

# **CULTURE & ENTREPRENEURIAL PROCESSES; EVIDENCE OF INFLUENCE**

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## **SUMMARY**

Processes that lead to the creation of new ventures are characterized by a combination of planned (causation) and emergent (effectuation) actions. Which one prevails is among others depending on contextual factors such as industry and national culture. Research on the impact of national culture on the causational respectively effectual nature of the entrepreneurial process is lacking. We collected think-aloud protocols from novice entrepreneurs who started their venture while still being a student at a university of who just finished their university studies Vietnam and The Netherlands. Coding of the protocols is based on the categories originally used by Sarasvathy. We correlate the share of causation-type actions with characteristics from national culture, drawn from Hofstede. Preliminary results show systematic differences in the share of causation new venture creation processes. These results are relevant to raise awareness among entrepreneurs and educators that taken-for-granted assumptions about entrepreneurial processes are culturally shaped.

## **KEYWORDS**

Effectuation, Hofstede, National culture, think aloud protocols

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## INTRODUCTION

Entrepreneurial processes are an important theme in entrepreneurship research. The debate which is currently going on is leaning towards entrepreneurial processes being one of the most central topics of entrepreneurship research (Moroz and Hindle, 2011). When defining entrepreneurial processes, the definition of Bygrave & Hofer (1991, p14) gives insight in what is meant with this concept: “entrepreneurial process involve all the functions, activities, and actions associated with the perception of opportunities and creation of organizations to pursue them.”

Setting up a business and the way in which entrepreneurs work on maintaining and growing the new venture has been researched extensively throughout the years(e.g. Davidsson, 2004; Gartner, 1985; Schumpeter, 1934). The focus on how entrepreneurs set up a business and the processes the entrepreneurs are going through has two different schools of thought (Brinckmann et al., 2010). The first school of thought shows entrepreneurs set up a business while using a planned process of opportunity exploration and exploitation (e.g., Ansoff, 1991, 1994; Bhave, 1994; Shane & Venkataraman, 2000.) A second school of thought stresses the emergent nature of the entrepreneurship process, such as bricolage (Baker & Nelson, 2005), improvisation (Hmieleski & Corbett, 2006; Kamoche, Cunha and Cunha, 2003; Moorman and Miner, 1998) and effectuation (Sarasvathy, 2001). Among the emerging approaches, effectuation, as described by Sarasvathy (2001; 2008) provides a more refined theoretical framework to understand the entrepreneurial processes (Read et al.2009),

The context in which a new venture has been set up influences the way in which this venture develops (Zahra, 2007). The context consists of a country’s formal regulatory, political and economic institutions, next to informal institutions like culture (Holmes et al.2011). Culture is “a set of shared values, beliefs, and expected behaviors” (Hayton et al., 2002, p.33). The shared values are described extensively, among others by Hofstede (1980) and the Globe research by House et al. (2004) and are said to be one of the more influential context variables regarding the influence on entrepreneurship (Morisson, 2000 ; Hayton et al, 2002). The unit of analysis often used is that of a nation, since national culture is the best unit of analysis (Hofstede, 2002)

National culture influences entrepreneurship, entrepreneurs and might therefore also influence the entrepreneurial processes. Entrepreneurial processes and decision making as described in literature in relation to national culture focus mainly on internationalization processes and the decisions on how to deal with culture (see e.g. Jones & Coviello, 2005). The relation between national culture and its influence on entrepreneurial processes has mostly been neglected in research on entrepreneurial processes. Moroz and Hindle (2011) provide us with an extensive overview of 32 models used to describe entrepreneurial processes. Within this overview, 6 scholars mention 'culture' in association with entrepreneurial processes. Culture has been identified as being present as an environmental component which could influence the entrepreneurial process but it stays unclear to what extend (Gartner, 1985; Russell, 1999). Other scholars use organizational culture (Covin and Slevin, 1991) and entrepreneurial culture Fayolle, 2007, Ireland, Hitt, Sirmon, 2003 in connection with entrepreneurial processes. None of them go into detail regarding the potential influence of national culture on entrepreneurial processes. The same goes for effectuation by Sarasvathy (2001). Leaving out national culture could have implications on the way in which entrepreneurs set up a business. If entrepreneurs set up a business in an effectual way, while being active in a country which is not used to the effectual approach, setting up a business might stumble upon problems which could have been prevented from. in an earlier stage. Also, the way in which students are learned on how to set up a business have to take culture in mind since the culture will shape the entrepreneurial processes.

The outline of the paper is as follows: first the theoretical framework is given resulting in hypotheses. We then describe the methods on how we executed the research. Next, we discuss the results, followed by conclusions and discussion. We end with limitations to our research.

## **LITERATURE**

### **Entrepreneurial processes**

Entrepreneurial processes are discussed from different angles. Questions emerging here are boiling down to what entrepreneurs actually do and also, how they do it. This has been extensively discussed in literature, but there seems to be no general denominator on what sort of model could provide the insights in how the previous questions will be answered. Moroz

and Hindle (2011) show that from literature, 32 models can be derived. In general, a division can be made in processes which show a more planned behaviour, and those models which show a more emerging approach. Among the emerging approaches effectuation provides a more refined theoretical framework positioning 5 categories to differentiate entrepreneurial processes being either more causal or effectual.

