

Louvain School of Management

CULTURE'S IMPACT ON DECISION-MAKING PROCESSES

**DOES NATIONAL CULTURE INFLUENCE
DECISION-MAKING PROCESSES USED BY
MANAGERS IN MULTINATIONALS?**

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Academic year 2018-2019

I would not have been able to come so far if it wasn't for all the people who helped and supported me throughout this challenge that was this master's thesis. I would like to express my gratitude to Mrs Malcourant and Mr Lejeune for their constant support, helpful comments and availability throughout this journey.

A special thank for Bernard Geenen and Irina Tikhonova for helping me to get the contacts of several interviewees, as well as all the other people that helped me or did their best to try and share their network with me.

I would especially like to thank Mrs Makela, Mr Brouhns, Mr Klucsik, Mr Voros and Mr Washer for gratefully accepting to share their knowledge and experiences with me.

It goes without saying that I'm very grateful to my closest friends and family for an ongoing and extremely important moral support during this long journey.

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1 INTRODUCTION

It has been 50 years since Globalization induced the start of an economic and cultural bang. Before the 1970s, this word did not really mean anything. Today, one can observe the ramification of this event and its impacts on everyone's life. The individual learned about it as soon as foreign food, resources, services or technologies came and disturbed his way of living and consuming. However, at the source were companies seeing opportunities and engaging contact with other cultures across the globe to make that all possible.

From that point onwards, managers have been dealing with increasing challenges like different languages, values, habits, procedural specificities, etc., that always follow new opportunities. However, it was nothing compared to the gigantic treasure lying ahead in new markets. Those challenges just mentioned, have only sparked interest for the last 20 years. Since then optimization and efficiency have been key. Followed more recently by the well-being of employees as an important criterion for organizations (becoming more and more important for companies' performance).

At the core, are managers. Their tool is making decisions. Hidden behind their decisions, is their thinking processes replying to the question: how to make the right decision? Understanding these processes, is what we want to know. Not only do we want to understand, but we also want to put it in relation with all these cultures so different from one another. Does a manager in Belgium have the same decision-making process as an American manager?

Does culture influence manager's decision-making processes?

The latter is going to be the core of this thesis. As for the culture, a separation between business and national culture is necessary. This why a focus on national culture is done. Thus, the research question becomes:

Does national culture influence decision-making processes used by managers in multinationals?

The study to be led involving interviews with managers from the two biggest multinationals in their own sector (Solvay Group and Microsoft Corporation), will enlighten the literature from its results.

To do so, we will start by getting to know the work of authors, academics and executives who wrote about decision-making processes, as well as the approaches to decision-making and the different views that exist. Some of the authors are known across the globe such as Simon,

Lindblom, Pfeffer, Huber, but also Mintzberg or Gigerenzer. While others are less. The most difficult is going to summarize the most relevant theories, while being sure that they can still be applied today, and thus potentially be a vector for the analysis.

Afterwards, developing culture and its two components (at least, the two interesting us) of national and organizational culture is the best way to introduce the practical part and the research itself, already aforementioned. The core author being Hofstede, is going to be hard not to stick only to his studies to show the diversity of literature that exists in the field.

The end of the research should provide with more information to the literature about this specific organizational behavior, and provide managers working in multicultural environments new tools and knowledge about how their counterpart think. Facilitating exchange of information, reducing misunderstandings and providing managers with a new vision, will empower smaller as well as more influent managers.

2 REVIEW OF LITERATURE

2.1 DECISION-MAKING PROCESS

2.1.1 DEFINITION

What do we know about decision-making? Except from the fact that we all do it either unconsciously or consciously? Based on logic alone, we can deduce that we use a process to make a decision among a finite number of opportunities (e.g. cereals or bread over breakfast), and then ultimately reach an outcome, which is the decision that we make. An appropriate and simple answer given by the Cambridge Dictionary to the question: “what is a decision-making process?” is simply stated as, “the process of making choices, especially important choices” (Cambridge University Press, 2019). This definition is correct, but not accurate enough. It is less detailed as it is not coming out from a specialized and business-oriented literature.

An intermediate definition proposed by the Dartmouth University of Massachusetts in order to help their students find their major is the following: “the process of making choices by identifying a decision, gathering information, and assessing alternative resolutions.” This is part of a larger picture in which they describe the steps leading to making a decision. In management, a lot of time is wasted thinking about decisions to make. However, they cannot be taken abruptly, so choices have to be made according to a certain process (Dartmouth University of Massachusetts, 2019) (Juneja, s.d.):

1. Define the problem, or the nature of the decision to make
2. Gather relevant information and relevant data
3. Identify all potential alternatives and use of constructs if needed
4. Weigh the impact of each decision and try to picture out their outcome
5. Choose among the alternatives, the one that *seems to be the best for you*
6. Take action
7. Review your decision and its consequences

If your decision has not met your expectations, start over choosing the *right* decision. We will not open the question of “what is the *right* decision” or “what is *best* for you,” rhetorically or philosophically because this is another topic, and requires a lot of attention. However, this is still to be kept in mind.

To sum up and close this definition assessment; decision-making (DM) process is, in an organizational perspective, done by professionals to improve, make an organization more

efficient, or make it better than it previously was. This activity does not follow a “stop-and-go” approach. This is an ongoing activity undertaken by decision makers and impacting all levels of the organization. Since it is vital and might directly impact the organization, its members and stakeholders, it requires solid scientific knowledge from intellectual minds, as well as maturity, experience and a set of skills sharpened over the years (Juneja, s.d.).

2.1.2 THE IMPORTANCE OF DECISION-MAKING IN AN ORGANIZATION

When consulting the literature about decision-making, one will quickly notice how often this action is taken as a process (Gigerenzer, 2011). We then refer to as a decision-making process. The question arising is then, why is there a need for a process? As each decision happens in a different context, as all parameters are never exactly the same, repeating the same decision again and again would not make any sense. Thus, to understand the way we do and should react to an opportunity, both economists and psychologists turned to this field of study in order to find the answers. The likes of Barnard C., Simon H., Buchanan L. and Mintzberg H. are some of the most important authors having released theories about decision-making, while criticizing them too. Some of the authors in the literature are actually both economists and psychologists, as the two fields are so intertwined, that they go by pair. As Simon said: “In recent years there has been considerable exploration by economists even of parts of this domain that were thought traditionally to belong to the disciplines of political science, sociology, and psychology” (Simon, 1979, p. 343).

Decision makers don't come up with solutions to opportunities for no reason. There have always existed problems that needed to be solved, and a supposed randomness of events making us incapable of predicting the future or course of actions. Randomness is also something we've been afraid of, and this is why economist of all times have tried to come up with formulas to predict randomness. People like Gauss with the bell curve to understand the occurrences of random events, or Blaise Pascal and Pierre de Fermat developing the concept of calculating probabilities for chance events, are few of them (O'Connell & Buchanan, 2006).

Decision-making is thus the instrument we use, in order to maintain this fragile equilibrium. Therefore, the decisions made have to be the most adapted for each environment, or the disorder will prevail, and companies will render inefficient, not profitable or suffer from lack of growth.

Furthermore, decision-making in organizations is important for several reasons:

- » It is a tool used to implement *managerial functions* (scheduling, organizing, directing, ...)
- » Gives the possibility to choose among different possibilities, the best *alternatives*
- » Based on the decisions and linked outcomes achieved, one can evaluate the *performance* of decision makers
- » Without it, no policies, plan or strategies can be made, as there are no plan people can choose of, no *planning* ever realizable.

This is true for any level in the company, and for any kind of decision (strategic or routine, unprogrammed or programmed, major and minor, individual and group, policy and operative).

2.1.3 WHAT FIELD DOES DECISION-MAKING BELONG TO?

The concept of decision-making being put down, we can now explore the different angles taken by the greatest economists, psychologists, sociologists, mathematician and researchers in the organizational behavior field, concerning the process of making decisions.

In his book *Principles of Economics*, Marshall A., describes economics as a psychological science:

“Political Economy or Economics is a study of mankind in the ordinary business of life; it examines that part of individual and social action which is most closely connected with the attainment and with the use of the material requisites of wellbeing. Thus, it is on the one side a study of wealth; and on the other, and more important side, a part of the study of man. For man's character has been molded by his every-day work, and the material resources which he thereby procures, more than by any other influence unless it be that of his religious ideals.”

(Marshall, 1920, p. 2)

The explanation is that in 1920, psychology and economics were very close on some matters for which researchers were not very much looking into. Economic science was mainly focusing on the reason of the man. It was a matter of how his reason and thoughts were impacting his choices, his way of solving resource allocation problems. In other words, it had to do with his psychological mind frame. To support this assertion, we can take a few words from Mason and Friedman, who said that any inquiry on the social human behavior is not part of economics, unless it contributes to that objective in a major way.

However, after 1920 considerable work and studies by economists have emerged on this subject, that was thought to belong to psychology, sociology and political science. People like Kreitner, Chase, Das & Teng, Cohen or Olsen to name a few. They are now the father of theories about decision-making in organizations, in economics but also in politics. Even though the subject seems to belong to the psychology field, economists led research on the subject. Showing that even if solutions brought by decision makers and the processes they follow to do so, is from another field of study, economists could also have something to bring.

Economists of the decision-making field are focused on *how* decisions are made, rather than *what* decision to make. Creating normative models is an argumentative discipline, letting room for discussion and for trying to find out what theory is the “best” (Simon, 1959). While psychologists, sociologists and else focus on what decisions do people make, which is a descriptive approach of decision theories.

To sum up, decision-making researches belong to all the fields bringing information and new approaches to the subject. The distinction we could do now, is whether these researches are normative or descriptive. Further in this paper will be explained a few approaches used to study decision-making processes, in which normative and descriptive factors will be further discussed.

2.1.4 HISTORIC

The history of modern decision-making finds its roots with Pascal and Fermat, two of the most famous mathematicians. In 1654, they came up with a calculus we all learn about very soon in business studies: the expected value theory. At the beginning used for gambling, this theory consists in multiplying probabilities of events, with their outcomes (Gigerenzer & Gaissmaier, 2011).

A 100 years later, the Swiss mathematician Bernoulli came up with an evolved theory: the expected utility theory. He focused not on the probability of the events to happen, but on our fear or not of a certain event to happen. He was the first to take into account people specific personalities and financial circumstances in his theory. It has then evolved and matured in many areas. For instance, the moral behavior, motivational behavior, and a lot more were modeled after this very same theory (O'Connell & Buchanan, 2006).

It is in the middle of the 20th century, that the term *decision making* was formally used for what it was by Chester Barnard, in the organization sphere, as a phrasing to replace and gather the terms *resource allocation*, and *policy making* (Barnard, 1938). *Decision* meant that it was time

to act and stop thinking endlessly about how to allocate these resources or making policies over and over again. Barnard is the first to “lay the foundation for the study of managerial decision-making” (O'Connell & Buchanan, 2006, p. 1).

The use of heuristics is something that has always been around but was really founded by Herbert A. Simon as from the 1940s, and helped a lot in the game theory, and in the evolution of theories of the field (Gigerenzer, 2011). He also was the first to stop following the perfect rationality of agent theory, by questioning the assumptions made about human behavior, calling them unfounded and unrealistic (Gigerenzer & Gaissmaier, 2011). This is when he came up with the *bounded rationality* theory (further explained in the next section). Real advances in risk theory came within and between World War II and the Cold War. First with Frank Knight and the differentiation between *risk* and *uncertainty*, and then the game theory by John von Neumann and Oskar Morgenstern, taking into account an agent's decision being influenced by other people's choices. However, they still believe in the fact that agents act rationally and if presented with a choice to make, will consistently make the same (Zionts, Wallenius, & Koksalan, 2011).

In the 1950s, research will lead to the first computer-based support decision tools, by the MIT and the Carnegie Institute of Technology. Followed by the creation of the SWOT matrix by Learned et al., for choices that need to be made in time-sensitive scenarios and complex circumstances (O'Connell & Buchanan, 2006).

2.1.5 BEHAVIORAL MODELS AND VIEWS IN DECISION-MAKING

All these models are explained quite briefly compared to the whole literature linked to these matters. However, in order not to overwhelm the reader and to give fluidity to the work, the explanations will not be excessively detailed.

It is also good to know that in the (relatively) recent theories are based a lot on trying to grasp the complexity of the human behavior, as it is “essential to comprehend the nature and origins of human intuitions to understand the intricacies of decision-making “ (Key & Kingston, 2002).

The classification of these models is based on Turpin & Marais (2004); Das & Teng (1999), Huber (1981) and Lyles and Thomas's (1988). The reason is that they cover the most

important theories in the literature, and it follows a pattern: from the most structured, to the most anarchical.

2.1.5.1 THE RATIONAL MODEL

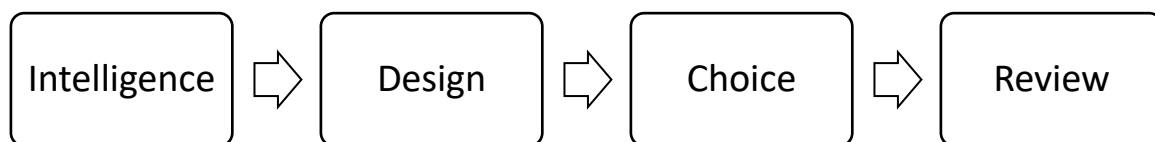
The rational model of decision-making is the first and oldest one. It was a predominant model in the early 20th century and introduced by Chester Barnard in his famous book *The Functions of the Executive*.

Called theory of the firm, it assumes a *perfect rationality* of the decision maker, as well as *complete information* (do not mistake with perfect information). Complete information is one of the first behavioral assumptions of the agent that we now study in Economics classes, making it easier to replicate the consumer behavior for instance, and predict it. This assumption tells us that the agent, has access to any information at any time. Concerning the perfect rationality of the decision maker, people tend to make decisions in their interest, by maximizing their utility defined by their preferences, and given the limited resources available (Turpin & Marais, 2004).

In perfect rationality, the agent can put a value, or utility, on each choice. Being rational, he will choose the option that gives him the highest expected utility (because the decision didn't occur yet). Other relevant assumptions on the agent, maker of decisions, are (Turpin & Marais, 2004) that 1) he knows about all the other possible alternatives; 2) is aware of their impact for each one of them; 3) has a set of preferences for these outcomes, and 4) he is able to compare these impacts, and tell which one he prefers.

The process in itself is shown in Figure 1.

Figure 1. Rational Model of Decision-Making



Note. Adapted from “Decision-Making: Theory and Practice” by Turpin, S. M. & Marais, M. A. (2004).

With strong assumptions such as perfect rationality and else (which is mainly the reason of its critics), the model of rational behavior is becoming easier to read with this 4-step model, even

though a 7-step model (see Section 2.1.1.) is also used but is basically the same idea only more detailed.

It all starts with *intelligence* or finding the moment or opportunity to make a decision. *Design* is the step focusing on how the development of a solution will occur. It means coming up with potential decisions that would solve the situation which needs a choice to be made. Among all these potential answers one should make a *choice* and select one action. Ideally and to be fully rational, the action chosen would give the higher utility to the *decision maker*. Lastly, a *review* and assessment on the choices made in the past and see if a different course of action is now preferred, or not (Turpin & Marais, 2004).

In the last paragraph, it was mentioned how decision makers preferred to make choices giving *them* the highest utility. The problem is, what if the actions taken were to be made for an organization? First and foremost, a description of what rational behavior would look like in group decisions seems important to be developed.

In the rational model for organizations, the decision-making process is the same. Except, that agents (e.g. managers in the organization) will make decisions in on behalf of the organization, not for themselves. The unit of analysis is the Organization. That is by definition the very essence of *Organizational Decision-Making*. All precedent steps, criteria and assumptions staying the same, it subsequently removes the problem of an agent maximizing his utility as he now is considered as an organizational unit. Even though the agent still has personal goals, the decisions taken will still be coherent as it is fulfilling the company needs (Huber, 1981).

