

APPROPRIATION AND USAGE OF MANAGEMENT CONTROL TOOLS: AN IMPERIOUS RECONSIDERATION OF THE BEHAVIORAL REPRESENTATIONS OF ACTORS IN A PUBLIC ORGANIZATION

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Abstract

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Nowadays, public organizations are in a state of perpetual change. They are part of the need to improve performance supported by the New Public Management (NPM) trend (El Oussa & Fasly, 2023). In this sense, adherence to this movement is materialized by the insertion of management control tools, which are straddled between the instrumental aspect based on a technicality in relation to specific ends (Martineau, 2014) and the behavioral aspect is the real responsible for the fate of these tools. This paper aims to understand how users use appropriate management control tools, by determining the factors behind their usage behaviors. For this purpose, we have applied an interpretivist epistemology by conducting an exploratory qualitative study in a Moroccan public institution, we carried out semi-structured interviews with 10 members of the audit and management control department. Our results show that there are several modes of usage (solid, fragile, rejection) differing from one actor to another. This divergence in behavior is due to institutional factors, factors linked to the tool's attributes and socio-psychological factors linked to the user. Our results contribute to enriching the literature by deducing the different usages and modes of appropriation supported by the factors that promote or hinder the implementation of management control tools.

Keywords: Usage, Appropriation, Behaviors, Management Control Tools, Reasons for Influence

Authors' individual contribution: Conceptualization — H.A. and A.A.; Methodology — H.A. and A.A.; Investigation — H.A. and A.A.; Writing — H.A.; Supervision — A.A.

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1. INTRODUCTION

The ongoing wave of reforms aimed at modernizing public organizations around the world has prominently featured the introduction of management

control, a cornerstone of the New Public Management (NPM) movement. The primary objective is to apply management control tools to effectively respond to the directives of public reform agendas. These reforms have placed a significant emphasis on

the pressing need to implement management control tools with the overarching goal of enhancing organizational performance (El Oussa & Fasly, 2023).

However, these reform initiatives often overlook the importance of appropriation and the correct utilization of these tools. This phenomenon suggests that once a management tool is made available to the actor, it may deviate from the intended usage envisioned by the tool's designer (Boiral, 2004). While the design and adoption stages of these tools are undoubtedly crucial (Lux, 2013), they are not sufficient on their own. Consequently, there is a growing recognition of the need to shift focus towards usage itself (Aggeri & Labatut, 2010).

Recognizing the significance of usage means acknowledging that the fate and effectiveness of management control tools within public organizations are not solely determined by their design or adoption but also by how they are actively employed and integrated into the daily practices of the actors and the organization as a whole. Consequently, understanding and studying the process of appropriation, adaptation, and the actual usage of these tools becomes essential for achieving the intended performance improvements and outcomes sought by public reform efforts.

In the same field of work as El Kaddouri (2022), Hertzog et al. (2020) and Eninou (2014), this research aims to enrich the literature in a little-explored context; which is the Moroccan public establishment where we explored the different behaviors of users of management control tools. Thus, our main objective is to understand the concept of appropriation and usage which relates to what users really do with management control tools and to analyze the various factors that influence their behavior; while proposing recommendations that will reinforce their success and prevent the risk of their failure.

We also stress the importance of our study, which provides an agreed model for managers and decision-makers wishing to implement a management control system. Our vision goes beyond the instrumental aspect, which is always taken into account. In particular, we focus on the behavioral aspect, which is often neglected. This could therefore distort the purpose of these tools. That is to say, our results contribute to enriching the literature by deducing the different usages and modes of appropriation supported by the factors that promote or hinder the implementation of management control tools.

On the one hand, our article highlights the visible side of instrumentation through management control as an axis that contributes to performance and the achievement of the organization's goals. On the other hand, we focus on its hidden side, which includes attitudes, behaviours, habits, cognition, etc. This part of the tool refers to its socio-psychological aspect, which weighs heavily on performance and expected usages, and which is often poorly taken into account by decision-makers during the implementation of management tools.

To this end, we formulate our problematics as follows:

RQ1: What are the usages and appropriation of management control tools in the public sector?

RQ2: What do these tools become in the hands of users?

To answer these questions, we explored the literature specific to the field of appropriation and usage of management tools. Then, we conducted an exploratory case study of a public institution, based on an interpretivist posture and following a qualitative approach. The sequence of the study is as follows.

We have chosen to deal with our topic by going from its generality (NPM, management control, management control tools) to its arrival point, which is appropriation and usage.

We think it's legitimate to discuss the particularity of instrumentation through management control, as recommended by the NPM. From the definition of the aforesaid doctrine and management control, we focus on its tools, which revolve around two nuances namely technical and socio-psychological. The latter outlines the reality of the tool, which must be taken into account when any organization implements it.

