

## CONTROL DE GESTIÓN: PROBLEMAS SIN RESOLVER Y OPORTUNIDADES PARA LA INVESTIGACIÓN

Durante las últimas décadas varios autores de la literatura en gestión empresarial han llamado la atención sobre la recurrente necesidad de precisar los conceptos elementales del proceso de control de gestión, pues la actual falta de claridad en su definición es un problema fundamental para el desarrollo y la madurez de una teoría sólida sobre su naturaleza. A pesar de que las teorías y los enfoques que lo abordan han contribuido a la comprensión de este complejo fenómeno, estos carecen de un marco conceptual común que permita una aproximación más objetiva y detallada. El objetivo del presente trabajo es identificar los conceptos básicos que requieren de un mayor grado de consenso, así como investigar si los aportes recientes a la investigación en control de gestión han brindado mayor claridad sobre dichos conceptos. Adicionalmente, se espera explorar y encontrar nuevas oportunidades para investigaciones futuras. Mediante una revisión de la literatura clásica y contribuciones recientes, se infiere que la conceptualización en control de gestión alcanzó cierto grado de entendimiento compartido en cuanto a sus aspectos más específicos; no obstante, durante su articulación estableció ciertas nociones aún incomprendidas. A partir de este análisis, se concluyó que investigadores y estudiosos en el área de control de gestión deben coincidir en tres conceptos elementales en torno a esta práctica: el problema del control en gestión, la definición y descripción de sus mecanismos, y el conocimiento de sus alcances y límites. Como aporte final, se identifican y proponen varias líneas de investigación para el estudio del control de gestión.

**PALABRAS CLAVE:** Control de gestión, mecanismos de control, sistemas de control de gestión.

## CONTRÔLE DE GESTION : AFFAIRES NON RÉSOLUES ET OPPORTUNITÉS POUR LA RECHERCHE

**RÉSUMÉ:** Dans les dernières décennies, divers auteurs de la littérature spécialisée en matière de gestion des entreprises ont souligné la nécessité récurrente de préciser les concepts élémentaires du processus de contrôle de gestion; selon eux, l'actuel manque de clarté dans leur définition représente un problème fondamental pour la formulation et le plein développement d'une théorie solide sur sa nature. Certes, les théories et les approches qui abordent ce phénomène complexe ont contribué à la compréhension de celui-ci, cependant il manque encore un cadre conceptuel commun qui permette une approche plus objective et détaillée. Les objectifs du présent travail sont d'identifier les concepts de base requérant d'un plus haut degré de consensus et d'investiguer si les apports récents à la recherche en contrôle de gestion ont fourni plus de clarté sur ces concepts; il se propose en outre d'explorer et d'indiquer de nouvelles opportunités pour de futures recherches. Au terme d'une révision de la littérature classique et des contributions récentes, il ressort que la conceptualisation en contrôle de gestion a atteint un certain degré de compréhension partagée sur ses aspects les plus spécifiques, mais que dans l'articulation de ceux-ci il reste encore certaines notions non comprises. Sur la base de cette analyse, la conclusion est que chercheurs et spécialistes en matière de contrôle de gestion doivent s'accorder sur trois concepts fondamentaux concernant cette pratique: le problème du contrôle en gestion, la définition et la description de ses mécanismes, et la connaissance de sa portée et ses limites. Comme apport final, le travail identifie et propose diverses lignes de recherche pour l'étude du contrôle de gestion.

**MOTS CLÉS:** Contrôle de gestion, mécanismes de contrôle, systèmes de contrôle de gestion.

## CONTROLE DE GESTÃO: PROBLEMAS NÃO RESOLVIDOS E OPORTUNIDADES DE PESQUISA

**RESUMO:** Durante as últimas décadas, a necessidade de uma melhor definição dos conceitos centrais de controle de gestão tem sido proclamada repetidamente por vários autores em seus trabalhos. A falta de clareza em relação a esse assunto é um problema essencial para o desenvolvimento e maturidade de uma boa teoria do controle de gestão. A diversidade de teorias e abordagens tem contribuído para a compreensão desse fenômeno complexo, embora essas contribuições pudessem ter dado um melhor fruto, se elas tivessem compartilhado uma estrutura conceitual. O objetivo deste trabalho é identificar os conceitos centrais na necessidade de um maior grau de consenso e de saber se contribuições recentes têm trazido algumas ideias sobre eles. Além disso, espera-se também explorar e encontrar oportunidades para futuras pesquisas no mesmo campo de estudo. Depois de fazer uma análise seminal e contribuições recentes, pode-se inferir que a conceitualização sobre o campo de controle de gestão tem alcançado um certo grau de sucesso, compartilhando o entendimento dos aspectos específicos e, ao mesmo tempo, tem obscurecido a compreensão dos outros. Então, conclui-se que os pesquisadores sobre controle de gestão ainda precisam melhorar seu grau de acordo com três conceitos centrais: o controle de gestão, a definição e a descrição dos mecanismos de controle e gestão do âmbito e limites dos sistemas de controle de gestão. Várias linhas de pesquisa são identificadas e propostas.

