process, as unobtrusive as the researcher can (van Someren et al., 1994).

As mentioned earlier, the gathering of data involves by means of think-aloud protocols, in which the sample group is asked to work on a business case that deals with entrepreneurial processes. In this way, it is possible to learn how student entrepreneurs work, while doing the business case, the experimenter is asked to make sure they think aloud. What the entrepreneurs say, will be recorded. This will have a maximum duration of two hours. The main constructs that are tested within this business case are causation and effectuation. Furthermore, a questionnaire is executed with the subjects to gain more background information. This data is gathered by means of setting up meetings with the student entrepreneurs and execute the protocol and send the survey afterwards.

4.3 Method of analysis

The session of the business case which is performed thinking aloud, is recorded and later processed into transcripts. Typing out a protocol means typing out as exact as possible. In this research, the case is given in the native language of the subject and also transcribed into this native language. Providing this case in Spanish, rules out any language barrier from the subject and the subject do not have accents which are strange to the transcriber. As, it helps if a transcriber asks another person to try to understand or check their protocols, this is executed by the researcher asking a native speaker to listen to the recording tape and compare it with the transcript. Typing out this type of complete protocols is usually unavoidable to be able to apply coding procedures that are reliable (van Someren et al., 1994).

After describing the transcription of the protocols, now the analysis of the protocols deserves attention. The goal of the protocol analysis is to construct a mapping between the psychological model and how the mental process appears in the protocols. This mapping will take the form of a coding scheme (van Someren et al., 1994). So, the next step that should be taken from the transcripts is to code it, which will require a coding

scheme. After having coded all the transcripts, the coded protocol can then be compared with the model of Sarasvathy which is directly derived from the theory. The coding scheme can be found in appendix D and is similar to the aspects of causation and effectuation in table 1 identified by Sarasvathy (2008). The dimensions analyzed will be goal driven versus means based, competitive analysis versus partnerships or alliance, existing market knowledge versus exploring contingencies and predictions of the future versus non predictive control. In addition, since Mexican entrepreneurs almost do not analyze the data or distrust the research, almost no data is gathered on this aspects, this will be shown in the chapter of the results. Furthermore, almost no data is given on the causational and effectual score with no subcategory given, the focus within the research will be on the principles of Sarasvathy (2008) which could be clearly linked to theory of cultural dimensions.

Afterwards the data needs to be analyzed and this will be done by means of a parametric tests, which make inferences about the parameters of the distribution. This parametric method can produce accurate and precise estimates and the sample statistic which is obtained is used to estimate the population parameter. In this analysis bivariate as well as multivariate methods are applied. The first parametric test which will be used is the ANOVA-test, which is a powerful approach to analyze data. ANOVA is concerned with differences between means of groups, not differences between variances. The name "analysis of variance" comes from the way the procedure uses variances to decide whether the means are different. In this case, the ANOVA-test is used in a two sample test of the null-hypothesis and the two samples are independent. This test is used because the mean and standard deviation of the population on causation and effectuation is unknown, and because two separate groups are being compared. In addition, the test fits with the research, developed hypotheses and can be applied on a small sample. The test that will be executed will be one tailed, see hypotheses. Furthermore, the observation within the sample need to be independent and the scores need to be normally distributed. Normality is tested by means of the Shapiro-Wilk test of normality. If a variable turns out to be not normally distributed, a non-parametric test can be applied, the Mann-Whitney U test in the case of a bivariate test. Furthermore, a correlation matrix will be established on the think aloud data which then later can be compared to the survey data.

Data can be investigated and understood with simple statistics, but much of it requires more complex, multivariate statistical techniques to transform these data into knowledge. Multivariate analysis techniques are popular because they enable people to create knowledge and thereby improve decision making in organizations Multivariate analysis refers to all statistical techniques that concurrently analyze several measurements on

individuals or objects under research. Multivariate methods are extensions of univariate analysis and bivariate analysis. A multiple regression provides a means of performing in a single analysis, what once took multiple univariate analyses to achieve (Hair et al., 2010).

The purpose of multivariate analysis is to measure, explain, and predict the degree of relationship among variates. Thus, the multiple character lies in the multiple variates, multiple combinations of variables, and not only in the amount of variables or observations (Hair et al., 2010). In this research, the regression analysis is applied as it focuses on the relationship between a dependent variable and one or more independent variables. Regression analysis helps understand how the typical value of the dependent variable changes when any one of the independent variables is varied, while the other independent variables are held fixed.

To be capable to execute a regression analysis dummy variables have to be computed, as the variables used are qualitative such as gender, age, religion and family background. Dummy variables are proxy variables or numeric stand-ins for qualitative facts in a regression model. Dummy independent variables take the value of zero or one, also called binary variables. A dummy variable with a value of zero will cause the variable its coefficient to act as a supplementary intercept in a regression model. For instance, gender, then female is assigned the value of 1 and the men gets value 0. Shortly, a dummy variable can be defined as a qualitative representative variable incorporated into a regression, it assumes the value 1 whenever the category it represent occurs and zero if else. Dummy variables are used as devices to sort data into equally exclusive categories.

Furthermore, the data will be computed into standardized coefficients, this standardization is done to answer the question of which of the independent variables have a greater effect on the dependent variables in this multiple regression analysis. The standardized coefficient have a variance of 1 and the coefficients refer to how many standard deviation as a dependent variable will change, per standard deviation increase in the predictor variable. Standardizing all variables in a multiple regression results in standardized regression coefficients that show the change in the dependent variable measured in standard deviations.

Furthermore, the data gained of the survey executed among Mexican student entrepreneurs will be analyzed by means of an exploratory factor analysis to explore the underlying dimensionality of the items. In addition, the factor analysis, which identifies the structure underlying a set of variables, is uniquely designed to deal with multivariate issues. A parallel analysis and scree analysis is used to determine the number of factors to

extract from the data. In the parallel analysis the principle components are retained while the Eigen values is ≥ 1 . This is based on the argument that, in a correlation matrix, each variable contribute a variance of 1 so a component should be retained if it possesses more variance than a single variable. The scree analysis is used as another test, which plots the Eigen value against component numbers, and when the sharp decrease in Eigen values level off, the remaining components are abandoned. This based on the argument that the original and significant components each extracts a large proportion of the variances from the correlation matrix, while the remaining insignificant ones are associated with similar low value variances. In addition, the Barlett tests and KMO measure of sampling adequacy is performed, to test whether executing a factor analysis on the data will be appropriate. Furthermore, after executing the factor analysis it will be explored if certain questions in the survey could be combined to apply a second factor analysis, based upon the scores of the first one. In addition, a correlation matrix will be establish on the survey data, that then can be compared to the correlation matrix of the think aloud data.

Validity needs to be taken into account as an important factor of the research design, it is important to reduce the possibility of using unreliable data or data of measurement instruments that is are not valid. Moreover, (Saunders et al., 2007) valid questionnaire and measurement instrument helps to collect accurate data and one that is reliable will mean that these data are collected consistently. Validity refers to the extent to which an empirical measure reflects the real meaning of the concept in an adequate way. The panel of the pilot studies was asked to assess whether each decision problem in the business case was relevant and clear, to discuss with the supervisors of the EPIC-C project to make any adjustments to the business case before it will be executed in the actual research. The content validity of think aloud methods might only be a problem if simulations are unable to represent the actual situation in real life (Fonteyn et al., 1993). In this case, the business case tries to represent the actual situation as best as is possible. Within this research a comparison is made between Mexico and Netherlands, this is done to make the results of this research more generalizable. Netherlands is used as a reference frame, which strengthen the external validity of this research. Furthermore, the think aloud method and the survey will be compared by means of correlation matrixes. It is important to test rather the two methods measure what they claim to measure, this will also increase the statistical conclusion validity. In this way, the threat of unreliability of the measures becomes less or can be ruled out and because of the check for normal distribution of the variables the threat for violated assumptions of the test statistics can be ruled out as well.

Reliability needs to be taken into account as well as an important factor of the research design, to reduce the possibility of using unreliable data or measurement instruments.

Implication can be made such as the fact that researchers using the think aloud method must have enough experience in observing people so that they can notice and interpret the cognitive processes of a particular individual in an accurate and reliable manner (Lungrén-Lain & Salanterä, 2010). In the case of this research, the researcher practiced in executing this method several times by executing several pilot studies. In addition, these pilot studies are worked out into transcripts and coding documents, which are then checked by the supervisors of the EPIC-C project. The careful planning of data collection and short practice session before the observations are important for researchers using the think aloud method (Lungrén-Lain & Salanterä, 2010). This for the success of the collection and making the situations as natural as possible. The researcher is collecting the data carefully by selecting the subjects with pre-defined characteristics and make the subjects practice a while before starting to work on the actual business case. The reliability of the analysis of the think aloud protocols should be evaluated through different levels and phases of the analysis. Furthermore, the coding should be consistent, clear and repeatable (Burla et al., 2008). The reliability of the analysis has been improved by using a second person checking up transcripts and coding, which is a native speaker of the language Spanish. Concerning the reliability of the survey, a pilot survey was carried out to enhance the reliability of the research. After this pilot some adjustments are made to the questionnaire to increase the consistency of the questions. The questionnaire is offered to the respondents in their native language, to take out any language barriers.

5. Results

In this chapter the data of the think aloud protocols is analyzed by means of a statistical parametric test and the data of the survey by means of an exploratory factor analysis. The results will be outlined and an explanation will be given whether a hypothesis is statistically significant or not. First of all, an overview will be given of the use of causation or effectuation by Mexican and Dutch entrepreneurs, followed by the results per hypothesis. Subsequent, the results of the survey and correlation matrixes will be discussed. Afterwards, a conclusion will be given about the results.

5.1 Causation and effectuation distribution

In the figures shown underneath, an overview is given of the use of causation and effectuation. This is done by means of the distribution of the principles used by the Mexican entrepreneurs and Dutch entrepreneurs. The first figure shows the overview of the distribution of causation, the second of the distribution of effectuation among the entrepreneurs of the two different countries. Mexican entrepreneurs use 69% causation and 31% effectuation, whereas Dutch entrepreneurs use 57% of causation and 43% of effectuation. More in depth information can be found in appendix E.

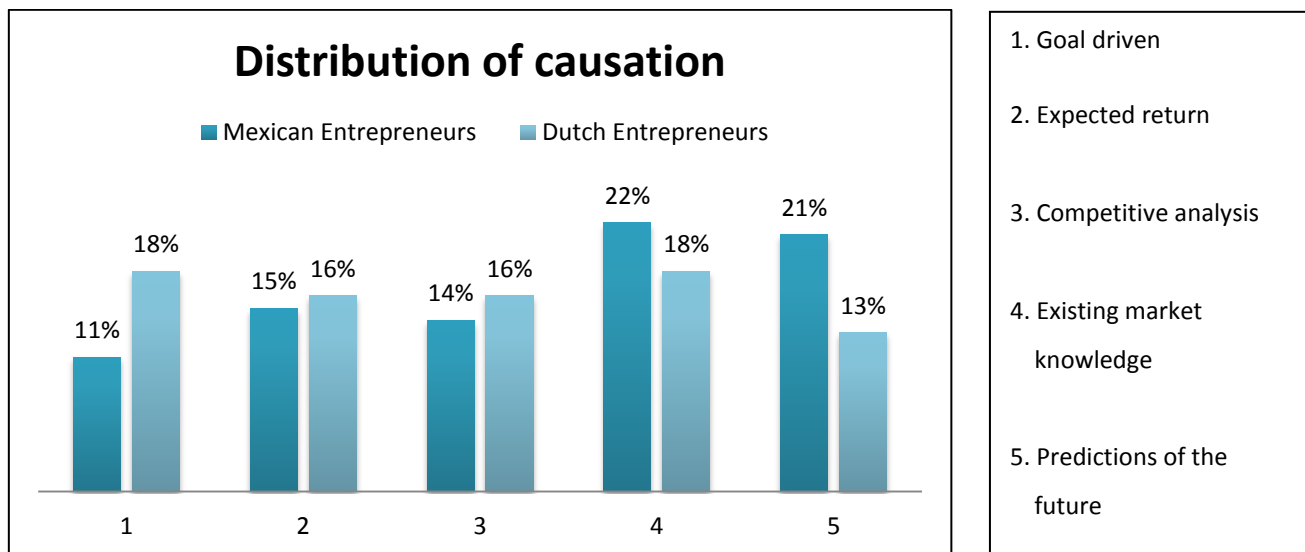


Figure 1: Distribution of causation

This figure shows that the Mexican entrepreneurs are in general more causal than the Dutch entrepreneurs, they score relative the same on the aspects expected return and competitive analysis and a bit less on the aspect of being goal driven. The Mexican entrepreneurs score high on causation with existing market knowledge and high on predictions of the future.

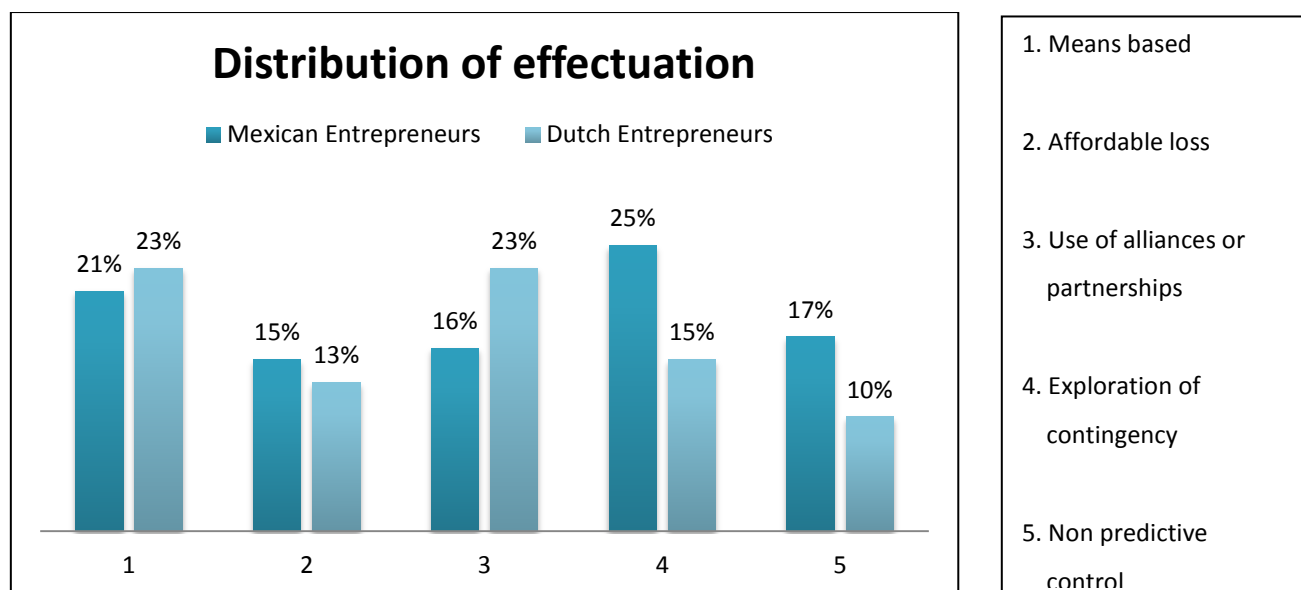


Figure 2: Distribution of effectuation

This figure shows that the distribution of effectuation differs among the Dutch entrepreneurs and the Mexican entrepreneurs. In addition, the Mexican entrepreneurs score higher on use of alliances and partnerships, exploration of contingency and on non-predictive control. As mentioned before the focus within the research will be on the principles of Sarasvathy (2008) which could be clearly linked to theory of cultural dimensions.

5.2 Statistical parametric testing

The data collected is analyzed by means of a statistical parametric tests. With this parametric tests inferences about the parameters of the distribution of causation and effectuation can be made. The parametric tests which are used is the ANOVA-test and the multiple regression statistic, and these statistics obtained can be used to estimate the population its parameter and it is accurate and precise.

The normal distribution was tested by the Shapiro-Wilk test to rule out the threat of violated assumptions of the tests statistics as a part of the statistical conclusion validity. Only the distribution of exploring contingencies is normally distributed of the first five hypotheses. The sixth and seventh hypotheses are tested on normal distribution as well, causation and effectuation is normally distributed, as well when checking the use by male and female entrepreneurs is. A non-parametric test is applied on the variables that turned out to be not normally distributed. Furthermore, the cronbach's alpha for the items is .816 suggesting that the data of this research is reliable.

Hypothesis one states that there is a positive correlation between performance orientation and the entrepreneur being goal driven, as a part of causation. The proportion of causation of the Mexican entrepreneurs is .54 and the proportion of causation of the Dutch entrepreneurs is .51. The non-parametric test resulted in a P-value of 0.283. The pre-specified alpha level is 0.05 so with this P-value the hypothesis can be rejected.