Then we moved on to the question of appropriation and the usage of management control tools as a target point, which will shed light on the key concepts of our research. Theoretically, this part will explain what appropriation is, its steps, its forms and the appropriative perspective. Finally, we have extracted from the literature the families of usages by synthesizing the theories that highlight the factors that help a tool succeed or fail. These theories are mainly: the technology acceptance model 1 (TAM 1) (Davis, 1989), the diffusion of innovations (DOI) theory (Rogers, 2003), the unified theory of acceptance and use of technology (UTAUT) model (Venkatesh et al., 2003), the TAM 3 (Venkatesh & Bala, 2008) the neo-institutional theory (DiMaggio & Powell, 1983). They have enabled us to highlight the factors that influence the appropriation and usage of management tools by comparing them with actual practice.

After reviewing the literature, we focus on the epistemological posture and methodological choice, followed by the analysis and discussion of the results collected from 10 functionaries at the chosen establishment. This exploratory study is based on an interpretivist epistemological posture and a qualitative research methodology in the form of individual interviews, enabling us to analyze in depth and provide elements of answers in relation to our main question.

Finally, the conclusion of this work outlines the answers to our problematics, identifying the main results and limits of the research, as well as avenues for further study and future development.

Through this article, the literature is enriched by a conceptual framework suitable for public organizations wishing to improve the process of implementing management tools. Our results show that the actors in the public establishment studied develop several types of usage (solid, fragile, rejection) differing from one actor to another. The explanation for their behavior can be traced back to three factors: institutional factors, tool-related factors and user-related factors. Considering the contingency factors specific to each activity sector, these factors obtained and those highlighted by the literature should be taken into account for all public organizations in order to prevent any failure of the management tool. That is to say, our results contribute to enriching the literature by deducing

the different usages and modes of appropriation supported by the factors that promote or hinder the implementation of management control tools.

The structure of this paper is as follows. Section 2 reviews the relevant literature. Section 3 analyses the methodology used to conduct empirical research on a Moroccan public institution located in one of the cities of Morocco (Fez). Section 4 is on the main results and discussion. Section 5 concludes the paper.

2. LITERATURE REVIEW

2.1. Instrumentation by management control in the light of the New Public Management

A number of studies have focused on the functioning and, above all, the improvement of public organizations (Musselin, 2021). The unified perspective is to initiate modernization projects and to breathe new life into the managerial practices known in the public sphere for their acute bureaucracy and traditional, even, archaic character, requiring a significant change to restore situations. It is within this context that the concept of NPM was conceived. Its origins trace back to the reform efforts in the United States and the United Kingdom, subsequently proliferating worldwide. NPM is commonly defined as “the set of broadly similar administrative doctrines that has dominated the bureaucratic reform agenda in many OECD countries since the 1970s” (Hood, 1991, p. 3). Universally, its objective is to transplant management practices from the private sector to the public sector, anchoring effectiveness, efficiency, and economy as parameters of performance (Urio, 1998).

In a similar vein, Morocco has drawn inspiration from global reform efforts to complement the goals of sought-after performance programs and institute metrics for accounting, budgeting, and cost calculation. These instruments collectively involve adopting a governance culture focused on ensuring efficiency, quality management, organizational productivity, user satisfaction, and the oversight of public finances.

From this perspective, management control plays a pivotal role in responding to the principles of the NPM. It is viewed as a contextual function contingent upon the unique attributes of each organization. This role encompasses both financial and strategic dimensions, employing suitable tools such as budget projections, cost assessments, reporting mechanisms, and dashboards to oversee key performance indicators, evaluate and analyze costs, and interpret outcomes. As a steering function, it proffers suitable remedies and decisions to address problematic situations (Roig, 2021).

Nevertheless, the scope of management control extends beyond a purely rational standpoint. It represents a system that governs the conduct of individuals in their professional roles (Burlaud & Simon, 2006). In this context, contemporary approaches to management control integrate both its instrumental and behavioral facets. They see it as “an instrument for analyzing performance according to the objectives of the organization and the behaviors of the participants” (Alazard & Sépari, 2004, p. 39).

It can be deduced that there exist countless definitions of management control. Nevertheless, they all converge on a universal concept, namely, the usage of management control tools, each serving a specific purpose with the overarching goal of assessing and enhancing organizational performance. However, this purpose remains rather intricate due to the dual nature of these tools: a technical dimension that is readily apparent and considered during tool implementation, and a concealed behavioral dimension often overlooked by creators and decision-makers. This hidden aspect, in turn, significantly influences the fate of the tool.

So, what exactly is the essence of these tools? What mystery does the tool conceal? And what factors establish the link between the tool and the behaviors of those who employ it? The answers to these questions will be elucidated in the forthcoming section.

2.2. Management control tools: Between instrumental and behavioral nuances

Within the realms of management and the social sciences, numerous scholars have dedicated their efforts to exploring the significant role of management tools within organizations (Berry, 1983; Moisdon, 1997; de Vaujany, 2005; Grimand, 2006). Insights from the social sciences have highlighted that the proliferation of management tools not only exerts control over managers but also detaches them from their embodied roles (Benedetto-Meyer et al., 2021).