Heavily criticized by academics later in time (more details in the following sections), this model shows some weaknesses. Mainly, it calls for (Simon, 1979):

- » Complete knowledge about the outcome of each potential choice to assess
- » Ability to compare the resulting utilities from the outcomes
- » Being completely sure of the decision maker assertions

The problem is that these conditions are not always met in real life, and when it is the case, we need another model. Furthermore, since its publication, the rational model of decision-making went under heavy criticism from many different fields (psychology, behavioral economics, executives, ...). However, this is thanks to this very same model that theoreticians were able to develop all the other models of decision-making that follow.

2.1.5.2 THE MODEL OF BOUNDED RATIONALITY

Herbert Simon, an American economist, sociologist and Nobel Prize winner of Economics in 1978, came up with the model of bounded rationality. This model is the first theory to take into account the human behavior as it is, which the previous theory wasn't doing. Thus, when uncertainty and outguessing are high, the classical theory does not resist, whereas the model of bounded rationality does, because more stable and working in a non-competitive equilibrium environment (Simon, 1979).

Furthermore, Simon noticed that the classical theory of perfect rationality was subject to failing to explain empirical observations. It was impossible for this classic model to explain how decisions were made more accurately than what the bounded rationality theory was already doing, without being able to describe the human behavior. The perfect example is game theory, where the classic theory doesn't hold.

The assumptions of this model are:

- » The manager is rational, but is limited by the amount of available information, and his cognitive capacity
- » Choices made don't have to be optimal

These assumptions imply that other criteria need to be filled if the optimality does not prevail. Indeed, this model is characterized by two criteria: *searching* and *satisficing* (Turpin & Marais, 2004). The manager *searches* for alternatives (which for the rational model, would instantly be known by the decision maker) and evaluate them. Then, if one of them meet some minimal criteria previously fixed (also called *aspirations* of what they should be by Simon), then the choice is said to *satisfice*, the search is over, and the decision can be made.

The model of bounded rationality served as a basis to create the theory of the firm. Theory aiming at explaining how processes were functioning inside this *black box* that is the organization (as seen by the economic theories). In such a theory, which we will just oversee because this is another topic of conversation, the top management is the institution setting goals for the entire organization to follow. These goals are then processed through the top and lower management, and assessed for approval based on the financials availability, and another measure (impact assessment) assessing how would these targets improve the organization (Cyert & March, 1992).

According to different authors (Teng & Das, 1999) (Huber, 1981), the rational model and the bounded rationality are not that different, as they still assume the rationality of the agent (Turpin & Marais, 2004). Lots of other critics have been made on the model, but as they are focused on details and applications not explained in this section, we will not evoke them. Note that the works of Richard Langlois, 1990; Nicolai J. Foss, 2001; G. Barros, 2010, show some very informative critics.

2.1.5.3 THE INCREMENTAL VIEW

When alternatives are hard to discern, and satisficing doesn't work anymore, and this is where the managers start using incrementalism. The rational incremental view, or *muddling through with a purpose*, or *disjointed incrementalism* was conceptualized in 1959 by Charles E. Lindblom, an American professor of economics at Yale University. This theory, yet very simple, is not for gathering data, apply the model, and have an objective completed. It is called *muddling through*, and later *disjointed incrementalism* (Lindblom & Braybrooke, 1963) (Lindblom, 1979), for a reason: the process is repeated endlessly because of change in condition (as the goal is only expected to be achieved partially) and would only stop if the forecasted impacts of the decisions made are totally accurate (Lindblom, 1959). Simply put, this is a step-by-step process of incremental actions performed, while simultaneously keeping the strategy open to adjustment. The model also assumes a very low control over the environment compared to rational models (Etzioni, 1967). When facing complex issues, more recent studies suggest decision makers to consider and focus on a small number of alternatives, consequences, and the minor changes when following an incremental process (McDaniel & Driebe, 2001). This way, the cost of making a choice is minimized. Furthermore, it enables to change the course of action, if unexpected consequences come up, while there is still time to do so (Bugajenko, 2017).

Lindblom's model was put into the spotlight by contemporary theorists, thanks to three very modern and ahead of its time characteristics of his model in 1979 (Saint-Martin & Allison, 2011):

1. The fact-value dichotomy is an illusion

Lindblom thinks that things we know are true and personal preferences, are intertwined. Debate dominating social sciences from the mid-seventies onwards.

2. Humans are limited by their cognitive capacities

Lindblom is here directly putting himself against the rational model, exactly like Simon's model of bounded rationality. Moreover, it is interesting to notice that behavioral economics were not even a field. Lindblom was ahead of his time.

3. Experience and practice have a huge impact on the decisions to be made and the solutions considered.

Concept very close to the idea of policy inheritance from Rose (Rose, 1990).

The *disjointed incremental* model follows an *a posteriori* rational policy-making view, meaning that it is impossible to define nor understand all the variables affecting a decision. It is very well suited for policy-making, because it needs small continuous changes and implementation (Bérard, 2011). In most other situations, it will not work as well because decision-makers will usually settle for good-enough options, instead of solving the problem in its whole (Bugajenko, 2017). A very simple example is given by the academic author in the article "The Science of Muddling Through" (Lindblom, 1959), where he exposes the decision to take and the ramification of impacts when trying to keep a steady level of prices. It is also a more practical model, aiming at explaining how to make strategic decisions (Rees & Porter, 2006). His model of disjointed incrementalism is based on five main ideas (Lindblom, 1959), and supplemented by other stratagems in his other paper (Lindblom, 1979).

The simple process of *disjointed incrementalism* has been explained above, but not its characteristics (Etzioni, 1967) (Bérard, 2011):

1. Focus of the decision maker only on policies incrementally different from already set policies
2. Very few alternatives per policy is studied & only a few important consequences are evaluated for each policy (mainly based on experience)
3. The problems that the decision-maker face is redefined each time he faces a new situation, with new choices to make (incrementalism enables infinite relations between, ends and means, or means and ends adjustments, making the problem easier to manage).
4. No decision is the perfect one for decision makers, as there are infinite potential ways of attacking the problem and providing a response through different ways of analyzing it. Their only goal is to go forward in the right direction.

5. As such, incremental decision-making is used to handle and solve current situations, concrete issues for instance on social imperfections, rather than providing long-term social goals.
6. The analysis is fragmented among the different participants, as all political groups have divergent interests and produce different information.
7. As said before, this is an *a posteriori* rationality, in which decisions will arise from negotiations that will please each party around the table

Alison and Saint-Martin added that another important defining characteristic of incrementalism, is the easiness of a general agreement between different stakeholders. Even though their goal is different, they can agree that a decision is better than another in a collegial way, thanks to their experience (Saint-Martin & Allison, 2011).

A few years after Lindblom's last paper on his theory, James Quinn then brought major changes and additions to the latter. The sub-model it became, is the ***logical incrementalism***. His model suggests a rational planification in the decisions and the process followed to make decisions in organizations. There is a rational process of decision when choosing for a strategy in order to find the best one, and a rational thinking when implementing the strategy (Rasheed & Rajagopalan, 1995). According to Quinn, this process is also conscious and proactive, because of planned and centralized coordination. All the decisions taken with the logical incrementalism process take into account other factors in the strategy such as psychological, political and informational needs of organizations (Quinn, 1980). It also adds an intentional and rational logic to the model originally from Lindblom. This is why, the rationality is not *a posteriori* anymore, but *a priori* as there is already a goal the decision maker wants to reach, and it existed before he took the decision.

To make it simpler, a table developed by Rajagopalan & Rasheed in Appendix I makes the comparison much more distinctive based upon six characteristics: organizational contextual factors; nature of the environment; structure of goals and values; process of coordination; operational goals; support mechanisms and domains of applicability (Rasheed & Rajagopalan, 1995).

Lindblom was quite transparent about the critics on his model, this is why he enumerated the three most important flaws of incrementalism (Lindblom, 1959):

- » Important consequences are not taken into account
- » Other important policies are neglected

- » The effect on other values is not taken care of

2.1.5.4 THE MIXED-SCANNING APPROACH

Short before the second version of Lindblom's theory of incrementalism, Amitai Etzioni came-up with a model that is actually a mix between the rational model and the *muddling through* of Lindblom, the *mixed-scanning model*.

This model is supposed to be more effective than these two models according to Amitai Etzioni. First, instead of requiring too many details than what the decision-maker needs to make decisions, mixed-scanning limits the details required to make important decisions, thus reducing the unrealistic aspect of the rational model. Furthermore, it aims at having a long-run approach rather than step-by-step decision process with incrementalism. In a nutshell, the mixed-scanning model articulates:

“High-order, fundamental policy-making processes which set basic directions; and incremental ones which prepare for fundamental decisions and work them out after they have been reached” (Etzioni, 1967, p. 386).

Etzioni's idea was that in some situations, people needed to act before they think, like Weick (Weick, 1979) (Etzioni, 1986). The five distinctive characteristics of the models are (Tarter & Hoy, 1998):

- » Organization's policies lead the way for potential incremental decisions
- » Good decisions are consistent with policy
- » The actions taken are experiments, reversible, limited and close to the issue
- » Having uncertainty and limited information are not exceptional, it is normal
- » Following a strategy determines future actions by mixing experience, successive comparisons and theory

There are also two other advantages to use this model over Lindblom's: there are no structural assumptions hidden; it provides a strategy not only for decision-making but also for evaluation and follow-up. This model has a flaw: there are only a few quantitative studies and cases existing to support the idea that switching from a rational or incremental model to a mixed-scanning model would be more efficient (Etzioni, 1986).

2.1.5.5 THE POLITICAL MODEL

The political model tells us that decision-making is not rational, and neither are the managers/decision makers. This model assumes a pluralistic environment with different actors,

goals and views. The model is based on conflict resolution (Chaffee, 1983). This is why executives are driven by their personal agendas and objectives, which might conflict with those of other decision makers. Therefore, bargaining processes frequently occur to make the best out of everyone's demands (Pfeffer, 1981). As such, we can assume that agents would be ready to do the impossible to get their views adopted, such as manipulating, negotiating (as aforementioned) or exerting his influence and power to weigh in the debate. In these conflicts, the preferences of the most powerful prevail (Stone, 2002). However, it is done to satisfy one's self-interests, and not his organization's as a whole. Thus, the question arising is: "Could it create a principal-agent problem?" The principal-agent problem, which actually is a moral-hazard problem, occurs when an agent's incentives are not aligned with his principal's objectives (the principal being the one creating the environment in which the agent will take decisions for both of them). It is principally a responsibility of the principal to ensure that the agent will follow the guidelines, by offering him the right incentives (Kenton, 2018). It goes without saying that the political model cannot be activated under two participants. An agent alone, has no competition, thus no conflict with anyone. With two agents, one mainly overpowers the other, the latter being able to sometime win the debates on critical matter (Chaffee, 1983).

The section started stating that the rational model and the political model of decision-making were not similar. In order to better grasp all the differences between them, we will draw a comparison based on a few parameters for which they differ on, based on Huczynski's work in Table 1. Table which could be summarized by quoting Huber on organizational decisions:

"Organizational decisions are consequences of the application of strategies and tactics by units seeking to influence decision processes in directions that will result in choices favorable to themselves." (Huber, 1981, p. 3)

This table expresses some information already explained above in the section like the goals, power and control, and information use. We learn, that whereas the rational model is all about optimization, a political agent will let the forces of the market express themselves, as the conflict is the base of the theory. Furthermore, the latter model expects disagreements to occur, resulting in a winner/loser situation, while a rationalistic agent knows what is going to happen as he is omniscient, and believes in efficiency (Huczynski, 2004).

One of the main drawbacks of this model is that it does not provide any provision for a "super goal" that would transcend the agents, making them chose this one over reaching their own

selfish targets. Another one is the unpredictability of the outcome the agents are going to agree upon, and this very same outcome could not even serve the interest of any of the participants (Chaffee, 1983). Last but not least, the political model is explicit on the fact that the most influent and powerful of the agents will prevail (as aforementioned). However, if participants were to have more power than others, or would be colluding instead of competing, then the suppression of discussion, alternative views and the less powerful would result, according to Lindblom (Lindblom, 1977) (Child, Elbanna, & Rodrigues, 2010).

Table 1. *Comparison of the rational and political model of decision-making based on organizational characteristics*

<i>Organizational characteristics</i>	<i>Rational model</i>	<i>Political model</i>
<i>Goals and preferences</i>	Consistent across participants	Inconsistent, pluralistic within the organization
<i>Power and Control</i>	Centralized	Decentralized shifting coalitions and interest groups
<i>Decision process</i>	Orderly, logical and rational	Disorderly, characterized by push and pull of interests
<i>Rules and norms</i>	Norms of optimization	Free play of market forces, conflict is legitimate and expected
<i>Information</i>	Extensive, systematic, accurate	Ambiguous, information is used and withheld strategically
<i>Beliefs about cause-effect relationship</i>	Known, at least to a probability estimate	Disagreements about causes and effects
<i>Decisions</i>	Based on outcome-maximizing choice	Result of bargaining and interplay among interests
<i>Ideology</i>	Efficiency and effectiveness	Struggle, conflict, winners and losers

Note. Retrieved from *Influencing within organizations* from Huczynski, A. (2004). Published by Routledge.

2.1.5.6 THE GARBAGE CAN MODEL

The garbage can model (GCM) of decision-making is a process we could consider as pragmatic and partially based on chaos, or chance as some says. The model highlights the roles of timing and luck in organizational choice (Eisenhardt & Zbaracki, 1992) (Huber, 1981). It considers that decisions taken in organizations are done so in an *organized anarchy*. It assumes a plurality of goals, views and actors in the environment, just like the political model aforementioned. However, it differs from the latter because it doesn't assume that agents will deliberately manipulate others to reach their goal. Instead, decision-making in organizations is fragmented and chaotic by default. Also, individuals change their minds because they don't have preferences, which makes analyses impossible to be conducted as a target is impossible to define (Eisenhardt & Zbaracki, 1992).

First, what is an organized anarchy? Three properties are characterizing them (Olsen, Cohen, & March, 1972) (Eisenhardt & Zbaracki, 1992):

1. Problematic preferences
 - » Putting clear preferences on a decision rather than another is difficult in an organization. It is more about an inconsistent balance of preferences rather than satisfying some requirement for a theory of choices.
2. Unclear technology
 - » Processes of the organization are not fully understood by its members. Thus, although the organization survives, it is more due to failures and learning than a real understanding of if functioning.
3. Fluid participation
 - » Decisions made in the name of an organization, depends on the decisions made by its members. However, as there is a continuous flow of arrivals and departures among the personal, the resulting decision makers for any choice will capriciously change.

Now that we understand what an organized anarchy is, we can get a better grasp of the theory of the garbage can model of decision-making. The model is famous for the following sentence, summarizing the whole concept:

“An organization is a collection of choices looking for **problems**, issues and feelings looking for decision situations in which they might be aired, **solutions** looking for

issues to which they might be the answer, and **decision makers** looking for work” (Olsen, Cohen, & March, 1972, p. 2).

A resulting decision taken is the outcome coming from interpretations between many different flows of the organization:

- » Problems
 - It encompasses problems of the organization, but not only. Are included personal problems of participants, their work environment situation, families, etc.
- » Solutions
 - Outcome after a decision makers' choice
- » Participants (or decision makers)
 - Non-consistent in- and out- stream of participants as explained above
- » Choice opportunities
 - Behavior and response produced by and organization, called a decision

To understand the processes in organizations, the choice opportunities can be viewed as the meeting point at which problems and solutions are thrown by participants, called the garbage can. When the decision is taken, the garbage can is removed, even though all the problems didn't find matching participants and solutions. Because decisions are completely in the hand of decision makers, they are the one generating the garbage and any resulting decision will be totally dependent on the people in the can composing the team of participants. The decision-making situation occurs when the right problem, find the right agent having the right solution at a choice opportunity. This is as much a consequence from rational calculation than chance. According to the fathers of this model, the latter can and should be used as a complement to other existing models (e.g. rational decision-making) (Cohen & March, 1986).