Hypothesis two states that there is a negative correlation between masculinity and the entrepreneur using cooperation by means of alliances and partnerships, as a part of effectuation. The proportion of effectuation of the Mexican entrepreneur is .32 and the proportion of the Dutch entrepreneur is .52. The non-parametric test resulted in a P-value of 0.003. The pre-specified alpha level is 0.05 so this P-value fails to reject the hypothesis.

Hypothesis three states that there is a positive correlation between collectivism and the entrepreneur using alliances and partnerships, as a part of effectuation. The proportion of effectuation of the Mexican entrepreneur is .32 and the proportion of the Dutch entrepreneur is .52. The non-parametric test resulted in a P-value of 0.003 which fails to reject the hypothesis. The pre-specified alpha level is 0.05 so this P-value states that the difference is significant. However the proportion of effectuation was higher among Dutch entrepreneurs than among Mexican entrepreneurs. So it is significant, for Dutch entrepreneurs being more effectual, concluding that it does not reflect the hypothesis as expected since Dutch entrepreneurs are individualistic.

Hypothesis four states that there is a positive correlation between the external locus of control and the entrepreneur exploring contingencies, as a part of effectuation. The proportion of effectuation of the Mexican entrepreneur is .32 and the proportion of the Dutch entrepreneurs is .42. The ANOVA-test resulted in a P-value of 0.143. The pre-specified alpha level is 0.05 so with this P-value the hypothesis can be rejected.

Hypothesis five states that there is a negative correlation between uncertainty avoidance and the entrepreneur using non predictive control, as a part of effectuation. The proportion of effectuation of the Mexican entrepreneur is .30 and the proportion of the Dutch entrepreneur is .31. The non-parametric test resulted in a P-value of 0.034. The pre-specified alpha level is 0.05 so this P-value fails to reject the hypothesis.

Hypothesis six stated that there is a positive correlation between male entrepreneurs and the use of causation. It was expected that male entrepreneurs will apply the causal approach more than female entrepreneurs. The proportion of causation of male

entrepreneurs is .71 and of female entrepreneurs .65. The ANOVA-test resulted in a P-value of 0.177, so the hypothesis can be rejected.

Hypothesis seven states that there could be a correlation between age, gender, religion, family background and nationality with causation and effectuation. The amount of forty entrepreneurs is actually might be too small to apply a multiple regression, since the thumb rule is amount of variables multiplied by 10, gives the amount of respondents, see limitation chapter. The multiple regression analysis on causation shows that the multiple correlation coefficient for the two countries together tested on the variables gender, age, religion, family background and nationality is .552, which is a relative low prediction of the dependent variable. The adjusted R-square showed that only 14,7% of the variance in causation can be predicted by the combination of these variables. Furthermore, the multiple regression showed that the model does not fit with 0.130 significance level. This is the combination of each variable, but only in combination with each other. What is interesting to see, is taking this variables separately, and execute a correlation matrix do show significance levels. The reason for that is that multiple regression looks at the combination of these five variables to predict the outcome. The only variable loading significant on causation is nationality with 0.007.

The multiple regression analysis on causation shows that the multiple regression correlation coefficient for Mexico is .525, which is a relative low prediction of the dependent variable. The adjusted R-square showed that 27,6% of the variance in causation can be predicted by the combination of these variables. Furthermore, the multiple regression showed that the model does not fit with .273 as significance level.

The multiple regression analysis on causation shows that the multiple regression correlation coefficient for the Netherlands is .693, which is a relative low prediction of the dependent variable. The adjusted R-square showed that 48,0% of the variance in causation can be predicted by the combination of these variables. Furthermore, the multiple regression showed that the model does not fit with .408 as significance level.

The multiple regression analysis on effectuation shows that the multiple correlation coefficient for the two countries together tested on the variables gender, age, religion, family background and nationality is .551, which is a relative low prediction of the dependent variable. The adjusted R-square showed that only 14,6% of the variance in effectuation can be predicted by the combination of these variables. Furthermore, the multiple regression showed that the model does not fit with 0.132 significance level. This is the combination of each variable, but only in combination with each other. What is

interesting to see, is taking these variables separately, and execute a correlation matrix to show significance levels. The reason for that is that multiple regression looks at the combination of these five variables to predict the outcome. The only variable loading significant on causation is nationality with 0.007.

The multiple regression analysis on effectuation shows that the multiple regression correlation coefficient for Mexico is .517, which is a relative low prediction of the dependent variable. The adjusted R-square showed that 7,1% of the variance in effectuation can be predicted by the combination of these variables. Furthermore, the multiple regression showed that the model does not fit with .293 as significance level.

The multiple regression analysis on effectuation shows that the multiple regression correlation coefficient for the Netherlands is .693, which is a relative low prediction of the dependent variable. The adjusted R-square showed that 48,0% of the variance in causation can be predicted by the combination of these variables. Furthermore, the multiple regression showed that the model does not fit with .408 as significance level.

5.3 Exploratory factor analysis

As mentioned before, next to collecting data by means of the think aloud protocols a survey was executed among the Mexican student entrepreneurs. The distribution of answers per respondent can be found in appendix F. This executed survey is based on the work of Chandler et al. (2011) that validate measures of causation and effectuation. The measures are used to test the dimensionality of the constructs and the associated distinctiveness. An exploratory factor analysis is executed to explore the underlying dimensionality of the items.

A parallel analysis and scree analysis is used to determine the number of factors to extract from the data. Preceding this analysis, the factorability of the data is assessed by applying a Barlett test of sphericity and the Kaiser-Meyer-Olkin measure of sampling adequacy. The Barlett test should be significant ($p < .05$) and the Kaiser-Meyer-Olkin measure should be greater than 0.5 before proceeding with the factor analysis (Chandler et al., 2011). The Barlett test is significant (chi-square 206.9, $p < .000$) indicating the factor analysis is appropriate. However, taking the items together gives a Kaiser-Meyer-Olkin value of .281, which would be too low to perform a factor analysis. However, assessing the data by constructs delivers more positive values, for causation .594 and effectuation .518, which could indicate the factor analysis can still be appropriate. Furthermore, the cronbach's alpha for the items is .744 suggesting that the scales are internally consistent and reliable.

The theory on causation and effectuation being two different approaches to new venture creation (Sarasvathy, 2008), suggests a two-factor solution. This would mean that causation should load on one factor and effectuation on another factor. What is clear is that causation items tend to load together, as well as effectuation items tend to load together. See the results in table 5. However, causation tend to load on two factors, namely factor 1 and 3. Effectuation loads on all three factors, but has a tendency to load together on factor two. Both constructs can be described to be multidimensional.

Items	Causation / Effectuation	Items retained	Factor 1	Factor 2	Factor 3
We analyzed long run opportunities and selected what we thought would provide the best returns	C	X			.74
We developed a strategy to best take advantage of resources and capabilities	C	X	.73		
We researched and selected target markets and did meaningful competitive analysis	C	X			.50
We designed and planned business strategies	C	X	.51		
We organized and implemented control processes to make sure we met objectives	C	X			.81
We had a clear and consistent vision for what we wanted to do	C	X	.90		
We designed and planned production and marketing efforts	C	X	.65		
The ultimate product/service that I used to launch this business was quite similar to my original conception	C	X	.75 ^a		
Our decision making has been largely driven by expected returns	C	X		.74	
The ultimate product/service that I used to launch this business was quite different from my original conception	E	X		.52	
It was impossible to see from the beginning where we wanted to end	E	X		.54	
We have allowed the business to evolve as opportunities have emerged	E	X		.61	
We evaluated the set of resources and means we had at our disposal and thought about different options	E	X	.77		
We experimented with different products and/or business models	E	X		.81	
We started out very flexibly and tried to take advantage of unexpected opportunities as they arose	E	X		.68	
We used a substantial number of agreements with customers, suppliers and other organizations and people to reduce the amount of uncertainty	E	X			.62
Our decision making has been largely driven by how much we could afford to lose	E	X		.54	

^a Reversed coded

Table 5: Causation and effectuation items and loadings

Consequently, the questions that score on the same factor are computed into one variable, this is done for factor 1, 2 and 3. Afterwards, a second factor analysis is executed on this new computed variables. This second factor analysis shows that the questions that loaded on factor 1 and 3, load highly on one factor whereas the questions which loaded first on factor 2 load highly on the other factor. In this factor analysis only two factors were found, which could be causation and effectuation.

Items	Factor 1	Factor 2
Questions loaded on factor 1	.827	
Questions loaded on factor 2		.965
Questions loaded on factor 3	.823	

Table 6: Causation and effectuation items and loadings after second factor analysis

5.4 Correlation matrixes on survey and think aloud data

In addition, a correlation table is established to see whether the new computed variables correlate. Within each box we have the correlation of the variable in the row and the variable of the column. The scores 1, is just a variable correlated with itself. Correlation go from 1 to 0, a 1 would mean that everything falls exactly on the regression line. Plus and minus are simply indications whether it is a direct or inverse relationship. If the significance number is less than 0.05 then the correlation is considered statistically significant. If this variables would be statistically significant, this would meant that these variables are highly associated with each other. However in this data, none of the variables seemed to be highly associated with each other, none of them is statistically significant.

		Questions load on factor 1	Questions loaded on factor 2	Questions loaded on factor 3
Questions loaded on factor 1	Correlation	1	0,100	,405
	Sig.	.	,673	,076
Questions loaded on factor 2	Correlation	0,100	1	-0,023
	Sig.	,673	.	,923
Questions loaded on factor 3	Correlation	0,405	-0,023	1
	Sig.	0,076	,923	.

Table 7: Correlation matrix survey

Questions loading on factor one are based on the constructs of setting up, planning and designing business strategies, production and marketing efforts, evaluating resources and having a clear vision on product and service. Questions loading on factor two combine the experimentation of products and business models, working flexibly, affordable loss and involvement of opportunities. Questions loading on factor three combine analyzing of opportunities, research and select target markets, organization and implementation of control processes and reducing the amount of uncertainty.

The correlation matrix of the variables of the survey, table 7, shows that, the higher the use of analyzing of opportunities, research and select target markets, organization and implementation of control processes and reducing the amount of uncertainty, the lower the experimentation, flexibility, use of affordable loss and involvement of opportunities. The higher the use of planning, designing, evaluation of product, service and research and having a clear vision on product and service, the people have a relatively high use of analyzing of opportunities, research and select target markets, organization and implementation of control processes and reducing the amount of uncertainty.

In addition, a correlation table is also constructed on the data out of the think aloud method, this table can be found in appendix G. This correlation matrix shows that some constructs of causation have an inverse association with effectuation, a correlation is shown between the variables goal driven and means based and the variables existing market knowledge and exploring contingencies.

Furthermore, there is a significant correlation between the variable goal driven and the causation variables expected return, competitive analysis and existing market knowledge. In addition, there is a significant correlation between the variable expected return and the causation variables competitive analysis, existing market knowledge and predictions of the future. However, this causation variable, expected return, is also correlated with effectuation variables, namely means based and exploring contingencies. The causation variable competitive analysis is correlated with existing market knowledge and predictions of the future, and it is correlated with the effectuation variables means based and affordable loss. Moreover, the causation variable existing market knowledge correlates with predictions of the future as a causational variable and means based as an effectual variable. Additionally, the effectuation variable means based is also correlated with affordable loss, alliances and partnerships and exploring contingencies. Furthermore, affordable loss is correlated with alliances and partnerships. In short, the first correlation matrix on the survey data showed no significant correlation between the variables of causation and effectuation, whereas the data on the think aloud method did.

5.5 Conclusion of results

In this part the conclusions will be further outlined, based upon the statistical analysis performed on the data of the think aloud protocols and upon the factor analysis performed on the data of the survey and the correlation matrixes.

To conclude, the first hypothesis suggested that within countries with a high score on performance orientation, the use of causation will be higher than the use of effectuation. Since the performance orientation is higher among the Dutch entrepreneurs, it was expected that the Dutch entrepreneurs are more goal driven than Mexican entrepreneurs. The proportion of causation was a bit higher among Mexican entrepreneurs, however the non-parametric test showed that this difference was not significant and the hypothesis can be rejected. In addition, the difference of scores on performance orientation were small between the Netherlands and Mexico, so it is expected to see pretty much the same proportions. Both are expected to show causational processes, the only thing what could be tested is that the proportions should be about the same.

Furthermore, the second hypothesis suggested that within countries with a high score on masculinity, the use of effectuation will be lower than the use of causation. Since the masculinity scores higher among Mexican entrepreneurs, it was expected that Mexican entrepreneurs make less use of alliances and partnerships than Dutch entrepreneurs. The proportion of effectuation was lower among Mexican entrepreneurs and consequently the non-parametric test showed that this difference was significant and the hypothesis failed to be rejected. Since the two countries had a different score on masculinity, it was expected to see a difference in proportion of using alliances and partnerships, this is reflected in the results of the data, testing showed significance. In addition, the third hypothesis suggested that within collectivistic countries the use of effectuation will be higher than the use of causation. Since collectivism scores higher among Mexican entrepreneurs, in this hypothesis it was expected that Mexican entrepreneurs make more use of alliances and partnership, as part of effectuation, than Dutch entrepreneurs. However, the proportion of effectuation was higher among Dutch entrepreneurs. Consequently, this difference was significant according to the performed non-parametric test. Though, this hypothesis is not reflected, as Dutch entrepreneurs score higher on effectuation than Mexican. However, what is interesting to see is that the difference between the countries is significant. In addition, hypothesis 4 points out that the proportion of effectuation is higher among Dutch entrepreneurs, by means of using alliances and partnerships.

Additionally, the fourth hypothesis suggested that within countries with an external locus of control the use of effectuation will be higher than the use of causation. Since Mexico is defined as a country with an external locus of control and the Netherlands as a country with internal locus of control, it can be expected that Mexican entrepreneurs make more use of exploring contingencies than Dutch entrepreneurs. Actually, the use of effectuation was higher among Dutch entrepreneurs, however the ANOVA-test showed that this difference was not significant and the hypothesis can be rejected. Since the Netherlands and Mexico have such a different score on external and internal locus of control, it is expected to see a difference in proportion of the use of causation and effectuation. This difference is reflected in the results of the data, nevertheless it is not significant.

The fifth hypothesis suggested that within countries with a high level of uncertainty avoidance the use of effectuation will be lower than the use of causation. Since uncertainty avoidance scores higher among Mexican entrepreneurs, it was expected that Mexican entrepreneurs make less use of non-predictive control than Dutch entrepreneurs. The proportion of effectuation was lower among Mexican entrepreneurs and consequently the non-parametric test showed that this difference was significant and the hypothesis failed to be rejected. Since the two countries had a different score on uncertainty avoidance, it was expected to see a difference in proportion of using non-predictive control.

The sixth hypothesis suggested that male entrepreneurs would use more causation in the creation of a venture, than female entrepreneurs would. A difference in the amount of causation applied is shown between male and female entrepreneurs, however the ANOVA-test showed that this difference was not significant.

The seventh hypothesis suggested that personal background, combined by age, religion, gender, family background and nationality could have an influence on the use of causation and effectuation. The multiple regression showed that this influence is not statistically significant. Taking the two countries into the multiple regression showed that the Mexican or Dutch nationality has an significance influence on causation as well as on effectuation. For the Mexican entrepreneurs only 27,6% of the variance could be predicted by personal background on causation, for Dutch entrepreneurs this was 48%. In addition, for the Mexican entrepreneurs only 7.1% of the variance could be predicted by personal background on effectuation, whereas for Dutch entrepreneurs this was 48%.

After performing the factor analysis on the data received from the survey, a table on the factor loadings could be constructed as a result. This table showed that neither the items

of causation nor the items of effectuation load strongly together on one factor. As the articulating of the constructs of causation and effectuation by Sarasvathy (2008) suggests a two-factor solution in which causation should load on one factor and effectuation on another, it could be said that the items unfortunately are not one-dimensional. Based upon the work of Chandler et al. (2011) it can be assumed that causation and effectuation in this research are multidimensional constructs because of the fact that they do not load on one factor. However, the second factor analysis on the survey showed that the questions that loaded originally on factor 1 and 3, now tend to load together and the question that loaded originally on factor 2 load on factor 2 again. The second factor analysis resulted in only two factors, causation and effectuation. Which could mean that the construct causation and effectuation could be differently defined, by means of any changes in principles or combinations of principles with the constructs.

Furthermore, correlation matrixes are established on the survey data and the think aloud data. The first correlation matrix on the survey data showed no significant correlation between the variables of causation and effectuation, whereas the data on the think aloud method did. Furthermore, the correlation matrix of the think aloud data showed that causation as well as effectuation correlate among each other. Since there is a lot of correlation between the principles of causation and effectuation in this measure, it could be that this measure does not measure validly. Causation and effectuation are supposed to be two separate constructs, according to the theory of Sarasvathy (2008), this is why the correlation among the two constructs could have consequences for the validity of the research. Validity is the extent to which a test measures what it claims to measure, in this case two constructs causation and effectuation. The results of the correlation matrix shows that it could be that the think aloud method does not measure what it claims to measure, whereas the survey does, showing two separate constructs that do not correlate.