This proliferation has even led to the multiplication of their names (Mazars-Chapelon & Cazes-Milano, 2000). Hatchuel and Weil (1992) designate the managerial technique by defining it according to its components, namely: “a technical substrate which is the abstraction on which the tool is based and which allows it to function, a managerial philosophy which translates the spirit of design and usage and finally a simplified vision of the system of roles underlying the tool” (p. 122). According to David (1998), the management tool is “a formalized device for organized action” (p. 10). As for Mazars-Chapelon and Cazes-Milano (2000), the management technique is “a social construct that guides action and where the actors’ representations are essential” (p. 6). Also, it is called managerial innovation (Rogers, 2003) by assimilating it to the arrival of a novelty intended for individuals. Finally, the management instrument (de Vaujany, 2005; Grimand, 2006), which for Gilbert (2016) hides a panoply of operative actions which are necessary to obtain results, in other words, a performance.

Despite these names, “the term most frequently used in management science is that of management tool” (Aggeri & Labatut, 2010, p. 8). Indeed, they are nuanced, but their difference appears in their definitions according to which it is to be understood that the tool is not condemned to its technical and formal substrate, but it is “a mixed entity associating on the one hand artifacts, material or symbolic (concepts, diagrams, interfaces of computer tools...), on the other registers of action, the usage that will give them meaning” (Grimand, 2012, p. 242).

In addition to its components and its different names, the tool has specific characteristics. It has a structuring character that describes its functional

logic (de Vaujany, 2005). Furthermore, it exhibits an instrumental nature, meaning it is finalized, relative to an activity, it exists only through the usage that is made of it (de Vaujany, 2005).

Additionally, it carries a contextual quality; it “must have the capacity to be contextualized, i.e., to adapt to the material and immaterial environment of the organization in which it is introduced, [...] the human actors can see in it a solution to one of their local problems” (Martineau, 2008, p. 6).

As a default stance, management tools should not be confined solely to their rational aspects. Their significance only emerges when they are actively employed. Consequently, they are inherently intertwined with human action. Building upon this assertion, the adoption of management tools should be viewed as an acknowledgment that the destiny of a management tool hinges on how individuals engage with it. In essence, it attests to what it becomes in the hands of the actors. This phenomenon is nothing short of the appropriation of management tools.

2.3. Towards the appropriation of management control tools

Appropriation holds a significant place within the realms of management science and sociology (Bernard, 2019; Grimand, 2016; Bédé et al., 2012; de Vaujany, 2005) and remains a prevailing topic of interest (Grimand, 2016; Lux & Petit, 2016). Its proponents aim to illuminate the intricacies and limitations that arise from diffusion research. They seek to comprehend the destiny of management tools in the hands of users and the factors that facilitate the initial phase of appropriation, which is adoption, signifying “the decision to implement a tool, but not its actual implementation” (Brillet et al., 2010, p. 241).

Indeed, appropriation is a multifaceted concept with multiple dimensions that are challenging to distinguish (Canet & Tran, 2017). Etymologically, it involves making an object one’s own (Gauche, 2013). Numerous authors have made attempts to define it (Anton et al., 2021; Toki, 2019). It encompasses the act of taking possession of something, adapting it for a specific use or purpose, and making it one’s own.

To comprehend the appropriative perspective, Grimand (2006) elucidates the dimensions of appropriation that specify the relationship between the tool and the actor. These dimensions encompass:

- Rational perspective: In this view, the tool is regarded as a means for decision-making and rationalizing actions.
- Socio-political perspective: Here, the tool functions as a conduit for structuring relationships among actors and as a means for personal valorization. It legitimizes actions and is seen as a tool for exerting influence.
- Cognitive perspective: This perspective posits that the tool serves as a means of learning.
- Symbolic perspective: In this dimension, the tool is seen as a vehicle for identity support and sense construction.

Indeed, appropriation transcends being a mere reflection of the tool’s usage and intended purpose. It serves as a dynamic process that facilitates interaction among the tool, its designers, and its

users. The engagement of diverse participants in this process leads to a multitude of outcomes, shaped through transformations and learning experiences, ultimately culminating in the construction of meaning within the actor. This active actor has the potential to exceed the designer’s initial expectations and introduce alterations to the predefined functionalities and technical choices of the tool.

In this context, Akrich (2006a, 2006b) delineates several typologies of actor intervention on the tool, with the exception of rejection. These typologies are:

- Extension: Here, the actor uses the tool as originally intended by the designer.
- Displacement: This involves the transformation of the tool’s initial purpose. Users adopt new functionalities or usages that they perceive as better suited to their needs, highlighting a mismatch between the prescribed usage and the actual usage.
- Adaptation: In this case, the tool is adjusted to align with the organizational context or specific requirements.
- Detour: The actor goes beyond the designers’ expectations, introducing modifications or functionalities that surpass the original design.

