

**Management control practices in uncertain environments :
Context of the Covid 19 health crisis.**

**Pratiques de contrôle de gestion en environnements incertains :
Contexte de la crise sanitaire Covid 19.**

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Abstract

The Covid-19 pandemic is an exceptional challenge with unique economic and social consequences. It upsets at the same time the forms of work, the structures of the organizations as well as the business management tools. These upheavals have generated an objectively uncertain environment, which poses new challenges to the management control managers, who may not be on the front line to manage the crisis, but are an indispensable pillar since they are led to face the emergency by setting up the appropriate tools for the crisis and by assisting the management in the elaboration of relevant scenarios. This article outlines the results of a qualitative study, which was carried out among a sample of management controllers from different business sectors. The main objective of the study was first to measure the impacts of the crisis on the management control function and then to highlight the changes in management control practices that were necessary to meet the environmental conditions and the organizational choices.

Keywords : Covid 19 ; management control ; impact ; change ; practices.

Résumé

La pandémie de Covid-19 constitue un défi exceptionnel aux conséquences économiques et sociales uniques. Elle bouleverse à la fois les formes de travail, les structures des organisations ainsi que les outils de pilotage de la performance. Ces bouleversements ont généré un environnement objectivement incertain, qui pose de nouveaux défis aux responsables contrôle de gestion, qui ne sont peut-être pas en première ligne pour gérer la crise, mais constituent un pilier indispensable dans la mesure où ils sont amenés à faire face à l'urgence en mettant en place les outils appropriés à la crise et en accompagnant la direction dans l'élaboration de scénarios pertinents. Cet article expose les résultats d'une étude qualitative, qui a été réalisée auprès d'un échantillon de contrôleurs de gestion de différents secteurs d'activité. L'objectif principal de l'étude était d'abord de mesurer les impacts de la crise sur la fonction de contrôle de gestion, puis de mettre en évidence les changements de pratiques nécessaires pour répondre aux conditions environnementales et aux choix organisationnels.

Mots clés : Covid 19 ; contrôle de gestion ; impact ; changement ; pratiques.

Introduction

There is no longer any doubt today that the current sanitary crisis, with its unique impact, is one of the most important crises that has affected the entire world. The economic damages are unprecedented and are felt, to varying degrees, by all sectors of activity : Brutally, several companies have seen their activity stop, some of them slowing down, while others have had to maintain it while facing several constraints.

The disruption and turbulence caused by this crisis context generated an objectively uncertain environment, especially since no one has any idea yet about the end of the pandemic. This sets new challenges for management controllers, who may not be on the front line in managing the crisis, but are an indispensable pillar as they are called upon to deal with the emergency by putting in place the appropriate tools for the crisis and supporting management in the development of relevant scenarios.

As such, it seemed appropriate to study the impact of the external environment (in this case the context of the covid 19 crisis) on management control practices within Moroccan companies that are accustomed to a relatively stable environment. From this issue arises a number of questions:

- To what extent does the firm's external environment influence management control practices?
- What is the best approach that can be followed by management controllers to help the company overcome this crisis?
- Would a proactive system of management control be more effective in the current circumstances?

In order to bring elements of answer to our problematic, we have structured our article into three sections. The first part is a review of the literature on the impact of the external environment of the organization on management control systems, based on the contributions of contingency theory. The second part is a presentation of the methodological approach adopted. Then, the last part presents the results of our qualitative study.

1. Literature review

Having found its origins in the early 1960s, contingency theory today represents the most mobilized movement to explain management control practices (Chenhall, 2003). It breaks with classic schools of thought by assuming that there is no single, ideal and perfect model of management control for all firms and all times, because the function is highly dependent on a number of contextual factors, both internal and external, that are likely to modify its functioning (Anthony 1988; Desreumaux 1998). These factors are known as contingency factors, the main ones identified in the literature are : environment, technology, age, and firm size... In this sense, contingency theorists, favouring external contingency factors, have all identified the firm's environmental context as a major influencing factor. (Govindarajan, 1984). The contingency effect can be one of the characteristics of the external environment, such as complexity, dynamism or uncertainty. However, this study focuses only on uncertainty, which seems to be the most important environmental property affecting organizations that has received a greater attention in the literature (Knight, 1921; Burns and Stalker, 1961; Lawrence and Lorsch, 1967; Thompson, 1967; Marchesnay, 2004;)