6. Discussion and limitations

As mentioned earlier, evidence of a growing body of entrepreneurship articles in management journals lends support to the view that entrepreneurship is emerging as a distinct domain (Alvaro et al., 2007). As economies become global and opportunities for cross border operations are increasing, it is important to understand how entrepreneurs from different countries differ. A possible source for this differences among entrepreneurs is the underlying cultural values these entrepreneurs have.

Culture is depicted as a moderator of the relationship between contextual factors and entrepreneurship (Hayton et al., 2002). Additionally, the scientist Saras D. Sarasvathy (2008) developed the concept of causation and effectuation to describe entrepreneurial processes and outcomes. Entrepreneurship can be observed in all countries, but one could also notice differences across countries in entrepreneurial activities(Baughn & Neupert, 2003). It is important to mention that the same person can use both effectual and causal reasoning at different times depending on what the situation calls for.

Using the think aloud method in this research has its pro's and con's. A benefit of the method is that it does not lead to a lot of disturbance of the thought process. In the data gathering there is no delay and the subject extracts the thoughts as they come into mind. Another benefit is that the think aloud method compared to other observation methods links the thinking processes of the subject with the coexisting perceptions, thus revealing information available in the working memory. Concurrent data outperformed the retrospective method, this because the concurrent data provides more insights into decision steps. Next to the benefits that the think aloud method has, also limitations can be found of this method as well. First of all, it is possible that data out of the think aloud method is invalid and incomplete due to memory errors. This invalid data can be obtained due to interpretation by the subject or due to disturbance of the cognitive process and think aloud protocols are not necessarily complete because the subject maybe only verbalizing a part of his thoughts. In addition, there can be some differences in the ease with which people verbalize their thoughts and a solution provided for this is the execution of the practice phase. The constant speaking aloud may have a negative effect on the subject its task performance, some protocols in this research could be more complete than others.

A limitation of this research could be the small sample size, however even a small number of subjects will provide rich and extensive data for analysis by means of this think aloud method (Nielsen, 1994). Though, it is necessary to acknowledge that external validity would be improved with a larger sample. Furthermore, in this research students

entrepreneurs are used as a sample. However, this can be a limitation as novices could be unable to access available, relevant knowledge because the short term memory is overloaded by the problem situation they face (Dew et al., 2009). Using student entrepreneurs in this research makes it possible to isolate and understand key elements of entrepreneurial expertise that might be teachable to students (Dew et al., 2009). The amount of forty entrepreneurs however, might be too small to execute a multiple regression. The thumb rule is the amount of variables multiplied by ten is the amount of respondents (Hair et al., 2010). Since causation and effectuation exists out of 10 variables a minimum of 100 respondents would fit better. Furthermore, the sample of Dutch entrepreneur only exist out of male entrepreneurs, which could be a limitation.

Another limitation of the research could be the coding of the transcripts as it can be subjective. To deal with this problem, the researcher let another person listen to the recording tape and compare it with the transcription. Furthermore, if the think aloud task involves a high cognitive load, it is possible that this might hinder the cognitive process. In this research, the task is provided in the language of the subject to reduce the effort of thinking, and reduce any language barriers or strange accents and to make it fully possible for the subject to express his or herself. In addition, the coding is not done directly from tape, but executed on the transcript which gives better results. Moreover, the direct encoding from a recording tape instead of transcribing and coding the transcription seems prominent in terms of efficiency, it is often not a method to be recommended. This has to do with the objectivity, the context result and that the data can be subject to several cycles of interpretation (van Someren et al., 1994).

Multiple methods should be used to asses culture (Lenartowicz & Roth, 1999), this is why Hofstede, as well as Globe and Trompenaar will be used and explained within this research. Using Hofstede its work creates a shortcut to the integration of culture into studies (Soares et al., 2007). The reliance on Hofstede its dimensions uncertainty avoidance, masculinity and collectivism is based upon several reasons. First of all, these dimensions were derived by a factor analysis which means the dimensions are separate and distinguishable. Furthermore, the research of Hofstede is executed in 62 countries, from industrialized to developing ones. In addition, the validity of the measures of Hofstede have been supported through their correlation with indices of other researchers (Shane, 1992). Though, Hofstede its dimensions were originally developed in the context of formal organizations. These dimension are broadly defined and do not directly address aspects of culture that are most significant to entrepreneurship (Busenitz et al., 2000). Further, there is some evidence that country scores on these dimension are not static (McGrath et al., 1992). Moreover, the work of Hofstede might be outdated as it was

collected more than thirty years ago. However, although that culture change, this change is believed to be very slow (Sivakumar & Nakata, 2001). Although the results of the research of Hofstede its uncertainty avoidance dimension, it is obvious that Mexican business people tolerate constant turmoil and uncertainty in their economic and political surroundings (Martinez et al., 1998).

The reliance on the work of the Globe study by House of the dimension performance orientation is based upon several reasons. The dimensions defined by the Globe study are selected based upon a review of literature relevant to the measurement of culture in prior large sample studies and on the basis of the existing cross culture theory (Chhokar et al., 2008). Furthermore, a major strength of the Globe study is the deployment of diverse methodologies, both quantitative and qualitative, to enhance the robustness and richness of the findings. A main limitation of the Globe study is the composition of the sample, which was exclusively white men (Chhokar et al., 2008). Furthermore, a cultural dimension of Trompenaars and Hampden-Turner was used, as their perspectives are widely accepted in business circles. The scientists classified cultures along a mix of behavioral and value patterns. The research is based upon quantitative data, as well as the work of Hofstede. A limitation of using this research could be, that their underlying values claims are frequently the result of very little data or a limited number of questions (Dahl, 2004).

As with every study, to be cautious is recommended in the interpretation of the results. The reliability of the data of the think aloud protocols as well as of the survey are checked on their reliability by applying a cronbach's alpha. However, a limitation than can be found in the factor analysis of the survey data is that the Kaiser-Meyer-Olkin value was too low to perform a factor analysis on the data of the survey. However, the Barlett test did show that a factor analysis was appropriate. This fact should be kept in mind looking at the results of the factor analysis. Furthermore, the correlation matrixes established on the data of the survey and the think aloud data showed difference in the amount of correlation between causation and effectuation. The first correlation matrix on the survey data showed no significant correlation between the variables of causation and effectuation, whereas the data on the think aloud method did. Causation and effectuation are supposed to be two separate constructs, according to the theory of Sarasvathy (2008), this is why the correlation among the two constructs could have consequences for the validity of the research. Validity is the extent to which a test measures what it claims to measure, in this case two constructs causation and effectuation. The results of the correlation matrix shows that it could be that the think aloud method does not measure what it claims to measure, whereas the survey does, showing two separate constructs that do not correlate.

7. Conclusion, reflection and recommendations

This chapter outlines the conclusion based upon the results. This will be done by explaining the results of causation and effectuation in general, followed by conclusion of the results per hypothesis. Furthermore, a reflection on the research is given followed by recommendations for future research.

7.1 Conclusion

As mentioned before, the two constructs of this research are entrepreneurship and culture. Causation was explained as reasoning that takes a certain effect as given and focuses on selecting between means to create that particular effect. In addition, effectual reasoning starts with a given set of means and allows objectives to emergence over time from the varied imagination and diverse aspirations of the entrepreneurs and the people they interact with (Sarasvathy, 2001a). In comparison, causation and effectuation are two really different theories of entrepreneurial process (Sarasvathy, 2008). It is important to mention that the same person can use both effectual and causal reasoning at different times depending on what the situation calls for (Sarasvathy, 2008). In addition, culture provides a communally held set of customs and meanings, many of which are adopted by the person, becoming part of personality and influencing interactions with the social and physical environment (Dake, 1991). Culture is depicted as a moderator of the relationship between contextual factors and entrepreneurial outcomes (Hayton et al., 2002).

It was expected that several cultural dimensions would have an influence on the entrepreneurial process used, causation or effectuation. Mexican entrepreneurs were compared to Dutch entrepreneurs, the distribution of causation was higher among Mexican entrepreneurs with 69% against 57% of Dutch entrepreneurs. As a result, effectuation is scored higher by Dutch entrepreneurs with 43% against 31% of Mexican entrepreneurs. Furthermore, it was expected that performance orientation stand in relation with being goal driven, as a part of causation. However this correlation was not found. In addition, another correlation which could not be found is the correlation between external locus of control of a culture and the consequent exploring of contingencies.

However, uncertainty avoidance is negatively correlated with the use of non-predictive control. A culture high on uncertainty avoidance would lead entrepreneurs to be less favoring of non-predictive controls. Moreover, several scientists found collectivism to be cooperative (Cox et al., 1991), however the results in this research shows the opposite. Masculinity was found to reduce cooperation (Steensma et al., 2000), it influences entrepreneurial attitudes towards cooperation and the results show this correlation as

being significant. The masculine culture leads individuals to have a distributive perspective on competition, to be less accepting of cooperative strategies and to see cooperation as a weakness. Individualism seems to be correlated with cooperation with partnerships or alliances. As a consequence, this individualistic culture leads entrepreneurs to be cooperative, to seek long term connections and emphasize working together. This could imply that collectivistic countries prefer to use competitive analysis, as an aspect of the causational approach. An interesting fact is the differences between men and women in Mexico, based upon culture. The involvement of women entrepreneurial activity is increasing around the world and the gender gap in economic activity rates is narrowing. To look into deeper detail within this research, a difference between the use of causation and effectuation among man and women is examined. This difference did exist, but was however not significant enough. Furthermore, there is no significant correlation between personal background and the degree of use of causation or effectuation.

Some extra facts could be discovered within the data as well, concerning opportunity recognition and dimensionality of causation and effectuation. The use of causation of the Mexican entrepreneur is multiple times significant, this can be coupled to the theory of discovery theory. Thus, opportunities are created by exogenous shocks to an industry or market and opportunities are objective and observable, so opportunities just simply exists. The factor analysis executed on the survey data showed that the neither the items of causation nor the items of effectuation load together on one factor. Based upon the work of Chandler et al. (2011) it can be assumed that causation and effectuation in this research are multidimensional constructs looking at the first factor analysis. However computing the variables that load together on a factor into one variable and executing a second factor analysis shows that the questions that loaded originally on factor 1 and 3, now tend to load together and the question that loaded originally on factor 2 load on factor 2 again. The second factor analysis resulted in only two factors, causation and effectuation. Furthermore, correlation matrixes were established on the survey data and the think aloud date. The first correlation matrix on the survey data showed no significant correlation between the variables of causation and effectuation, whereas the data on the think aloud method did. Causation and effectuation are supposed to be two separate constructs, according to the theory of Sarasvathy (2008), this is why the correlation among the two constructs could have consequences for the validity of the research.

To answer the research question, national culture seems to be correlated to the use of certain entrepreneurial processes among entrepreneurs with the establishment of a company. Differences of entrepreneurial activities could be noticed between Mexico and the Netherlands, however not all aspects were significantly different among the two

countries. However, more in depth study can be executed into underlying cultural values influencing the profile of environmental conditions favoring entrepreneurship, such as gender differences, traditions, patriotism and so on.

Speaking from the researcher its experience and observations, several other facts can imply Mexican entrepreneurs to use causation. It could be possible that the strong will to be in an university study and to apply this knowledge could imply the young entrepreneurs to use causation. This because of the fact that the basic business model taught in universities is generally the causational model. Furthermore, professors are seen as high status people and students are subordinate to them and are likely to follow their ideas. In addition, causation can be preferred because it can be very difficult to get access to credit in Mexico. An idea has to be fully planned and written on paper as a business plan, feasible and has to be realistic, exploring of contingencies could be minimized because of this. Furthermore, the use of cooperation seems to be minimized in the past years. Mexican people traditionally work a lot with family, though the young entrepreneurs interviewed expressed the risks with working with family and some of them seem to want to keep business and family separate. Furthermore, in the interviews another interesting fact concerning cooperation was discovered. The Mexican entrepreneurs prefer to provide work within their own country and for the people of their country, so they do not agree in partnerships or alliances with foreigners, or for example, do not want to sell their company to a foreign company. In addition, the difference between men and women seems to get less important on the work floor, as some young entrepreneurs expressed that they prefer to work with women than men. However, the young female entrepreneurs did express that it is tough to compete with men and it is harder for them to get access to credit or to gain respect by male entrepreneurs or colleagues.

7.2 Reflection

By analyzing the correlation between culture and entrepreneurship, the results provided an understanding of the question if an underlying cultural value of an entrepreneur has an influence on the applied entrepreneurial processes. An adjustment point for the research could be, to go into more depth into the culture of the country. The underlying cultural values between countries can differ a lot and they can have a big influence as well, talking about aspects as traditions, patriotism etc. that cannot be easily combined with the cultural dimensions defined by the scientists. In addition, existing literature on entrepreneurship and culture was generally very applicable on the research. Furthermore, the availability and amount of literature review on the construct was substantial.

Several elements need to be kept in mind, when considering the research. The subjects used for this study are students entrepreneur and are not combined with expert entrepreneurs. Another element that should be kept in mind, is that two countries with a very different economic climate are compared, maybe this could have affected decisions as well. The gathering of the data went more than well, because of the use of the native language of the subjects. This is an important point within the research, it helps to rule out any language barrier but also helps to gain easier contact with the student entrepreneurs needed for the research.

7.3 Recommendations

Some recommendations that can be made concerning this research are based upon the findings of this research. A recommendation would be to compare countries with the same economic climate. As economy can influence entrepreneurship and decision making as well, combining Mexico with the Netherlands, could be replaced by combining Mexico with another Latin American country or any country with approximately the same economic climate so this bias can be ruled out. This because a lot of student entrepreneurs in this research seem to base their answers and thoughts on their economy or rural products.

From the experience of the researcher and the thoughts expressed by entrepreneurs while executing the performance task of the business case, more in depth study can be executed into underlying cultural values that cannot be easily combined with a cultural dimension defined by several scientists. This underlying cultural values could be gender roles, traditions, patriotism, importance of status, high value on relationships and high value on mutual trust.

Furthermore, it could be interesting to execute the research with subjects that already have more experience, such as expert entrepreneurs. It could be interesting to see if any differences between young student entrepreneurs and expert entrepreneurs can be discovered. Or a combination of student entrepreneurs and expert entrepreneurs could be used.

References

- Acosta, C., Leon, J. V., Conrad, C., Gonzalez, R., & Malave, C.O. (2004). Case study on culture and the implementation of manufacturing strategy in Mexico. *Journal of Manufacturing Systems*, 23(3), 204-214.
- Alvarez, S.A., & Barney, J.B. (2007). Discovery and creation: alternative theories of entrepreneurial action. *Strategic Entrepreneurship Journal*, 1, 11-26.
- Alvaro, C., Ribeiro, D. & Roig, S. (2007). *Entrepreneurship: Concepts, Theory and Perspective*. Berlin: Spring.
- Anderson, A.R., (2000). Paradox in the periphery: an entrepreneurial reconception. *Entrepreneurship & Regional Development*, 12, 91–110.
- Ayoun, B.M., & Moreo, P. J. (2008). The influence of the cultural dimension of uncertainty avoidance on business strategy development: A cross-national study of hotel Managers. *International Journal of Hospitality Management*, 27, 65-75.
- Baron, R.A., & Ensley, M.D. (2006). Opportunity Recognition as the Detection of Meaningful Patterns: Evidence from Comparisons of Novice and Experienced Entrepreneurs. *Management Science*, 52 (9), 1331-1344.
- Baughn, C.C, & Neupert, K.E. (2003). Culture and National Conditions Facilitating Entrepreneurial Start- ups. *Journal of International Entrepreneurship*, 1(3), 313-330.
- Bell, B.S., & Kozlowski, S.W.J. (2002). Goal orientation and ability: Interactive effects on self-efficacy, performance and knowledge. *Faculty Publications - Human Resource Studies*, 9, 1-34.
- Benerfa, L., & Roldan, M. (1987) . *The Crossroads of Class and Gender: Industrial Homework, Subcontracting, and Household Dynamics in Mexico City*. University of Chicago Press.
- Bhide, A. (2000). *The origin and evolution of new business*. New York: Oxford University Press.
- Birley, S. (1987). New ventures and employment growth. *Journal of Business Venturing*, 2, 155-165.
- Boren, M.T., & Ramey, J. (2000). Thinking aloud: Reconciling theory and practice. *Iee transactions on professional communication*, 43, 261-278.
- Brinckmann, J., Grichnik, D., & Kapsa, D. (2010). Should entrepreneurs plan or just storm the castle? A meta-analysis on contextual factors impacting the business planning–performance relationship in small firms. *Journal of Business Venturing*, 25, 24-40.
- Burla, L., Knierim, B., Barth, J., Liewald, K., Duetz, M., & Abel, T. (2008). From text to codings. *Nursing Research*, 57(2), 113-117.