### **Effectuation**

An effectuation logic is coined in the effectual problem space which is defined by three elements; Knightian uncertainty, goal ambiguity and isotropy (Sarasvathy, 2008). Knightian uncertainty is described as “the impossibility to calculate probabilities for future consequences” (Knight, 1921; p233). Goal ambiguity states that preferences are neither nor well ordered, and isotropy is defined as the fact that it is not clear what elements of the environment should be paid attention to and what to ignore.

Effectuation contrasts with causation. An entrepreneur following a causal approach looks at means to choose from. A selection will be made and an effect will be established by this. Effectuation takes a set of means as given and the possible effects these entail will be chosen from to come to the effect aimed for. (Sarasvathy, 2001) Causation processes are more ubiquitous and focus on the predictable future; that what can be predicted, can be controlled.

Knightian uncertainty, goal ambiguity and isotropy are operationalized into 5 categories of differentiation. Table 1 shows the 5 categories of differentiation in relation to causal logic and effectual logic.

<b>Category of differentiation</b>	<b>Causal</b>	<b>Effectual</b>
Future orientation	Predictive logic, causal relationships between past and future; <ul style="list-style-type: none"> <li>- Business plan pages;</li> <li>- Marketing pages;</li> <li>- Share of marketing pages;</li> <li>- Market research presence</li> </ul>	Creative, shaping the future (future comes from what people do): <ul style="list-style-type: none"> <li>- Non- predictive control;</li> <li>- New market creation;</li> <li>- Prior activities.</li> </ul>

Action; start with who you are, what you know & whom you know (not with the opportunity)	Goal-oriented; Ends-based; Growth intention	Means-oriented; who I am, whom I know, what I know - Start-up experience; - number of firms created; - Years of experience; - Years of industry experience; - Experience based ideas
Risk; invest what you can afford to lose – can be €0 (Not expected return)	Expected return; Number of target segments; financials (investments, loans, incubation capital)	Affordable loss; Private capital
Outsiders; build a network of self-selected stakeholders (Not competitive analysis)	Competitive; - Competition pages; - Named competitors; - Partnerships competitors; - Expected competition level	Partnerships; - Partnership pages; - Realized partnerships; - Potential partnerships
Contingencies; leverage contingencies and even failures (Not avoid them)	Avoiding, careful planning not to find any obstacles	Leveraging, rethinking possibilities, using contingencies as challenges

Table 1: 5 categories of differentiation between effectual & causal reasoning (Sarasvathy, 2001)

## Context

The context in which the entrepreneurial processes are embedded is regarded as influential (Zahra, 2007). National culture of countries is one of the predominant variables of the context an entrepreneurs is active in (Morrison 2000; Baker, Gedajlovic and Lubatkin 2005). In more Western countries like Germany and The United states of America, these conditions are very different than in countries like China and India. Institutions impose an influence upon the processes by e.g. legal implications and the way educational systems are shaped. These can all influence the entrepreneurial processes. We, however, want to focus on the influence of national culture, since there has been a gap in literature in what this influence could be. The existing literature often looks at internationalization as an entrepreneurial process in combination of knowledge of national culture (Jones and Coviello, 2005), . Literature available which focuses on the influence of national culture directly or indirectly on entrepreneurial processes to our best knowledge is not available. There we find a research gap.

One could ask whether or not entrepreneurs respond differentially to national culture from non-entrepreneurs regarding working, thinking and doing. Entrepreneurs have a different set of predictable values in comparison to non-entrepreneurs, but despite this fact, also entrepreneurs and their decision making framework are influenced by national culture (Thomas and Mueller, 2000). National culture has a significant influence on entrepreneurship (Zahra, 2007). But what do we understand while talking about national culture?

### **National Culture**

Culture is a pattern of learned behavior. It is influencing daily life but it is partly intangible. Especially these intangible components have been looked at from different angles. Culture exists at different levels, ranging from organizational, national, clan and individual culture (Mitchell et al., 2002). The units of analysis we look at are nations. Nations are normally the best representatives of culture (Hofstede, 2001; Trompenaars, 2007). Holmes (2011) shows culture has been researched by looking at beliefs (Schooler, 1996), values (Hofstede, 1980), norms and priorities (Sirmon & Lane, 2004) and assumptions (Huang & Harris, 1973). The work of Hofstede is one of frameworks which is used extensively in management and IB literature (Tung and Verbeke, 2010). Of June 2010 there were over 54,000 citations to his work. The work has been validated and stood the test of criticism by e.g. McSweeney (2002) and Baskerville (2005). It remains the dominant model for research on national culture (Venaik and Brewer, 2008).