In the end, this model helps to understand the systemic interrelatedness of organizations. Also, the garbage can model is not a tool to explicitly resolve problems *per se*, but it gives the decision makers an array of choice to make and problems to solve, even if a lot of constraints occur (ambiguities, conflict, poor understanding of the situation, busy decision makers, etc.).

According to more recent academics, the model is only useful when trying to understand organizations' decisions as the outcome of a decentralized process within the organization. This is due to the lack of precision concerning the definition of the organizational goals or the rationality in organizations from Cohen, Olsen and March (Fioretti & Lomi, 2007). Other

drawbacks on which Olsen disagreed, is that the model is imprecise and too metaphorical. They mainly criticize the untapped potential of the theory (Bendor, Moe, & Shotts, 2001).

The garbage can model is more suited to be applied, although not clearly mentioned in the paper of Olsen & al., in public organizations rather than private firms (Hickson, 1987). In this sense, it is like the political and incremental model of decision-making aforementioned. Furthermore, and this will make the link to our next model, the GCM has been proven to be less followed by decision makers when deadlines were imposed. Meaning that under pressure, this model is not an effective model, or it would have been chosen (Weiner, 1976).

2.1.5.7 NATURALISTIC DECISION-MAKING

This naturalistic decision-making (NDM) process is a relatively recent approach. It focuses primarily on the natural context in which a decision opportunity takes place, or real-world decisions. It might seem strange, as all the other theories were based on empirical analyses and practical cases, but it makes sense. The other theories were trying to search for an optimum way of making a decision, in a certain world where we could control parameters, whence the assumptions (Klein, 2008).

Instead of building formal models and search for patterns for which optimality could be reached (what was done by researchers in all other theories), NDM researchers preferred to observe tough decisions made by humans under constraints such as limited time and information, instability, uncertainty or unclear goals (Orasanu & Connolly, 1993). The most well-known model is the *recognition-primed decision-making model* (RPD) by G. Klein and is the one at the center of our focus (even though there are at least 7 other models, but less accurate).

What Klein discovered during his research, is how humans were not focusing at all on models to make decisions, but rather on prior experiences to make judgments. Depending on the category in which the situation fell, they would follow a certain strategy without even having to compare it to other strategies, and by applying it very quickly as time is saved. These are the advantages that this model highlights. Its characteristics are (Bryant, 2002):

1. The decision maker will generate and assess different choices he could make, and decide of their acceptability
2. Choices are based on recognition, which means that executives will rely on the fact that they recognize the situation (familiarity), and if it matches some they already faced
3. Decision-makers adopt a *satisficing* criterion (see Simon's bounded rationality), thus it doesn't have to respect any optimality criterion like in all the other models.

More precisely, people will use their experience as a stock of patterns. Based on what they lived, how they reacted, the outcomes, the conditions, etc. people would react in a certain way (Klein, 2008). The model is followed if the situation is very close to one already experienced, of course, adapted to the parameters of the current moment of decision. If close enough but not exactly the same, the course of action will simply be adapted based on the information available to the executive and based on his expectations. If the choice they have to make doesn't *satisfice* their criteria (see Simon's notion of *satisficing* in the bounded rationality model) (Simon, 1979), they will change until reaching a decision making them feel comfortable. If the situation is new for them, they will search for any information to help them recognize it, or to create a hypothesis that could do as an explanation of the situation. Once this step achieved, the decision maker can use mental simulations to create expectations and test his idea, and then review if necessary (Bryant, 2002).

Here are a few key interesting features of this model (Klein & Klinger, 1991):

- » The first option coming to mind, is most of the time *satisficing* and not the fruit of randomness
- » Mental simulations are not thorough analyses
- » Focus on options and elaboration, not comparing all of them
- » Focus on the situation and not the potential impacts of the decision
- » The executive is under strict conditions demanding for a fast decision
- » Options considered are not the result of evaluations
- » Satisficing is not optimizing

Very simply, and because it is much more visual, here is everything that has just been explained in Figure 2.

2.1.5.8 PARTICIPATIVE DECISION-MAKING

The participative decision-making process (PDM) is different from the other theory for it does not highlight decisions taken as the results of one person thinking, but instead as a result to a collective gathering of information from more than one person leading to a choice taken. There are different theories of PDM that exists, but we will focus on three of the four theories in participation from the literature (Greenberg & Folger, 1983): the democratic, the human growth and development, and the productivity and efficiency. On the one hand, the democratic theory is, according (Dachler & Wilpert, 1978), a social phenomenon affecting the whole society and everything inside it (organizations, individuals, institutions, ...) and being affected by it. On

the other hand, the productivity and efficiency concept focus on “individual and intra organizational issues, restricting their conception of participation to a design technique of management or to the organization meant to alleviate some dysfunctional problems within organizations” (Dachler & Wilpert, 1978, p. 2).

This work being focus on decision-making processes of managers in organizations, the second model is more interesting and applicable. However, as we are also going to evoke the national culture. It might be interesting to bring to light this democratic theory as it could potentially be a characteristic of one’s nation, reflecting back on the processes used by decision makers in a certain country.

The human growth and development perspectives views participation as a tool to use in order to overcome the debilitating effect that organizations traditionally have over their members. It assumes a need of self-actualization (people being active, capable of self-control, having diverse behaviors and long-range perspectives). According to this theory, organizations are in search of efficiency, job specialization and have a stressed workforce doing repetitive tasks. The organization is seen as limiting the personal development of the workers, endangering the well-being of its employees but also its own economic efficiency and stability (Dachler & Wilpert, 1978). This is why this theory argues for empowering employees through “job rotation, management of objectives and participation” (Dachler & Wilpert, 1978, p. 7).

Concerning the productivity and efficiency perspective, the literature informs us that these two criteria are actually the only and sole purposes of the organization, and for which participation is used. Nonetheless, as said by the authors “One can speak of productivity and efficiency rationale underlying participation, in that it conforms to a paradigm which seeks an instrumental understanding of human beings and their capacities, and in which people are considered to be manipulable toward maximum output through appropriate social technologies” (Dachler & Wilpert, 1978, p. 8). Participation is seen as a social science technique to be used against the social costs of the workforce (dissatisfaction, reduced efficiency and lack of commitment) in order to increase satisfaction and productivity (Dachler & Wilpert, 1978).

Even though participation seemed to be a win-win situation, it still needs to be proved that it was empirically affecting performance and satisfaction. What resulted from a study of Cotton et al. is how performance was positively impacted by different forms of PDM: participation in work decisions, informal participation and employee ownership. Also, satisfaction is impacted

positively by informal participation and employee ownership. Thus, some forms of PDM (short-term participation, consultative participation, representative participation) don't have a positive impact on performance and satisfaction (Cotton, Vollrath, Froggatt, Lengnick-Hall, & Jennings, 1988). We therefore have to make a clear distinction of the models used, because following one or another might lead to different outcomes, which have to be controlled by picking the right strategy.

2.1.6 MODELS WRAP-UP

If we think about all the models listed in this section, we are in right to ask ourselves: "Is there a best model for any decision taken in any organization?"

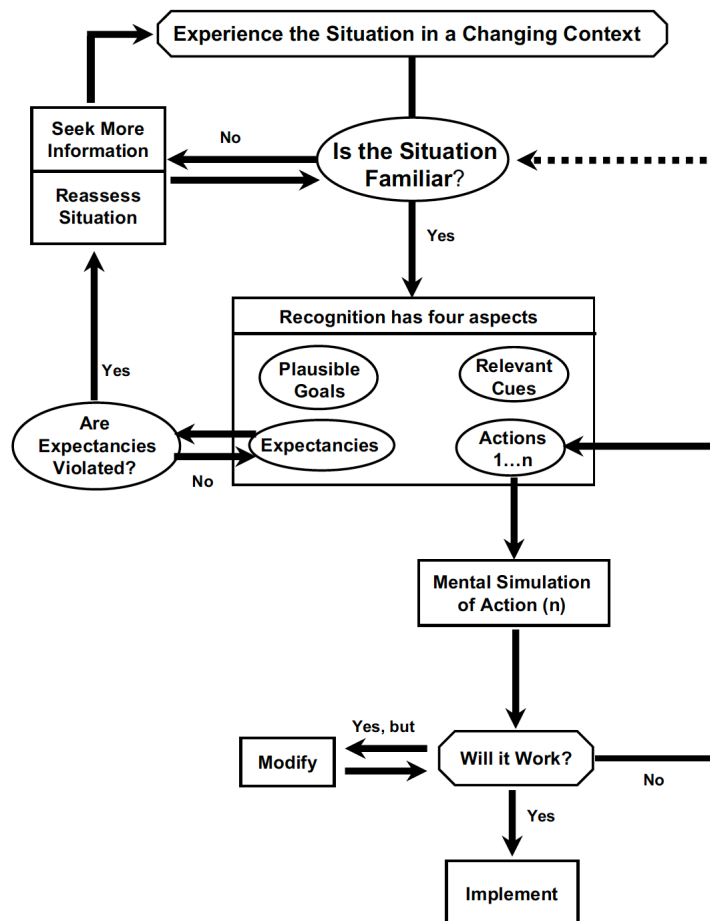
All the models aforementioned suffer from at least one flaw or another. However, what is common between all of them, is that the right model to apply is mostly situational. There is no one perfect model to apply all the time, giving you all the best decision sever. This is why a great knowledge of these models, as well as the ability to use them in the right situation is very important for organizations. According to Tarter & Hoy "One can make technically correct decisions, a fail to achieve the anticipated ends" (Tarter & Hoy, 1998, p. 213). This means that even though you might take the right decision, it is still possible that it does not work out in the end, showing how complex organizations are (Tarter & Hoy, 1998).

Moreover, let's think about Occam's Razor. On the one hand, this theory states that the more assumptions you give to prove you model right, the less likely the explanation given by the model will be proven true in reality (Duignan, 2014). This is partly why the rational model of decision-making has been so heavily criticized, such as the bounded rationality and the incrementalist approach. On the other hand, the fewer assumptions you give to your model, the more complicated it will be, especially to determine complex situations and parameters such as the human behavior. In this scenario, the use of parsimony is very important to make a trade-off between too complex, and too many assumptions.

Last but not the least, there are a lot of differences between theories and the reality of the field. Some have tried to compensate at best for their limits, others less. This is why, even though some have already been mentioned before, it is important to bear them in mind before going further. These limits and biases are mainly the incomplete information gotten by managers before making decisions, the ineffective communication that may arise within an organization, non-supporting environment because of vile competition among managers or because of the lack of support from the top management, the reluctance of subordinates to fill a task given,

and bad timing of a decision that should not be made based on internal (organizational) and external (environment) characteristics (Walters, 2017).

Figure 2. Model of recognition-primed decision-making



Note. From Decision-making in action: Models and methods. G. A. Klein, J. Orasanu, R. Calderwood, C. E. Zsombok, Editors. Copyright © 1993 by Ablex Publishing Corporation. Norwood, NJ.

2.1.7 APPROACHES TO STUDY DECISION-MAKING

There are different approaches to study decision-making. Only two of them will be explained further. First, Gigerenzer's approach via logic; probability theory; and heuristics. Followed by Mintzberg, H. with thinking first; seeing first; and doing first.

For Gigerenzer G., a German psychologist who studied bounded rationality and heuristics in decision-making, there are three approaches to study decision-making (Gigerenzer, 2011):

2.1.7.1 APPROACHING DECISION-MAKING WITH LOGIC

It has been very prominent since the beginning of Artificial Intelligence, and it is still used by psychologists believing that the only correct approach, can only be given by logic. One should be careful with the term “logic.” By this word, we don’t mean pure rationality, but common sense and logic deductions. Instead of weighing the pros and cons, trying to maximize and optimize to get the best outcome, we prefer to choose the option that makes the most sense, that is the most appropriate to a certain situation.

2.1.7.2 THE PROBABILITY THEORY DERIVED FROM BAYES’ STATISTICAL THEORY

Logic is not enough when there is uncertainty. Bernoulli was the first to truly set the premises of rational thinking, but this school of thought truly finds its roots with the rational model of decision-making of Barnard in the early 20th century.

Making optimized decisions by using the likes of the Bayesian laws of probability, Bernoulli’s model with the expected utility maximization, and any other rational model that ensue from these, is useful when you have a lot of data, and simple problems. However, these models differ in terms of assumptions even though also have the same goal of optimization of variables to give the best (depending on the theory) either maximum or minimum value expected. The choice has to be made taking into account a huge number of variables and potential outcomes (Gigerenzer & Gaissmaier, 2011). Such models might sometimes be the correct option to choose from, but not always.

The rational theories are normative, as opposed to nonrational methods being descriptive. This difference comes from the fact that the latter are concerned by the limits of human capacities, whereas rational ones assume an almighty human capable of a computational power far more superior to what the reality tells us (Gigerenzer & Gaissmaier, 2011).

2.1.7.3 USING HEURISTICS, THE MAIN NONRATIONAL TOOL

In a world where it is impossible to know all the risks, potential outcomes and optimization is truly unfeasible, heuristics are processes that partially ignore some of that information to make better choices. It can be made consciously or not. Heuristics in decision-making, means making

decisions based on routine thinking, and not a rational analysis enabling the agent to have all the cards to make a fully informed decision. Optimization is thus, not reachable, which is what almost always happens in the real world. This is what a nonrational theory is about. (Gigerenzer & Gaissmaier, 2011)

Heuristics aim at giving the opportunity of being faster when making decisions than step-by-step processing (used by rational theories of decision-making). However, by doing so inaccuracies and fallacies might happen. The most common fallacy with heuristics is to assume that a random event will be affected by previous random events (B2Bwhiteboard, 2014). This is simply not true, as pure random events are not conditioned by previous results. There is a 50% for a coin landing either on tails or heads. However, because it landed on the head the first time, does not imperatively means it will land on tail the next time. Such an error is disproved with rational thinking and step-by-step processes.

This approach also has other benefits to be used. In an uncertain world, Bayesian theories have their limits, as there are limits to being able to predict the outcome of each potential choice. Furthermore, tools are efficient processes in an uncertain world (cognitive laziness, attribute substitution, or fast and frugal theory), as they can solve problems fast and sometimes more accurately than complex optimization models (Gigerenzer, 2011).

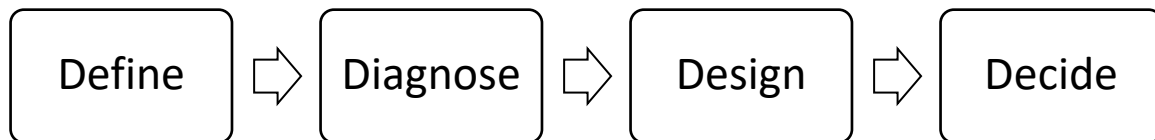
Mintzberg did see organizations through different lenses. Having been a long-time critic about the way management studies was nowadays conducted in the most famous business universities (Harvard, Wharton, ...) which were making zealous attempts to absolutely make management a science, harming the discipline itself so doing, he likes to simplify and popularize his findings to make them more understandable and accessible. This is why, his approach to decision-making is focusing around three dimensions (Mintzberg & Westley, 2001).

2.1.7.4 THINKING FIRST

This *Thinking First* model, is basically a rational process in disguise. Rational meaning that you first think, before acting as shown in Figure 2 (simpler model than the rational decision-making theory, and yet very similar). The rational approach is still empirically uncommon in a decision maker's life, and it is what Mintzberg wants to emphasize on. He asks the following question, "When stuck in a certain situation, how can such a process help in finding the right idea to sort it all out?" and for him there are two potential solutions (Mintzberg & Westley, 2001):

1. “Groping precedes zeroing in,” meaning that you can suddenly be struck with the idea, not knowing when it comes from.
2. “Choices looking for problems” (Garbage Can theory), as explained before, this is the idea of choices looking for problems, issues looking for decision situations to be solved, etc.

Figure 2. Thinking first process flow, also called rational decision-making process.