1.1 External environment and uncertainty :

The external environment of an organization can be defined as the set of physical and social factors, not belonging to the organization, which must be directly considered in the decision-making process. (Duncan, 1972 p.314). This environment, as defined above, is not static. All of its components and their impacts on the company are constantly changing. Now, it is the nature, the frequency and the intensity of these changes that condition the state of the environment, which can be sometimes stable, sometimes turbulent. These changes affect the certainty of the environment : the more numerous and changing the environmental factors are over time, the more uncertain and complex the organization's environment will be considered to be. (Duncan 1972; Ewusi-Mensah 1984).

The word "uncertainty" has been used by a number of authors in the literature to refer to situations in which it is impossible to predict what may happen. (Knight 1921; Govindarajan 1984; Hartman, 2000). It is a central variable in organizational design theories (Burns & Stalker, 1961; Galbraith, 1977; Lawrence & Lorsch, 1967; Thompson, 1967). The literature on the subject is extensive and has given rise to a large number of different and sometimes contradictory definitions and perspectives.

Most definitions have associated uncertainty with the difficulty in obtaining important and reliable information about events and actions taking place in the business environment.

(Spender, 1986; Milliken, 1987; Winch, 2010; Sutcliffe & Zaheer, 1998). Others linked it with the inability to predict external changes and their impact on organizational decisions (Duncan, 1972). Indeed, when technologies, regulations and societal demands (suppliers, customers and competitors) are constantly evolving, this creates a feeling of uncertainty among managers who feel unable to anticipate possible changes and measure the extent of their impact (Duncan, 1972 ; Ettlé et Reza, 1992 ; Rueda-Manzanares et al, 2008). Some consider uncertainty as a synonym of "risk" (Herring, 1983), whereas the two concepts are distinct, and have often been mistakenly confused or used interchangeably in the literature. Frank Knight was the first to conceptualize the distinction between risk and uncertainty by developing the theory of risk (decision) in 1921. According to him, risks have quantifiable probabilities, whereas uncertainties have no scientific basis for forming any calculable probability; their probability of occurrence is simply not known (Knight, 1921; Keynes, 1937).

Broadly speaking, uncertainty can consist of the following three components (Duncan, 1972):

- lack of information about the environmental factors associated with a given decision situation,
- Not knowing the outcome of a specific decision in terms of what the organization would lose if the decision were incorrect,
- the inability to assign probabilities with any degree of confidence about how environmental factors will affect the success or failure of the decision unit in performing its function.

However, even if the different authors have not agreed on a common definition of environmental uncertainty, they have all agreed that it has a direct influence on the organization, its objectives (Otley, 1978) and its results (Chenhall and Morris 1986). This postulate has been confirmed by several experimental studies, including the study conducted by Burns and Stalker in order to evaluate the impact of the environment on organizational structures. The results showed that the structure of an organization depends on external factors, which are nothing more than the uncertainty of the environment. This study was completed by the work of Lawrence and Lorsh, who demonstrated the impact of environmental uncertainty on corporate structure by concluding that the more the degree of environmental uncertainty increases, the less formalized the structure of the organization is.

1.2 Management control under environmental uncertainty :

The positive correlation between the degree of uncertainty and management control systems is verified in the results of several studies carried out over time. Indeed, the nature of the control exercised in the organization depends on its structure, since the structure is contingent on its environment, management control should therefore be designed to meet the needs of specific organizational units (Waterhouse and Tiessen, 1978, p. 68).

Environmental uncertainty therefore largely determines management control practices within the organization, as the rhythm and type of work of management controllers can be modified. (Lambert, 2005). The results of the majority of studies that have been conducted on this subject show that when uncertainty is significant, the work of management controllers becomes more focused on non-financial tools, since it becomes difficult to establish and achieve purely financial objectives such as those of the budget. (Govindarajan 1984; Hirst 1983; Ross 1995). Moreover, Berland had demonstrated that the use of budgets can only be effective if reliable predictions can be made. However, a balanced use of both types of tools (financial and non-financial) as part of more flexible control can help reduce environmental uncertainties. (Ezzamel, 1990).