Within nations, different layers of culture can be distinguished (Hofstede, 2001). The layers of culture can be symbolized by an 'Onion Diagram', (Hofstede 2001; Trompenaars, 2011) as shown in figure 2. The onion consists of four layers: values, rituals, heroes and symbols (from the core to the outer layer). Values can be seen as the not immediately visible part. It is this core which distinguishes one group of another (Hofstede, 2001).

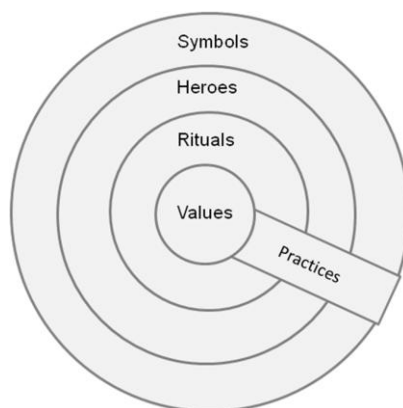


Figure 1: The “Onion Diagram” (Hofstede 2001, p. 11).

The values are operationalized by Hofstede into 5 constructs, also known as Dimensions of national culture.

### Dimensions of national culture

The Hofstede dimensions represent the core values.

<p><b><i>Individualism / Collectivism (IDV)</i></b></p>	<p>Describes the relationship between an individual member and groups he is a member of. In individualistic cultures, people care most about themselves and their family, and less about others. The bonds between members are often loose and people are expected to take care of themselves and their family. In collectivistic cultures, the benefit of the group is often more important than the personal (individual) interests of its members. The bonds between group members are often strong and people from the same group help and support each other extensively.</p>
<p><b><i>Power Distance Index (PDI)</i></b></p>	<p>Describes the degree to which an unequal distribution of power is accepted in a society. In cultures that score low on power distance, people do not perceive a large difference in power between lower and higher ranking members. In large power distance cultures, this difference is clearer.</p>
<p><b><i>Uncertainty Avoidance Index (UAI)</i></b></p>	<p>Describes how much structure is preferred in society. Cultures with low uncertainty avoidance are flexible, strict rules of behavior are uncommon and entrepreneurship is common. Conversely, cultures with high uncertainty avoidance have more structure, stricter rules about what is acceptable behavior, and entrepreneurship is less common.</p>

<b><i>Masculinity / Femininity (MAS)</i></b>	Describes if a culture puts more emphasis on ‘tough’ (masculine) values such as competition, money and success, or on ‘tender’ (feminine) values such as relationships, cooperation and a friendly atmosphere.
<b><i>Long-term / Short-term Orientation (LTO)</i></b>	Describes the time orientation of a culture. Long-term oriented cultures are more concerned with the future, while short-term oriented cultures tend to put more emphasis on the present and the past.

Table 2: Hofstede’s dimensions of culture (Hofstede, 2001)

Per country, Hofstede scored countries on a range of 0 to 100 per dimension so that the differences become more apparent. The scores for Vietnam and The Netherlands are displayed in table 3.

<b>Dimension</b>	<b>Vietnam</b>	<b>Netherlands</b>
<b>PDI</b>	70	38
<b>IDV</b>	20	80
<b>MAS</b>	40	14
<b>UAI</b>	30	51
<b>LTO</b>	80	44

Table 3: Score on dimensions and Netherlands Hofstede (2001)

What we see is that there are differences in scores, meaning that the 2 countries have different ideas regarding how to interpret the values. The different interpretation could potentially influence the entrepreneurial processes. The largest difference regarding scores is on the IDV dimension. We therefore would expect most influence on the entrepreneurial processes in relation to IDV. Next to this, literature describing Individualism is seen as the dominating construct and has been commonly applied to give insight in explaining and predicting cultural differences (Fischer, 2009).



## Hypotheses

### *Individualism and expected returns*

Where causal reasoning is more focused on the expected returns, effectual reasoning begins with an entrepreneur determining how much he is willing to lose. Focusing on affordable-loss instead of focusing on expected returns creates more creative entrepreneurs as they have to bring a product to the market with limited financial resources (Sarasvathy, 2001).

Within cultures that score low on individualism, interesting work is as important as earnings, whereas in cultures that score high on individualism earnings are more important than interesting work (Hofstede, 2001). Therefore we can say that the high individualistic cultures are more focused on returns. Furthermore, Vietnam is heavily cultural influenced by Confucianism. Confucianism is closely related to collectivism (Ralston, Egri, Stewart, Terpstra, & Yu, 1999), and Confucianism promotes a life-style where not more than necessary is spent (Hofstede, 2001). This supports the link between low individualistic cultures and the element of affordable loss. Since The Netherlands scores high on individualism and Vietnam scores low, it is expected that Dutch entrepreneurs are more causal since they are more focused on expected returns.

Hypothesis 1: The more individualistic a culture is, the more focused on expected returns the entrepreneur will be.