- Buss, D.M. (1991). Evolutionary Personality Psychology. *Annual Review of Psychology*, 42, 459–492.
- Busenitz, L. W., Gomez, C., & Spencer, J. W. (2000). Country institutional profiles: Unlocking entrepreneurial phenomena. *Academy of Management Journal*, 43, 994–1003.
- Buzzell R. (1968). Can you standardize multinational marketing? *Harvard Business Review*, 46, 102–113.
- Bygrave, W.D., & Hofer, C.W., (1991). Theorizing about entrepreneurship. *Entrepreneurship Theory & Practice*, 16, 13–22.
- Camp, R. A. (1989). *Entrepreneurs and Politics in Twentieth-Century Mexico*. New York: Oxford University Press.
- Chandler, G.N., DeTienne, D.R., McKelvie, A., & Mumford, T.V. (2011). Causation and effectuation processes: A validation study. *Journal of Business Venturing*, 26, 375–390.
- Chant, S. (1991). *Women and Survival in Mexican Cities*. Manchester, U.K.: Manchester University Press
- Chen, C., Chen, X., & Meindl, J. (1998). How can cooperation be fostered? The cultural effects of individualism-collectivism. *Academy of Management Review*, 23, 285–304.
- Chetwynd, J., & Hartnett, O. (1978). *The sex role system: Psychological and sociological perspectives*. London: Routledge & Kegan Paul.
- Chhokar, J.S., Brodbeck, F.C., & House, R. J. (2008). *Culture and Leadership across the world: The Globe Book of in-depth Studies of 25 societies*. New York: Taylor & Francis Group.
- Clark T. (1990). International marketing and national character: a review and proposal for an integrative theory. *The Journal of Marketing*, 54, 66–79.
- Cox, T., Lobel, S., & McLeod, P. (1991). Effects of ethnic group cultural differences on cooperative and competitive behavior on a group task. *Academy of Management Journal*, 38, 827–847.
- Dahl, S. (1998). *Intercultural Skills for Business*. London: ECE Publishing.
- Dahl, S. (2000). *Advertising Appeals in Beer Commercials in the UK, the Netherlands and Germany*. Luton, Intercultural Discourse Group : University of Luton.
- Dahl, S. (2004). Intercultural Research: The Current State of Knowledge. *Middlesex University Discussion Paper*, 26, 1–22.
- Dake K. (1991). Orienting dispositions in the perception of risk — an analysis of contemporary worldviews and cultural biases. *Journal Cross-Cultural Psychology*, 22(1), 61–82.
- Davis, S.M. (1968). Entrepreneurial succession. *Administrative Science Quarterly*, 13, 402–

416.

- Davison, G.C., Vogel, R.S., & Coffman, S.G. (1997). Think-Aloud Approaches to Cognitive Assessment and the Articulated Thoughts in Simulated Situations Paradigm. *Journal of Consulting and Clinical Psychology*, 65, 950-958.
- De Vos, G.A., & Hippler, A.A. (1969). Cultural Psychology: Comparative studies of human behavior. In the book: *Handbook of social psychology*. MA: Addison- Wesley.
- Dew, N., Read, S., Sarasvathy, S.D, & Wiltbank, R. (2009). Effectual versus predictive logics in entrepreneurial decision-making: Differences between experts and novices. *Journal of Business Venturing*, 24, 287–309.
- Dorfman, P., & Howell, J. (1988). Dimensions of national culture and effective leadership patterns: Hofstede revisited. *Advances in International Comparative Management*, 3, 127–50.
- Dorfman, P., Mansour, J., Hanges, P., Dastmalchian, A., & House, R. (2012). GLOBE: a twenty year journey into the intriguing world of culture and leadership. *Journal of World Business*, Manuscript submitted for publication.
- Dweck, C. S. (1989). Motivation. In the book *Foundations for a psychology of education*. Hillsdale, NJ: Erlbaum, 87-136.
- Edmondson, A.C., McManus, S.E., 2007. Methodological fit in management field research. *Academy of Management Review* 22, 1155–1179.
- Elliot, A. J., & McGregor, H. A. (2001). A 2 x 2 achievement goal framework. *Journal of Personality and Social Psychology*, 80, 501–519.
- Ericsson, A. K., & Fox, M.C. (2011). Thinking Aloud Is Not a Form of Introspection but a Qualitatively Different Methodology. *Psychological Bulletin*, 137, 351–354.
- Ericcson, A.K., & Simon H.A . (1981). *Protocol Analysis*. Cambridge: MIT Press
- Fairlie, F., & Woodruff, C. (2000). *Mexican entrepreneurship: A comparison of self-employment in Mexico and the United States*. Chicago: University of Chicago Press.
- Fink, G., Neyer, A.K., & Kölling, M. (2007). Understanding Cross-Cultural Management Interaction: Research into Cultural Standards to Complement Cultural Value Dimensions and Personality Traits. *International Studies of Management & Organization*, 36(4), 38–60.
- Fonteyn, M. E., Kuipers, B., & Grobe, S. J. (1993). A description of think aloud method and protocol analysis. *Qualitative Health Research*, 3, 430-441.
- Fraser, N. (1991). *Unruly Practices*. University of Minnesota Press.
- Gabrenya, W.K., Latane, B., & Wang, Y.E. (1983). Social loafing in cross-cultural perspective. *Journal of Cross-Cultural Psychology*, 14, 368-384.
- Gartner, W.B., (1985). A conceptual framework for describing the phenomenon of new venture creation. *Academy Management Review*, 10, 696–706.
- Gartner,W.B., (1988). ‘Who is an entrepreneur?’ is the wrong question. *American Journal of Small Business*, 12, 11–32.

- Geletkanycz, M., (1997). The salience of 'culture's consequences': the effect of cultural values on top executive commitment to the status quo. *Strategic Management Journal*, 18, 615–634.
- Grant, H., & Dweck, C. S. (2003). Clarifying achievement goals and their impact. *Journal of Personality and Social Psychology*, 85, 541–553.
- Grebler, L., Moore, J. W., & Guzman, R. C. (1970). *The Mexican-American people*. New York: Free Press.
- Gruber, M. (2007). Uncovering the value of planning in new venture creation: A process and contingency perspective. *Journal of Business Venturing*, 22(6), 782-807.
- Guan, Z., Lee, S., Cuddihy, E., & Ramey, J. (2006). The Validity of the Stimulated Retrospective Think-Aloud Method as Measured by Eye Tracking. *Proceeding of the ACM SGHI Conference on Human Factors in Computing Systems*, 1253-1262.
- Gutmann, M.C. (2007). *The meaning of macho; being a man in Mexico city*. LA: University of California Press.
- Hair, J.F. Jr., Black, W.C., Babin, B.J., & Anderson, R.E. (2010). *Multivariate data analysis*. Pearson Prentice Hall.
- Hayton, J.C., George, G., & Zahra, S.A. (2002). National Culture and Entrepreneurship: A Review of Behavioral Research. *Entrepreneurship Theory & Practice*, 26, 33-52.
- Heller, C. A. (1966). *Mexican-American youth: Forgotten youth at the crossroads*. New York: Random House.
- Hofstede, G. (1980). *Culture's consequences: International differences in work related values*. Beverly Hills, CA: Sage.
- Hofstede, G. H. (1991). *Cultures and organizations : software of the mind*. London: McGraw-Hill.
- Hofstede, G. H. (1994). *Cultures and organizations : software of the mind: intercultural*. London: McGraw-Hill.
- Hofstede, G.H. (2001). *Cultural consequences: Comparing values, behaviors, institutions and organizations across nations*. London: Sage.
- Hofstede, G., Noorderhaven, N., Thurik, A., Uhlaner, M., Wennekers, A. & Wildeman, R. (2004) Culture's role in entrepreneurship: self-employment out of dissatisfaction. In the book *Innovation, entrepreneurship and culture*, Edward Elgar Publishing, 162-198.
- House, R., Javidan, M., Hanges, P., & Dorfman, P. (2002). Understanding cultures and implicit leadership theories across the globe: an introduction to project GLOBE.
- Instituto Nacional de Estadística y Geografía (2010). *Panorama de las religiones en Mexico 2010*. Ciudad de Mexico.
- Instituto Nacional de Estadística y Geografía (2011a). *Censos de Población y Vivienda, 1895-2010*. Ciudad de Mexico.

- Instituto Nacional de Estadística y Geografía (2011b). Censos de Población y Vivienda, 2000 y 2010. Ciudad de Mexico .
- Instituto Nacional de Estadística y Geografía (2011c). Matrícula escolar en posgrado por entidad federativa según área de estudio, ciclo escolar 2008/2009.
- Jaspers, M.W.M., Steen, T., Bos, van den C., & Geenen, M. (2004). The think aloud method: a guide to user interface design. *International Journal of Medical Informatics*, 73, 781-795.
- Johanson, J., & Vahlne, J.E. (2009). The Uppsala internationalization process model revisited: From liability of foreignness to liability of outsider ship. *Journal of International Business Studies*, 40, 1411-1431
- Kanaiaupuni, S.M. (2000). Reframing the migration question: An analysis of Men, Women, and Gender in Mexico. *Social Forces*, 78(4), 1311-1347.
- Kelley, J.D., Singer, S., & Herrington, M. (2011). *Global Entrepreneurship Monitor: 2011 Global Report*. London: Global Entrepreneurship Research Association.
- Kirzner, I.M. (1979). *Perception, Opportunity, and Profit: Studies in the theory of entrepreneurship*. Chicago: University of Chicago Press.
- Kluckhohn, F.R., & Strodtbeck, F.L. (1961). *Variation in value orientations*. New York: Harper Collins.
- Kohli, K.A., Shervani, T.A., & Challagalla, G.N. (1998). Learning and performance orientation of salespeople: The role of supervisors. *Journal of Marketing Research*, 35, 263-274.
- Kolland, F. (1990). National cultures and technology transfer: The influence of Mexican lifestyle on technology adaption. *International Journal of Intercultural Relations*, 14, 319-336.
- Kuusela, H., & Paul, P. (2000). A comparison of concurrent and retrospective verbal protocol analysis. *American Journal of Psychology*, 113, 387-404.
- Lenartowicz, T., & Roth, K. (1999). A framework for culture assessment. *Journal International Business Studies*, 4, 781-798.
- LeVine, S. (1993). *Dolor y Alegria: Women and Social Change in Urban Mexico*. University of Wisconsin Press.
- Lewis, O. (1961). *The children of Sanchez: Autobiography of a Mexican family*. New York: Vintage.
- Llewellyn, D.J. & Wilson, K.M. (2003). The controversial role of personality traits in entrepreneurial psychology. *Education & Training*, 45, 341-345.
- Lomnitz-Adler, C. (1992). *Exits of the labyrinth: Culture and ideology in the Mexican national space*. Los Angeles: University of California Press
- Lumpkin, G.T. & Dess, G.G. (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of Management Review*, 21, 135-172.

- Lundgrén-Laine, H., & Salanterä, S. (2010). Think-Aloud Technique and Protocol Analysis in Clinical Decision-Making Research. *Qualitative Health Research*, 20, 565–575.
- Madsen, W. (1973) *The Mexican-Americans of South Texas*. New York: Holt, Rinehart & Winston.
- Martinez, S.M & Dorfman, P.W. (1998). The Mexican entrepreneur. *International studies of Management and Organization*, 28, 97-123.
- McCort, D., & Malhotra, N.K. (1993). Culture and consumer behavior: toward an understanding of cross-cultural consumer behavior in international marketing. *Journal International Consumer Marketing*, 6(2), 91–127.
- McGrath, R., & McMillan, I. (1992a). More like each other than anyone else? A cross-cultural study of entrepreneurial perceptions. *Journal of Business Venturing*, 7, 419-429.
- McGrath, R. G., MacMillan, I. C, Yang, E. A., & Tsai, W. (1992b). Does culture endure, or is it malleable? Issues for entrepreneurial economic development. *Journal of Business Venturing*, 7, 441-458.
- Mintzberg, H. (1978). Patterns in strategy formation. *Management Science*, 24, 934-948.
- Mirowsky , J. & Ross, C.E. (1984). Mexican culture and its emotional contradictions. *Journal of Health and Social Behavior*, 25, 2-13.
- Moore, J. W. (1976). *Mexican-Americans*. New Jersey: Prentice-Hall.
- Mueller, S. L., & Thomas, A. S. (2000). Culture and entrepreneurial potential: A nine country study of locus of control and innovativeness. *Journal of Business Venturing*, 16, 51-75.
- Nefir, G.E., Al-Daeaj, H., Ebrahimi, B., Thibodeaux, M.S. (1991). Methodological Problems in Cross Cultural Research: an updated review. *Management International Review*, 31, 79-79.
- Nielsen, J. (1994). Estimating the number of subjects needed for a thinking aloud test. *International Journal of Human-Computer Studies*, 41, 385-397.
- Oviatt, B. M., & McDougall, P. P. (2005). Defining international entrepreneurship and modeling the speed of internationalization. *Entrepreneurship: Theory and Practice*, 29, 537-553.
- Perry, J.T, Chandler, G.N. & Markova, G. (2011). Entrepreneurial Effectuation: A Review and Suggestions for Future Research. *Entrepreneurship Theory & Practice*, 10, 1-24.
- Porter, M. (1985). *Competitive Strategy: Creating and sustaining superior performance*. New York: Free Press.
- Ross, C.E., Mirowsky, J., & Cockerham, W.C. (1983) Social class, Mexican Culture, and Fatalism: Their effects on Psychological Distress. *American Journal of Community Psychology*, 11, 383-399.
- Rotter, J. B. (1966). Generalized expectancies for internal vs. external control of reinforcement. *Psychological Monographs*, 80, 1-28.

- Rotter, J. B. (1975). Some problems and misconceptions related to the construct of internal versus external control of reinforcement. *Journal of Consulting and Clinical Psychology*, 43, 56–67.
- Samovar, L.A., & Porter, R.E. (1991). *Communication Between Cultures*. Pacific Grove: Wadsworth & Brooks.
- Sarasvathy, S.D. (2001a). Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency. *The Academy of Management Review*, 26, 243-263.
- Sarasvathy, S. D. (2001b). *What makes entrepreneurs entrepreneurial?* Unpublished Manuscript.
- Sarasvathy, S.D. (2008). *Effectuation: elements of Entrepreneurial Expertise*. Cheltenham: Edward Elgard Publishing Limited.
- Saunders, L. (1958). English-speaking and Spanish-speaking people of the Southwest. In the book: *Social perspectives on behavior*. New York: Free Press.
- Saunders, M., Lewis, P., and Thornhill, A. (2007). *Research methods for Business Students* London: Prentice Hall.
- Savani, K., Morris, M.W., Naidu, N.V.R., Kumar, S., & Berlia, N.V. (2011). Cultural conditioning. *Journal of Personality and social psychology*, 100, 84-102.
- Schneider, S., (1989). Strategy formulation: the impact of national culture. *Organization Studies*, 10, 149–168.
- Schumpeter, J. (1934). *The theory of economic development*. Cambridge, MA: Harvard University Press.
- Schumpeter, J. (1976). The process of creative destruction. *Capitalism, Socialism and Democracy*, 81-86.
- Schwartz, S. (1994). Beyond individualism/collectivism — new cultural dimensions of values. *Individualism and collectivism—theory, method and applications*, 18, 85-111.
- Shane, S. (1992). Why do some societies invent more than others. *Journal of Business Venturing*, 7, 29-46.
- Shane, S. (1993). Cultural influences on national rates of innovation. *Journal of Business Venturing*, 8, 59–73.
- Sieger, P., Fueglistaller, U. & Zellweger, T. (2011). Entrepreneurial Intentions and Activities of Students across the World. International Report of the GUESSS Project 2011. St.Gallen: Swiss Research Institute of Small Business and Entrepreneurship at the University of St.Gallen.
- Sivakumar, K. & Nakata C. (2001). The stampede toward Hofstede's framework: avoiding the sample design pit in cross-cultural research. *Journal International Business Students*, 32(3), 555–74.