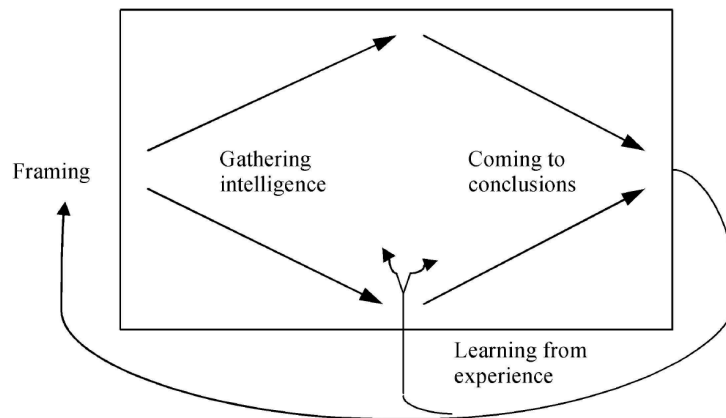
Note. Adapted from “Decision Making, It’s Not What You Think” by Mintzberg, H. & Westley, F, 2001. From the book “A Handbook of Decision-Making” by Nutt, P. & Wilson, D. (2010).

This process works best when the situation is similar as a production process, and it respects the following conditions (Mintzberg & Westley, 2001):

- » The issue is clear
- » Data is reliable
- » The context is structured
- » Thoughts can be pinned down
- » Discipline can be applied

The Figure 3 is a very similar representation of the *Thinking First*, except that it emphasizes on working on a problem from different perspectives to avoid making mistakes or solving the wrong problem. Furthermore, the conclusions cannot come from gut-feeling decisions taken, they have to be methodically analyzed in their entirety with pros and cons weighed (Schoemaker & Russo, 2001).

Figure 3. Framing, Gathering, Conclusions and Learning process

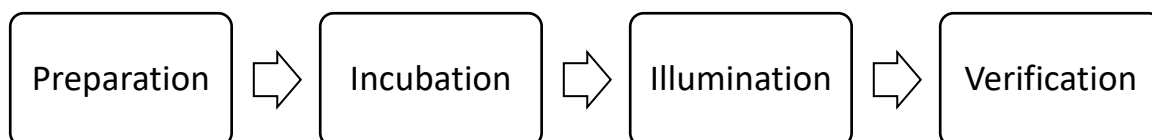


Note. Adapted from “Winning Decisions: Getting It Right the First Time” by Schoemaker, P. & Russo, J. E. (2002).

2.1.7.5 SEEING FIRST

The second model of *Seeing First* tells us that thinking isn’t prevailing over everything else. Instead it tries to give us a more realistic and real-life oriented approach. Decisions taken may be influenced by what is seen by the decision maker, and the creative ideas he might come up with (when luck strikes). Opening up, looking at the environment, seeing what others do not and realize what can be done, and by doing so it might help the decision maker in coming up with innovative thoughts, or solutions to some issues (Mintzberg & Westley, 2001). This *Seeing First* process model actually refers to an English academic who wrote « *The Art of Thought* ,» Graham Wallas, and the four steps this man believes leading to creative insights and discoveries (Wallas, 1926).

Figure 2. Seeing First process flow, or the creative process



Note. Adapted from “The Art of Thought” by Wallas, G., 1926, published by the University of Michigan.

What this process teaches us, is that *preparation* comes first. Preparation through knowledge acquired over time and openness is the foremost aspect in this process. This first step also encompasses the understanding of the problem, and the initial way one would analyze it. So,

starting by impregnating himself of the problem, and already gathering info to be able to understand and get to a solution by acquiring knowledge.

Secondly, there is a time span during which the decision maker will simply do nothing, no effort to solve it, and *incubate*. By doing (or not doing) so, Wallas noticed two things:

Voluntary abstention from conscious thought on any problem may, itself, take two forms: the period of abstention may be spent either in conscious mental work on other problems, or in some relaxation from all conscious mental work. The first kind of incubation economizes time and is therefore often the better. (Wallas, 1926)

Thus, a decision maker is affected by two forces, one of which is positive, the other negative for our idea creation situation. The positive one consists in a series of unconscious events or developments taking place in a brain, whereas the negative effect is that while not trying to think about the problem... We don't think about it and, so doing, don't find any solution (Popova, 2013).

Coming third and after the two initial steps have been completed, is the *illumination*. This consists in the basic spark of genius, like the Einstein's apple falling down the tree and Einstein's illumination on what it meant. The impact of the subliminal part of the mind, followed by "the connection between the seemingly unconnected" (Popova, 2013) leading to the resulting flashlight.

Last but not least, the *verification*. Unlike the second and third steps, this one is made consciously, like the *preparation* phase. The word is full of explanation in itself. It concerns the process of validating the idea by iterative adjustments until its final form becomes clear.

"In the daily stream of thought, these four different stages constantly overlap each other as we explore different problems. An economist reading a Blue Book, a physiologist watching an experiment, or a business man going through his morning's letters, may at the same time be "incubating" on a problem which he proposed to himself a few days ago, be accumulating knowledge in "preparation" for a second problem, and be "verifying" his conclusions on a third problem. Even in exploring the same problem, the mind may be unconsciously incubating on one aspect of it, while it is consciously employed in preparing for or verifying another aspect."

(Wallas, 1926, p. 18)

These 4 steps are intertwined and completely dependent from one another. This is what is beautifully explained by the aforementioned quote of Wallas.

Mintzberg's *Seeing First* category is best suited for situations like new product developments, and if (Mintzberg & Westley, 2001):

- » Creative solutions have to be found out of a gigantic amount of information
- » Commitment to the solutions is key
- » Communication across all departments and boundaries are essential

2.1.7.6 DOING FIRST

The last of Mintzberg's category is *Doing First*. When the two other solutions are not possible to apply, the only tactic left is to go get it. Doing so, one often believes that the situation will unlock itself all of sudden, giving some space for thinking and seeing to be done. This approach is the same as an experimentation or solving a situation in which you are stuck and have no idea how to get out of it. The process in Figure 3 (Weick, 1979) is the figurehead of the *Doing First* approach.

Figure 3. *Doing first* process flow, or the experimental process



Note. Adapted from “The social psychology of organizing” by Weick, K., 1979, published by McGraw-Hill.

Very simply, it means 1) trying and testing different approaches or methods to solve a problem when you know you're stuck. Exactly like an experiment for which you have no clue about how to do to get it solved. Among all the trials done, 2&3) keep those working while discarding all the other unfruitful methods. One must keep in mind that these repeated actions (or *Doing*) drive *Thinking*, because not only the opposite is true.

This process works best in a situation where companies are facing some disruptive technology, and if (Mintzberg & Westley, 2001):

- » The situation is new and confusing
- » Complicated characteristics would not help you
- » Only a handful of rules about relationship makes people move in the same direction

2.1.8 DECISIONS WITHIN ORGANIZATIONS

2.1.8.1 EXECUTIVE DECISIONS

This thesis being business-oriented, it seems logic to talk not only about all the different theories of decision-making, their evolution and assess them. It is also important to notice what are the different types of decisions that are taken in a real business life, by managers, or people whose decision has a relative impact on the organization or its stakeholders and members. Furthermore, effective decisions are rarely totally logical or rational, as they are supposed to be according to a popular rational thinking model.

Hereafter will be listed the different types of business decisions commonly made. One should be aware that each one of them could be tackled by a different thinking method, and unique decision-making styles (Jones, 2014).

The first one, are *strategic decisions*. These are mainly taken by the directors of the company because of the highest importance as they decide of the future and fate of the company. Taken in the area of Human Resource, Finance or Information Technology, strategic decisions set the target for all departments to follow accordingly.

After, comes the *administrative decisions*. Tools of the strategy are used to make the strategic decisions happen, translate into reality. They have to strictly follow the guidelines set by the strategic objectives; otherwise they will only undermine and not at all help the company achieve its targets.

Finally, there are *operational decisions* daily made at the frontline, by lower-level employees and managers, but are at the core of the business. They are mostly processes, procedures and guides set up by the company to help employees.

Here is a comparison of the different characteristics of each decision-type (Juneja, Strategic Decisions, s.d.).

Table 2. *Differences between strategic, Administrative and Operational decisions based on different organizational characteristics*

<i>Characteristics</i>	<i>Strategic Decision</i>	<i>Operational Decisions</i>	<i>Administrative Decisions</i>
------------------------	-------------------------------	----------------------------------	-------------------------------------

<i>Period span of decisions</i>	Long (> 3y)	Medium (<1y)	Short (daily)
<i>Taken in accordance with</i>	Organizational vision & mission	Strategic and Administrative decisions	Strategic & Operational decisions
<i>Related to</i>	Organizational planning & company growth	Production, resource allocation & operations	Employees work & welfare

Note. Data from strategic decisions definition and characteristics from Juneja, P., and Reviewed by the Management Study Guide.

It goes without saying that each decision taken in one or the other category is made by a decision maker with a different level in the organization (as explained above). Thus, these managers inherently face different issues and choice situations. A very straightforward questioning when thinking about this matter, is: As managers have different objectives and targets (e.g. period span; departments affected by decisions), the process of decision they use might or might not change depending on the level of importance of the decision maker. This is the hierarchy factor, and the influence one's position in the organization changes the way of making choices.

2.1.9 FACTORS AFFECTING DECISION-MAKING PROCESSES

Now that a database with all the decision-making processes has been created, one should pay attention to how could internal or external factors affect these processes. It is important to take them into account as in empirical cases it is nearly inconceivable to find people strictly following one process, and entirely. What might often happen, and this is what we are going to focus on later in the qualitative exploration, is that maybe managers are influenced and follow more than one process, by using little bits of each.

Important characteristics influence decision-making and their outcomes. Most of them are very hard to measure and are related to the personality of the decision maker. The important characteristics influencing decision-making can be found in Table 3 (Dietrich, 2010).

Table 3. *Characteristics affection decision-making processes*

<i>Characteristic</i>	<i>Comment</i>
Past experiences	As said before in the naturalistic decision-making process, the past impacts decision made in the future (learn and avoid repeating mistakes for example).
Cognitive biases	“Thinking patterns based on observations and generalizations that may lead to memory errors, inaccurate judgments, and faulty logic“ (Evans, Barston, & Pollard, 1983) (West, Toplak, & Stanovich, 2008). They include the biases of belief; hindsight; omission; confirmation (Dietrich, 2010).
Escalation of commitment & Sunk outcomes	People invest a lot of time, efforts and money into a decision to which they feel committed, and because of these sunk factors, they will even continue making risky decisions.
Individual differences	Socioeconomic status, age and cognitive abilities.
Belief in personal relevance	When one thinks what he decides is important, he will be more likely to take a decision.

Note. Adapted from “Decision-Making: Factors that Influence Decision Making, Heuristics Used, and Decision Outcomes” by Dietrich, C. (2010), from *Inquiries Journal*.

The five factors in this non-exhaustive list are directly influencing a manager’s capacity to make illuminated decisions. They might influence him in a good way (cognitive biases for heuristics) but also in bad ways (persistence to pursue a wrong decision by escalation of commitment) (Dietrich, 2010).

The behavior of the manager is very interesting to study. What is of interest is their communication and goals. For most, the objective of managers is to maximize the profits of the company, as they are agents of this very same enterprise and as such, should work in this sense (Simon, 1959). At least, this is what was common thought for as long as the theory of rationality of the agent prevailed. Already in the 60s, Shubik showed that the behavior of managers and directors was not going this way, not exactly. By analyzing hundreds of internal documents sent within companies (in the manufacturing industry), he redefined the goals of

organizations. His research led him to come up with a classification of the terms mostly associated with goals in the company, or the most relevant for firms. The classification goes as follows (Shubik, 1961):

1. Personnel
2. Duties and responsibility to society in general
3. The consumer
4. Stockholders
5. Profit
6. Quality of product
- ...

Profit is only the fifth most important goal (or at least the most mentioned), meaning that what drives them to make good decisions is not only the money the company can make out of it, but also for example the well-being of their personnel and the satisfaction of the consumer.

Nevertheless, the study was conducted in 1961, and only among manufacturing companies. This very specific scope and limited range of the company profile analyzed are not diversified enough for the results to be taken for granted in all companies. Moreover, in 1961 the manufacturing companies were very important, whereas in a service-based economy (at least in developed countries) the picture could be very different.

2.2 CULTURE AND DECISION-MAKING

2.2.1 NATIONAL CULTURE

Over the last 100 years, decision-making has evolved a lot. From being completely rational and making unreal assumptions, to modern theories reproducing at best the human behavior with the least assumptions as possible, a lot happened. Most of the evolution has been summarized in the previous part, and we no longer will focus on this in this section. However, a certain factor more and more under the spotlight these past years and especially since globalization started, deserves to be studied further. The aspect of culture is of utmost importance, especially for multinational firms having offices in different regions of the world. Seeing how few studies have been focusing on the aspect of national culture and its impact on decision-making among multinationals, it seemed like something very important to bring to the literature. Especially as the organizational culture has more and more importance (Alton, 2017). Putting these two concepts in relation with our models, will be the goal of the qualitative exploration done in the part two of this paper.

The concept of culture is a very broad and hard idea to grasp. To get a better hang of it, defining it is the first step. Culture is explained differently according to the source you get your information from. For the Cambridge Dictionary, culture is “the way of life, especially the general customs and beliefs, of a particular group of people at a particular time” (Cambridge Dictionary, 2019). Culture is thus, a set of beliefs hold by each subgroup of people in their region, evolving over time. For Hofstede, a renowned Dutch psychologist, culture is “the collective programming of the mind which distinguishes the members of one human group from another. [...] Culture, in this sense, includes systems of values” (Hofstede, 1984, p. 5). In his book, Hofstede doesn’t mention geographical specificities or time. He only mentions the social groups. However, we can still deduce that it also means groups from different regions, potentially migrating thus evolving over time. Culture is not the fruit of one individual, it is created by all the relationships one has with the people met during his life. Especially during childhood and adolescence, when the personality is being molded by experiences. This refers to the concepts of primary (what is learned in the familial group) and secondary socialization (what is learned outside of home, in contact with social groups) (Oetting, 1999).

Another important point to explain about culture, is that there is not one level of culture. In fact, culture is composed of several characteristics. We already talked about national and group culture in the previous paragraph. Certainly, culture is characterized by different layers. The

layers of culture Hofstede mentions in his books, are composed of national/regional, linguistics, ethnic, gender, religious, generation, social class and organizational culture (Hofstede, 1991).

Even though Hofstede is not the only academic coming up with theories about cultures (House, Kluckhohn, Trompenaars, Schwartz, etc.), his ideas are the most widespread and applicable in our case to a comparison between different nations. This is why he will take an important role in this work. As the research question of this paper is focusing on national culture especially, the term culture will from now on be associated with national culture. However, the difference will be explained in the following paragraphs.

These same characteristics aforementioned are classified in four different levels of culture, creating a hierarchy of cultural layers. The detail of these layers can be found in the Table 3 (Karahanna, Evaristo, & Srite, 2005). Classified from the broadest and most global (supranational level) to the most specific and numerous (group feature), this table is a very useful tool to have for managers living personal or business experiences with foreigners or people from different subgroups.

In a context of globalization, whose early traces can be found back in 1492 by Christopher Columbus and Vasco de Gama, but is more often associated with the global exchange of goods between countries starting during the 19th century with a “globalization bang” (O'Rourke & Williamson, 2002), globalized companies were destined to get in touch with foreign cultures. It has only been a couple dozen of years that culture seemed to be at the epicenter of business people's attention. Even though mixed population was already present way before. It goes without saying that whichever company expanding its activities outside its own national borders would sooner or later face some culture discrepancies or differences leading to potential business issues, making culture one of the central points to focus on when going abroad.

2.2.2 ORGANIZATIONAL CULTURE

Organizational culture (i.e. *business culture*; *corporate culture*) is defined by Schein as “the deeper level of basic assumptions and beliefs that are shaped by members of an organization that operate unconsciously and define in a basic ‘taken for granted’ fashion an organization's view of itself and its environment” (Schein, 1992, pp. 6-7). As much as we've mentioned *subculture* with Hofstede, Schein enounces the principle of *organizational culture* that arose with the principle of globalization mentioned above.