### *Individualism and competitive analysis*

Causal entrepreneurs tend to be more focused on competitive analysis, whereas effectual entrepreneurs tend to be more focused on the use of alliances or partnerships (Sarasvathy, 2001). Those alliances or partnerships are used to reduce and/or to eliminate uncertainty. When linked to the cultural dimension of individualism, elements of low individualism can be linked to the element of the use of alliances or partnerships. Within low individualistic cultures, knowing the right people is most important, whereas in cultures that score high on individualism, ability is more important (Hofstede, 2001). In high individualistic cultures the emphasis is more on differentiation and comparison so that certain choices can be made. This is different in cultures which score low on individualism. They are more focused on cooperation. Additionally, in a low individualistic culture where the in-group is important it

can be logically expected that help from and to in-group members is more accepted. Thus, an entrepreneur living in Vietnam, which is considered to be a country with a collectivistic culture it is logically expected to use an option where a family member offers his help. In individualistic cultures this will be the opposite. This is backed up by Hofstede (2001) who shows that in low individualistic countries relatives of employer and employees are preferred in hiring. In high individualistic cultures family relationships are seen as a disadvantage in hiring. Furthermore, if national wealth increases, members of a society have access to resources that allow them to be more independent. Wealthy, industrialized, nations consequently tend to be much more individualistic than developing countries (Steensma, Marino, & Weaver, 2000) which make them more independent. In individualistic cultures self-interest is pursued, while in a collectivistic society conformity and harmony are the norm. Self-serving behavior is likely to bring shame in a collectivistic culture (Steensma, et al., 2000). Therefore, it can be expected that entrepreneurs in collectivistic cultures, which are less independent, are more focused on alliances to gather necessary resources. Since the Netherlands scores high on individualism and Vietnam scores low, it is expected that Dutch entrepreneurs are more causal since they are more focused on competitive analysis.

Hypothesis 2: The more individualistic a culture is, the more focused on competitive analysis the entrepreneur will be.

### *Individualism and exploration of contingencies*

Causal entrepreneurs tend to be more focused on existing market knowledge, whereas effectual entrepreneurs tend to be more focused on exploration of contingencies (Saravathy, 2001). Unexpected situations are seen as opportunities and/or resources by effectual entrepreneurs, since they do not have pre-set goals which they want to stick to. When linked to the cultural dimension of individualism, elements of high individualism can be linked to the element of exploration of contingency. If elements of individualism are analyzed one can find effectual elements like the fact that people do not want to stay too long with one company; that is considered undesirable (Hofstede, 2001). In low individualistic countries it is desirable to stay with one company. In this contrast you can feel the desire to explore contingencies in high individualistic countries opposed to a desire to stick with the familiar in low individualistic countries. Therefore it can be logically expected that someone living in a high individualistic culture is willing to take a chance, while someone from a low individualistic culture will more

often stick to the familiar. Furthermore, according to Morris et al. (1994) interpersonal competition, common in individualistic cultures, may generate new ideas for innovative change. Since the Netherlands scores high on individualism and Vietnam scores low, it is expected that Dutch entrepreneurs are more effectual since they are more focused on exploration of contingency.

Hypothesis 3: The more individualistic a culture is, the more focused on exploration of contingencies the entrepreneur will be.

### *Individualism and non-predictive control*

Effectual entrepreneurs do not try to predict the future and therefore are flexible to react to opportunities, while causational entrepreneurs prefer to predict and plan the future (Sarasvathy, 2001). In the research case this is tested by how the participating novice entrepreneurs react to questions like ‘How will you find out this information?’. It is logically expected that the use of surveys, questionnaires, and focus groups is more often used by the participating novice entrepreneurs.

When linked to the cultural dimension of individualism, elements of high individualism can be linked to the element of non-predictive control. Wiltbank et al (2006) indicate that if a venture like a radio station keeps its options open instead of prediction too much what could potentially happen in the future the radio station will be better in keeping “...a foothold in the internet market in case it turns out to be a great opportunity (p. 982).” This quote perfectly explains the difference between predicting the future or using non-predictive control. In this light the purpose of education in high individualistic countries, learning how to learn, also matches the element of non-predictive control. Additionally, Thomas and Mueller (2000) state the following about individualism and collectivism: “*In high individualism countries, having autonomy is more important, individual decisions are considered superior, and individual initiative is socially encouraged. In collectivistic countries, security is rated as more important, group decisions are considered better than individual ones, and individual initiative is discouraged (p. 296).*”

Security and group decisions are more in line with predicting the future, where predictions may feed a feeling of security which is backed-up by the knowledge of a group instead of an

individual. Since the Netherlands scores high on individualism and Vietnam scores low, it is expected that Dutch entrepreneurs are more effectual since they are more focused on non-predictive control.

Hypothesis 4: The more individualistic a culture is, the more focused on non-predictive control the entrepreneur will be.