**PALAVRAS-CHAVE:** Controle de gestão, mecanismos de controle, sistemas de controle de gestão.

CORRESPONDENCIA: Bv España 2633. Montevideo. Uruguay.

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# Management Control: Unsolved Problems and Research Opportunities

Luis Silva-Domingo

Ph.D. en Dirección de Empresas

Universidad ORT Uruguay

Montevideo, Uruguay

Correo electrónico: [luis.silva@ort.edu.uy](mailto:luis.silva@ort.edu.uy)

**ABSTRACT:** During the last decades the need for a better definition of the central concepts of management control has been claimed repeatedly by several authors, since the lack of clarity in this matter is an essential problem for the development and maturity of a sound theory of management control. The diversity of theories and approaches has contributed to the understanding of this complex phenomenon, although these contributions could have been more fruitful if they had shared the conceptual framework. The aim of this paper is to identify the central concepts in need of a higher degree of consensus and find out whether recent contributions have brought some insight on them. In addition, it is also expected to explore and find opportunities for future research in the same line of reasoning. After making a review of seminal and recent contributions, it is inferred that the conceptualization on the field of management control has achieved some degree of success at sharing the understanding of specific aspects, while at the same time has blurred the understanding of others. Then it is concluded that researchers on management control still need to improve their degree of agreement on three central concepts: the management control problem, the definition and description of management control mechanisms, and the scope and boundaries of management control systems. Several research paths are identified and proposed.

**KEYWORDS:** Management control, control mechanisms, management control systems.

## Introduction

The concept of control in organizations can be counted among the first ones appearing in management literature. It has been explicitly mentioned, for instance, in the early works of Taylor (1911) and Fayol (1916). However, management control had been a neglected matter until the late 80's, when earlier claims made by several authors (Koontz, 1958; Giglioni & Bedeian, 1974; Otley & Berry, 1980; Eisenhardt, 1985) seemed to have an impact in the research community and made multiple discussions arise. Despite the intense subsequent flow of publications, the lack of clarity in the central concepts of management control and its boundaries has been repeatedly stated (Fisher, 1995; Otley, 2003; Malmi & Brown, 2008). This problematic situation, as these authors explain, represents a primal problem for the management control theory itself, since its development requires that researchers and practitioners speak the same language. The existence of an integrative conceptual framework is needed for empirical research, and ultimately is necessary to assist practitioners in designing better control systems (Flamholtz *et al.*, 1985). On the other hand, conceptual pluralism on management control research might be enriching and account for its development.

The aim of this paper is to identify the central concepts in need of a higher degree of consensus and investigate whether recent contributions have brought some insight on them. For identifying the specific issues and concepts that seem to need a higher degree of consensus, this research explores the evolution of different topics and concepts discussed in literature.

One of the possible causes for this lack of clarity about management control concepts is the diversity of theoretical approaches it has deserved. Perhaps one of the first approaches was that of the principles of management (*e.g.*, Emerson, 1912; Koontz, 1980): a discrete list of universalistic principles or techniques with the underlying idea of this being the best practice. The attention focused on the principles of management has been declining over the time. The cybernetic approach to control is still an important contribution that has been enriched since its emergence. The basic idea of the cybernetic approach was that of a closed loop control; this notion was quickly abandoned to adopt a more homeostatic nature (Beer, 1966). Later contributions also criticized this approach because of its simplicity and inability to capture the complexity of higher level systems such as the one of an Organization (Hofstede, 1978; Otley & Berry, 1980). Nevertheless, most of the frameworks currently used or under discussion, are partially based in the cybernetic logic (*e.g.*, Otley & Berry, 1980; Flamholtz *et al.*, 1985). The agency theory approach (Jensen & Meckling, 1976, 1994) introduces the idea of efficiency in the control process, trying to minimize the agency costs. This approach usually leads to a simplistic design and use of control tools, mainly through explicit money-based incentives (Merchant & Simons, 1986). Agency theory has received strong objection because it is argued to have a negative impact in organizational behaviour (Mintzberg, Simons & Basu, 2002; Ghoshal, 2005). Transaction costs economics (Williamson, 1975, 1981) has been also applied to management control leading to the still influential concepts and frameworks proposed by Ouchi (1979, 1980). The psychological approach is focused in the individual and its behavior within the context of an organization. This area of research has made contributions ranging from general frameworks of behavior (*e.g.*, March & Simon, 1958), to specific relationships between control tools or characteristics and certain individual behaviors (Ivancevich, 1976; Locke, 1968; Argyris, 1964; Likert, 1967).