These typologies indeed capture the diverse ways in which actors can engage with and shape the development of a tool within an organizational setting. Likewise, Martineau (2014) identifies four categories of usage:

- Rejection: This occurs when the actor deems the management tool useless both from a rational and sociological perspective.
- Solid usage: In this category, the actor acknowledges and finds the tool valuable on both rational and socio-psychological levels.
- Fragile usage: This category encompasses two subtypes. The first is when the management tool is validated solely from a rational standpoint. The second is when the tool is rejected on a rational level but validated from a relational perspective.

These distinctions shed light on the multifaceted nature of how actors perceive and interact with management tools, considering both their practical utility and their sociological implications within the organization.

Hertzog and Bollecker (2022) have pinpointed several prevalent factors that may contribute to the failure of tool deployment. These factors include change management, rhetoric by decision-makers, organizational context, properties of the tool, and socio-political factors.

Considering and addressing these factors is essential for organizations seeking successful tool deployment and effective integration into their operations.

De Vaujany (2005) introduces the theory of “from conception to usage” emphasizing the importance of considering usage from the very beginning of a tool’s development. This theory underscores that the design phase should encompass the eventual usage of the tool by actors who will shape it according to their needs.

Furthermore, this author proposes the “theory of enactment” to elucidate that once the design phase concludes, the tool enters a stage of appropriation by the actors, where they intend to customize it to their specific usage. Appropriation is a psycho-cognitive process that unfolds gradually

and is triggered after dissemination, followed by adoption. Its primary objective is to ascertain whether real usage occurs and to uncover potential disparities between prescribed and actual usage.

In this context, research endeavors converge on a shared goal: understanding the gap between the intended and realized usage of management control tools. Several theories within the domain of

adoption and appropriation of these tools point to institutional factors, attributes of the tool itself, and individual characteristics as reasons explaining this discrepancy. These multifaceted factors contribute to shaping the ultimate outcome of tool usage within an organizational context. We summarize them in the following table.

Table 1. Theories explaining the reasons for the gap between real and intended usage

<i>Theories supporting the appropriation process</i>	<i>Factors explaining the discrepancy between planned and actual usage</i>
TAM 1 (Davis, 1989)	Perceived usefulness, perceived ease of use, attitudes, experiences, gender, age, education level, status, functionality and type of innovation
DOI theory (Rogers, 2003)	Innovation attributes, decision type, communication channel, social system, change agent
UTAUT model (Venkatesh et al., 2003)	Expected performance, expected effort, social influence, facilitating conditions
TAM 3 (Venkatesh & Bala, 2008)	Perceived usefulness, perceived ease of use
Neo-institutional theory (DiMaggio & Powell, 1983)	Legitimacy, institutional isomorphism

Source: Prepared by the authors.

After presenting a conceptual overview of appropriation and proposing a synthesis by mobilizing a few theories that explain the usage of management control tools, it should be noted that they all agree on a common point of understanding the interaction between the tool, the actor and his environment. In this context, what about the reality of the Moroccan field?

3. EPISTEMOLOGY AND RESEARCH METHODOLOGY

In order to support the ex-post theoretical statements drawn up, it seems important to examine the topic of the usage and appropriation of management control tools in the Moroccan context. To this end, and considering the nature and the problem of the subject, we believe it is more appropriate to follow the qualitative interpretivist epistemological approach. Its aim is to understand the interpretations resulting from the phenomenon studied, which are obtained through the relationships between the actors and the tool, their motivations and their belief systems (Pourtois & Desmet, 1998). This choice can be explained by the fact that, in order to analyze behaviors, we need to interpret them, not quantify them. And in the process, we are required to validate the theoretical aspects. As for qualitative studies, they are used to gain a full understanding of complex interactions, based on tacit processes (Marshall & Rossman, 1989). Also, we would point out that this research can be conducted using the latter approach, with the aim of quantifying the factors identified in the literature.

Similarly, we felt it appropriate to use the single-case study method. This type of study is perceived, according to Yin (1994), as a practical investigation that explores a current and real situation whose context is not clearly defined and that relies on the use of several sources of evidence. It falls within the framework of research that answers the "how, what, why" questions when the investigator has insufficient control over the situation and the research context is real (Burns, 1990; Yin, 1998). In our case, it aims to provide a clear answer to the phenomenon of the usage of management control tools that encompass both the technical and behavioral aspects, intermingling heterogeneous usages that differ according to the interpretations of the users.