### *Individualism and marketing research*

Causal entrepreneurs tend to have an emphasis on analysis of data, whereas effectual entrepreneurs tend to distrust or oppose (marketing) research (Sarasvathy, 2001). When linked to the cultural dimension of individualism, elements of high individualism can be linked to the element of distrusting/opposing (marketing) research. As mentioned before, Confucianism is an important factor in Asian collectivistic countries and also in Vietnam (Vuong & Tran, 2009). In these collectivistic cultures 'face' is very important. Loss of face is something that people from collective cultures try to avoid, and therefore they are more risk averse in business (Begley & Tan, 2001). The risk of failure is a threat to face, and will be avoided since this can create shame. According to Hofstede (2001), low individualistic cultures can be seen as shame cultures. Therefore, it can be logically expected that cultures that score low on individualism are more risk averse, and put an emphasis on the analysis of data to avoid shame. Since the Netherlands scores high on individualism and Vietnam scores low, it is expected that Dutch entrepreneurs are more effectual since they are more focused on distrusting or opposing (market) research.

Hypothesis 5: The more individualistic a culture is, the more (marketing) research will be distrusted by the entrepreneur.

## **METHODS**

### **Sample**

We have the case executed in 17 countries so far (see figure 1). These countries show bipolar scores according to Hofstede (2001), and therefore we would assume cultural differences being apparent. Research has been done with the help of local professors at befriended

universities. Herewith, we can control for reliability of the data obtained. Our analysis first of all is focused on Vietnam and The Netherlands.

The sample consists of student entrepreneurs and entrepreneurs who graduated at university level not longer than five years ago. Next, we also control for age, type of company and potential companies started earlier. According to Mueller & Thomas (2000) this gives a representative picture. Research by Dew, Read, Sarasvathy and Wiltbank (2009) shows that novice entrepreneurs with an MBA background show a tendency for a causal approach because of the education background which trains them to think causal. We control for this by also including entrepreneurs in different university disciplines.

The think aloud sessions are recorded in the native language of the entrepreneurs. If this is not possible, the sessions are recorded in English, provided that the university attended by the entrepreneurs showed a proficient level of English. The protocols are coded by 2 independent coders, with at least a MSc title. We try to establish at least 80% interrater reliability.

To measure the degree to which causation and effectuation are used, we apply Sarasvathy's (2001) method of recording and coding decision making processes of the candidates while solving a case study with entrepreneurship-related content.

### **Think aloud protocols**

There are several research methods that can be used to investigate how entrepreneurs go through the entrepreneurial process. Observing an entrepreneur while he is creating an actual new venture is too time-consuming and would severely limit the possible sample size, given the amount of time available for this study. Therefore, we choose to use a fictional case instead, in which the venture creation process is simulated. Entrepreneurs that participate in this study are asked to execute the case.

It is possible to ask entrepreneurs to work through the case while writing down all their thoughts and decisions. Alternatively, entrepreneurs could be asked to work through a case, and, after completion, describe in writing the decision process that they have followed. However, both of these methods seem to have disadvantages related to the necessity for the entrepreneur to express his thoughts in writing. In the first case, the decision process itself

might be hampered or changed as a result of the entrepreneur having to write down all his thoughts. This happens, because the entrepreneur will have to 'pause' his thinking from time to time, potentially affecting the decision process. In the second case, the entrepreneur might not remember all of the thoughts that he had while he worked through the case. Also, the final decision taken might affect the way the entrepreneur looks back on the thoughts he had while making the decision. This 'hindsight bias' is more likely to occur in situations where a subject is not familiar with the task he is asked to do (Christensen-Szalanski & Willham, 1991). It is indeed probable that the entrepreneurs in our study are unfamiliar with the task of expressing the thoughts in writing after having worked through a case. Given these potential disadvantages, it is better to ask entrepreneurs to verbally express their thoughts instead of asking them to write these down.

### *Procedure*

In using the think-aloud verbal protocol method, subjects are asked to perform a task or assignment such as solving a math problem or working through a business case. The subject is required to verbally express everything that he or she thinks. These sessions are recorded. The transcripts of these sessions are called protocols. By analyzing the protocols, we gain insight into the subject's thought patterns. Generally, verbal protocols give complete information about the subject's thought processes. (Ericsson & Simon, 1993; Van Someren, Barnard & Sandberg, 1994) Furthermore, the fact that the subject is thinking aloud does not interfere with these processes, although it may slow them down to some extent (Ericsson & Simon, 1993). The analysis of verbal protocols has been used to successfully study the entrepreneurial decision process. (Sarasvathy et al, 1998; Sarasvathy, 2008). Therefore, this method will be used in this research.

There are two types of verbal protocols: concurrent and retrospective. Think-aloud protocols are concurrent; they require the subject verbalizes his thoughts while working on the problem solving- or decision process. Retrospective protocols, in contrast, involve the subject describing his thoughts after the problem has been solved or after the decision has been made. Comparing these two, Kuusela and Paul (2000) conclude that the steps of a decision making process can be better observed using a concurrent verbal protocol rather than using a retrospective protocol. Thus, 'Think-aloud' verbal protocols seem to be more useful than retrospective protocols in analyzing how entrepreneurs approach the entrepreneurial process.

In this study, we therefore will use concurrent verbal protocols to collect our data. We will draw upon the work of Ericsson (1993) and Van Someren, Barnard & Sandberg (1994) to serve as a guide for obtaining, coding and analyzing these protocols. The case in principle is written in the native language of the subjects. In case this is not possible, the case will be done in English, and the subject is asked to speak English while working through the case.