As the same flow of reasoning shows, the theoretical pluralism of these contributions has been positive to the area of knowledge since they brought new perspectives from other areas, as it has been discussed in different contributions (van der Meer-Kooistra & Vosselman, 2012). However, relevant differences in the organizational problems

studied were found as well. These differences state that a research might be neither comparable nor complementary with others. Even more, this brings some sort of confusion given that the basic concepts are not always correctly and sufficiently specified.

The contingent nature of management control is nowadays recognized for almost all researchers and supported by several studies (*e.g.*, Govindarajan & Fisher, 1990; Archer & Otley, 1991; Fisher, 1998), in spite of the important differences referred to the contingent variables. This is the case, for instance, of organizational culture and organizational structure, since some authors include these concepts as control mechanisms (*e.g.*, Otley, 1980; Malmi & Brown, 2008), while others take them as contingent variables (Flamholtz *et al.*, 1985). Not surprisingly the present conceptualization of management control shows a critical lack of clarity. Nevertheless, research on different contingent variables enhances the development of the management control theory, since it provides new ideas or empirical evidence related to the applied use of control concepts and tools. The lack of a common language, though, has been detrimental for this development. Not all contributions have studied the same organizational problem, or have used the same concept of control mechanisms. As a result, conclusions from one research are not always complementary or comparable to those of other studies.

An important flow of contributions have focused on studying and proposing specific control mechanisms or models either for universal purposes or specific settings. The control mechanisms proposed and studied cover a wide spectrum, such as the activity based costs (Cooper & Kaplan, 1991), balanced scorecard (Kaplan & Norton, 1992), and interactive systems (Simons, 1994). Also a rich variety of settings has been analyzed, such as small businesses (Fullen-Love & Scapens, 1997), new products (Davila, 2000), research and development (Cardinal, 2001), interorganizational relationships (Silva-Domingo & Canet-Giner, 2010), and industry-specific settings such as the public sector (Speklé & Verbeeten, 2014), among others. All these efforts have made a positive contribution to management control theory but, once more, the lack of a common language has played a negative role since there is not a common organizational problem or definition of the concept of control mechanisms.

We can also find some efforts of integration of all these contributions, in the form of literature review (Gigliani & Bedeian, 1974; Merchant & Simons, 1986; Berry *et al.*, 1995; Luft & Shields, 2003; Caglio & Ditillo, 2008; Berry *et al.*, 2009; Meira *et al.*, 2010), conceptual propositions (Malmi & Brown, 2008), or even in the form of a new conceptual



framework (Otley & Berry, 1980; Flamholtz *et al.*, 1985; Govindarajan & Fisher, 1990; Simons, 1995; Ferreira & Otley, 2009). Most of these contributions have been positive for the understanding of the complex phenomena of management control, particularly all the relevant literature reviews and some conceptual discussions and propositions. However, we put forward that some contributions (*i.e.*, control as a package) have increased the confusion, blurring the already complex boundaries that management control systems hold with other central areas of knowledge such as strategy formation, organizational structure, and organizational culture.

The common weaknesses found in the reviewed literature emerge as three critical concepts that need to be studied in depth: management control problem, management control mechanisms, and management control systems definition and boundaries.

One of the critical aspects for a theory to evolve is to share a definition or interpretation of the organizational problem it is addressing. The present use of the concept of management control enjoys an apparent good level of agreement

—explicitly or implicitly— on the idea of how organizations ensure that managers act based on the organization interests (Otley, 2003), expanding in some cases the idea over all individuals in an organization. However, this basic definition may be too broad since almost every management effort aims to ensure that managers and workers, in general, pursue organizational objectives, or as it is put by Merchant and Otley (2007) “almost everything in the organization is included as part of the overall control system”. Furthermore, the problem of management control is still under debate, with mainly two conflicting positions (Zimmerman, 2001; Chenhall, 2003; Otley, 2003; Malmi & Brown, 2008). This leads us to find conflicting conclusions in different contributions, grounded in the fact that those contributions were studying different things without clearly stating this purpose. Given its relevance and its lack of consensus, the management control problem will be discussed in detail as one of the identified central concepts.