Moreover, the most suitable model for behavioral studies is individual interviews, which allow for an in-depth understanding of the object being studied. To do this, we opted for semi-directive interviews, which are designed to develop knowledge in favor of qualitative, interpretivist methods (Lincoln, 1995). We chose the case of a public establishment located in one of Morocco's cities (Fez), where we were required to remain anonymous. This organization is governed by private law and carries out a commercial activity, which is the distribution of water and electricity. In its midst, we targeted the staff operating in the audit and management control department using the management control tools put in place, that is to say, 10 actors. The duration of the interviews with each of them was spread out, on average, at 1 hour 30 minutes per person, from November 2022 to February 2023. We used this period to get to know the organization well and to get closer to users in order to obtain answers that reflected reality. Similarly, the time taken to carry out the study can be explained by the access at the end of the year and the start of a new year, which was characterized by an enormous workload that did not allow interviewees to be flexible enough to conduct the interviews.

In practice, the institution in question has an "audit and management control" department headed by a division manager who is responsible for monitoring the dashboards, reporting and budgets prepared by the department's staff. Based on the primary interviews, it seems that there is an absence of a cost calculation and cost accounting system. The first part of the interview concerned the management control practices in place. The second part of the interview focused on the behavior and attitudes of the actors during the usage of the management control tools. This part enables us to explore different usage practices and to identify the gaps between the actual usage and the prescribed usage of the tools and the reasons influencing their implementation. Our data collection was based on authorization to record the speeches of the interviewees, all of whom eventually agreed. At the same time, we opted for observation notes to record what we have observed and which does not appear in speeches. The data analysis involved transcribing the interviews carried out so that they could be easily and accessibly

analyzed. This technique helps us to come up with verbatim that recounts everything said by the interviewee, without modifying the text. According to the qualitative approach, the data were analyzed with the support of semantic logic, applying the content analysis approach. In the case of semantic processing, the analysis is conducted manually, using the content analysis approach to analyze the meaning of the ideas expressed, the words and their significance.

4. RESULTS AND DISCUSSION

4.1. Results concerning the instrumental practice of management control tools

In our study, it becomes evident that certain actors view management control as a mechanism for ongoing surveillance, driven by performance indicators that serve as reflections of the financial, accounting, and strategic well-being of the organization. From this perspective, management control is seen as a framework for evaluating and gauging the credibility and authenticity of budgets and performance metrics. Additionally, it serves the purpose of verifying whether the conducted activities align with the predefined objectives by scrutinizing variances and deviations.

In addition, the studied entity is equipped with dashboards, reporting and budgetary control which helps in decision-making, performance measurement and detection of anomalies in order to react at the right time. Moreover, these tools are computerized, except for a few indicators that are done manually. This shortcoming is heavily felt and criticized by the actors responsible for developing the indicators.

From an instrumental perspective, actors unanimously recognize the significance of management tools. They perceive these tools as having a functional and instrumental structure that streamlines and organizes their tasks, thereby facilitating their activities and the organization's overall management. Moreover, these tools effectively address management needs and contribute to enhancing organizational performance. Given their instrumental nature, these tools occupy a unique and integral role within the organization. However, their continued relevance is contingent upon their integration into the organizational context and alignment with the actors' perceptions and representations.

4.2. Results concerning the appropriation and usage of management control tools

Regarding the behavioral aspect, responses tend to be subjective due to variations in perceptions among different actors, and a uniform approach is not consistently observed within work structures. Nevertheless, it becomes evident that the various dimensions of the management control tool, as outlined in the existing literature, align with our findings in the field. Table 2 summarizes our results.

Table 2. Results of the appropriation and use of management control tools

<i>Number of actors</i>	<i>Type of appropriation</i>	<i>Family of usage</i>
5 administrators	Extension	Solide usage
4 administrators	Displacement Adaptation Detour	Fragile usage
1 administrator	Rejection	Rejection

Source: Prepared by the authors.

Moreover, the results concerning the reasons for usage and rejecting the management control tool in our case are:

- institutional reasons: legitimacy, institutional pressure;
- reasons related to the attributes of the tool: ease of usage, perceived consequences, expected performance;
- reasons related to the user: qualification, formation, profile, attitudes, age, lack of knowledge, habits, level of education.

4.3. Discussion

To explore the usages of management control tools, drawing upon insights from the literature, we have categorized these usages into three actor groups.

4.3.1. Category 1: Solid usage

Within this category, the usage of management control tools is robust and marked by "extension", signifying that the tool is employed as originally intended by its designer, devoid of any unintended consequences. Consequently, satisfaction is evident, and potential usage is affirmed, underpinned by several justifications. This category is grounded in rational reasoning and a comprehensive understanding of the utility of management control tools. As a result, individuals within this category express contentment with both the rational and socio-psychological dimensions of the tool.

On the rational level

One of the administrators in this category states that: "Management control tools are arsenals that make it possible to structure and ensure that actions are carried out in accordance with the entity's external and internal objectives" (personal communication, November 22, 2022). Another interviewer reports that: "They are the means of measuring performance based on steering indicators". Moreover, he states that: "Management control tools are used to inform, rectify and react according to the result in order to trigger an audit mission" (personal communication, December 5, 2022).