- Smith, P., Dugan, S., & Trompenaars, F. (1996). National culture and the values of organizational employees—a dimensional analysis across 43 nations. *Journal Cross-Cultural Psychology*, 27(2), 231–64.
- Soares, A.M., Farhangmehr, M., & Shoham, A. (2007). Hofstede's dimensions of culture in international marketing studies. *Journal of Business Research*, 60, 277–284.
- Sobarzo, H. E. (1992). A general equilibrium analysis of gains from trade for the Mexican Economy of a North American Free Trade Agreement. *The World Economy*, 15, 83–100.
- Someren, van M.W., Barnard, Y.F., & Sandberg, J.A.C. (1994). *The think aloud method: A practical guide to modeling cognitive processes*. London: Academic Press.
- Spector, P. E., & O'Connell, B. J. (1994). The contribution of personality traits, negative affectivity, locus of control, and Type A to the subsequent reports of job stressors and job strains. *Journal of Occupational and Organizational Psychology*, 67, 1–11.
- Steenkamp J. (2001). The role of national culture in international marketing research. *International Marketing Review*, 18(1), 30–44.
- Steensma, H.K., Marino, L., & Weaver, K.M. (2000). Attitudes Towards Cooperative Strategies: A Cross Cultural Analysis of Entrepreneurs. *Journal of International Business Studies*, 31 (4), 591-609.
- Stephens, G.K., & Greer, C. R. (1995). Doing Business in Mexico: Understanding Cultural Differences. *Organizational Dynamics*, 24, 39-55.
- Stevenson, H., & Jarillo, J.C. (1989). *A paradigm of entrepreneurship: Entrepreneurial management*. Working paper, 89-140, Harvard Business School.
- Terborg, J. R. (1985). Working women and stress. In the book: *Human stress and cognition in organizations: An integrated perspective*. New York: Wiley.
- Thomas, A.S. & Mueller, S.L. (2000). A case for comparative entrepreneurship: Assessing the relevance of culture. *Journal of International Business Studies*, (2), 287-301.
- Thornton, P.H. (1999). The sociology of entrepreneurship. *Annual Review of Sociology*, 25, 19–46.
- Triandis, H. (1993). Collectivism and individualism as cultural syndromes. *Cross Cultural Research*, 27, 155-180.
- Trompenaars, F., & Hampden-Turner, C. (1997). *Riding the waves of culture: understanding cultural diversity in business*. London, Nicholas Brearley.
- Trompenaars, F. (2009, March). *Riding the waves of culture: reducing lines, expanding circles*. Presentation presented at the Beurs van Berlage, Amsterdam.
- Wagner, J. A. (1995). Studies of Individualism-Collectivism: Effects on Cooperation in Groups. *The Academy of Management Journal*, 38, 152-172
- Weeks, J.R. (2001) The face of women entrepreneurs: what we know today. In the book:

Women Entrepreneurs in SME's: realizing the benefits of globalization and the knowledge-based economy. MA: OECD.

West, P. (1997). Frameworks for research and theory development in entrepreneurship. In the book: *Academy of Management Proceedings*, Statesboro, GA: Georgia Southern University

Wiltbank, R., Dew, N., Read, S., Sarasvathy, S.D., 2006. What to do next? The case for non-predictive strategy. *Strategic Management Journal*, 27 (10), 981–998.

Appendices

Appendix A: Business case

Explicación e instrucciones para los (estudiantes) emprendedores

El experimento y su parte en él:

Introducción

El propósito de este estudio es averiguar cómo la gente va sobre la creación de una nueva empresa. Esto se aplica en particular para determinar cuáles son los procesos que pasan al iniciar su propio negocio. Un ejemplo en la esfera personal: es su turno para cocinar. Hay personas que primero ven la receta de internet, a continuación, escriba en una nota los ingredientes, y después van al supermercado a comprar los productos. Cuando vuelvan, hacen exactamente lo que indica la receta para trabajar y en cuando es necesario añadir los ingredientes para terminar con una deliciosa comida. También hay gente que van primero al refrigerador a ver lo que ya tienen. A continuación, agarran algunos utensilios y comienzan a cocinar con algunos ingredientes que intuitivamente improvisan, sin saber como va a salir el platillo. El resultado: una deliciosa comida. Así es como los empresarios son diferentes, algunos hacen las cosas muy estructuradas y otros lo hacen por el tacto. Estas diferencias es lo que examinamos en este estudio. En este estudio, se le pedirá que cuando haga el caso de negocios, que exprese sus pensamientos en voz alta durante todo el estudio.

A continuación encontrará la información sobre el propósito del caso y la forma en que debe ser ejecutado. Además, algunas orientaciones que pueden ayudarle a verbalizar sus pensamientos y el papel del experimentador también se explica. Lea cuidadosamente la información. A continuación, el experimentador le pregunta si todo está claro. Si es así, obtendrá algunos ejercicios para practicar el pensamiento en voz alta. El experimentador le da el caso, por favor pensar en voz alta tan pronto como se le indique.

El propósito de la asignación

El propósito del comando que se ejecutará es la siguiente: la creación de una nueva empresa, un pequeño café de la esquina. La información con respecto al café de la esquina se puede encontrar en el caso. La idea es que verbalice lo que piensa al pasar por el caso. Su contribución a esta investigación no sólo es teóricamente importante. Los resultados se utilizarán en una fase posterior del estudio para obtener mayor conocimiento sobre el funcionamiento del mayor número de emprendedores con experiencia en grandes empresas, (que cotizan en la bolsa). Con base en este

conocimientos nos conoceremos los procesos de negocios empresariales. La empresa ficticia es muy similar a las empresas en las que la práctica real de los procesos deben ser mejorados. La forma en que se ejecuta el caso, también en gran medida determinará las propuestas de mejora que se pueden hacer a dichas empresas más adelante.

La ejecución del caso de negocios

Usted no está obligado por lo que usted piensa, en general, o lo que usted podría pensar que es lógicamente correcto, pero puede encontrar la lógica de su uso personal. Una vez más, no hay una sola manera correcta de cómo proceder. Muchas maneras de seguir los pasos pueden ser apropiados. Si necesita alguna información sobre los hechos (por ejemplo, los detalles técnicos de las máquinas de café) podrá formular las hipótesis (por ejemplo, suponer que un dispositivo debe ser capaz de producir 50 mil tazas de café para completar el servicio). Usted podrá hacer esto sólo cuando sea absolutamente necesario.

La tarea

Tienes máximo dos horas para esta tarea. Usted puede utilizar lápiz y papel y, si lo desea, una calculadora.

La parte del experimentador

El experimentador sólo está presente para asegurarse de que verbalizar sus pensamientos y grabar sus acciones. Él o ella no le da información adicional. Si usted se olvida de compartir sus pensamientos al hablar, el experimentador puede señalarlo.

Pensando en voz alta

Recuerde que durante la ejecución de la tarea, para seguir hablando en voz alta. Hablar cada pensamiento que viene a la mente inmediatamente, incluso si usted cree que no tiene nada que ver con la tarea o si no está seguro de si la idea es correcta. Vamos a analizar cómo va el caso en vez de buscarla "rectitud" de sus pensamientos, pero sobre todo a la integridad de su apariencia. Trate de no darse cuenta de explicar o resumir para el experimentador. Esto puede interferir con la ejecución del contrato.

El caso de negocios

Introducción

En el siguiente experimento, usted va a resolver diez problemas de decisión. Estos problemas surgen en el contexto de la construcción de una nueva empresa de un producto imaginario. Una descripción detallada del producto se dará después de esta introducción. Antes de empezarla descripción del producto y los problemas, es necesaria la imaginación creativa de su parte. Se le pide que se sitúe en la parte del emprendedor principal en la construcción de esta empresa-es decir, que tiene muy poco dinero de su cuenta para iniciar esta empresa, pero que tienen experiencia en trabajar cerca de cinco años pertinentes en el área.

Descripción

Desde hace algún tiempo, usted ha estado pensando en comenzar el café de la esquina de tu universidad. Su inspiración vino por el hecho de que cuando, como estudiante, deseaba obtener una taza de café, pero no había ninguna posibilidad. No le gustaba el café de las máquinas que están disponibles en los edificios universitarios. Junto a esto, había que pagar una cantidad de dinero, que no estaba en relación con la calidad del café. Usted ha estado trabajando en un pequeño café en su ciudad natal durante 5 años para que usted sepa lo que pasa alrededor. Ya ha visto usted el éxito de los cafés de la esquina, pero ya que estos pertenecían a franquicias caras, pensó que debería ser posible comenzar uno por su propia cuenta. En varios informes en los periódicos y revistas que lee, hay una demanda creciente de consumo de café en su país de origen. Usted ha tomado todas las precauciones posibles en materia de propiedad intelectual. El nombre de su empresa es el *Café, Inc.*

Problema 1: Identificar el mercado

Antes de que veamos algunos datos de estudios de mercado, por favor conteste las siguientes preguntas, una a la vez:

1. ¿Quiénes podrían ser sus clientes potenciales para su café de la esquina?
2. ¿Quiénes podrían ser sus posibles competidores?
3. ¿Qué información busca sobre sus clientes potenciales y competidores - una lista de preguntas que quisiera responder.
4. ¿Cómo va a saber esta información - ¿Qué tipo de investigación de mercado harías?
5. ¿Cuáles que cree usted que son las posibilidades de crecimiento para esta compañía?

Problema 2: Definición del mercado

En este problema hay que tomar algunas decisiones de marketing. Con base en estudios de mercado secundario (las fuentes publicadas, etc), que estiman que hay tres grandes segmentos que están interesados en el consumo del café de la esquina en la universidad:

<u>Segmento</u>	<u>De tamaño total estimado</u>
Estudiantes	40.000
Los miembros del personal	20.000
Visitantes (anual)	10.000

El valor estimado de las ventas de café regular en su país de origen es de \$8,19 billones de pesos.

El valor estimado de las ventas de café especializado es de \$8,29 billones de pesos. Tanto las ventas de café especializado, como las ventas de café regular; se espera que crezcan a una tasa mínima del 5% anual para los próximos 5 años.

Los siguientes son los resultados de la investigación de mercado primario (directo).

Encuesta # 1 - A los estudiantes, miembros del personal y visitantes, se les pidió a través de cuestionarios, que expresaran su interés en café de la esquina. Asimismo, se les pidió que indicaran lo que estaban dispuestos a gastar en el café. En total, se le pidió a 1000 personas y 500 completaron el cuestionario.

<u>Dispuestos a pagar (\$)</u>	<u>Los estudiantes(%)</u>	<u>Los miembros del personal (%)</u>	<u>Visitantes (%)</u>
9 – 13.75	52	26	45
13.75 – 18,5	30	38	32
18,5 – 23	16	22	15
23 – 32	2	9	8
32 – 45	0	5	0
Total	100	100	100

Encuesta # 2 - Los precios del café, que ofrecen durante el almuerzo, en medio de conferencias

<u>Dispuestos a pagar (\$)</u>	<u>Los estudiantes(%)</u>	<u>Los miembros del personal (%)</u>	<u>Visitantes (%)</u>
9 – 13,75	65	21	51
13,75 – 18,5	25	49	42
18,5 – 23	10	19	7
23 – 32	0	8	0
32 – 45	0	3	0
Total	100	100	100

Encuesta # 3 - Grupo de Enfoque de los educadores (escuela secundaria y profesores de colegios comunitarios y administradores)

Los miembros del personal de la universidad que participaron en el grupo de discusión consideraron que el plan de la esquina del café era muy interesante - pero indicaron que la gama de precio que estaría dispuesto a gastar sería \$27,50 o más. Con la oferta actual, estarían dispuestos a pagar \$ 18,50 - \$23 de café.

En ambos, los participantes son muy positivos y entusiastas con el café de la esquina. Proporcionan buena información sobre las características específicas y se extienden también sugerencias de mejora. Sin embargo, los miembros del personal tienen especial interés en ir más allá del aspecto de café regular,.

Sobre la base de todas sus investigaciones de mercado, se llega a las estimaciones de costos para las comercializaciones de su producto.

Internet \$3660 pesos por adelantado + \$ 915 pesos por mes
Prensa Relativamente barato - pero los anuncios podrían costar \$9150 pesos por adelantado
Cine \$36.660 a \$73200 pesos por mes, con \$18300 pesos por adelantado
Anuncios en televisión local desde \$91500 hasta \$183000 pesos por adelantado

Publicidad directa en otra parte (pensar en el deporte-comedores, la entrega de los encendedores con publicidad, etc). Implica la contratación y los representantes de ventas.

Competencia

Ninguno de los cuatro posibles competidores venden tazas baratas con café de calidad en el centro de su ciudad natal - son únicas en este sentido.

Compañía	Nivel general de precios por cada taza de café	Ingresos	Donde se encuentra
Starbucks	\$91.50	\$119 billones	Las grandes ciudades / global
Peet's	\$73	\$4,2 billones	Las grandes ciudades / en su mayoría EE.UU.
Coffee Bean	\$82	\$2,3 billones	Las grandes ciudades / global
Douwe Egberts store (Marca Holandesa)	\$45	\$458 millones	Las grandes ciudades / Holanda

Los cafés de la esquina están teniendo un **beneficio neto de 25%** en las ventas. En este punto, por favor, tómese su tiempo y tome las siguientes decisiones: (Por favor, seguir pensando en voz alta a medida que llegan a sus decisiones)

¿A qué segmento de mercado / segmentos va a vender su producto?

¿Cómo va a establecer el precio de su producto?

¿Cómo va a vender a su segmento de mercado seleccionado?

Problema 3: Nómina

Ha iniciado la empresa con poco dinero, cara a cara con la promoción como la principal fuente de comercialización. Usted lleva seis meses en la comercialización de su producto. Usted tiene un precio de los productos en el extremo inferior de las encuestas de \$9 a \$13,75 pesos. Usted tiene cerca de 3000 clientes por mes. Sobre la base de numerosas sugerencias proporcionada por sus clientes, usted cree que puede empezar a vender cafés especiales en el rango de precio de \$23 a 27,50 pesos. Esto sería especialmente el caso cuando se rediseño el interior del café de la esquina para convertirlo en un pequeño café de más calidad.

Usted ha invertido el último de sus ahorros y al máximo de sus tarjetas de crédito con el fin de asegurarse de que tiene el café esperado – Usted necesita esto para participar en una competencia donde 'la arquitectura se reúne con el catering', donde recibirá un gran cantidad de exhibición. Usted tiene cuatro empleados - y no tiene dinero en efectivo para pagar las nóminas siguientes. Usted estima que necesita \$550000 pesos para sobrevivir los próximos tres meses y para llegar a un diseño de tienda innovador para poder participar en la competición. Usted tiene las siguientes cuatro opciones:

1. Pedir prestado a los padres de su novia o novio/ pareja - que no son muy ricos, pero probablemente podría tener en sus manos \$550000 si fuera necesario.
2. Pedir prestado a algunos viejos amigos de la universidad y de su trabajo cuando era estudiante
3. Convencer a sus padres a tomar una hipoteca sobre su casa.
4. Convencer a sus empleados a esperar después del periodo de pago

¿Cuál de estas opciones te quedarías? ¿Por qué?

Problema 4: Financiación

Su diseño de la tienda ha ganado el premio en la categoría de nuevos talentos en la competencia de 'la arquitectura se reúne con el catering'. Esto a su vez ha llevado a las consultas de los proveedores de café de gran tamaño como Nestlé Países Bajos a comercializar el concepto a nivel nacional. Usted estima que le tomará seis meses para desarrollar el concepto con más detalle y unos tres meses después para desarrollarlo en los tres principales canales - Internet, prensa nacional y la televisión nacional. El café tendrá un precio de \$73 por unidad. Usted calcula que tendrá \$2,75 millones de pesos hasta el punto de equilibrio (en el tercer trimestre del segundo año) - lo que incluye la mejora de la concepción, puesta en marcha de una excelente (apoyo) de personal, y el desarrollo de un pequeño equipo de ventas directas para las ventas en el sitio.

Usted estima la proyección de ventas después de los primeros cinco años (Estás en el comienzo del año 1 ahora):

	Año 1	Año 2	Año 3	Año 4	Año 5
Sales	\$ 1,83 millón	\$ 2,75 millón	\$ 5,5 millón	\$ 9,51 millón	\$ 18,3 millón
Beneficios	\$ < 0	\$ 366 mil	\$ 732 mil	\$ 3,66 millón	\$ 5,5 millón

Usted tiene tres opciones de financiación:

Opción 1

Un capitalista de riesgo que se especializa en compañías de abastecimiento y áreas adyacentes, está dispuesto a financiar \$2,75 millones para el 48% de su empresa.

Opción 2

Un amigo de la familia que tiene una amplia experiencia en el servicio de abastecimiento desea asociarse con usted - el 33% de la compañía. Él es capaz de invertir \$2,75 millones, pero quiere trabajar para la empresa en un sueldo base de \$732 mil pesos por año. Él se compromete a aceptar un nivel mínimo de \$550 mil pesos por los dos primeros años para mantener a su familia y postergar el resto para cuando la empresa empiece a hacer dinero. A usted le agrada y respeta esta persona y no tiene sentimientos personales contra él.

Opción 3

Puede continuar la empresa con flujo de caja - creciendo a un ritmo mucho más lento.

¿Qué opción elegiría usted? ¿Por qué? ¿Si el capitalista de riesgo también está dispuesto a tomar sólo el 33% de la empresa, qué opción elegiría usted?