In a complementary path of reasoning, there is no agreement whether to include informal and/or organic control mechanisms (Malmi & Brown, 2008) or not (Simons, 1995).

Even worse, there is an apparent misunderstanding about the meaning of these descriptive concepts (Chenhall, 2003). In addition, some authors use control mechanisms and control systems almost as synonymous (*e.g.*, Fisher, 1995; Bisbe & Otley, 2004); this exercise may represent a risk, or at least a loss of granularity, in management control research and practice. This seems to be a critical concept since the control mechanism is (implicitly or explicitly) a fundamental component of every research and is the main practitioner's managerial tool. It is too confusing and misleading to have different definitions and meanings of this concept. This idea will be further discussed in chapter five.

The concept of management control as a package (Otley, 1980; Fisher, 1995; Chenhall, 2003; Malmi & Brown, 2008) is not always correctly specified (Grabner & Moers, 2013) and, consequently, not clearly separated from the concept of management control systems. Following the ideas of management control as a package, even the business strategy, the organizational structure and organizational culture may be considered as a part of management control. It seems to be true that those areas of knowledge share the main objective of ensuring that workers act based on the organization interests. However, following this tempting path management control may become a synonymous of management in general; this extreme seems to be detrimental for the development of a sound theory of management control. The concept of management control system and its boundaries, then, is another central concept that seems to need a higher degree of consensus and will be discussed in detail later.

### Management Control Problem

The purpose of management control, after a century of discussion, is still under debate. As Otley (2003) mentioned, citing Machin, *"the definition of control leaves scope for academics to disagree violently, whilst still perceiving themselves to be studying the same thing"*. Possibly one of the first approaches of management control was that of monitoring (Fayol, 1916; Ouchi, 1977); that is, management control as a process of monitoring or evaluation (of results or actions). Anthony (1965) proposed another concept for management control, related to the effective and efficient allocation and use of resources, giving strength to the practice of management accounting. Assuredly, the effective and efficient use of resources implies monitoring, although it confines the scope of management control to management accounting (Otley, 2003; Berry *et al.*, 2009) and oversimplified the solutions (Hofstede, 1978; Otley *et al.*, 1995; Otley, 2003). One of the fundamental problems with these approaches is founded in the fact that the very

action of setting goals and monitoring performance is influencing the behavior of the individuals being evaluated (Simons, 1995; Kaplan & Norton, 1992, 1996). Finally, another approach proposes the alternative idea of management control as influencing the behavior of members of an organization (Flamholtz, 1979; Merchant, 1985, 1998; Otley, 2003), which has been gaining support over time.

Following the last discussion, there is a high degree of agreement on the idea that management control should help organizations to solve the problem about the impact of contradictory goals among individuals and organizations (Jensen & Meckling, 1976, 1994; Flamholtz, 1979; Ouchi, 1979; Merchant, 1985; Otley *et al.*, 1995; Simons, 1995). That is, if individuals always and by themselves act aligned with organizational goals, there would be no need for management control (Abernethy & Chua, 1996). In a broader definition, there is also a high degree of agreement with the idea of a management control that helps organizations to ensure that managers act in organizational interest (Otley, 2003), especially if we broaden the scope to consider all employees at any level, instead of just managers. However, these agreements are not enough to build a sound control theory and more precise definitions seem to be necessary (Otley, 2003; Malmi & Brown, 2008), since other management concepts such as organizational structure or culture could be included.

Taking recent contributions, we might establish that there are two differing positions about the management control problem, explicitly or implicitly assumed. On the one hand, the idea of management control for strategic top management decision making (Bisbe & Otley, 2004). On the other hand, the idea of management control for influencing or direct employee's behavior (Zimmerman, 2001; Malmi & Brown, 2008). This discussion may not be a vital issue for academics since all they need to conduct a research is to specify their position. However, practitioners cannot separate the design and use of management control mechanisms; on the contrary, they seem to need an integrative point of view.