These situations of uncertainty thus call for a redefinition of management control practices and the attitudes of management controllers. According to Méric, controllers generally seek either to:

- Reduce and control uncertainty, by adopting either a retrospective approach based on an analysis of the past, or a prospective approach by trying to predict future events.
- Accept and manage uncertainty, by adopting a reactive attitude which consists in acting quickly in response to an unforeseen event, or a proactive attitude by anticipating events that are difficult to predict. (J.Méric; 2000).

In the same way, Bouquin states that "Next to reactive, "introverted", supervisory management control, there is a proactive, extroverted management control, which is a key part of the strategic emergence process" in certain so-called turbulent contexts. (H.Bouquin, 2000).

Today, the context generated by the covid 19 health crisis presents several uncertainties, which leads us to express the following hypotheses:

H1: The Covid 19 crisis has direct impacts on the structure of Moroccan companies.

H2: The Covid 19 crisis has direct impacts on the management control function.

H3 : The uncertain environment associated to the Covid 19 crisis has induced changes in management control practices.

H4: Proactive management control would be more effective in dealing with environmental uncertainties.

2. Methodological approach

2.1 The choice of the sample :

Management controllers are the key focus of our study, as we are mainly interested in analysing their behaviour during the Covid 19 crisis and its effectiveness. The selection of the controllers interviewed was carried out via the LinkedIn platform using a keyword search, which was mainly based on the criterion of the sector of activity.

In our choice of the number and the quality of the people to be interviewed, we have had to respect the two criteria recommended for any qualitative research, which are:

- The saturation criterion, corresponding to the moment when the interviews no longer provide new or different information (Alvaros Pires, 1997). In our case, we reached the saturation point at the end of the 10th interview.
- The criterion of diversification, which consists in studying the greatest possible variety of cases, to allow the most global and complete analysis of the research subject.

This allowed us to identify 14 management controllers from different specialties and sectors of activity.

2.2 The data collection method

In a context of constrained means, we opted for semi-directive (individual) phone interviews, lasting between 30 minutes and one hour, which seemed to us the most adequate to collect varied, detailed and high-quality information. We therefore used an interview guide with open questions to allow the interviewees to express themselves freely on the subject.

The interviews were recorded with the prior agreement of the interviewees, and were transcribed, word by word, in word processing and then analyzed categorically by content.

3. Analysis and discussion of the results

3.1 Impacts of the covid19 Crisis on Moroccan Companies

The impacts of the crisis have been felt by the vast majority of Moroccan companies, but to different degrees depending on the size, sector, or nature of the activity. The repercussions are not the same on an airline or a company whose activity relies heavily on import-export, almost totally paralyzed, and on a telecommunications company, on the contrary, in a situation of overload.

Based on our interviews, we have identified the main impacts on Moroccan companies in times of crisis:

- Significant slowdown of the activity;
- Decrease in turnover;
- Problems related to payment (lack of liquidity);
- Job losses (reduction in the number of employees).

These impacts have forced the majority of firms to rethink their business model and adjust their overall organizational structures to cope with the emergency. These readjustments imply a new distribution of responsibilities and powers, an update of the infrastructure, or outright strategic repositioning.

This can be translated into several practices:

- **Reconstruction of risk mapping :**

This involves identifying all the possible risks that the company might face. Then, managers must determine how each type of risk will affect their company and other stakeholders by conducting a business impact analysis. Each risk could have its own impact or trigger a domino effect of its results.

- **Preparation and adaptation of crisis plans :**

Once managers know what they are dealing with, they will be able to determine what corrective actions they can take should any crisis hit their company. All of these measures are part of the crisis plans, which not only allow to effectively manage a crisis situation, but also to anticipate some of its serious effects. These plans should be reviewed on a regular basis to ensure that the company is well equipped to deal with changes in the external environment. Managers should ensure that crisis management plans include any newly identified risks that were not previously considered, that planned actions are not obsolete and that adequate resources are always on hand. They must also verify that the members involved in crisis management are qualified for their role.