Problema 5: Liderazgo / Visión

Usted ha encontrado la financiación y ha firmado un contrato con dos importantes proveedores de café para comercializar su producto. Usted ha contratado nuevo personal y se trasladó a nuevas instalaciones. Un periódico nacional está haciendo una serie de historias sobre los empresarios locales y quiere hacer un reportaje sobre usted - usted sabe que esta entrevista sería un momento decisivo en el desarrollo de su empresa y usted ve esto como una oportunidad para transmitir al mundo (y de sus nuevos empleados) su visión sobre el futuro de su empresa.

Esta serie de artículos de periódicos han sido muy exitosos, sino que habitualmente ha sucedido con otros periódicos nacionales y cadenas de televisión. Una de las razones de su éxito es su encabezado, que consiste en una cita de una línea que captura la visión del emprendedor de la empresa - que se lograría en el año 2012.

Usted tiene varias posibilidades para ese encabezado:

1. Starbucks es el pasado – *Café Inc* es el futuro.
2. Nuestro objetivo es tener al menos un millar de empleados para el año 2014.
3. El proveedor de café más rápido en crecimiento.
4. Invierta en el *Café Inc* - Disfrute de la tradición mexicana.

¿Cuál de los anteriores eliges? ¿Por qué? Si usted no elige ninguno de ellos y quiere aportar ideas para una alternativa, por favor, hágalo.

Problema 6: El producto re-desarrollo, primera parte

Usted está casi al final de su quinto año de operación - que acaba logrado el punto de equilibrio (más tarde de lo previsto). Ha abierto las puertas a los tres segmentos (estudiantes, personal de la universidad, visitantes). Las ventas, mientras que se mantienen estables y continuas, son más bien "incoloros" y usted empieza a dudar si alguna vez va a alcanzar sus objetivos de crecimiento. Usted decide hacer una investigación de mercado con el objeto de encontrar de la manera de crecer sus ventas. Usted organiza grupos de discusión con los clientes actuales y potenciales nuevos clientes. El problema principal parece ser el "gran espacio" entre el café regular y los productos especializados.

Más del 90% de los participantes en los grupos de enfoque opinan que los productos regulares son muy interesantes. Pero cuando se trata de los cafés especializados, existe una clara división de opiniones. Los participantes disfrutan los cafés regulares casi nunca se molestan en ir a comprar los cafés más caros. Se preguntan por qué 'las bebidas de lujos' están ahí, y los que están interesados principalmente en los cafés especializados creen que los productos normales rebaja la atmósfera.

¿Cómo responde usted a esta información?

Problema 6: El producto re-desarrollo, la segunda parte

Remóntate a los orígenes y piensa en un concepto que podría dar solución a ambas partes. Llegas a una solución en la que usted tiene una tienda existente y una nueva tienda. La tienda número 1 (*la tienda ya existente*) es para cafés más regular, *la nueva tienda* es para exclusivos tipos de cafés y té. Con la exclusividad de esa tienda debes pensar en especializarte en café asiático, sur americano y africano, que resultaría en un total de 30 tipos diferentes de café. Los té vendrán en una variedad de 20 tipos. Además, se venden exclusivos pasteles y postres. Aparte de todo esto, los clientes pueden tomar prestado libros, leer el periódico y tener acceso a la conexión de red inalámbrica de internet. En *la tienda regular* de café, tienes planeado vender 8 tipos regulares diferentes de café, como capuchino, espresso, etc, y agregando a esto 5 té regulares y una limitada variedad de donas y magdalenas.

Primero empiezas promoviendo la idea de la tienda exclusiva con la variedad de 15 tipos diferentes de café y 15 tipos diferentes de té, así como una pequeña variedad de pasteles y postres que eventualmente iras incluyendo. Esto en conjunto con periódico gratis y acceso a la conexión inalámbrica a internet es lo que muestras como enfoque al grupo. Resulta que especialmente la tienda exclusiva está recibiendo clientes muy entusiastas que están dispuestos a pagar entre dos veces y dos veces y medio mas de lo solicitado con anterioridad.

Uno de los requerimientos es que tienes que extender lo que tenias en mente (los 20 té, 30 cafés, los libros, el periódico y la libre conexión inalámbrica a internet). Tienes que decidir entre ignorar este cambio masivo del concepto o enfocarte completamente en uno de los dos conceptos (*la tienda que ya existe o la nueva tienda*). Si quisieras extenderte te costara \$200.000 pesos y un esfuerzo por separarte del mercado.

Año	1	2	3	4	5	6	7	8
Las ventas estimadas (\$M)	1,83	9	18,30	110	220	330	440	550
Las ventas reales (\$M)	2,50	8,8	15,50	51	77			

(\$M es millón)

¿Cuál de las dos opciones tu escogerías, ¿Por qué?

Suponiendo que has decidido en ir por la extensión, tienes que elegir una de las tres opciones:

1. Llevar a cabo el esfuerzo de re-diseño interior—costo estimado \$4,5 millones
2. Contratar el rediseño de la nueva compañía dentro tu país de origen—costo estimado: #3.7 millones
3. Contratar el rediseño de una nueva compañía afuera de tu país de origen—costo estimado: \$1.8 millones

¿Cual opción tu erigirías y porque?

Problema 7: Crecimiento de la empresa, primera parte

Estas por terminar el sexto año en el negocio. Y estas manejando dos tipos de tiendas bajo la sombra del *Café Inc.*

- Café normal (de venta entre 18,50 a 90 pesos) donde vendes una limitada cantidad de café y tés regulares y una básica cantidad de donas, magdalenas y chocolates.
- Exquise (ventas de entre 90 pesos a 275 pesos) donde ofreces el paquete completo.

El número de puntos de ventas y con ellos los nuevos gerentes de tiendas de café han aumentado a veinte del original que eran tres y tu continuas expandiendo la fuerza de tus ventas y desarrollado un mejor concepto de “Exquise” para mas áreas de calidad en la ciudad. Greg Thomas, quien es un excelente vendedor (lidiando con los cafés regulares anteriormente) y ha dirigido las ventas en equipo desde el día uno, claramente no se mantiene al día con los problemas de crecer la compañía—el definitivamente no es la persona que debería manejar el nuevo negocio de “Exquise”.

Año	1	2	3	4	5	6	7	8
					Revisado			
Las ventas estimadas (\$M)	1,83	9	18,30	110	220	110	220	366
Las ventas reales (\$M)	2,50	8,8	15,50	51	77	157		

¿Cómo va a lidiar con esta situación?

Que harías?

1. Lo despedirías
2. Contratar a un Nuevo gerente en ventas para liderar las ventas en equipo? Si es así, consultarías a Greg antes de hacerlo? Como le darías la noticia?

Siéntete libre en elaborar algún otra manera de como lidiarías con la situación.

Problema 7: Crecimiento de la compañía, la segunda parte

Aunque la compañía ha crecido un poco ahora, tu estas tratando de mantener la cultura empresarial de la compañía viva. Pero ha empezado a notar que tu socio está fomentando mas “ambiente corporativo”—largas e innecesarias reuniones, complicados cuadros organizacionales, cuentas caras coloridas, “consultores” para “optimizar el mercado potencial”, y así sucesivamente. Cuando intentas hablar con el acerca del tema, el discute que es tiempo para la compañía en convertirse en un “corporativo”- ya que para un “profesional” la imagen sería bueno para la línea de fondo.

Año	1	2	3	4	5	6	7	8
						Revisado		
Las ventas estimadas (\$M)	1,83	9	18,30	110	220	110	220	366
Las ventas reales (\$M)	2,50	8,8	15,50	51	77	157		366
503								

Como manejarías con la situación? Tú crees que es tiempo para *Café, Inc.* ser un “corporativo”?

Problema 8: Contratación Management Professional

Tu estas ahora en el octavo año de tu compañía. Lo estás haciendo muy bien---superando los objetivos de crecimiento y construyendo un mercado seguro. Tus ventas son de 27, 5 millones y tu proyecto tiene una tasa de crecimiento por lo menos del 25% por año por los próximos tres años.

Año	1	2	3	4	5	6	7	8
						Revisado		
Las ventas estimadas (\$M)	1,83	9	18,30	110	220	110	220	366
Las ventas reales (\$M)	2,50	8,8	15,50	51	77	157		366
503								

Tus asesores aconsejan que contrates a profesionales de administracion que manejen la compañía para que tú puedas enfocarte en problemas de nuevo crecimiento y nuevas iniciativas estratégicas. Asumiendo que tienes una elaborada pequeña lista de 3 con gran potencial de candidatos para entrevistar para el puesto de Director de Operaciones, como prepararías la entrevista?

Enlista las preguntas que harías, las técnicas que usarías, y que criticas tomarías en cuenta para contratar a esta persona.

Problema 9: Buena Voluntad

En este punto, se acerca contigo una directora de una escuela de la ciudad dentro de la misma área, que también trabaja con otras 10 escuelas parecidas a la suya. Ella cree que “Exquise” podría ser perfecta para un ambiente de aprendizaje para sus alumnos en su programa de estudio.

Ella te pide que trabaje con un par de profesores muy entusiastas para desarrollar algunos de los materiales elementales de aprendizaje para los estudiantes. El proyecto significaría no solo una inversión de \$1.83 millones (aproximadamente) por modificaciones, también una parte sustancial de su tiempo durante unos seis meses durante el desarrollo y después de 10 sesiones de la participación en clase por año por un par de años al menos.

Nota: Sus ventas son de \$503 millones y proyectan una tasa de crecimiento de al menos de 25% por año por los próximos 3 años.

¿Va a tomar la iniciativa para este proyecto?

Si no, ¿por qué no?

Si es sí, usted:

- a) Donaría el producto?
- b) Lo vendería al costo?
- c) Lo vendería en su margen de beneficio normal?

¿y por qué?

Problema 10: Salida

Ahora se encuentra en el décimo año de su empresa - Exquise es un gran éxito y gracias a sus nuevas estrategia, incluso el café normal está creciendo satisfactoriamente. Usted ha adquirido otros tres conceptos de catering rentables. Usted está haciendo \$823 millones de pesos en ventas y proyectos que se llega a \$1,28 billones de pesos en un año. En este momento se enfrentan a dos posibles direcciones para su empresa.

Dirección 1

Sus contadores y banqueros piensan que este es un buen momento para que usted tome la empresa pública. La Oferta Pública Inicial (IPO, nuevas acciones) del mercado está en auge y la restauración se encuentra en una tendencia alcista sólida. Ellos estiman que debe hacer una oferta pública inicial de 2 millones de acciones a \$550 pesos por acción. La empresa cuenta con un total de 12 millones de acciones.

Dirección 2

Llegados a este punto en el tiempo, Starbucks se le acerca y le hace una oferta para su empresa - que parece que han decidido entrar en el segmento más exclusivo y han decidido entrar en la arena a través de adquisiciones - de que te vean como un complemento perfecto para su estrategia y te ofrecen 5,5 billones de pesos.

Año	1	2	3	4	5	6	7	8	9	10
Revisado										
Las ventas estimadas (\$M)	1,83	9	18,30	110	220	110	220	336	550	823
Las ventas reales (\$M)	2,50	8,8	15,50	51	77	157	366	503	695	1281

¿Cuál de estas dos direcciones se elige? ¿Por qué?

Final

Appendix B: Survey

The original survey was executed online and could be filled out by the respondents. The next document is the overview of questions being asked. The survey has been distributed to the respondents in Spanish (as all of them are Mexican) so that all the respondents could fill out the survey without problems and understand the questions correctly.

Encuesta Proyecto EPICC

Las preguntas de la encuesta son sobre la información personal e información sobre su empresa. Muchas gracias por participar en el proyecto EPICC, te agradezco mucho tu ayuda

Nombre del entrevistado:

Correo electrónico del entrevistado:

Nombre de la empresa:

Si existe, el sitio web de la empresa:

Fecha de nacimiento (del entrevistado):

Lugar de nacimiento (del entrevistado):

Sexo

- ☐ Masculino
- ☐ Femenino

Religion:

Estado civil:

Soltero:

Casado:

Niños:

- ☐ Si
- ☐ No

Antecedentes familiares

- ☐ Uno de los padres es empleado en una empresa privada
- ☐ Uno de los padres es empleado como servidor público
- ☐ Uno de los padres es emprendedor
- ☐ Ninguno

Los ingresos de los padres son en el

- ☐ cuartil inferior
- ☐ cuartil medio
- ☐ cuartil superior

Carrera de estudios:

En cual universidad estudiaste?

La ciudad donde esta la universidad:

El pais donde esta la universidad:

El total de años en la universidad:

Breve descripción de la empresa (su negocio):

Fecha de fundación de la empresa:

Lugar de fundación de la empresa:

El número de fundadores (incluyendo el emprendedor):

Número actual de empleados (incluyendo los fundadores, equivalentes a tiempo completo:

Ingresos anuales en moneda nacional:

¿Hasta qué punto empezó con su empresa porque no tenía otra opción para trabajar?

- ☐ Nada
- ☐ Un poco
- ☐ Algo
- ☐ En gran medida
- ☐ Absolutamente

¿Hasta qué punto empezó con su empresa porque quería ser independiente o incrementar sus ingresos?

- ☐ Nada
- ☐ Un poco
- ☐ Algo
- ☐ En gran medida
- ☐ Absolutamente

Por favor, lea los siguientes enunciados. Encierre en un círculo 1 de las 5 respuestas, en la cual indique hasta el grado en que esté de acuerdo o no esté de acuerdo con la oración.

1. Analizamos oportunidades a largo plazo y seleccionamos, lo que pensamos nos traería los mejores rendimientos

- ☐ No estoy de acuerdo
- ☐ Poco de acuerdo
- ☐ Algo de acuerdo
- ☐ En su mayoría de acuerdo
- ☐ Totalmente de acuerdo

2. Desarrollamos una estrategia para aprovechar al máximo los recursos y capacidades

- ☐ No estoy de acuerdo
- ☐ Poco de acuerdo
- ☐ Algo de acuerdo
- ☐ En su mayoría de acuerdo
- ☐ Totalmente de acuerdo

3. Investigamos y seleccionamos mercados objetivo e hicimos un análisis significativo de la competencia

- ☐ No estoy de acuerdo
- ☐ Poco de acuerdo
- ☐ Algo de acuerdo
- ☐ En su mayoría de acuerdo
- ☐ Totalmente de acuerdo

4. Diseñamos y planeamos estrategias de negocio

- ☐ No estoy de acuerdo
- ☐ Poco de acuerdo
- ☐ Algo de acuerdo
- ☐ En su mayoría de acuerdo
- ☐ Totalmente de acuerdo

5. Organizamos e implementamos procesos de control para asegurarnos de alcanzar nuestros objetivos

- ☐ No estoy de acuerdo
- ☐ Poco de acuerdo

- ☐ Algo de acuerdo
- ☐ En su mayoría de acuerdo
- ☐ Totalmente de acuerdo

6. Tenemos una clara y coherente visión de lo que queríamos hacer

- ☐ No estoy de acuerdo
- ☐ Poco de acuerdo
- ☐ Algo de acuerdo
- ☐ En su mayoría de acuerdo
- ☐ Totalmente de acuerdo

7. Diseñamos y planeamos esfuerzos de producción y comercialización

- ☐ No estoy de acuerdo
- ☐ Poco de acuerdo
- ☐ Algo de acuerdo
- ☐ En su mayoría de acuerdo
- ☐ Totalmente de acuerdo

8. El último producto/servicio que usé para poner en marcha este negocio era similar a mi idea original

- ☐ No estoy de acuerdo
- ☐ Poco de acuerdo
- ☐ Algo de acuerdo
- ☐ En su mayoría de acuerdo
- ☐ Totalmente de acuerdo

9. Nuestra toma de decisiones ha sido impulsada en gran medida por los resultados esperados

- ☐ No estoy de acuerdo
- ☐ Poco de acuerdo
- ☐ Algo de acuerdo
- ☐ En su mayoría de acuerdo
- ☐ Totalmente de acuerdo

10. El último producto/servicio que usé poner en marcha este negocio era muy diferente a mi idea original

- ☐ No estoy de acuerdo
- ☐ Poco de acuerdo
- ☐ Algo de acuerdo
- ☐ En su mayoría de acuerdo
- ☐ Totalmente de acuerdo

11. Fue imposible ver desde el principio, dónde queríamos terminar

- ☐ No estoy de acuerdo
- ☐ Poco de acuerdo
- ☐ Algo de acuerdo
- ☐ En su mayoría de acuerdo
- ☐ Totalmente de acuerdo

12. Hemos permitido que el negocio evolucione a medida que las oportunidades han surgido

- ☐ No estoy de acuerdo
- ☐ Poco de acuerdo
- ☐ Algo de acuerdo
- ☐ En su mayoría de acuerdo
- ☐ Totalmente de acuerdo

13. Evaluamos los recursos que teníamos a nuestra disposición y pensamos acerca de las diferentes opciones

- ☐ No estoy de acuerdo
- ☐ Poco de acuerdo
- ☐ Algo de acuerdo
- ☐ En su mayoría de acuerdo
- ☐ Totalmente de acuerdo

14. Experimentamos con diferentes productos y /o modelos de negocio

- ☐ No estoy de acuerdo
- ☐ Poco de acuerdo
- ☐ Algo de acuerdo
- ☐ En su mayoría de acuerdo
- ☐ Totalmente de acuerdo

15. Empezamos con mucha flexibilidad y tratamos de aprovechar las oportunidades inesperadas a medida que surgían

- ☐ No estoy de acuerdo
- ☐ Poco de acuerdo
- ☐ Algo de acuerdo
- ☐ En su mayoría de acuerdo
- ☐ Totalmente de acuerdo

16. Usamos un gran número de acuerdos con clientes, proveedores y otras organizaciones y personas para reducir la cantidad de incertidumbre

- ☐ No estoy de acuerdo
- ☐ Poco de acuerdo
- ☐ Algo de acuerdo
- ☐ En su mayoría de acuerdo
- ☐ Totalmente de acuerdo

17. Nuestra toma de decisiones ha sido impulsada en gran medida por cuánto nos podríamos permitir perder

- ☐ No estoy de acuerdo
- ☐ Poco de acuerdo
- ☐ Algo de acuerdo
- ☐ En su mayoría de acuerdo
- ☐ Totalmente de acuerdo

Si quieres dejar algun comentario, sientense libre en hacerlo....