It is important to notice that organizational and national culture are very different. Not only in terms of levels of culture (Section 2.2.3), but because organizational culture refers to sociology whereas national culture is linked with anthropology. Thus, it is coherent to say that a company or its agents, can never change the national culture. However, he can create and change an already existing organizational culture (Hofstede, 2012).

In large organizations (multinationals as we will study them), subcultures emerge from differences in management styles, working environment and physical proximity. These differences might affect their own organizational commitment, resulting in performance differences (Khatib, 1996). However, no study has already shown if group culture was on the same level as national culture, deeper, or more superficial.

Earlier in this section, we mentioned the primary and secondary socialization processes. Now that we have more information about organizational culture, we are able to compare it to national culture on this aspect. National culture values are learned from a young age, mainly before 10, during the primary socialization period. These values are thus anchored in the behavior. However, organizational culture is learned doing the job in the company's specific environment, and a job change can happen fast (Hofstede, 2012). In other words, organizational culture doesn't define nor impact people on a deep level, whereas national culture does.

Being already able to compare national cultures based on the characteristics given by House & al. in the previous section, what we would also like to have is the possibility to compare organizations. The following classification presented in the Table 4 consists of different dimensions of organizational cultures, noticed by Hofstede. However, one has to note that these are characteristics concerning practices in different organizational cultures, and not in terms of values. Although it is not exactly a value-based comparison that we are going to lead, it is the closest proxy usable to analyze data gathered during interviews (Hofstede, 2012).

Table 4. *Dimensions of organizational culture*

<i>Organizational Characteristics</i>	<i>Definition</i>
Process-oriented vs. Result-oriented	Process-oriented cultures are dominated by technical and <u>bureaucratic routines</u> , results-oriented by a common concern for <u>outcomes</u> .

Job-oriented vs. Employee-oriented	The former assume responsibility for the employees' job <u>performance</u> only, and nothing more; employee-oriented cultures assume a broad responsibility for their members' <u>well-being</u> .
Professional vs. Parochial	In the former, the (usually highly educated) members <u>identify</u> primarily with their <u>profession</u> ; in the latter, the members derive their <u>identity</u> from the <u>organization</u> for which they work.
Open systems vs. Closed systems	This dimension refers to the common style of internal and external communication, and to the ease with which outsiders and newcomers are admitted.
Tight control vs. Loose control	This dimension deals with the <u>degree of formality</u> and punctuality within the organization; it is partly a function of the unit's technology, but even with the same technology some units may still be tighter or looser than others.
Pragmatic vs. Normative	The last dimension describes the prevailing way (flexible or rigid) of <u>dealing with the environment</u> , in particular with customers. Units selling services are likely to lean towards the pragmatic (flexible) side, units involved in the application of laws and rules towards the normative (rigid) side.

Note. Adapted from "National Cultures, Organizational Cultures, and the Role of Management," section by Hofstede, G. in the book "Values and Ethics for the 21st Century" by Boatright, John R.; Clarke, Thomas; de George, Richard T.; Carens, Joseph H.; Freeman, Edward R.; Frost, Mervyn; Hofstede, Geert; Kliksberg, Bernardo; Koslowski, Peter; Küng, Hans; Miah, Andy; Mitcham, Karl; Painter-Morland, Mollie & Schmidt, Reinhard H. Published by BBVA.

2.2.3 LEVELS OF CULTURE

With that being said, is one level of culture more important or has more influence on one's set of beliefs and actions? One might say that because the group culture, learned during the secondary socialization process, is experienced every day, it defines us better than the national culture which would be more of a broad trend or characteristic of a population. However, by saying that it would also mean that corporate culture being experienced every day, it makes it as important as any other type of culture.

In an organization, each agent has a different set of beliefs and behaviors classified in the different levels in the Table 5. An organization obviously wants to know if the supranational, national and group levels of culture are going to prevail over the organizational culture, which would not be ideal. According to research, the organization's culture is generally dominating any subculture that may exist (Khatib, 1996). However, according to Hofstede in a recent study, national culture and organizational culture's impact are not on the same level for the agent. Hofstede showed that organizational culture was linked to superficial practices, whereas national culture impacts people on a deep level: the values (Hofstede, 2012). Thus, they might not be so easy to compare as previously stated.

Table 5. *Levels of culture*

<i>Level</i>	<i>Definition</i>
Supranational	Any cultural differences that cross national boundaries or can be seen to exist in more than one nation. Can consist of:
1) Regional	
2) Ethnic	1) Pertaining to a group of people living in the same
3) Religious	geographic area
4) Linguistic	2) Pertaining to a group of people sharing common and distinctive characteristics
	3) Pertaining to a group of people speaking the same tongue
National	Collective properties that are ascribed to citizens of countries (Hofstede, 1984)
Professional	Focus on the distinction between loyalty to the employing organization versus loyalty to the industry (Gouldner, 1957)

Organizational	The social and normative glue that holds organizations together (Siehl & Martin, 1990)
Group	Cultural differences that are contained within a single group, workgroup, or other collections of individuals at a level less than that of the organization.

Note. Retrieved from “Levels of Culture and Individual Behavior: An Integrative Perspective”, by Elena Karahanna, J. Roberto Evaristo and Mark Srite. *Journal of Global Information Management* edited by Felix B. Tan. Copyright © 2005, Idea Group Inc.

After having explained the different levels of cultures, it seems logic to continue in these footsteps, and develop the different dimensions of culture (some of which being inspired by Hofstede’s cultural dimensions). Developed by House & al., the nine dimensions of culture enable a classification of countries by clusters, based on their similarities. It is composed of the following criteria and their description in the Appendix II (House, Hanges, Javidan, Dorfman, & Gupta, 2004). The criteria are assertiveness orientation, future orientation, gender egalitarianism, humane orientation, in-group collectivism, institutional collectivism, performance orientation, power distance and uncertainty avoidance. These will be useful when interviewing managers in multinationals to get to know the differences in culture between companies headquartered in different countries.

In Appendix III, you can find the clusters of each cultural dimension associated with the corresponding countries scoring the highest or lowest on each dimension. During the next part, the focus will be on the United States of America as well as Belgium. Belgium is in the regional cluster of Latin Europe, whereas the United States are in the Anglo cluster. As we can already notice, they score differently on various parameters. For example, the US score low in the *in-group collectivism* meaning that its inhabitants’ needs are a strong determinant of their behavior, which is actually more rational (House, Hanges, Javidan, Dorfman, & Gupta, 2004). Concerning Belgium, the score of the country is low in terms of human orientation. It means that their people prioritize their interests over others, and the state provides social and economic supports for its citizens (House, Hanges, Javidan, Dorfman, & Gupta, 2004).

2.3 REVIEW OF LITERATURE: CONCLUSION

In this first section, the theoretical background has been laid out to ensure a proper understanding of the next part. The theme of decision-making being very broad, the idea was to only talk about processes of decision-making. However, it was sometimes necessary to deviate from the core subject to talk about ramifications linked to our core theories. Always, with the objective of enriching the literature with consistent pieces of information relative to the future analyses.

The key takeaways are that practice on the matter had been living for millennia, but it has seen a resurgence of the interest to the field during the past 70 years. Consequently, very different models of decision-making were theorized. Some carrying a lot of assumptions, others based on very definite frameworks, and a few more modern taking different approaches. Then, with information on decisions, their cause and impacts, all the necessary theory on the theory itself was laid down.

The last part revolving around culture, explored what managers have to know to make sure that they understand the constantly challenging environment of globalization and the specificities of a job international organizations. This is where the line between national culture and organizational culture was important to draw, to better grasp and understand the position on the analysis led in the next section.

Despite the immensity of already existing theories and links between culture and decision-making, not even a handful of academics decided to focus on decision-making *processes* and national culture. Managers' styles, strategic decision-making or organizational culture are the main subjects tackled in the literature, which can make sense as this is what people can see, they can relate. However, decision-making processes are all about what is unconscious or unseen, how one behaves in order to make the final choice. Doing so, probably impacting his organization's internal and external environment. This is why studying this very thin link between national culture and this, could bring a lot to understanding how and why people are doing things elsewhere, and how it changes among countries.

In order to bring to light the impact of culture and assess how it changes among countries and industries, the question to ask ourselves is the following:

Does national culture influence decision-making processes used by managers in multinationals?

3 QUALITATIVE EXPLORATION

3.1 THE PROBLEM AND RESEARCH QUESTION

The world is now globalized. Managers and executives have to overcome local and global issues, as well as shocks of cultures between the corporate and individual national cultures in each country. In order to find leads for our answers, we decided to focus our thesis over whether or not *national cultures have an impact on decision-making processes used by managers in multinational organizations*. This work aims at giving executives in multinationals enough light over differences in cultures, and more efficient, appropriate approaches when dealing with foreign cultures. Do they have to adapt their processes when working in multicultural environments? It is another interesting question, for which our work might bring leads but will not try to answer.

3.2 METHODOLOGY

3.2.1 THE SAMPLE

Through these interviews, we are trying to get insights about how successful managers in multinationals are behaving in their own national culture, or how they are adapting their thought processes to new cultures.

The companies analyzed have been chosen beforehand and are Microsoft Corporation and Solvay Group. This choice was thought of. Microsoft is an American company globally active and has offices in Belgium. Solvay is a Belgian company and is also present across the globe. They have numerous offices and production facilities in the United States. This particular choice was made as it enables a fair cross-comparison between both national cultures (Belgian, American) and corporate cultures of two companies initially headquartered in two different countries (Belgium, the United States of America). This symmetry will strengthen the results of our analysis. Moreover, Microsoft is an information technology company, whereas Solvay's main business is chemistry. Gathering insights from two companies not having the smallest bit of business in common enables us to, maybe, certify the results of our study and give them more credit. If the results are the same, it might signify the standardization of the way managers adapt when dealing with diversity.

Last but not least, each organization is a leader in his own industry. This might be linked to the fact that they have been successful in globalizing their business, which is another criterion

thought of when choosing the companies as it would not have made any sense to interview managers working in non-performing companies. The link between performance and globalization has been frequently observed since it started years ago (Erixon, 2018).

When searching for interviewees, we figured that they should have a few characteristics in order to maximize the chance of having high-quality relevant information for our thesis. This is why we looked out for them having at least 5 years of experience in the companies aforementioned, in order for them to be aware of the corporate culture. Secondly, they should be leaders of at least two people, with a preference for multicultural teams. This criterion is used to filter managers with low-responsibility and highlight the decision-making power that the chosen ones should have. Third and last, more than 50% of the interviewees should have an international background (not especially in the same company). Having an international experience often helps to remove some cultural blindfolds that one might have by staying immersed in his own national culture (Meyer, 2014). Quoting Erin Meyer in her book gathering insights from experienced international managers “The way we are conditioned to see the world in our own culture seems so completely obvious and commonplace that it is difficult to imagine that another culture might do things differently” (Meyer, 2014, p. 244).

Six interviews were conducted for this research. In Appendix VI are described the information profile of the interviewees. Three of which work at Solvay, and three from Microsoft.

3.2.2 METHOD OF INFORMATION COLLECTION

To determine whether national culture had an impact on decision-making processes used, we decided to lead a qualitative research by conducting several individual interviews over the phone. Our objective is not to measure the impact of national cultures on actual processes used, but rather to see *if* there is an impact. Moreover, the sources used to get actual information and conduct a proper analysis all come from the interviews done with regard to the research. What we want to know, is how executives adapt their plan of actions when taking important decisions to relatively different environments, in a context with different norms, values and habits. We will want to be careful by separating national and corporate culture. The two of which might well be intertwined, as we will try to find out.

We used a qualitative approach instead of a quantitative one, because it enables us to find results not predetermined and, as above-mentioned, applicable outside of the limits of this study (Mack, Woodson, M. MacQueen, Guest, & Namey, 2005). Moreover, it allows more flexibility, which is justified as our research question is open and doesn't look for a

measurement of the impact studied. Lastly, the qualitative approach is used to get details about thought processes (Strauss & Corbin, 1998), which is exactly what we want to know by finding the decision-making processes used and how they might be varying when faced by other cultures. Miles & Huberman tell us that the qualitative approach has five characteristics: proximity to the phenomenon studies; richness of holism (the Man can be separated into different components such as psychology, physic..., and analyzed separately); evaluate the “why and how” of the situation; collect information about the meaning behind people’s reaction to events and processes (perceptions, judgments, ...); and develop hypotheses (Miles & Humerban, 1994).

Among the varieties of methods used in qualitative research (focus group, observations, individual interviews and action research), we decided to choose the individual interviews to gather information from executives in multinationals about the processes used, their past experiences and their perception of culture (Sutton & Zubin, 2015) (Quivy & van Campenhoudt, 1995). This method is fit for understanding social behaviors and cultural values (Strauss & Corbin, 1998). Which is what is needed to grasp the complexity of managers behaviors in multicultural contexts. All the interviews will be conducted over the phone, or through a videoconference software. They also will be recorded (if accepted by the interviewee) and will be transcribed (see Chapter 6: Interviews).

There are different types of individual interviews: structured, semi-structured and narrative interviews (Edwards & Holland, 2013) (Stuckey, 2013). We decided to go with the semi-structured interviews for several reasons. As we will have a limit of 30-40 minutes per interview (executives always being busy people), we need a structure to make sure that we have all the information we want to gather. At the same time, we also need some flexibility to keep some coherence and give the interviewee a real feeling that he is being listened to. Moreover, the goal of these talks is to have an exchange of information and experiences that is not constrained by a frame, so we need flexibility. This flexibility allows interviewer or interviewees to deviate from the set of questions defined *a priori*, and seek more information about a certain idea or response (Gill, Stewart, Treasure, & Chadwick, 2008). A semi-structured type of interview also enables us to do comparative and cumulative analyzes among the interviewees, and provides us with the possibility of adapting the interview guide depending on the subjects showing up during the whole interview process (Gavard-Perret, Gotteland, Haon, & Jolibert, 2008).

The interview guide above-mentioned, is divided in 6 parts. An introduction, preliminary questions, decision-making processes, national culture, organizational culture, and a wrap-up part. The complete interview guide is in Appendix IV. The 3 themes discuss (processes, national and corporate culture) are the core topics of our research and aim at gathering relevant information that will enable us to provide leads of answers with regard to our research question. The questions in these parts have been written down in the interview guide, yet each interview is different, and the questions might not always be asked in the same order, or exactly using the same words.

The search for candidates to contact, was done through all the following methods: LinkedIn, personal contacts, internship contacts and professional contacts, posts on social networks (Facebook, LinkedIn) related by several personal contacts, phone calls to offices and emails to mail addresses found online.

3.2.3 METHOD TO ANALYZE DATA

As already said before, we transcribed each one of the 5 interviews in the Chapter 6: Interview. This is the actual first step to process information, after collecting the data themselves. The average interview duration is of 37.5 minutes.

After transcribing and getting the green light from the interviewees about the interview transcript (they might want to make slight changes), we have to code the data due to the large amount of information and pages at our disposal, in order to find some kind of pattern (Lejeune, 2014). Meaning that we will first restructure the data into themes, and then reduce the quantity to extract the useful information. To do so and due to our numerous themes, we will use the software Atlas.ti which will serve as a useful tool to code and extract the qualitative data from the interviews. The code book can be found in Appendix VI.

For our analysis, we will use an inductive reasoning. It means that we will look at the interviews to come up with potential explanations and answers to the impacts of national culture on decision-making processes (Thorne, 2000). According to Mucchielli & Paillé (2016) and Thorne (2000), there are three strategies to process and later on, analyze, raw data obtained through qualitative research. The first one is the writing mode analysis. It consists in reading and writing, taking notes several times of the texts/transcripts until finally getting a complete understanding leading to the final report. Secondly, it is the analysis by analytical questioning. The researcher will, instead of writing, give him something to think about. He will question the data gathered until having answers, and then will eventually question these answers and so

on, until he finally reaches the problematic he was searching for. The last approach consists in understanding the underlying meaning of the texts by summarizing them in order to find out phenomena, categories or themes. It has three methods: *phenomenological* analysis (understanding what is happening as truly as it is happening by writing stories); *thematic* analysis (by creating themes, seeks to grasp the whole ideas); and analysis through *conceptual categories* (creation of refined categories that are not only descriptive, but seek to come up with concepts) (Mucchielli & Paillé, 2016).