- **Reorganization of human resources**

As telework has become mandatory in most Moroccan companies, managers have to make an inventory of the tasks in their companies that can be performed remotely. They will also have to profile their employees and collaborators according to their willingness and ability to work from home. In addition, the evaluation of employees performance normally takes into consideration many criteria that go well beyond the results of the work performed, such as group integration and synergy, flexibility, interpersonal skills, punctuality and attendance,

discipline, etc. In the context of telework, many of these criteria lose their relevance and the evaluation of work tends to be done exclusively or almost exclusively on the basis of results. Therefore, the managers will have to develop new ways of evaluating performance that take into account other criteria such as virtual collaboration in work teams, proposals made by the teleworker, efforts made, etc.

- **Mobilization of teams :**

The pandemic has not only reaffirmed the critical role of human resources, but it has also shown how vital they are to the business. Managers must provide the needed leadership to guide their teams through this storm. Thus, each team member, whether or not they have an active role to play in crisis management, needs to know exactly how to deal with a crisis. The best way to ensure that, is to develop clear communication plans to deal with the chances of increased anxiety as employees worry and tend to speculate and to organize training sessions at several levels to impart the necessary skills to employees.

- **Adaptation of business management tools.**

The impacts of the covid 19 crisis affected all the functions of the company, which had to reorganize themselves in order to maintain their performance. In this paper, we are interested in the management control function and the practices it had to adopt to face the crisis as presented in the next paragraph.

3.2 Impact of the crisis on the activities of management controllers: modification of practices

The covid 19 crisis has led many companies to review their strategies. Since financial controllers are key players in the implementation and supervision of their strategies, their practices have changed significantly during this difficult crisis period.

Indeed, management control managers are called upon to play an important role, in order to deploy the appropriate instruments for the crisis, to better support management in the decision-making process , and also to ensure the company's financial well-being. The main changes in practices that we were able to identify through the results of our interviews are as follows :

- ***Increase in financial reporting activities***

The covid 19 crisis presents several particularities, there is no equivalent context to which management controllers can refer to in order to deal with the enormous consequences. The need for information is growing and the time required to make it available must be significantly reduced, to enable uncertainties to be dissipated as far as possible thanks to a good understanding of the environment. The financial controller must therefore be able to provide

management with detailed, relevant and above all rapid information about the situation of the company and the environment in which it operates. This implies raising awareness among the various actors in the organization, who probably do not have the same vision of the company's constraints and needs.

The information transmission would undoubtedly be easier for management controllers operating in companies that have successfully digitalised their information systems, as these systems allow a much more fluid flow of information. Other companies, less advanced in digital transformation, work on a longer time scale due to the large number of manual processes and the time it takes to carry them out and make them circulate. This crisis will emphasize the importance of the digitalization of information reporting systems.

▪ ***Challenging Forecasting Tools: Less Reliance on Budgets***

Forecasting tools are an essential part of the work of management controllers, who rely on them to set the organization's short and long term objectives. Forecasts are usually established by reference to historical data or data drawn from a market study in general. The results of our interviews confirm that these tools lose much of their effectiveness in uncertain environments where many parameters are in constant change or require very frequent updates.

Management controllers can no longer rely on previous data to define objectives, nor on market data because they are either insecure or difficult to collect, so new starting hypotheses must be established, considering the new specificities of the environment. It would be more useful in this context not to make detailed forecasts, but to establish scenarios simulations and to make appropriate plans for each of them.

▪ ***Reevaluation of activities and cost-saving actions***

In this context, the management controller plays an important role in identifying potential savings and assessing their impact. With the help of the different department managers, he is increasingly called upon to evaluate the situation of one or more activities in order to restrict the cash outflow only to activities that really need an investment. He can also recommend to managers to suspend, postpone or even cancel a certain number of future capital expenses, such as renovation projects or even some marketing actions, when they are not indispensable or no longer relevant following the crisis, without affecting medium and long-term objectives.

▪ ***Implementation of a strategic watch***

In this context of crisis, where the primary objective of management controllers is to reduce the uncertainty of the environment as much as possible in order to be able to take appropriate measures, the implementation of a business intelligence system is proving to be very useful.