On the socio-psychological level

This category has practically no constraints when using management control tools because of the characteristics of the tool and the actor. One of the administrators argues that the difficulties are

only in measuring qualitative indicators. He believes that: *“Of course, to assess the production of personnel, for example, this task poses a certain difficulty that can be alleviated by the implementation of a computerized system, but this point does not paralyze our usage of management control tool”* (personal communication, November 28, 2022). Another administrator adds: *“My university education [Master’s degree] allowed me to study management control tools theoretically, which opened the way for me to use them easily in my former and current jobs”* (personal communication, December 5, 2022). In terms of the degree of satisfaction, the scale is “Good” for the 5 administrators since the tools “allow follow-up”.

One of the five interviewees added: *“It may be that the workload is heavy due to the activity, but the management control tools are not difficult to use”* (personal communication, December 13, 2022). Another interviewer said that *“the tools make it possible to get the work done on time, so it makes our job easier and gives us a framework for our objectives”* (personal communication, December 19, 2022).

As for the gap between planned and actual usage, it turns out that the adaptation of management control tools is limited to the purpose of the usage envisaged by the designers. Similarly, adaptation is not subject to rejection, detour or manipulation, “except for the improvement proposed to top management first”, says one of the five administrators. In the same sense, they all say that these management control tools are a part of their habits: *“It’s cultural!”* (personal communication, December 19, 2022).

This category demonstrates alignment between the designer’s intended utilization and the practical application of the tool, thereby reinforcing adherence to the designer’s original objectives. The tools employed exemplify their structuring nature as they serve as instruments for decision-making, performance evaluation, and result interpretation. Consequently, there is a clear demonstration of the contextual character, indicating that the tool is well-adapted to its environment and is embraced by this category when implementing changes proposed by decision-makers. This aspect represents a robust aspect that, in our perspective, mitigates resistance to change.

Also, we feel that the tool is instrumental, as long as it revolves around the purpose intended by top management, which means it is in line with the way it is used. This extension can be explained by several factors: ease of use which encourages and stimulates use without detracting from its basic purpose, the expected performance that the tool can deliver, the actor’s habit which has shown us that there is a mechanism for action, a strong attachment to the tool and a great need to use it, the mastery of the tool which goes back to the intellectual and study level of the individual and the assurance, particularly psychic, offered by the tool as to the proper conduct of operations managing public funds.

4.3.2. Category 2: Fragile usage

For this category, the usage of management control tools is fragile. The first sub-category is made up of three administrators who validate the tool on the rational level, but invalidate the tool’s psycho-

social level. The second category is made up of a single administrator who does not validate the tool on the rational level but does validate the tool on the psycho-social level. We support these findings with the following comments.

Sub-category A

The three users of management control tools in this sub-category see the tool as a means of analyzing financial results and managing and structuring work. These features endorse its instrumentation for a specific purpose. We believe, therefore, that this acceptance of tools is favorable to survival, information communication and work organization. These beliefs place the controlling department within the NMP doctrine, as long as the tools are used to evaluate results, measure performance and ensure the proper conduct of the entity’s financial activities. In this case, the management tool rediscovers its technical substrate and its managerial philosophy by translating the purpose for which it is designed. Thus, for this category, the tool has the ability to contextualize and structure work by organizing the actions of its members.

However, this sub-category is criticized for invalidating the tool on a psycho-social level, but their reasons may be logical. The management tool is flawed insofar as it is seen as an instrument for legitimizing actions and re-editing accounts, which has repercussions on the mind of one of the actors. Instead, he finds it a means of controlling actions, replying: *“It’s true that management control tools are a means of analysis, based on a set of indicators defined by the organization and easy to use, but they are above all a means of reporting to the supervisory ministries”* (personal communication, December 8, 2022).

In addition, the psycho-social invalidation can be understood by the fact that the tool is an imposing burden for the second user. He says: *“The tool is an obligation, but it suits me, as it’s compatible with the training I’ve received and my job duties”* (personal communication, December 13, 2022). This user believes that the imposition of use by management without involving him is at the root of his opposition. As for the third user, he believes that the psychological constraint he felt was linked to his detachment from the job following his approaching retirement age. He says: *“Honestly, I’m gradually beginning to detach myself from my job because I’ve got nothing left for my retirement and management has just allocated me this job”* (personal communication, December 27, 2022).

We note that this variable is not taken into account by management, who must ensure the proper allocation of positions by measuring the psychological impact on the actor and the operational impact on the department’s performance.

Furthermore, all three actors use the tool as they see fit. We note that in this sub-category, two out of three users adapt the tool to the context of the establishment. They see the need to adapt the management tool to their own needs, and that each actor in the organization has a particular purpose that management sometimes overlooks, especially as it is difficult to satisfy everyone’s expectations. One of them declares: *“I adapt the tool, because I’m not comfortable using it. I admit that my*

university course doesn't fit in with my current job, but I try to use it in a context-sensitive way, because it's quite useful for management" (personal communication, January 3, 2023).