Gracias por llenar la encuesta, siempre estoy disponible para responder preguntas, comentarios o dudas, mi correo electrónico es: j.krijgsman-1@student.utwente.nl Muchas gracias por toda su ayuda. Nos pondremos en contacto!

Appendix C: Overview sample characteristics

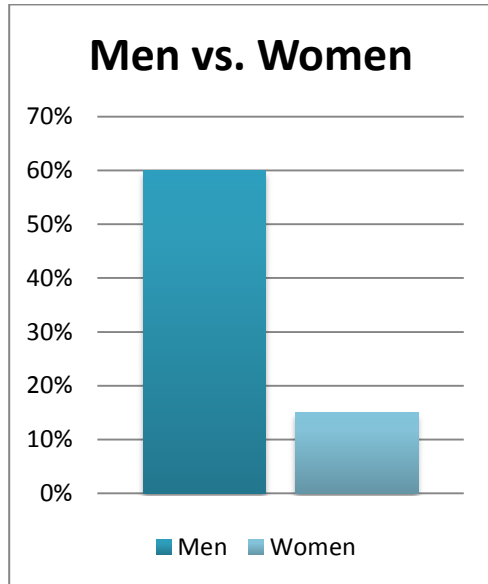


Figure 1: Men vs. Women distribution in sample

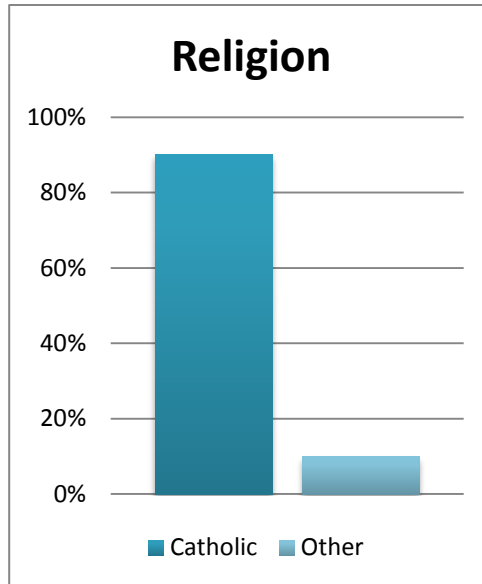


Figure 2: Religion distribution in sample

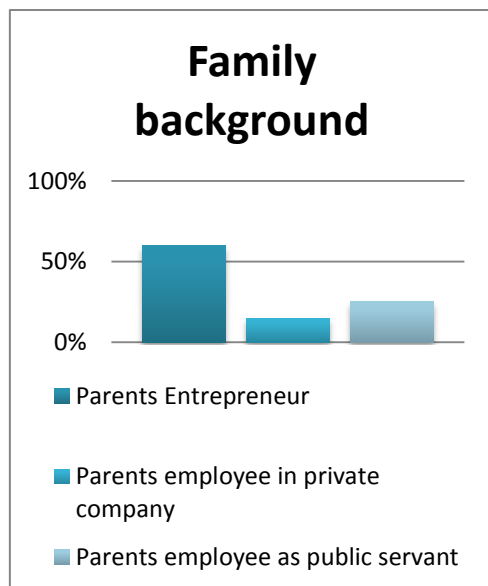


Figure 3: Family background distribution in sample

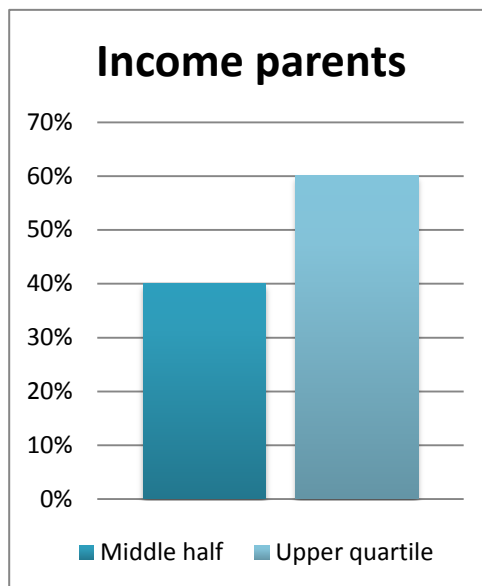


Figure 4: Income parents sample

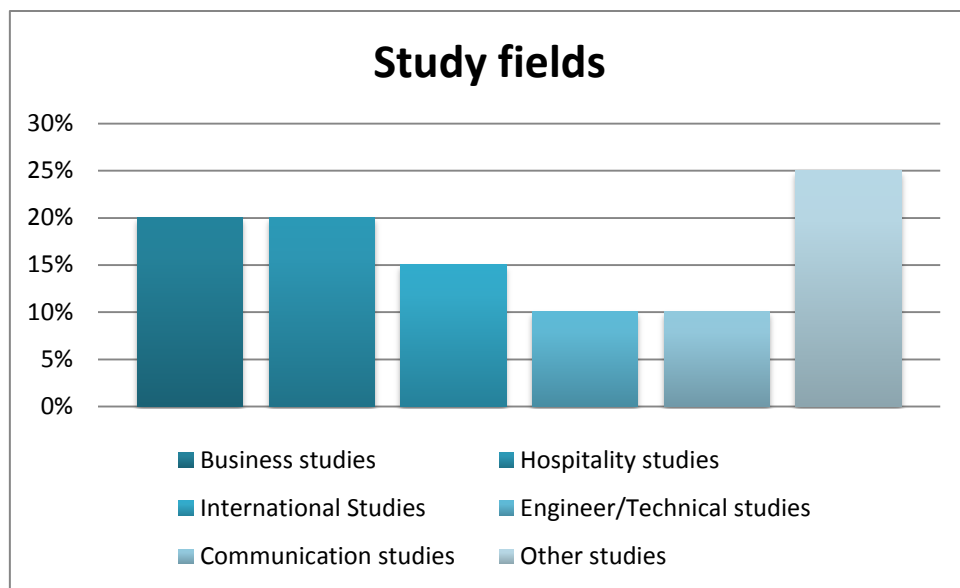


Figure 5: Distribution study field sample

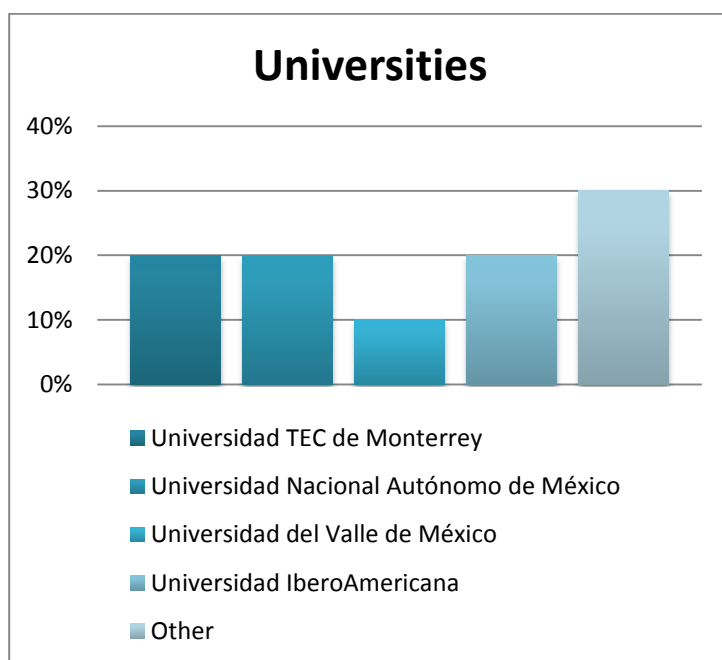


Figure 6: Distribution universities sample

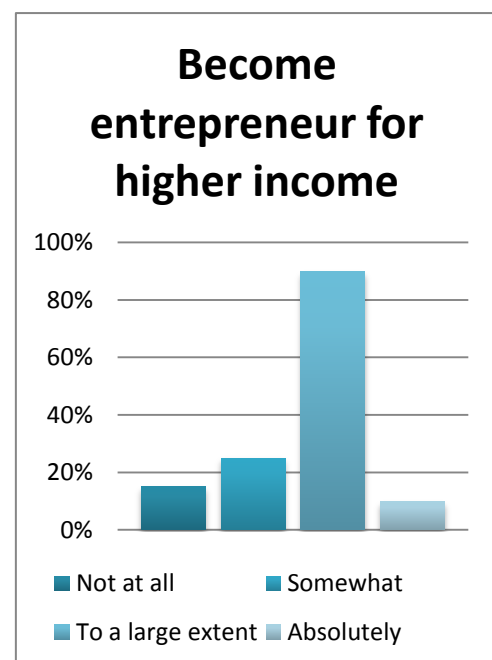


Figure 7: Distribution become entrepreneur for higher income

Appendix D: Coding scheme

The coding of the transcript within this research are executed based upon the following coding scheme based upon the theory of Sarasvathy of instance of effectual and causal reasoning (2008):

Causal	Effectual
G – Goal-driven	M – Means-based
R – Expected returns	L – Affordable loss
B – Competitive analysis	A – Use of alliances or partnerships
K – Existing market knowledge	E – Exploration of contingency
P – Predictions of the future	C – Non-predictive control
Z – Emphasis on analysis of data	D – Distrusting or opposing (marketing) research
X – Causal (no subcategory given)	N – Effectual (no subcategory given)

Appendix E: Distribution causation and effectuation

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	=	%
Causation																						
G	11	5	2	2	2	2	5	5	5	4	4	4	2	1	8	0	5	6	9	6	88	11%
R	11	7	4	4	6	5	4	5	6	8	2	2	9	2	11	5	6	8	10	4	119	15%
B	12	8	4	4	5	3	5	3	5	6	5	4	7	3	8	6	7	7	3	5	110	14%
K	19	9	8	9	6	8	9	5	12	14	4	3	10	6	10	6	13	5	8	6	170	22%
P	16	13	6	9	8	7	12	6	3	8	2	0	10	6	13	7	14	10	9	6	165	21%
Z	0	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	3	2	3	0	11	1%
X	7	6	4	1	6	4	2	6	5	6	3	4	8	5	6	4	9	8	8	3	105	14%
	76	49	28	29	33	29	38	30	36	46	20	17	46	24	56	28	57	46	50	30	768	100%
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	=	%
Effectuation																						
M	8	2	4	3	4	2	5	2	2	2	0	0	6	2	5	4	6	5	7	3	72	21%
L	2	3	2	4	1	3	3	4	1	6	0	1	0	2	5	3	4	5	3	2	54	15%
A	0	3	2	0	2	2	3	3	3	1	2	1	3	2	3	4	11	4	5	2	56	16%
E	3	0	4	4	5	8	4	4	5	4	0	2	4	6	8	6	7	7	7	0	88	25%
C	0	1	2	2	3	8	7	1	0	4	2	1	2	3	2	5	5	5	5	3	61	17%
D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	1%
N	0	0	1	0	0	0	2	0	1	0	2	2	0	1	0	1	3	1	2	2	18	5%
	13	9	15	13	15	23	24	14	12	17	6	7	15	16	23	23	38	27	29	12	351	100%
Total	89	58	43	42	48	52	62	44	48	63	26	24	61	40	79	51	95	73	79	42	1119	100%
% Caus	86%	84%	65%	69%	69%	56%	61%	68%	75%	73%	77%	71%	75%	60%	71%	55%	60%	63%	63%	71%		69%
% Effect	14%	16%	35%	31%	31%	44%	39%	32%	25%	27%	23%	29%	25%	40%	29%	45%	40%	37%	37%	29%		31%

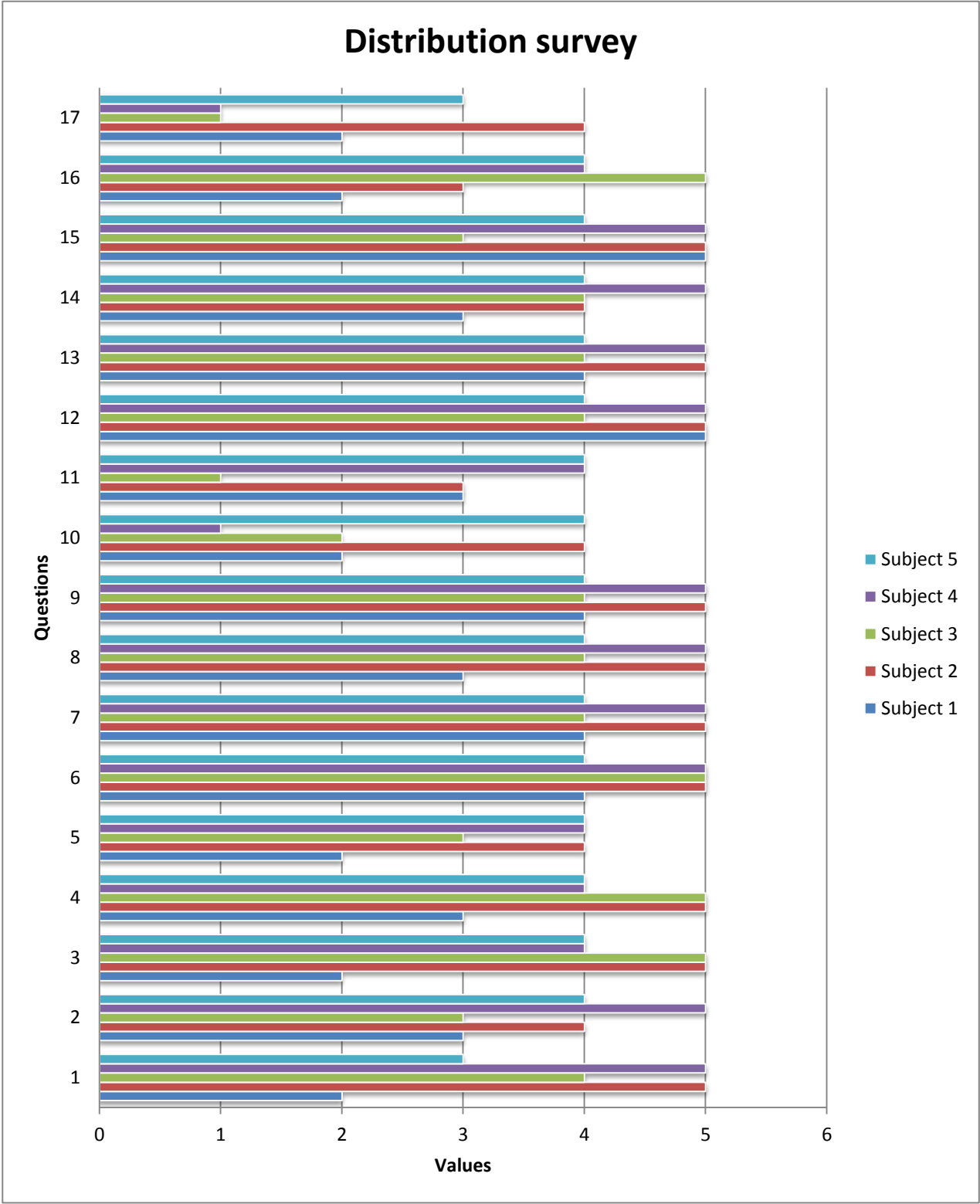
Table 1: Distribution causation and effectuation of Mexican entrepreneurs