As already explained in the introduction of this chapter, we are going to use the thematic analysis, in order to sort the responses of our interviewees by theme. We think this method can give us more room in order to better understand the cultural impact. The pre-defined themes chosen (that might vary and be complemented by others when analyzing the results) are : decision-making processes; national culture; and organizational culture.

Once the analysis and the conclusions done, we will submit them to our interviewees in order to get their approval, thus getting some plausibility for the conclusions' relevance (Lejeune, 2014).

3.2.4 LIMITS OF DATA COLLECTION

Qualitative exploratory research and the linked methods have a few drawbacks and limits. Only referring to data based on dialogs, instead of observing and having spontaneous talks (Allard-Poesi, 2015). Concerning the coding method used in this qualitative research, on the transcripts of the interviews gathered, Alvesson and Sköldbberg (2009) tell us about its inefficiency. According to them, coding methods cost a lot of hours of work, for results that are only the same as before, but just said in an other way (Alvesson & Sköldbberg, 2009). This limit echoes to Dumez (2013) critic on this method, stating it as circular. It means that when you decide beforehand of a code, your next steps and analyzes will be biased because of the resulting themes set and thus, will rarely deviate from the initial point of view (Dumez, 2013).

3.3 ANALYSIS OF THE RESULTS

There were 24 codes that had been created prior to the analysis section. Some of them represent different variations of one concept (e.g.: DM and DM-CR in Appendix 6). After processing all the interviews through this code, we noticed several things:

1. All the codes had not been used during the process because too specific. The following did not have any match in the process: PERC-NC=BC-MIC, FIT-MIC-US and INT-MANA.
2. The codes used were not always phrased in the best way, leading to losses of time and understanding when analyzing. To compensate, we went over the interviews three times to make sure no relevant information had been skipped.
3. Several bits of texts could be used in different codes, making the information repetitive even though analyzed under other criteria with different code.

In order to overcome these barriers, we decided to regroup these 24 initial codes, into 5 different themes and a total of 10 sub themes. The Table 6 below explains what the new themes created are, the sub themes and what prior codes make them up. This is also useful to use as a brief plan to the analysis to come.

Table 6. *Themes and sub themes composition*

<i>Theme</i>	<i>Sub theme</i>	<i>Initial codes associated</i>
Managerial decisions		POS
		TEAM
		MANA
Decision-making		
	In Belgium	DM
		DM-CR
	In the United States	
Organizational culture		PERC-BC-DM-SOL
	At Microsoft	PERC-BC-DM-MIC

	At Solvay	VAL-BC-SOL
	Impact on decision-making processes	VAL-BC-MIC
National culture		NC-BE-OWN
	In Belgium	NC-BE-OTHER
		NC-USA-OWN
	In the United States	NC-USA-OTHER
	Impact on decision-making processes	PERC-NC-DM-SOL
		PERC-NC-DM-MIC
Adaptation of business culture and national culture to each other		PERC-NC=BC-SOL
		PERC-NC/BC-SOL
		PERC-NC/BC-MIC
		FIT-SOL-USA
		FIT-SOL-BE
		FIT-MIC-BE

A few of the questions were also designed to better understand the position, tasks, responsibilities, team organization or company structure. The additional information is available in Appendix VII.

From now on, in order to avoid useless repetitions of the interviewees names as well as having more objectivity, we will call them: Matthew Voros as ITW1; Susanna Makela as ITW2; Michel Washer as ITW3; David Klucsik as ITW4 and Alexis Brouhns as ITW5.

3.3.1 MANAGERIAL DECISIONS

Each manager or director in both companies has a unique role amongst the interviewees. This role leads to different responsibilities from one person to another, different size of teams and business support relations, as well as different tasks. Based on all this information reported in Appendix VII, we are now able to determine to what category of managerial decision each of the interviewee can be linked to. Even though it might seem only informative at best, knowing

what the scope of their decisions is enables us to know how close they are from the decision center of the company. This information is useful if we want to know how close they are from dealing and having interactions with either Belgium or the United States. Furthermore, we can also know what the effective scope of the decision is they would make considering their position (strategic, operational, administrative). Thus, how important these are, and how important the process they use is relatively their audience.

The results in Appendix VII have been summarized in the Table 7 below. As one can see, the panel of interviewees is diversified in terms of functions (Appendix VII) as well as type of managerial decisions undertaken. We effectively have a third of the interviewees mainly undertaking administrative decisions and the same percentage for operational decisions. Only 20% are in charge of taking strategic decisions as their main tasks.

It is important to have some diversity in the panel of interviewees. First, the fact that their jobs are different (CFO, risk, governmental relations, ...) gives us insights about how people in different positions and different levels in the hierarchy of the corporations analyzed make decisions and how they perceive culture (in a broad sense here) at these levels.

Secondly, the information gathered about their team structure and people they refer to, is interesting in order to assess their *degree of global impact* and know whether they are or not, great sources of information for the culture aspect. As we can see in the Appendix VII, all of the managers interviewed are part of either a global business unit, work closely with peers around the world from other countries, or have multicultural teams. All of them are then global enough, for their answers to be taken into account and further analyzed.

In terms of diversity, we can also highlight the fact that we have in our sample, 3 different nationalities (Belgian, American, Finnish) working in two different countries (Belgium, USA). Note that all the interviewees also had previous experiences in other countries before getting to their current position. It was one of the criteria we wanted for them, in order to gather enough solid answers from aware and experienced managers.

Table 7. *Summary of interviewees' managerial decision scope*

<i>Interviewees</i>	<i>Managerial decisions</i>
<i>ITWI</i>	Administrative 90% - Operational 10%

<i>ITW2</i>	Administrative 90% - Operational 10%
<i>ITW3</i>	Operational 80% - Strategic 20%
<i>ITW4</i>	Administrative 20% - Operational 80%
<i>ITW5</i>	Strategic 100%

3.3.2 DECISION-MAKING PROCESSES

In this section, we are going to present the numerous processes of decisions used by each of the managers. The Table 8 represents the aggregation of their answers per country, while the Table 9 emphasizes on the decisions per company. Note that each decision-maker might use several decision processes for different needs and depending on the environment, which is why the aggregate number of processes will be bigger than 5 in total. This is why we will classify the processes used by category (respectively by country the company) in terms of utilization percentage. The most referenced processes will have the highest percentage. The percentage computed will be based on the number of times an interviewee has explicitly mentioned or implicitly referred to one process.

3.3.2.1 BELGIUM AND THE UNITED STATES

With these tables, we are now able to discern that the mixed-scanning and participative process of decision-making are actually the most referenced amongst our interviewees working in Belgium, whereas the rational model and the garbage can model were not referred to (explicitly or implicitly). It does not mean that these are the most used processes in all multinationals on Belgian soil, however they obtained the most references in the business scope studied. One can assume at first sight that these processes might be used more frequently in Belgium, in a multinational environment.

In the United States, the processes implicitly or explicitly mentioned are the naturalistic, bounded rationality and participative decision-making theories. All the other processes didn't seem to be applied among the interviewees. We didn't find a reason for that phenomena yet,

but it might be later explained thanks to some complementary information gathered in the sections 3.3.3.1 *Impact of organizational culture on decision-making processes*; and 3.3.4.1. *Impact of national culture on decision-making processes*.

We observe in the Table 8 that the naturalistic process of decision-making seems to be the most used among American managers. It means that they would rely more on previous experiences, company's policies and their own judgment to make a choice. An explanation to this phenomenon will be given in the section 3.3.4.1. *Impact of national culture on decision-making processes*, as information over national characteristics and culture are needed.

Based on the data gathered, we can assume that Belgium is a country where participative decision-making is frequent, and managers do not like to act individually (or acting individually is not perceived as being a good process by most of the managers). They prefer to make decisions based on collective opinions and exchange of ideas instead of following a strict hierarchical process and comply, as highlighted by ITW5.

“This preference for consensus means that we will try to find a solution that suits everyone's opinion. It also means that we will not turn to useless top-down management.”

(ITW5, 2019)

Even though it seems to be one of the most used process, it still has his advantages and disadvantages. The problem of this method is the slow-pace of the process (Interview I, July 2019) due to all the parties being consulted (ITW3, 2019), but what it lacks in decision-making speed, it makes up for it in speed of application (ITW3, 2019).

The naturalistic process comes in first place in Belgium. In order to explain why, we need to analyze more information. We will try to explain this feature in the section 3.3.4.1.

Table 8. *Decision-making processes used in Belgium and the United States*

	<i>Belgium</i>	<i>United States of America</i>
<i>Rational model</i>	-	-
<i>Bounded rationality theory</i>	16.13% (5)	28.57% (2)
<i>Incremental view</i>	-	-

<i>Mixed-scanning approach</i>	3.22% (1)	-
<i>Political model</i>	16.13% (5)	-
<i>Garbage can theory</i>	-	-
<i>Naturalistic decision-making</i>	41.93% (13)	57.14% (4)
<i>Participative decision-making</i>	22.58% (7)	14.28% (1)

3.3.2.2 MICROSOFT AND SOLVAY

On a company point of view, the naturalistic decision-making was by far the most referred to at Microsoft, whereas the participative and naturalistic decision-making processes were most popular at Solvay. We can already notice how the naturalistic process comes first in both companies.

With this information in mind, and as the responses of the interviewees seems to be consistent, it would not be a mistake to say that at Solvay, a real emphasis is held onto consensus and information sharing before making the final choice. Furthermore, the naturalistic approach looks to be core at Microsoft and Solvay, wherever the action is, as told by ITW2, a Finnish senior manager at Microsoft EU office (Brussels).

“The way I’ve done decision-making in this role and the way I’ve done it in my role when I was in Japan when I was leading a team there, is very much based on the Microsoft values and mission.”

(ITW2, 2019)

In the interviews of Solvay managers, we have seen how the company’s values were very important when making decisions. Even though they are considered as underlying to the policies of the company (ITW2, 2019), they still define a frame for the actions of managers to be “controlled” and as such, almost are as important as the policies themselves.

Table 9. *Decision-making processes used by Microsoft and Solvay*

	<i>Microsoft</i>	<i>Solvay</i>
<i>Rational model</i>	-	-
<i>Bounded rationality theory</i>	16.67% (2)	19.23% (5)
<i>Incremental view</i>	-	-
<i>Mixed-scanning approach</i>	-	4.35%(1)
<i>Political model</i>	-	19.23% (5)
<i>Garbage can theory</i>	-	-
<i>Naturalistic decision-making</i>	75% (9)	30.77% (8)
<i>Participative decision-making</i>	8.33% (1)	26.92% (7)

The question that arises is also what the criteria weighed for making decisions are. For the sake of the representation, and in order to focus only on multinationals no matter the country or the industry, we will gather the most important and representative characteristics mentioned by our managers and directors. The main ones are (ITW1, 2019; ITW2, 2019; ITW3, 2019; ITW4, 2019; ITW5, 2019):

1. Annual goals
2. Risks and benefits (not only financial, but also environmental for instance)
3. Missions, reputation and values of the company
4. Rentability (financial, physical, reputation, labour capital, ...)
5. Homogenized and standardized decisions

The criteria were pretty similar among the candidates. Even though some were more focusing on the environment or the values of the group. What we noticed is how linked were the criteria and the position of the managers in the group. The higher (thus more administrative and strategic) the position of one manager, the more focus on the company as an international whole he was (focus on values, missions, environment of the company).

3.3.3 ORGANIZATIONAL CULTURE

The organizational culture of each company will be analyzed in the light of the research done in both countries. However, we would also like to assess the type of organizational culture based on the Table 4: Dimensions of organizational culture, by Hofstede, G.. This shall be done once we have described the characteristics of each company, in the Table 10 that follows.

In the Table 10, we can see how Microsoft is a very principle-led and value-based company. Its values are universally enforced by its members and are key components of the organizational day-to-day operations and functioning. ITW2 tells us that the decisions undertaken by managers, or at least hers, come from the policy of the company which are value-based (see last section) and very intensively enforced at a top-level in the company, but also from office managers.

“I have to look for what the behaviors we value at Microsoft are, and how I can help the people who might need additional support to strengthen those behaviors and how we could get there. It starts from the culture, the values, and you reflect back on those principles. So, we are actually quite a principle-led company”

(ITW2, 2019)

Concerning Solvay Group, our collection of data shows more focus on adapting at a local level and working with local teams, while at the same time working as an international community. A real emphasis is held on the founder’s values transmitted from day one of the company creation. So as to know scientific curiosity, sensitivity towards societal benefits, and an entrepreneurial spirit. ITW4 working at Solvay US, summarized Solvay’s organizational culture in just a few words.

“[...] When you look at Solvay’s history, it’s a unique combination of entrepreneurial initiatives, scientific curiosity as well as a sensitivity towards societal benefits. I think that is completely consistent with what business should be, including here in the US.”

(ITW4, 2019)

Table 10. *Organizational culture characteristics of Microsoft and Solvay*

<i>Solvay</i>	<i>Microsoft</i>
Sensitivities to local issues, customs and cultures	Principle-led company
Communality across the world	Values come first, are timeless and universal (ex: trust)
Values are important and inherited from the founders	Values enforcement by top and middle managers
Sensitivity towards social benefits	Values always prevail on any piece of business
Look out for the communities' welfare and health	Strong ethical and societal values
Provide a baseline of benefits packages to employees around the world	The values you don't have are skills you can learn
Multidisciplinary teams (global units)	Values are the same everywhere in the world
Scientific curiosity	Importance of local cultures and adaptation of management to it
Entrepreneurial initiatives	
Strong values of inclusion, multiculturalism, integrity and respect	

As aforementioned, we will also briefly assess the organizational cultures dimensions based on the answers provided. In this Table 11, we sometimes do not have enough information to draw this “organizational culture ID” of each company completely. This is why some of the boxes are still blank. As we can see, the ID cards of both companies look very similar. It might have differed in the blank spot we left, but with the information we currently have, we cannot tell. Solvay and Microsoft, even though in two different industries and having to work with different

clients as well as stakeholders and in different environments, still keep some similar characteristics. These are for example how they feel responsible over employee's well-being, or the way employee relate to the company they are working for instead of their function, showing a strong link of trust between the members and their company, as well as everything the latter stands for.

Table 11. *Dimensions of Solvay and Microsoft organizational culture*

	<i>Solvay</i>	<i>Microsoft</i>
<i>Result vs. process</i>	Result oriented	Result oriented
<i>Employee vs. job</i>	Employee oriented	Employee oriented
<i>Parochial vs. professional</i>	Parochial	Parochial
<i>Open systems vs. closed systems</i>	/	/
<i>Tight control vs. loose control</i>	/	Tight
<i>Pragmatic vs. normative</i>	/	/

3.3.3.1 IMPACT OF ORGANIZATIONAL CULTURE ON DECISION-MAKING PROCESSES

In this section, we are going to analyze how the different business cultures that are unique to each company, affect the real-life decision processes of managers. Seeing as Solvay and Microsoft cultures are slightly different (Table 10), it is better to analyze each case separately.

Concerning Microsoft, we've already understood in the Table 10 that the core values of the company were the foremost and most important criteria on which to base his decisions as a manager. As such, we know that it eventually weighs a lot on the final decision to make, but we don't know how. ITW2 told us how important of a criterion the values were. We can assume that this characteristic is indubitably important, but doesn't modify the processes themselves, except in some exceptional cases where she told us that it could modify her process of decision-

making. In the following example she gave us, we understand how the values of Microsoft made her change her process from rational, to a naturalistic approach, by exercising her own judgement in the light of the company's values.