One potential source of clarification might be found in discriminating the scope of management control in terms of corporate, managerial and operational level (Fisher, 1995). According to this contribution, managerial control is control over mid level managers, aligning their behavior to achieve organizational goals; operational control is control over employees of a lower level; and corporate control is control related to CEOs, board of directors and shareholders, what could be equated to the governance problem<sup>1</sup>. The

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<sup>1</sup> In a similar vein, Anthony (1965) had already introduced the idea of treating management control separately from the concepts of

idea of management control for decision making could be associated, then, with strategic control, while the idea of management control for direct employee behavior would be, actually, management control (and may be operational control). However, this reasoning may imply that three different management control systems may exist in every organization, what seems to be, at least, too costly. From another point of view it may imply that the same management control system should address three different and, hopefully, complementary objectives. If any attempt will be made to unify these hypothetically different and separated systems, then a unique approach to the design of the overall control system seems to be a logical and efficient consideration. Further research may help at exploring conceptually and empirically this reasoning.

Other potential source of answers might be found in a behavioral approach. It might be useful to develop a deeper understanding of the phenomenon and analyze the practical meaning of expecting employees to behave aligned with organizational goals and strategies. Following Otley and Berry (1980) we may explain that three types of behaviors are expected to be aligned with organizational goals and strategies: seek goal achievement, coordinate efforts and actions, and adapt to external and internal changes. We may want that all employees in the organization behave individually in order to achieve organizational goals. We may also want that all employees give their best effort coordinated with their team members and across different teams and functions. Finally, we may want that all employees, especially but not just managers, will respond to changes, adapting what might be needed in the organization on its interests. We may also say that each of these three types of behavior represents a combination of the following four individual actions: adapting inputs, adapting goals, adapting processes, and adapting strategy (Otley & Berry, 1980). In order to behave accordingly to the organization interest (*e.g.*, achieve a predefined goal) the lowest level employee must decide simple but important things in terms of adapting their activities, such as how much effort to put in, how fast to do things, how much verification, and so on. Top management individuals will behave according to the organization interest probably adapting processes and strategy in response to external and internal changes. In both cases there are taking decisions to make, though. This approach suggests that is

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operative control and strategic planning. According to this view, management control is between the other two, and it is related mainly to management accounting. The development of this idea has brought a rich literature focused on the use of key indicators for the efficient resourcing (Kandwalla, 1972; Goold & Quinn, 1990; Kaplan & Norton, 1992; Anthony & Govindarajan, 2004).

necessary to discriminate between employees of different levels as they have different degrees of strategic discretion in their jobs. However, the same approach suggests that all of them take decisions and we need to align those decisions towards organizational interests. We could explore the idea, then, that management control must deal with the challenge of aligning the behavior and decisions of all employees (from top managers to lower levels) in the best interest of the organization. Following this reasoning, the behavioral perspective of management control could even include the challenges of the decision making problem<sup>2</sup>. However, further empirical studies should address the implications of these suggestions.

Finally, in order to build practical concepts to influence the decision making, it is necessary to understand what makes people choose among different behavioral options. Economic points of view such as the agency theory (Jensen & Meckling, 1976, 1994) and transaction costs economics (Williamson 1975, 1981, 1985) have made influential contributions to the literature, as March and Simon (1958) have from a behavioral perspective. However, some of these contributions are too simplistic (REMM model), and some others too theoretical. Merchant contributions (1985) seem to consider a broad but practical perspective at the same time, identifying three specific problems to solve, in order to have individuals aligned (choosing to behave in the best interest of organization)<sup>3</sup>: direction, motivation, and personal limitations. In other words, for influencing a person's behavior, you need to inform and make him/her understand what the organization expects from his/her decisions; you need to find the mechanisms to make his/her wish to behave in the interest of the organization; and finally you need to give him/her the knowledge and tools he/she needs to perform as expected. However, no evidence of a higher level of agreement has been found.

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<sup>2</sup> It may be argued that accepting this idea requires to reject the well-established concept (Ouchi, 1979; Flamholtz *et al.*, 1985; Merchant & Van der Stede, 2007) that there is someone like the top management or the dominant coalition that controls the behavior of others like mid management or lower level workers. However, if the dominant coalition is aligned with the best interest of the organization (as it is assumed in most of control literature), then this coalition will design control mechanisms that will help them to have an efficient process for good decision making. The need for internal consistency should lead this coalition to design a comprehensive management control system that will include, then, mechanisms that will influence their own behavior.

<sup>3</sup> The influence of Barnard (1938) is obvious. However, the incremental contribution is relevant since Merchant achieves in focusing the earlier broad concepts into the specific setting of management control.