As for the third user, it turns out that he is deviating from the tool, going beyond the use intended by the designer. The detour concerns the dashboard, which does not respect the designer's forecasts, as certain indicators are not included above, skewing the analysis of results.

Infinite, this category attaches appropriation to its socio-political and rational perspective (Grimand, 2016). Despite the adaptation and detour of management tools by some actors, we note the great utility of explaining the rationality and instrumentation of the tool (means of analysis, work facilitation). On the other hand, they lack psycho-social acceptance, as some actors see them as an imposition by top management, and feel a kind of unease when using them. It's worth mentioning that the actors agree that it would have been preferable to have been part of the tool design phase to express needs and expectations, something that will overcome the psycho-social constraints experienced. One of the three said: *"The management control tools would have been appropriate for the purposes set if we had been involved in their conception"* (personal communication, January 3, 2023).

The rational aspect takes precedence over the psycho-social one for several reasons: perceived usefulness, ease of use, an age which is favorable for some and unfavorable for others, level of training which varies from one actor to another, institutional legitimacy, conditions facilitating the use and the status of the actors.

Sub-category B

This sub-category is made up of a single actor who doesn't feel the instrumental side of the tool is important, but still finds its use important to his mental state. He believes that work attire does not depend on the tool and that he can organize himself differently. *"The system in place is mainly a means of protecting himself on the day of the inspection"*, he says (personal communication, December 9, 2022). For this actor, all that matters is the ease, comfort and prosperity that the tool can provide.

We believe that the failure to use the tool on a rational level can be explained by the belief he has in his experimentation to manage work without recourse to the facilitating instrument, by the management who failed to make him aware of the tool's usefulness after transferring him from the finance department to that of management control, and by the culture imported from the finance department, which explains the displacement of reporting according to his interest, as he doesn't find certain functionalities when the tool is frozen or locked. As a result, the designer's intended use is displaced. So, he transforms the tool by opting for new uses adapted to the use he deems appropriate.

As far as this actor is concerned, the tool refers to comfort, well-being and defense against exceptional events. It obscures the contribution that his rational adherence to the tool's performance and efficiency can make. The actor's appropriation of the tool can be explained by the symbolic perspective he has

built up by thinking of it as a support for his identity, and by the socio-political perspective of considering it as a tool of legitimacy.

4.3.3. Category 3: Rejection

This category refers to the rejection of management control tools. The interviewer does not make the tool part of his routine, as long as he perceives it as: *"A choice of the organization, it is an obligation that comes from the top management"* (Personal communication, January 27, 2023). The difficulty felt by this actor goes back to his level of training and the time taken to adapt the tool to its use. He claims that *"it may be due to my background which differs from my aspirations for the job despite the framing and assistance sessions"*. The tool is considered to be *"complicated and standard because the activity area is special"* (personal communication, January 30, 2023). In terms of adaptation, the tool is sometimes diverted to a specific usage under the statement: *"Sometimes, it happens to me to tamper to my advantage without the organization's reach"* (personal communication, February 3, 2023). Thus, the actor is dissatisfied with the usage since he does not feel comfortable when trying to use it. He states: *"I am uncomfortable when using the tool, so I sometimes drop it"* (personal communication, February 3, 2023).

4.3.4. Findings and recommendations

Within these usage categories, it becomes evident that the institution exhibits a diverse array of usages that vary from one administrator to another. Administrators, in general, recognize the positive impact of management control tools on performance, despite some encountering challenges.

On one hand, it is apparent that the tools' true value lies in their ability to anticipate, measure, enhance efficiency, and facilitate task execution. This perspective emphasizes the practical, tangible aspects of the tools, aligning with the notion of their instrumental role (Hertzog & Bollecker, 2022).

On the other hand, instances of detour, displacement, adaptation, and rejection indicate that the actual usages often diverge from the designers' intended prescriptions for various reasons. To address this discrepancy, it is crucial to acknowledge and bridge the gap between managers' expectations and the proposals put forth by the management control system (Bernard, 2019).

In essence, the institution's usage patterns encompass a spectrum of behaviors and approaches, reflecting the complex and multifaceted nature of management control tool utilization within the organization.

Indeed, management control tools are the outcome of decisions made by the organization's management, driven by organizational and legal objectives that may diverge from the perspectives of the individual actors. Burlaud and Simon (2006) emphasize that these tools can sometimes serve as a facade for public or cultural choices. In our specific context, they are introduced by the management to meet the demands of line ministries, which, in turn, aim to assess and enhance performance.