“I could have read the legal terms and conditions and said strictly speaking, the customer is not entitled to this because he doesn't specifically fall into the right scenario. But because of other circumstances around it, the customer obsession values would have been more important, and embrace that instead of the strict terms we had in the terms & conditions.”

(ITW2, 2019)

The other important factor was adaptation to the local national cultures. Which starts by the foreign managers adapting to the locals to show the example. Then the locals would adapt to Microsoft culture with potentially a few variations in the company's local value-frame to better fit the local norms (e.g. in Japan). This is also a criterion that weighs on the characteristics to take into account and evaluate when taking a decision. However, in some scenarios it could also impact the decision-maker process if the local culture is all for making decisions together for example (e.g. Belgium, as told by ITW3).

Solvay's business culture revolved around strong values inherited from the founders of the company as already detailed previously. Even though the values might slightly differ from Microsoft's, the analysis stays the same. The values and specific corporate culture of Solvay doesn't impact the decision-making processes, but rather serves as guidelines of the “good behavior” to have in order to fit in the company.

For both companies, there are penalties and punishments for those not respecting the values ((ITW2, 2019) (ITW3, 2019) (ITW5, 2019)). However, you are free to include them in your process the way you want it.

To conclude this section, we can say that corporate values don't seem to impact the processes of decision-making used in multinationals in most of the situations, with regards to the responses of the managers interviewed. However, the business culture offers a frame for decision-making in order to pick the right choice at the end of the process, which can in some extreme situations make the manager eventually choose another decision-making process. It echoes to what was said in the review of literature, when we said that organizational culture was linked to superficial practices (Hofstede, 2012). As we observed here, corporate culture doesn't impact on a deep level, but rather serves as a frame for decisions.

3.3.4 NATIONAL CULTURE

The national cultures of the United States and Belgium were initially coded by 4 codes. However, it now seems more pertinent to gather them two by two, in order to show a unified picture of these two countries and their specificities.

We gathered the national characteristics of each country in the Table 12. The similar or opposite concepts have been put next to each other in the table to make it more visual. We can already notice how few similarities there are between the two countries. The only ones we can highlight are informality and efficiency. However, not everyone seems to agree.

“At the end of the days, I would say that there are not that many differences [between Belgium and the US]. Even if there are some, there are more differences in terms of managerial culture between France and Belgium, rather than Belgium and the United States.”

(ITW5, 2019)

This point of view is not the same for everyone. Some tell us that there are no big differences of cultures between European countries, which directly goes against the quote above (ITW1, 2019) (ITW3, 2019)).

The dissimilarities between the two countries, on a managerial point of view, are for instance: a different rhythm in decisions-making, a different openness to the outside world, as well as different hierarchical structures and decision-making. There are also other criteria belonging to one or the other, but they might not be as relevant to analyze as these ones.

Table 12. *National cultures of Belgium and the United States*

<i>Belgium</i>	<i>The United States</i>
	Strong business spirit
Openness to diversity (as part of EU)	America centered
Speaking more than one language is normal	Rarely speak several languages
Informal and direct	Informal but not direct
Efficiency	Efficiency

	Result-oriented
	Accountable
Several meetings before taking decisions	Fast-paced
Consensus and compromise	Top-down hierarchy
Everyone is implied in the decision process	
(slow)	
Fast application of decisions	
No small-talk, direct business	Small-talk
Flexibility of job (work from home, long-distance)	Boundary between home and office
Modesty	
Pragmatism	

3.3.4.1 IMPACT OF NATIONAL CULTURE ON DECISION-MAKING PROCESSES

Now that we have distinguished the corporate culture between Solvay and Microsoft, and the national culture between Belgium and the United States, we can more clearly isolate the national culture parameter to observe its impact on these companies' managers decision-making processes.

To clarify a point that has been made in the previous section, we could say that the Belgian national culture fits and is, at the end of the days, very close to the European values. One of our interviewees told us how she really did fit easily in Belgium, and how in general terms "cultural differences are not massive in Europe" (ITW2, 2019)

National cultures, as explained in the review of literature, impacts people on a deep level: the values (Hofstede, 2012). Therefore, they are stronger than business culture's superficial practices. This may be why companies, when expanding in a country with different values than theirs, will not try to push them but rather offer to first understand and acknowledge the local

differences, and then build its foreign branch by encompassing the local norms (in the boundaries set by the true core values of a company). It has been the process used by Solvay and Microsoft, as experienced and acknowledged by ITW2, ITW3 and ITW4.

“For us, it is crystal-clear, the American branch works like an American company”

(ITW3, 2019)

Based on the interviews obtained, we are able to tell that national culture might be influencing decision-making processes. First, we have testimony that within the same company, processes used were different per country. At first sight, we could think that it might have been due to the interviewees' own preference for one process or another. However, it occurred the same way in both companies. We observed in the Table 8 that participative and naturalistic processes were the most used in Belgium, compared to naturalistic process in the US. We also noticed how the management in Belgium was more consensual, whereas there were more top-down in the US. Moreover, the way each interviewee describes his branch (even though part of a global unit) as *local* makes us link all these hints together, to discern a significative pattern.

We have written in the *Section 3.3.2.* that we would provide answers to some questions revolving around the processes used in countries. We now have sufficient information to proceed. Like we just mentioned, the naturalistic process is the most used in the US (Table 8). We are now able to tell that it might be explained by the fact that the American business environment is being fast and result-oriented (ITW1, 2019) (see Table 12) which would mean that managers need to make decisions quickly and efficiently. Thus, relying on successful experiences, past failures and an aligning with the corporate policies (or value-frame), the choice for a naturalistic process would actually explain the phenomenon.

It has also been mentioned that the participative model was the second most used process in Belgium. We also learned that Belgium was a country of consensus, openness to the outside and diversity, as well as having very inclusive decision-making gatherings, allowing for everyone to have his word to say. These characteristics seems providential for a participative process. This is the rational explanation: the characteristics of Belgian culture have nurtured its people to have a tendency using the participative model. Exactly like the Americans are more inclined to use of the naturalistic model, even if unconsciously.

One thing is still intriguing. We mentioned how different the culture of our two countries were. However, in our study, the naturalistic approach comes first in Belgium, with Belgium having only few of the criteria that would make this process common in Belgium. Furthermore, it is

also hardly explainable with any business culture criteria aforementioned in Table 10, and we also said that business could very rarely influence on DM processes. This is why we decided to look back on where these numbers for this model came from and found out that most of them came from ITW2. In fact, she mentioned more than 5 times characteristics referring to this process. It might have been the cause of this model scoring too many points. After analysis, we then decided to remove 5 points to the model, making it less significative and more representative of the interviewees' opinions.

3.3.4.2 ADAPTATION OF BUSINESS CULTURE AND NATIONAL CULTURE TO EACH OTHER

In this section, we are going to group the observations on the two companies in order to assess how multinationals are dealing with constant differences between organizational culture and national culture.

First things first, note that each and every one of the interviewees were agreeing on one thing. It is that both Solvay and Microsoft were first companies that were trying to understand the local situation, values and behaviors before any piece of business with an agent with a cultural difference. As each country has his own set of values and norms, it is totally normal to observe different *value scales* per country (ITW3, 2019). In most cases, harmony between business cultures and national cultures occurs as they operate on a different level (Hofstede, 2012). The representatives of multinationals studied have said that they wanted national cultures to develop by themselves in order for them to not feel pushed by their companies having a relatively different set of values, practices and social norms. Values which will be adapted in the limits of possibility to better suit local norms (ITW2, 2019). Sometimes adapting so much that the company is then perceived to be from the local country as said by ITW4, and related by ITW3: "In some ways, we think of ourselves as an American company in America, as a local company and probably every country where we operate" (ITW4, 2019). However, when some local norms are at the opposite of the core values of these companies (when they clash), then the company's values will always come first even though Hofstede tells us that they work on different levels. ITW2 and ITW3, working for both companies, tells us about this duality and the prioritization of the corporate values.

"In extreme situations, we have to prioritize ethical European values for a group based in Europe and Belgium."

(ITW3, 2019)

An example from ITW3 is about women's right to work that are denied in Saudi Arabia. Solvay's position is to say no to discrimination, thus will not agree with this national law and norm. We could suppose that the company will either not do business with customers having these norms anchored or try to negotiate with them for these norms to be alleviated and allow women working on their projects.

Another example from ITW2 at Microsoft, concerns the unequal proportion of women's presence in the workforce compared to men in Japan. In this country, women will not be given the same roles for the same diploma, as their men counterparts ("male dominant social norm") (ITW2, 2019). Microsoft being against discrimination, they will bring this "unconscious bias that you might have under certain local social norms, to make it alive and make sure that everybody recognizes that there's actually an unconscious bias if we follow the local social norms" (ITW2, 2019)

In conclusion, we learn that business culture and national culture might coexist peacefully, but also might impact each other. Most of the time and for little differences that do not cause troubles to the company, local norms and values will be integrated in a certain branch of the company if needed. However, when these national values become too threatening for the organization's integrity and core values, a solution is for the company either to separate themselves from the business partners not having the right fit (ITW3, 2019), to make them learn these values as a skill (ITW2, 2019) or not to engage in any piece of business, even if it would have been financially beneficial.

3.4 DISCUSSION

This chapter has for objective to assess whether national culture impacts managers working in multinationals and their decision-making processes, as well as providing a first answer to the question by focusing on the specific situations of Belgium and the United States, two countries host of renowned companies in their industry: Microsoft Corporation and Solvay Group. In order to do so, we will first bring to light the literature and its interrelatedness with our findings during our research concerning the decision-making processes. We will then do the same with the two other themes analyzed so as to know the national and organizational culture.

3.4.1 DECISION-MAKING MODELS

We started off by reviewing the processes of decision-making that were interesting to us, which were principally coming from the authors and founders of these theories themselves, while at the same time taking into account the recent updates and limits for each of these in more recent papers and journals, in order not to start on the wrong foot our analysis. However, we decided not to go too deep in the explanation and the ramifications of these models in order to avoid the reader being overwhelmed with information that *in fine*, would marginally not bring much more to the quality of the work.

It first included the model of rationality. Even though it served as a basis for most of the other models that follow from it, we have not seen empirical evidence of its usefulness amongst international managers interviewed in our study. As depicted in the literature, this models have assumptions over the decision-makers that are too strong and empirically never proven such as complete information and perfect rationality (Simon, 1979).

However, we had a few mentions of its direct successor, the model of bounded rationality. Our interviewees were in fact, several times required to use such a model in an environment with limited available information while still having to choose the relative best option amongst several alternatives, in a limited time span. However, we noticed how little it was used, and when it was how the subjectivity of managers had power over the final decision to make, resulting in the rational choice not always being respected. The critics of the model in the literature go in the same direction by still assuming the total rationality of the agent which has empirically been proven untrue (Turpin & Marais, 2004).

The next model was the incremental model. Even though it surely is a very interesting tool in policy-making, we did not observe its presence in our research focusing on organizations and

the roles of managers. The reason might be that we did not interview policy-makers or strategy builders in the organization, which then could have potentially been linked with the model. The same has been said about this model in the literature, that it was not a model applicable to a lot of fields except policy-making. We also believe based on our research that even though its ramifications (logical incrementalism, mixed-scanning model) were observed, it was still too marginal and not consciously used.

The garbage can of decision-making works when individual don't have preferences, and when they belong in an organized anarchy, with an in- and out- flow of decision-makers. This is typically not a situation that we managed to find among the interviewees chosen, and neither would it occur within the companies they are working for. We believe that this model could eventually appear at a lower-level in the hierarchy, where the turnover is maybe more important and the responsibilities too, making the agents' choice more subject to indifference among alternatives and where the choices to pick are already existing, and they must only link it to the current issue. Moreover, the literature tells us that the model is better suited for public organizations rather than private firms (Hickson, 1987) and when managers are not under a time constraint (Weiner, 1976), which is probably why we didn't notice its presence in our research. In our opinion, this model being hard to discern in one-to-one interviews, it might be easier to discern by using other methods of data collection such as case studies to solve, in order to analyze the process used. We believe that this conclusion of changing the collection method might also be applicable for the rational, political and incremental models, as they have proven to be hard to get via interviews and also because it might be still too deep in managers methods that they don't even think about it anymore.

We now arrive at the model we've empirically seen a lot of presence in the multinationals and countries studies. The naturalistic model of choice. It is probably because it is not a model that is based on empirical studies that we have noticed its use alignment companies, but rather because it focuses on the natural context in which agents make choices (Klein, 2008). Under many constraints, the managers will base their decisions on prior experiences, failures and their best judgement to decide, while making sure the choice still *satisfice* some criterion. We have discovered that most managers, as much in Belgium than in the United States, and no matter the country, would act like this. We believe this process of decision-making would not be used by all decision-makers in the company, but only experienced ones of course. As all our interviewees already had a lot of experience in their company and as they told us so, we know

that the final choices to makes on whether big or small experience are done by using their judgement, while respecting the company policies and values.

Last but not the least, we discovered that the participative decision-making model was very much used and appreciated in Belgium, it did not matter in which company. We've also discovered that some characteristics of the Belgian culture was to base decisions on consensus. This was not only a phenomenon happening outside the organizations, but also inside. Thus, very much linked with the democratic theory of participative decision-making (Dachler & Wilpert, 1978) which explains how democratic a democratic society makes everything inside it also democratic (institutions, organizations, ...).

Concerning the political model, we did not see any corroborated proof of its application in the companies and countries studied. We believe that as it depicts people using it as manipulators, almost ready to make a deal with the devil to obtain what they want, people in open interviews would not especially be open to talk about it. Other methods of data collection would be more efficient such as surveys with open questions.

3.4.2 NATIONAL CULTURE

The national culture includes a system of values, that is unique to each subgroup of people (Hofstede, 1984). These subgroups have different levels as we have already explained, and national culture is one of them. This is the level we decided to focus on, by studying Belgium and the US. We have discovered that these two countries were not that similar according to our panel of interviewees comprising Belgians, Americans and Finnish people. Americans are defined as efficient, result-driven, fast-paced and respectful of the top-down hierarchy. Belgians are consensus based, efficient too, informal and direct (as opposed to informal and indirect in the US), flexible and include all the parties to the decision-making situations. These characteristics are only based on what our research brought us, but it could have been more useful and efficient to also go one step further and already gather these data from the literature that exists on the subject. Also, it is sometimes hard to make the difference between stereotypes that people have on another culture, and what they learned by experience. This is why we only highlighted in our research the characteristics mentioned by more than one person to give it more credit.

3.4.3 ORGANIZATIONAL CULTURE

Even though our research question is about national culture, we had to give some explanation on what organizational structure was. As already mentioned, culture is divided in levels, and organizational culture is one of them. It then occurs to us that organizational culture could be a factor that would potentially change the way managers internally make decisions, thus being a noise in our analysis. We decided to assess the business culture of Solvay and Microsoft, by only taking into account the data produced by our research. The organizational culture is a subject that most of the interviewees had a hard time to catch and talk about, but we still managed to get information about both companies' cultures. However, we want to be cautious with it as we had a maximum of three interviewees per company, and from different countries. Based on our research, we found out that the business culture of Solvay and Microsoft were very similar, as analyzed with the framework of Hofstede for the dimensions of organizational cultures. Both companies are result oriented, employee oriented as well as parochial. Due to the lack of information we unfortunately could not go further in the analysis. However, there are very little differences in their business culture. The differences in culture might simply be the fact that we do not have enough information about each of their organizational cultures.

4 CONCLUSION

4.1 PURPOSE OF THE RESEARCH

This master's thesis had for objective to assess whether there was an impact from the national culture over managers' processes to make decisions in multinationals, by examining the case of two countries (Belgium and the United States) and one multinational headquartered in each of them while having activities in the other (Microsoft and Solvay). The interviewees in the companies were particularly chosen according to several criteria: they should not have the same function, the dimension of their managerial decisions should be equally distributed between administrative, operational and strategic, and they should have had an international experience in order for them to be aware of cultural differences between companies and countries.