To research the entrepreneurial processes, we were inspired by the Sarasvathy (2008) case, which we slightly altered to prevent cultural biases and too much focus on technology. Instead, we developed the concept of starting a coffee corner, something which can be imagined by most of us across cultures. The case consists of 10 problems which have to be solved by an entrepreneur. The case comprises all business episodes, like how to market the venture, how to finance this, how to deal with hiring personnel and how to re-develop the initial product to grow the company.

### *Coding*

We developed a coding scheme (see table 3) for analyzing the protocols, based on the work of Sarasvathy (2008). With this, we classify whether or not an effectual or a causal approach was followed. The coding scheme is inspired by Sarasvathy's "mirror plot" of causal and effectual reasoning. (Sarasvathy, 2008, p. 55). In addition to the categories of causal and effectual reasoning that are used in Sarasvathy's plot, we added two more categories to the coding scheme. This had to do with the fact that within the coding scheme by Sarasvathy the concepts of components, mentioned by our subjects, like "analysis of data" vs "distrusting marketing literature" were mentioned as often that in our opinion, these had to be explicitly mentioned and not necessarily be part of the categories "no subcategory given".

<b>Causal</b>	<b>Effectual</b>
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)

Table 3; coding scheme indicators

## RESULTS

### Hofstede questionnaires

To check whether or not the Hofstede scores were representative for our research group we asked our subjects to fill out the VSM 94 questionnaire. Since the scores are relative to one another (Netherlands vs Vietnam) Hofstede indicates one can add a Constant at the moment a score is below zero or above 100. The constant can be a positive as well as a negative number. Next to making it possible to shift the value between 0 and 100, it does not affect the comparison between the countries.

Vietnamese respondents				
Formula	Score	Constant	Score	Hofstede's score
$PDI=(-35 \times 2,2)+(35 \times 2,55)+(25 \times 3,13)-(20 \times 2,95)$	32	54	86	70
$IDV=(-50 \times 2,48)+(30 \times 2,54)+(20 \times 2,69)-(25 \times 2,28)$	- 51	104	53	20
$MAS=(60 \times 2,33)-(20 \times 2,28)+(20 \times 2,98)-(70 \times 2,39)$	- 14	53	39	40
$UAI=(25 \times 2,92)+(20 \times 3,25)-(50 \times 3,30)-(15 \times 3,02)$	-72	159	87	30
$LTO=(-20 \times 2,79)+(20 \times 3,03)$	5	39	44	80

Table 4: Results Vietnamese participants Hofstede questionnaire



<b>Dutch respondents</b>				
Formula	Score	Constant	Score	Hofstede's scores
$PDI=(-35 \times 2,27)+(35 \times 1,94)+(25 \times 2,47)-(20 \times 3,31)$	-16	54	38	38
$IDV=(-50 \times 2,08)+(30 \times 2,25)+(20 \times 2,76)-(25 \times 1,71)$	-24	104	80	80
$MAS=(60 \times 2,31)-(20 \times 1,78)+(20 \times 2,51)-(70 \times 2,75)$	-39	53	14	14
$UAI=(25 \times 2,29)+(20 \times 2,27)-(50 \times 3,25)-(15 \times 3,18)$	-108	159	51	51
$LTO=(-20 \times 2,80)+(20 \times 3,04)$	5	39	44	44

Table 5: Results Dutch participants Hofstede questionnaire

We see that there are differences in the original scores of Hofstede and the scores of our subjects. Especially, UAI seems to be the opposite of what Hofstede found. The difference of the scores on IDV between The Netherlands and Vietnam are smaller than the original scores, but the difference still seems to be present, so therefore we will still be able to test our hypotheses.

### **Language & interrater reliability**

To make sure language was no problem, we conducted the research with 2 Vietnamese subjects, in which we asked the first subject to first execute the coffee corner case in English and next in Vietnamese. The second subject was asked to do this vice versa. In both cases, the results showed significant similarities: respectively 65% causation vs 63% causation with subject 1 and 75% causation vs 73% causation with subject 2. Cases therefore could be executed in English.

Interrater reliability was found to be 82% in general after coding was done by 2 independent judges on 4 protocols, where we assumed the overall coding should be showing similar results.

### Total use of causation vs Effectuation

The results of the case were compared with the outcome of the questionnaire we constructed on the basis of the work of Dew (2009). This questionnaire gives an idea about the frequency of causal and effectual logic used in setting up their company. It was expected to see similarities in the dominance of causal logic, or effectual logic over the other between the outcome of the questionnaire and the results of the case. In the results of both the questionnaire and the case, nine out of ten Vietnamese entrepreneurs used causal logic more than 50% of the time in both the questionnaire and the case. Therefore it can be said that the case gives a good representation of the use of causal and effectual logic by a novice entrepreneur conducting the case.