Dutch Entrepreneurs

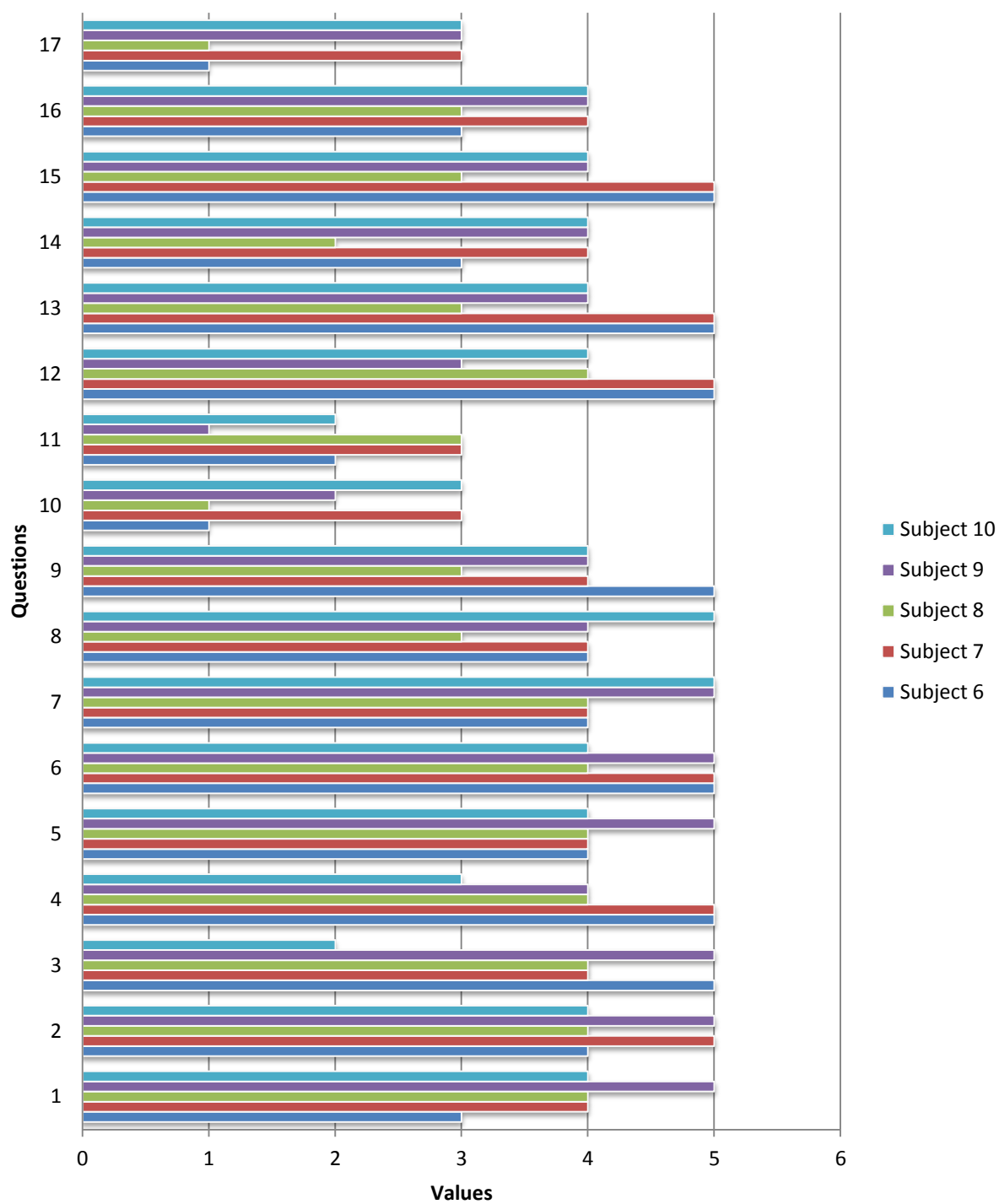
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	%
Causation																						
G	4	7	2	4	6	5	6	5	13	1	0	10	3	3	5	8	3	7	5	2	99	18%
R	1	4	1	1	3	1	13	9	8	5	1	4	0	5	3	8	14	3	1	2	87	16%
B	4	4	3	4	5	5	12	4	8	1	1	4	6	5	3	3	8	2	3	2	87	16%
K	3	6	3	1	3	2	16	10	7	1	2	6	6	2	8	10	9	3	0	2	100	18%
P	3	5	2	2	3	3	2	3	7	1	1	3	10	8	4	7	4	1	2	1	72	13%
Z	3	2	0	1	2	4	7	6	14	3	0	6	7	6	0	0	2	0	1	0	64	12%
X	0	1	1	0	1	0	3	1	1	4	5	0	1	0	5	10	0	2	5	2	42	8%
	18	29	12	13	23	20	59	38	58	16	10	33	33	29	28	46	40	18	17	11	551	100%
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	%
Effectuation																						
M	6	5	3	5	3	1	13	9	13	6	5	6	3	2	4	3	4	0	2	4	97	23%
L	4	2	2	4	1	2	4	3	4	0	0	9	2	5	2	0	7	3	0	1	55	13%
A	5	7	6	4	4	8	11	7	8	2	5	5	2	6	1	1	5	3	2	5	97	23%
E	1	1	2	1	2	3	9	11	3	1	1	1	3	2	6	4	1	4	5	2	63	15%
C	2	1	2	2	0	0	4	3	3	3	0	13	1	3	0	3	0	1	0	1	42	10%
D	0	0	3	0	0	0	4	7	4	0	1	1	2	2	0	0	0	0	0	1	25	6%
N	2	2	0	2	0	0	6	7	6	3	3	0	0	0	0	1	0	0	3	2	37	9%
	20	18	18	18	10	14	51	47	41	15	15	35	13	20	13	12	17	11	12	16	416	100%
Total	38	47	30	31	33	34	110	85	99	31	25	68	46	49	41	58	57	29	29	27	967	100%
% Caus	47%	62%	40%	42%	70%	59%	54%	45%	59%	52%	40%	49%	72%	59%	68%	79%	70%	62%	59%	41%		57%
% Effect	53%	38%	60%	58%	30%	41%	46%	55%	41%	48%	60%	51%	28%	41%	32%	21%	30%	38%	41%	59%		43%

Table 2: Distribution causation and effectuation of Dutch entrepreneurs

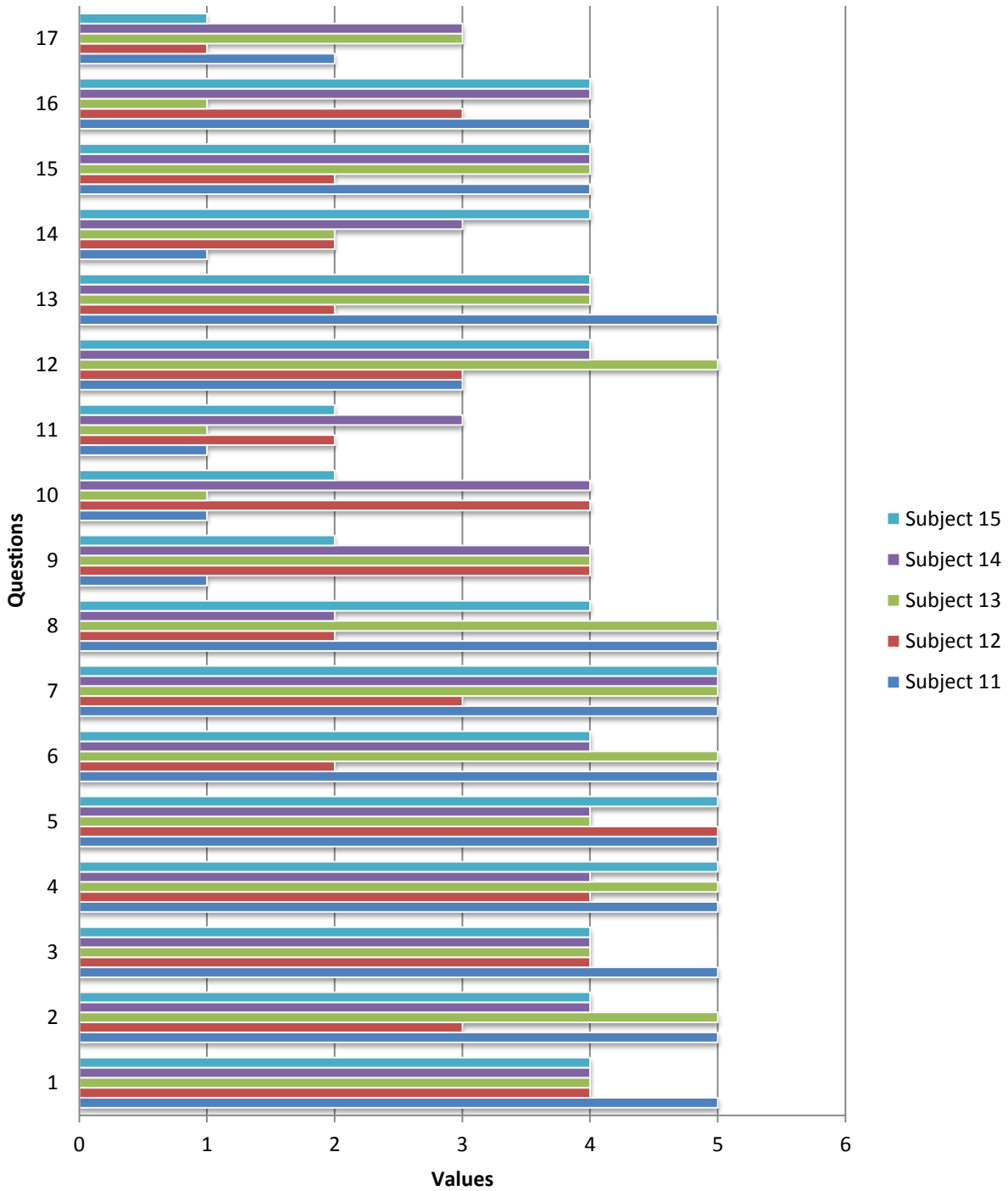
Appendix F: Distribution survey per respondent



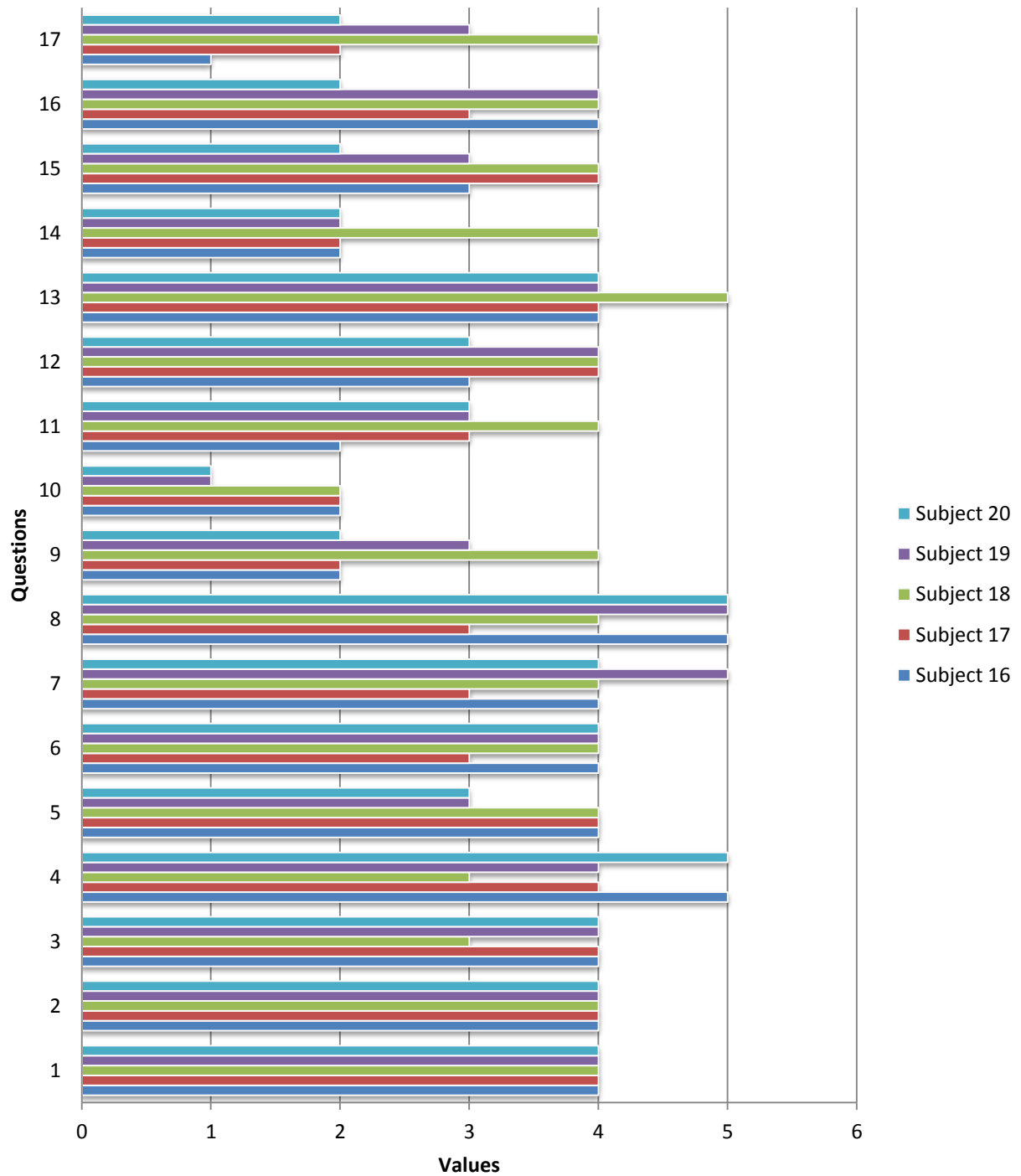
Distribution survey



Distribution survey



Distribution survey



Appendix G: Correlation matrix think aloud data

		1.GD Causation	2. ER Causation	3. CA Causation	4. MK Causation	5. PF Causation	1. MB Effectuation	2. AL Effectuation	3. AP Effectuation	4. EC Effectuation	5. NC Effectuation
1.GD Causation	Pearson Corr. Sig. (2-tailed) N	1 40	,381* ,015 40	,393* ,012 40	,355* ,025 40	,251 ,118 40	,415** ,008 40	,290 ,070 40	,173 ,286 40	,059 ,715 40	,156 ,338 40
2. Causation	ER Pearson Corr. Sig. (2-tailed) N	,381* ,015 40	1 40	,655** ,000 40	,631** ,000 40	,437** ,005 40	,525** ,001 40	,267 ,096 40	,170 ,295 40	,418** ,007 40	,136 ,403 40
3. Causation	CA Pearson Corr. Sig. (2-tailed) N	,393* ,012 40	,655** ,000 40	1 40	,638** ,000 40	,547** ,000 40	,465** ,003 40	,384* ,014 40	,241 ,134 40	,175 ,280 40	-,001 ,995 40
4. Causation	MK Pearson Corr. Sig. (2-tailed) N	,355* ,025 40	,631** ,000 40	,638** ,000 40	1 40	,610** ,000 40	,413** ,008 40	,144 ,376 40	,005 ,976 40	,478** ,002 40	,183 ,259 40
5. Causation	PF Pearson Corr. Sig. (2-tailed) N	,251 ,118 40	,437** ,005 40	,547** ,000 40	,610** ,000 40	1 40	,160 ,324 40	,021 ,898 40	-,124 ,445 40	,245 ,128 40	,185 ,252 40
1. Effectuation	MB Pearson Corr. Sig. (2-tailed) N	,415** ,008 40	,525** ,001 40	,465** ,003 40	,413** ,008 40	,160 ,324 40	1 40	,485** ,001 40	,525** ,000 40	,315* ,048 40	,238 ,139 40
2. Effectuation	AL Pearson Corr. Sig. (2-tailed) N	,290 ,070 40	,267 ,096 40	,384* ,014 40	,144 ,376 40	,021 ,898 40	,485** ,001 40	1 40	,925** ,000 40	,252 ,116 40	,224 ,165 40
3. Effectuation	AP Pearson Corr. Sig. (2-tailed) N	,173 ,286 40	,170 ,295 40	,241 ,134 40	,005 ,976 40	-,124 ,445 40	,525** ,000 40	,925** ,000 40	1 40	,182 ,260 40	,151 ,354 40
4. Effectuation	EC Pearson Corr. Sig. (2-tailed) N	,059 ,715 40	,418** ,007 40	,175 ,280 40	,478** ,002 40	,245 ,128 40	,315* ,048 40	,252 ,116 40	,182 ,260 40	1 40	,234 ,146 40
5. Effectuation	NC Pearson Corr. Sig. (2-tailed) N	,156 ,338 40	,136 ,403 40	-,001 ,995 40	,183 ,259 40	,185 ,252 40	,238 ,139 40	,224 ,165 40	,151 ,354 40	,234 ,146 40	1 40