This question has been answered in the light of the literature and our research. We were able to draw conclusions by already assessing that a direct link existed between processes of decision-making used by managers in multinationals, and the country's values and norms they were working in (and from). These conclusions will be explained thereafter. We will also provide some leads for further research linked to our subject.

4.2 CONTRIBUTIONS TO THE LITERATURE

The research led and the data we analyzed enables us to say that there exists an impact from national cultures on decision-making processes. National culture acting on a deep level of values, people are nurtured from their birth into it, and some norms, habits and values of the country becomes their own. In our research, we understood how the national Belgian culture based on consensus, compromise and inclusion was preparing managers to decide in a participative way, thus using the participative decision-making process. We also concluded that Americans would be more prone to go for a naturalistic process of decision-making because of their American values for fast-paced environment, efficiency and an orientation for results. Thus, yes national culture seems to nurture people from the youngest age and by doing so, create in them inclinations for one or the other process. This is why international management (especially when part of a global business unit) is a very delicate task. Adapting his own set of values to local people with different ones, is a challenge than only experienced and open managers should be given.

We noted that organizational culture had very little to no impact on the processes used by managers in multinationals. We found out that in some extreme cases it could make a one-time

impact, but what it mainly works on is the type of choice to make, and not the way someone will make a choice. Corporate culture can be seen as a frame, virtually less important than the policies of the company but empirically at the same level, used by managers to assess the righteousness of the final decision made.

Last but not the least, we learned that multinationals were organizations that, instead of pushing, would rather slightly adapt their values (under an acceptable extent) to the local norms and habits in order to engage in a smooth adaptation and still be able to do business globally. However, when differences or local norms were directly against the organizational values, the multinationals would not surrender and either stop the business with the agent (employee not fitting, client, country with opposite values), make him adapt or punish him in the case of an internal employee not respecting the core values of the company.

4.3 LIMITS OF THIS RESEARCH AND SUGGESTIONS

Like each project of research, there are things that gives credit to the conclusions, and some that are to draw attention on in order to avoid fast generalizations or conclusions not justified properly.

This research had some important points that we feel we have to highlight, as they are strengthening our analysis.

First, we would like to draw the attention on the importance and responsibilities of our interviewees in their companies. They all have international relations to maintain and act or acted mostly as global managers, which is a proof of trust in them from the company. Thus, we might be right to assume that their answers are worthy of our analysis and not to be disregarded or discredited. For all matters that concern their company, the values or culture differences, we can hear their words as they are aware of cultural differences and can consciously observe them, thanks to their international or multicultural experience and position.

Secondly, we chose Solvay and Microsoft because over time, they are the best performing companies in their own industries. We might not be wrong to assume that the best company means that you have to have the best assets and managers, especially for important functions. In other words, you can only be the best if you have the bests, thus their processes might also be the best for their position, in their company, in their country. Which makes their information shared very valuable for us.

Third, the characteristics of national culture gathered may be even truer as we made a conscious choice of picking one company headquartered in each of the two countries analyzed. Furthermore, within these companies interview at least one Belgian and one American. Therefore, the criteria in Table 12 can seriously be considered as representative for the feeling of national culture in both branches of these two companies.

Concerning the limits that also exist in our study, we will try to be objective and exhaustive.

The first limit seen is that we didn't take into account the organizational structures of the companies studied. Knowing more about it could help explaining why some managers having a specific function make use more of one or the other process. It could be studied in another study and would surely bring interesting conclusions that would permit to improve the literature in the subject.

Secondly, we maybe should have focused our attention on only one type of decision (e.g. investment, production, marketing), to reduce the scope of our analysis and be able to generalize and interpret our ideas with more confidence. However, we took the liberty to deliberately bias ourselves in the order to stay global enough so that our conclusions could reach most of the managers working in multicultural environments in multinationals.

Thirdly, we noticed two limits in the way we sampled our data. The sample was maybe too small and unequal between Belgium (three people) and the United States (two people) which penalizes us as our conclusion are more hardly generalizable. Furthermore, the higher (thus more administrative and strategic) the position of one manager, the more focus on the company as an international whole he was (focus on values, missions, environment of the company). Therefore, we could see a difference in the criteria used to make decisions based on its managerial decisions taken. It would have been good to have managers with the same level of responsibilities, or with a similar position in both companies to be able to differentiate with more confidence the criteria they would use based on their company or country of origin.

The last limit concerns the analysis itself. We noticed that we did not emphasize enough on the process part in our interviews. This is probably why interviewees did not know the direction we wanted to take. Moreover, they were maybe not aware of the processes beforehand, which is normal as it is our job to discover the hidden patterns behind their actions. Also, it is hard to draw accurate conclusions over the processes used in the United States when only seven mentions of processes were found out during the qualitative analysis. It is probably due to the low number of American managers interviewed which doesn't enable us to get a representative

number out of this particular analysis for the United States. However, it might also be due to this *technique of mentions* giving too much weight to people explaining much more their processes. We maybe should have picked another method, and we believe that doing so with more interview would give more credit to the conclusions.

In our analysis, we make use of a code named INT-MANA, which gathered all the information over the international experiences of our interviewees, that were not linked with the countries analyzed. We truly think that starting a complementary work could bring more information about a lot of countries, which could result in some classification of cultures for international managers to always know what they are dealing with when engaging in activities with foreign cultures.

During our research, we also wondered about whether there would exist an interrelatedness between the participative model and the political model of decision-making. We observed that having gatherings to help making decisions, would potentially increase the chances of people taking their chances and trying to influence others to obtain what they personally want. Thus, we wonder if it could be interesting to study whether the political model could actually exist as a sub model of the participative process.

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6 APPENDICES

Appendix I: Disjointed and logical incrementalism: a comparison

Model dimension	Disjointed Incrementalism	Logical Incrementalism
Organizational Contextual Factors	(a) Dispersed power (b) Conflicting values (c) Interdependencies (d) Lack of prescriptive authority	(a) Interdependent subsystems (b) Defined decision-making (c) Formal/Informal prescriptive authority (d) Information inadequacies
Nature of the environment	Stable; relatively predictable	Dynamic; relatively unpredictable
Structure of goals and values	Diffuse; partisan Conflicting, concealed values	Broadly defined common goals; concealed values
Process of coordination	Adaptive/manipulative	Planned, centrally directed
Operational goals	Social agreement through conflict minimization	Interactive learning; uncertainty minimization
Support mechanisms	Multiple decision makers	Formal and informal information networks
Domain of applicability	Incremental politics; small changes with low understanding	Strategic decisions which determine the overall direction of the enterprise, large changes with low understanding

Note. Adapted from Rajagopalan & Rasheed (1995), p. 294.

Appendix II. Classification of Nine Cultural Dimensions

<i>Cultural Dimension</i>	<i>Definition</i>
<i>Assertiveness</i>	Degree to which people in a culture are determined, assertive, confrontational and aggressive in their social relationships
<i>Future Orientation</i>	Extent to which people engage in future-oriented behaviors such as planning, investing in the future, and delaying gratification.
<i>Gender Egalitarianism</i>	Degree to which an organization or society minimizes gender role differences and promotes gender equality.
<i>Humane Orientation</i>	Degree to which a culture encourages and rewards people for being fair, altruistic, generous, caring, and kind to others.
<i>In-Group Collectivism</i>	Degree to which people express pride, loyalty, and cohesiveness in their organizations or families.
<i>Institutional Collectivism</i>	Degree to which an organization or society encourages institutional or societal collective action.
<i>Performance Orientation</i>	Extent to which a society or an organization encourages and rewards group members for improved performance and excellence.
<i>Power Distance</i>	Degree to which members of a group expect and agree that power should be shared <u>unequally</u> .
<i>Uncertainty Avoidance</i>	Extent to which a society, organization, or group relies on established social norms, rituals and procedures to avoid uncertainty.

Note. Adapted from *Culture, Leadership, and Organizations: the GLOBE Study of 62 Societies* by House & al. (2004). SAGE Publications.

Appendix III. Cultural clusters classified on cultural dimensions

<i>Cultural Dimension</i>	<i>High-Score Clusters</i>	<i>Low-Score Clusters</i>
<i>Assertiveness Orientation</i>	Eastern Europe Germanic Europe	Nordic Europe
<i>Future Orientation</i>	Germanic Europe Nordic Europe	Eastern Europe Latin America Middle East
<i>Gender Egalitarianism</i>	Eastern Europe Nordic Europe	Middle East
<i>Humane Orientation</i>	Southern Asia South-Saharan Africa	Germanic Europe Latin Europe
<i>In-Group Collectivism</i>	Eastern Europe Southern Asia Confucian Asia Latin America Middle East	Germanic Europe Nordic Europe Anglo
<i>Institutional Collectivism</i>	Nordic Europe Confucian Asia	Germanic Europe Latin America Latin Europe
<i>Performance Orientation</i>	Germanic Europe Confucian Asia Anglo	Eastern Europe Latin America
<i>Power Distance</i>	-	Nordic Europe
<i>Uncertainty Avoidance</i>	Germanic Europe Nordic Europe	Latin America Eastern Europe Middle East

Note. Adapted from the book “Culture, Leadership, and Organizations: the GLOBE Study of 62 Societies” by House & al. (2004) and published by SAGE Publications.

Appendix IV: Interview Guide

Introduction

- » Thank for being here to this interview. Presentation of myself, who I am, what I do to install a trust climate
- » Ask for possibility to record interview, and ask if he/she wants full confidentiality
- » Explain the way we will proceed during the interview
- » Present the study's theme (not the research question, to let them express freely and not force them to talk about the subject in the way they think I want them to)

Preliminary Questions

1. Present yourself, and your company
 - What is your position and main tasks?
2. Are you part of a team or/and are you leader of a team? Explain the role you have in it.
 - Do you consider this team as multicultural? Why?
 - Do you often need to take decisions? If yes, what kind of decision?
 - To what extent do your decision affect the day-to-day work of your employees?

Questions about decision-making processes

3. What would you say is “decision-making” in a business context?
 - Do you have responsibilities leading you to situations in which you have to take a stance and make a decision?
 - Is it important in an organization? Why? Could you please explain or give some details about this issue?
4. Describe the process you typically follow to make a decision about a plan of action.
5. You are certainly taking daily small decisions, but also more important and impactful decisions for you, and for the company.
 - Could you give an example of a small decision you might have faced?
 1. How did you know how to choose between different equivalent potential choices? In other words, what were the steps you followed to make it?
 2. Based on what criteria do you evaluate the different options (criteria)?
 - What about bigger decisions you might have taken, any example?
 1. What led you to make this choice over another?
 2. What process did you consciously followed to pick this decision?
 3. Based on what do you evaluate the options?

5. Do you have any (international) colleagues with different approaches from yours in taking decisions?

- How different are their approaches? Does it differs compared to yours?
- Does it lead to decisions you wouldn't have thought of?

Questions about the perception of national culture

9. What do you know about national culture?

- What would you consider is typical of the national culture of the country you are working in?
- Would you consider the country as multicultural? Why?
- How would you consider the importance of national culture in a working situation?

10. Do you think that the way you make decisions is influenced by the country you are living in? How?

- What would be the characteristics of your working place country?
- On a decision-making point of view, do you believe you're doing something in a certain way, because of the country you're in?

Questions about the perception of business culture

9. What do you know about business/organizational/corporate culture?

- What about your company? Does it have any specificities you have noticed compared to other companies in the same country?

10. How could you characterize the values of your company if you think there are some to mention?

- Would you say that you share the values of the companies? To what extent and why?
- What is your opinion about the importance of business culture?

11. Do you think business culture is consistent across all divisions, regions, countries within your company? Do you have an experience to illustrate this?

- Do you think your decisions are in some way affected by the business culture? How, can you give me an example?

12. In your opinion, does the company culture fit with its national culture?

- Concordance? Problems?

13. In your opinion, is the business culture linked with the country of origin of the company? Can you explain further your answer?

- Do you feel it in your company? How?

- Do you perceive differences when you go to another country in which your company has branches or is it like McDonald, the same everywhere?
- Do you believe national culture and business culture are in accordance?

Conclusion

- » Do you have something to add in the light of the talk we had?
- » Thank for the participation in the interview.
- » Remind that the data will be used only for this research work, and basically be observed only by academics. If confidentiality is needed, I won't tell the name or exact position.
- » Ask if they would like to hear about the conclusions of the work.

Appendix V: Recapitulative table of interviewees profile

<i>Name of interviewee</i>	<i>Company</i>	<i>Country</i>	<i>Position</i>	<i>Date of interview</i>
<i>Matthew Voros</i>	Microsoft	United States	International CFO	10/07/2019
<i>Susanna Makela</i>	Microsoft	Belgium	Senior Director Government Affairs	12/07/2019
<i>Michel Washer</i>	Solvay	Belgium	Deputy Chief Sustainability Officer	15/07/2019
<i>David Klucsik</i>	Solvay	United States	Head of Crisis Communication & Issue Management	15/07/2019
<i>Alexis Brouhns</i>	Solvay	Belgium	Senior Executive Vice President (Region Europe)	18/07/2019

Appendix VI: Code Book

<i>Code</i>	<i>Definition</i>
<i>MANA</i>	Type of managerial decision taken
<i>TEAM</i>	Structure of the team/department
<i>POS</i>	Position in the company
<i>INT-MANA</i>	How to deal with an international environment
<i>DM</i>	Decision-making process-related data
<i>DM-CR</i>	Criteria on which decisions are based
<i>NC-USA-OWN</i>	National culture perceptions about Belgium/USA if it is their own
<i>NC-BE-OWN</i>	country
<i>NC-USA-OTH</i>	National cultures perceptions about Belgium/USA of not their own
<i>NC-BE-OTH</i>	country
<i>PERC-NC=BC-SOL</i>	Perception about the effect of his national culture on business
<i>PERC-NC=BC-MIC</i>	culture, if the national culture is the same as the country of the headquarters of his company
<i>PERC-NC/BC-SOL</i>	Perception about the effect of his national culture on business
<i>PERC-NC/BC-MIC</i>	culture, if the national culture is not the same as the country of the headquarters of his company

PERC-NC-DM-SOL Perception the impact of national culture has on their decision-
PERC-NC-DM-MIC making

PERC-BC-DM-SOL Perception the impact of business culture has on their decision-
PERC-BC-DM-MIC making

VAL-BC-SOL
Business culture and values of the company
VAL-BC-MIC

FIT-SOL-BE Perception that business culture of Solvay and local national culture
FIT-SOL-US fits, for Belgians, and Americans

[
FIT-MIC-BE Perception that business culture of Microsoft and local national
FIT-MIC-US culture fits, for Belgians, and Americans
]

Appendix VII: Interviewees in depth; position, tasks and structure

	<i>ITW1</i>	<i>ITW2</i>	<i>ITW3</i>	<i>ITW4</i>	<i>ITW5</i>
<i>Company</i>	Microsoft	Microsoft	Solvay	Solvay	Solvay
<i>Position</i>	International CFO	Senior Director Government Affairs	Deputy Chief Sustainability Officer	Head of Crisis Communication & Issue Management	Senior Executive Vice- President (Europe Region)
<i>Tasks</i>	• Make teams work together towards goals • Overlooking and people management	• Chief of staff and chief operational • Look over the strategy and execution in the office • Budget making and overall governance of team • Set operational goals	• Annual report and environmental inputs • Communication with rating agencies • Communication with investors and customers representatives	• Paired with industrial functions • Communications function • Analysis of risks to business or reputation of company • Respond to authorities' inquiries • Provide support	• Deal with all public and politic authorities for the company (governmental affairs) • Anticipate and integrate biggest regulatory trends (nation and European-wide)

Team • 12 people

- Oversee people, helping team into learning and personal growth
 - Multicultural team • One of the 4 • 2 remote direct • 30 country managers
 - 25 people directors of his level reports in BE direct report
 - Head of office is • 12 partners in 3 sites • 85 business support • International team
 - the boss • Work with a 250 across the world • Global business units
 - Peers at the same people network • Multinational and multidisciplinary
 - level • Global business units
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