Strategic intelligence has been defined as the informational process by which a company listens to the signals of its environment in order to discover opportunities and reduce its uncertainty. In this sense, the development of a strategic intelligence unit within the management control or strategic management department will be relevant, insofar as it will enable the monitoring of changes in the environment.

The analysis of the results allows us to conclude that the basic practices of management controllers remain unchanged overall; the changes relate mainly to the pace and time devoted to each of these practices. The management control function is therefore likely to evolve in many ways to respond effectively to the demands of the environment and the needs of the organization.

3.3 Combining reactivity and proactivity to deal with the repercussions of the crisis

In an objectively stable environment, management controllers are used to rely on historical company data to define the organization's strategic objectives and then react in case they are not achieved. However, as the uncertainty of the environment increases, traditional management tools seem to lose their effectiveness, forcing controllers to become more reactive to enable the organization to cope with the increasing complexity of the environment . They must therefore be able to react effectively and above all quickly to the many unexpected events in order to seize opportunities and detect threats. However, in the current context, where the uncertainty of the environment is only increasing, reactivity alone cannot enable effective crisis management, as the company must certainly define a roadmap for the future, adopting a proactive management style. In this case, the company must operate in a scenario-based approach, by preparing plans and management tools to cover as many situations as possible.

To this end, we have identified the main steps to follow in order to adopt an effective proactive attitude:

1. To draw the scenario of a situation in which the objectives are not achieved and identify the main constraints ;
2. To think about the best way to react and to evaluate the effectiveness of the available tools;
3. To develop an action plan and prepare the necessary resources;
4. To test the effectiveness of the plan as far as possible in order to evaluate its efficiency.
5. If the plan appears to be irrelevant, implement new actions and measures.

By this point, we have answered all our research questions, and our general problematic have been approved: The company's environment has a direct impact on the management control function in general and on the effectiveness of the tools in particular.

More clearly, the hypothesis testing is summarized in the following table:

Hypothesis testing		
Hypothesis	Conclusion	Details
H1 : The Covid 19 crisis has direct impacts on the structure of Moroccan companies.	Proven	The impacts of the crisis have forced most companies to rethink their business models and adjust their overall organizational structures to cope with the emergency. These adjustments involve a new distribution of responsibilities , an update of the infrastructure or an overall strategic repositioning.
H2 : The Covid 19 crisis has direct impacts on the management control function.	Proven	The crisis has required a reconsideration of the function of management control, a reassessment of its place and role in the company and an update of its tools
H3 : The uncertain environment associated to the Covid 19 crisis has induced changes in management control practices.	Proven	The basic practices of management controllers remain unchanged overall; the changes relate mainly to the pace and time devoted to each of these practices.
H4 : Proactive management control would be more effective in dealing with environmental uncertainties.	Proven	Companies need to adopt a more proactive behavior by preparing as many action plans as possible to respond to different future situations and by making repeated adjustments as the situation evolves.

Conclusion

In this context with unique particularities, generated by the health crisis of Covid 19, new major challenges arise for management controllers as the main responsible for the management of companies, who are exposed to permanent and sometimes contradictory uncertainties. The impacts are enormous on all companies which react differently in order to cope with the complexity of the environment. However, the majority of them have carried out major redefinitions of their strategies, a reassessment of their activities or an update of their management tools. This has had a direct influence on the work of management controllers, whose practices have changed considerably:

- Financial reporting activities have increased considerably;

- Modern management tools have replaced traditional forecasting tools, which are only perfectly effective in relatively certain environments.
- Integration of strategic watch dimensions into management tools in order to meet the particularities of the changing environment. (Strategic scorecards for example).
- Adoption of both reactive and proactive attitudes in order to allow an efficient reaction to various unexpected events.

However, with a pandemic that continues to spread across most markets, companies must now adopt a more proactive behavior by preparing as many action plans as possible to respond to different future situations and making repeated adjustments as the situation evolves. In other words, companies must regularly revise their forecasts, prepare and re-evaluate their scenarios and increase their reactivity.

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