Now we can conclude that language does not affect the outcome of the case, and the results of the questionnaire showed that the outcomes of the case correspond with the general behavior of the entrepreneur in its own company we continue with the comparison. First, a comparison is made between the overall use of causal reasoning and effectual reasoning. This is depicted in figure 10 which shows that, in our sample, Vietnamese entrepreneurs use causal reasoning 68% of the time, while they use effectual reasoning 32% of the time. For the Dutch entrepreneurs this is respectively 57% and 43% of the time. In general this means that Dutch entrepreneurs are less focused on causal reasoning than their Vietnamese counterparts.

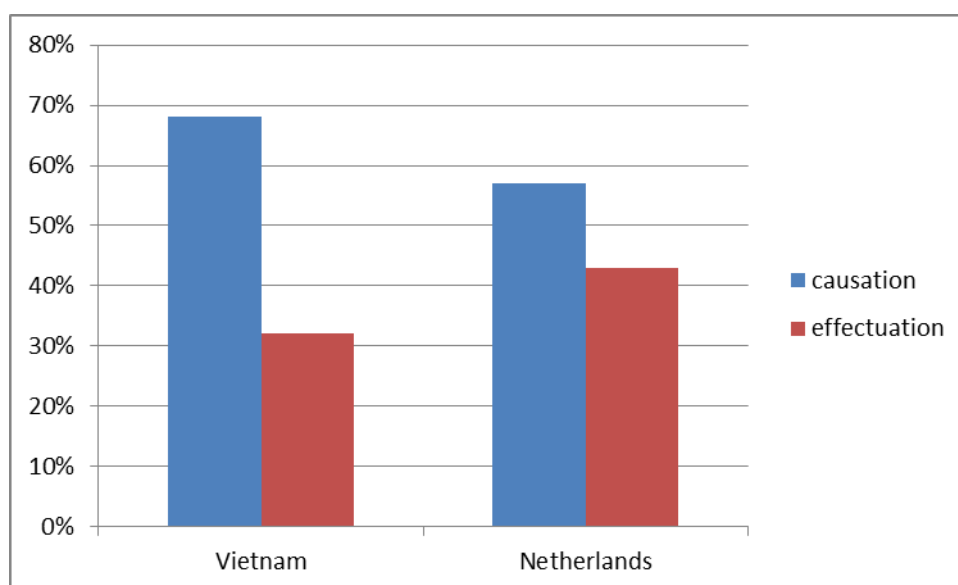


Figure 2 Overall scores Vietnam & Netherlands on causation vs effectuation

Figure 2 shows that Vietnamese entrepreneurs in general more often use causal reasoning as compared to their Dutch counterparts. For the effectual elements this is the other way around. Per category, we found the results shown in table 6.

<b>Causation</b>	<b>G</b>	<b>R</b>	<b>B</b>	<b>K</b>	<b>P</b>	<b>Z</b>	<b>X</b>
Vietnam	94%	20.5%	56.9%	45.8%	94.5%	95.8%	78.7%
Netherlands	51.8%	56.6%	50.6%	60.9%	64.9%	75.3%	46.7%
<b>Effectuation</b>	<b>M</b>	<b>L</b>	<b>A</b>	<b>E</b>	<b>C</b>	<b>D</b>	<b>N</b>
Vietnam	6%	79.5%	43.1%	54.2%	5.5%	4.2%	21.3%
Netherlands	48.2%	43.4%	49.4%	39.1%	35.1%	24.7%	53.3%

Table 6 Percentages of instances used within categories

To test whether these differences are significant or not, a two-sample t-test for the difference between means is used to derive a 'p-value'. When the p-value is smaller than 0,05, the difference is significant which results in a rejection of the hypothesis (i.e.  $H_0: \mu_{\text{Vietnamese}} - \mu_{\text{Dutch}} = 0$ ). The t-value and p-value of all the elements are shown in table 7.

	<b>G</b>	<b>M</b>	<b>R</b>	<b>L</b>	<b>B</b>	<b>A</b>
<b>T-Value</b>	-1,67	-4,88	-3,62	0	-1,96	-2,95
<b>P-value</b>	0,1055	2,8E-05	0.0010	1	0.0592	0.0058
	<b>K</b>	<b>E</b>	<b>P</b>	<b>C</b>	<b>Z</b>	<b>D</b>
<b>T-value</b>	-2,58	0,13	-0,41	-2,79	1,17	-2,19
<b>P-value</b>	0,0391	0,8967	0,6875	0,0089	0,2494	0,036

Table 7 T-values and P-values categories

## CONCLUSION AND DISCUSSION

On the basis of the outcomes and our analysis, we will now see which of our hypotheses are accepted.

### **Hypothesis 1**

*The more individual a culture is, the more focused on expected returns the entrepreneur will be.*

Dutch novice entrepreneurs score 56,6% on 'expected returns', within the element 'expected returns vs. affordable loss'. This is higher than their Vietnamese counterparts, who score 20,5% on 'expected returns'. This makes Dutch novice entrepreneurs focus more on the causal element, which is in line with the hypothesis. To check the significance of the difference, a t-test is conducted for the 'expected returns' element. The p value is 0.001. With a  $p < 0.05$ , there is a significant difference between the two means. Therefore hypothesis 1 can be accepted.