Consequently, the usage of management control tools is intricately linked to a range of factors, including perceptions, attitudes, skills, knowledge

(in relation to the level of education), age, willingness, motivation, and adaptability to change. The stronger the influence of these factors, the more robust the usage becomes. Therefore, mastery of the tools plays a pivotal role, and as individuals become more proficient in their use, their inclination to employ these tools increases (Déo, 2021).

Also, their usage is linked to the legitimacy of actions as a response to institutional expectations and pressures. They help to illustrate the image of the organization. Thus, it should be noted that ease of usage and protection against any unexpected event make the tool a solid usage. Therefore, it should not be a burden for the actors.

In order to successfully implement management control tools, it would be ideal to put the human factor at the center of organizational change, as the technicality of the management control tool is largely essential in achieving the “ends-means” (Martineau, 2014) and go beyond implementation, which is unfortunately based on standard ideas copied from other organizations, without thinking about adapting them to the context of the organization in which they will be deployed (El Kaddouri, 2022).

The development of appropriation can be traced back to cognitive, emotional, personal, technical and cultural reasons. In this sense, we deduce that the tool is put into action according to the user’s perception, intentions, emotions, beliefs and comfort. Appropriation can therefore be understood in terms of a variety of usages that are due to changes in the organizational structure and have repercussions on the intended purpose of the management tool and, consequently, on the organization’s expected results.

Thus, it is beneficial to opt for an early solicitation of the actors by inserting them from the conception (Delhay et al., 1999) and to warn them about the usefulness of the tool and its scope in contributing to the organization’s goals.

Similarly, management must provide supervision and periodic monitoring of the implementation project. This will make it possible to highlight the risk areas that will prevent the installation of long-term usage routines and to unite the actors around the tool’s objectives. In support of Chiapello and Gilbert (2013), three dimensions must be taken into account when implementing a management tool: the functional dimension, which designates the tool’s mission in the service of the organization’s functioning; the structural dimension, which explains the intrinsic character of the structure of the instruments; and the processual dimension, which defines the sequence of appropriate social phenomena over time.

5. CONCLUSION

As a mandated transition, public entities are not exempt from organizational shifts. They must adapt to the evolving environment by implementing a management control system that incorporates technical solutions, ensuring effective performance while accommodating the diverse usage patterns of the individuals involved. However, this transformation introduces complexities in the human aspect of organizations, and the lack of commitment from actors significantly hinders this process (Komi, 2019).

This research aimed to gain insights into the usage of management control tools in the Moroccan context, using a public institution as

a case study. We sought to understand both the patterns of tool usage and the underlying factors that contribute to their presence and effectiveness.

The findings of our empirical study indicate a substantial instrumental emphasis within the examined institution. However, this emphasis varies considerably among different actors within the organization. The divergence in usage modes can be attributed to the rational and socio-psychological attributes of the tool, resulting in solid, fragile, or outright rejection patterns. These usage categories are influenced by several factors, including institutional considerations, attributes of the tool itself, and characteristics of the users.

These factors are almost identical even in the study presented by El Kaddouri (2022), who shows that appropriation of the tool can be traced back to three factors: “the relevance of the tool, the specificity of the organization, in which the tool is implemented, and the priorities of the main actors impacted by the introduction of the tool” (p. 190).

In this context, our conclusion is that the behavioral aspect exerts a significant influence on the technical dimensions of the tool within a prominent public setting. Additionally, our study leads us to the assertion that management tools are inherently valuable. Therefore, challenges and failures in their implementation can be attributed to various factors, including deficiencies in the tool’s design, inadequate top management support, insufficient project commitment, information technology infrastructure limitations, structural and environmental shortcomings, and more (Abid, 2012; Nobre, 2013). Furthermore, these challenges can also give rise to risks such as depression, stress, bureaucratization, and emotional strains (Hertzog et al., 2020).

Indeed, our study holds practical relevance for practitioners considering the implementation of management tools to address potential management challenges, even though control tools may face criticism and confusion within organizations (Méréaux, 2020). Therefore, it serves as a valuable scientific contribution that could enhance the existing body of knowledge on this topic by exploring additional research dimensions.

However, it’s important to acknowledge the limitations of our study. The first limit relates to the choice of the sample. The clinical case of a single public institution constrains the generalization of the results of our work to all Moroccan public institutions. In this sense, our qualitative study did not allow for the validation of our findings. The factors influencing the management control tool should therefore be the subject of a quantitative study on a representative sample of Moroccan public organizations in future research by measuring them. The second limit is the bulk treatment of all the management control tools, which does not give an obvious visibility of their use, especially in a time frame limited to four months. A longitudinal study would be beneficial in order to deal with each tool separately. In our case, we took the use of tools as a whole. In the same context, a future study could focus on the design phase, where the researcher should be present to analyze the degree of adherence and/or resistance to change. It is also possible to benchmark the public and private sectors, or to compare different countries, highlighting the points of convergence and divergence of the phenomenon in these different contexts.

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