### **Hypothesis 2**

*The more individual a culture is, the more focused on competitive analysis the entrepreneur will be.*

With 56,9%, the Vietnamese novice entrepreneurs score higher on the element of 'competitive analysis' as the Dutch novice entrepreneurs who scores 50,6%. This is not in line with the hypothesis. It was expected that the Dutch, who are more individualistic, would use more causal logic on this element. Due to this figure hypothesis 3 can be rejected. After conducting a t-test, a p-value of 0,0592 is derived. Because  $p > 0,05$ , there is no significant difference between the two means.

### **Hypothesis 3**

*The more individual a culture is, the more focused on exploration of contingencies the entrepreneur will be.*

Considering table 7 Dutch novice entrepreneurs are more focused on ‘existing market knowledge’ compared to Vietnamese novice entrepreneurs. On the ‘existing market knowledge vs. exploration of contingencies’ element the Dutch score respectively 60,9% and 39,1%. Their Vietnamese counterparts score respectively 45,8% and 54,2%. This is not in line with the hypothesis. Due to these figures hypothesis 4 is rejected. The t-test, which is conducted to check whether there is a significant difference for the ‘exploration of contingencies’ element has a p-value of 0.8967. With a  $p > 0,05$ , there is no significant difference between the two means.

#### **Hypothesis 4**

*The more individual a culture is, the more focused on non-predictive control the entrepreneur will be.*

Dutch novice entrepreneurs score 35,1% on ‘non-predictive control’, within the element ‘predictions of the future vs. non-predictive control’. This is higher than their Vietnamese counterparts, who score 5,5% on ‘non-predictive control’. This makes Dutch novice entrepreneurs focus more on the effectual element, which is in line with the hypothesis, since the Netherlands is a more individualistic country opposed to Vietnam and is using more frequently effectual logic within this element. The t-test, which is conducted to check whether there is a significant difference for the ‘non-predictive control’ element, has a p-value of 0,0089. With  $p < 0.05$ , there is a significant difference between the two means. Therefore hypothesis 5 can be accepted.

#### **Hypothesis 5**

*The more individual a culture is, the more (marketing) research will be distrusted by the entrepreneur.*

With a score of 4,2% on the element ‘distrusting research’, the Vietnamese novice entrepreneurs score lower than the Dutch novice entrepreneurs who score 24,7% on this element. This is in line with the hypothesis, since the Netherlands is an individualistic culture. The t-test, which is conducted to check whether there is a significant difference for the ‘distrusting research’ element, has a p-value of 0,036. With  $p < 0.05$ , there is a significant

difference between the two means. Therefore hypothesis 5 can be accepted.

Analysis of the think-aloud verbal protocols suggests that Vietnamese entrepreneurs prefer an causal logic over a effectual one. For our Dutch entrepreneurs, this seems to be the other way around. We have found that the influence as Hofstede found is also present in the way entrepreneurs go through the processes of starting their business.

## **DISCUSSION**

At this point in time, alternative research designs are discussed. Using the scale of Chandler et al. (2011) to directly measure effectuation resp. causation cannot be used one on one in the context of potential entrepreneurs. If we would use Sarasvathy's method on the sample of potential entrepreneurs and Chandler's (2011) method on the sample of experienced entrepreneurs, results could become more clear on whether or not culture has influence on both groups of entrepreneurs. This is a point to further explore. Also, the research using Hofstede's (2001) dimensions can be extended. We thereby should have a careful look at the VSM-questionnaire vs original scores; are they actually measuring the same?

Next; our results seem to not hold for the starting phase. Novice entrepreneurs from both Western and non-Western countries, regardless of how long they have had their own company, the type of company, what their educational background is, their age and whether or not they were men or women, all seem to follow a causal approach in the start-up phase. So; national culture overall is influencing decisions, which especially for later phases of developing the new venture becomes more apparent, but not in the early stages. This implies that culture only has a limited influence on how the processes evolve.

## **LIMITATIONS**

Unfortunately, there was no time to analyze more data in detail as we did with Vietnam. At this time of writing, there are first indications that the findings for Vietnam are reflected by the results of Indonesia and Malaysia, where we, in preliminary data, also saw that entrepreneurs show a more causal approach. Bearing in mind the fact that the dimension of IDV has a similar score for Indonesia (14) and Malaysia (26) in comparison to Vietnam (20), this is even

more prove of the influence of culture.

Former East bloc countries Poland and Macedonia as well as Mexico also show a more causal approach in the preliminary findings. Again, also these countries show similar scores on IDV in comparison to Vietnam. But when compared with the first results from Germany, which scores similarly on IDV in comparison to The Netherlands (resp. 67 and 80), we see more effectuation in the protocols.

More research is currently executed in Canada, Russia, Hungary, China, Sudan, Iran and the UK. Results are not available at this time.

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