In summary, management control problem is still a misspecified concept that seems to be limiting the development of management control theory. Some research opportunities, though, have been identified and proposed.

### Management Control Mechanisms

The concept of control mechanisms is very intuitive and simple. Examples of control mechanisms could be found everywhere in organizations, for instance, in budgets used in an interactive fashion (Malmi & Brown, 2008), in the balanced scorecard (Kaplan & Norton, 1996), in formal operative procedures (Simons, 1995), and also in shared values in a context of social control (Ouchi, 1980). However, it has not been properly defined, leaving ground for confusion since it has an important impact in more complex concepts such as management control systems. Taking into consideration the earlier discussion about management control problem, we might define control mechanism as a management practice or routine that influences all or some of the members in an organization to act or make decisions for its best interest, collaborating with at least one of the problems of direction, motivation, and personal limitations.

Even though the idea of formal and informal control mechanisms as two broad categories is shared by researchers (Kirsch, 1996), there is a relevant and evident difference in literature about the meaning and use those concepts (Chenhall, 2003). Actually, the definition of management control systems usually includes the discussion about whether to include informal mechanisms or not. This situation is aggravated because the concept of informal mechanisms is tangled with those of social and spontaneous mechanisms, leading to contradictory and probably erroneous conclusions.

In an important part of the reviewed contributions, formal mechanisms are used interchangeably with bureaucratic or mechanical mechanisms, and informal mechanisms with social or organic mechanisms (Perrow, 1967; Smith *et al.*, 1995; Abernethy & Brownell, 1997; Chenhall, 2003; Dekker, 2004; Donada & Nogatchewsky, 2006). However, when these authors unify these concepts, they are losing important information about the control mechanisms. The concept of a mechanical management control mechanism is related to the existence of rules, procedures, objectives and goals, and hierarchy (Galbraith, 1973). Meanwhile, an organic management mechanism refers to relational and social aspects of labor life (Galbraith, 1973). The difference resides in the degree of standardization of tasks and/or results. Taking the contribution of Whitley (1999), formalization is the degree of written specification which is conceptually and practically different from the degree

of standardization of tasks and/or results. In a different but complementary vein, Langfield-Smith (1997) defines informal control mechanisms as those that are not consciously designed or with the clear purpose of solving the control problem, what Galbraith (1973) had named *spontaneous mechanisms*. Surely, in most organizations we can find spontaneous control mechanisms that are not written and consequently are informal. However, we may also find control mechanisms consciously designed by top management that are not written neither. In addition, there are other tools that management has put forward for other reasons –not control– but actually have a great impact in management control.

Following this reasoning, the need to discriminate among different descriptive variables of management control mechanisms arises: informal versus formal as the degree of written specification, social versus bureaucratic as the degree of standardization, and consciously designed versus spontaneous as the degree of consciousness in the design by top management. As a result, we may have, for instance, formal-organic control mechanisms such as the belief systems (Simons, 1995), which are explicitly written in formal statements, and are based in socialization with a low degree in standardization of tasks or results. On the other extreme, we may find informal-mechanic control mechanisms, such as the detailed procedures in artisan workshops, which are not written, taught by doing at the shop floor, but rigorously followed by seniors and juniors.

It is evident that the concept of management control mechanism is also misspecified. However, this work puts forward a clear path for research that might lead to fill the gap in. The preliminary ideas proposed here need empirical research for a further understanding of the differences and their impact in practical settings.

### Management Control Systems Boundaries

Different definitions of management control systems have been put forward. The first word that should call our attention is "*systems*". Possibly every organization is using a set of control mechanisms. This extent, however, does not necessarily mean that the whole set of mechanisms have been designed consistently and complementarily (Otley, 1980; Fisher, 1995; Chenhall, 2003; Malmi & Brown, 2008), for improving the impact on behavior as a *system*. On the contrary, it is easy to find organizations with contradictory mechanisms. The concept of a system is defined as a set of things *working together* as parts of a mechanism or an interconnecting network; a *complex whole* (Oxford Dictionary, 2011). A management control *system* implies a conscious design of every control mechanism and also

of the interaction role of each part of the whole; a design with the objective of influence the behavior of members in the organization. Researchers often use the management control system definition that better suits their research interest at that time. Thus, we find definitions that suggest that the system should align all behaviors behind general and shared objectives regardless the responsibility held in the organization, while others focus on top management or lower level managers or even the operative level. We also find differences regarding the type of control mechanisms included: bureaucratic or social mechanisms, or consciously designed or spontaneous. If the academic research separates –without discussion– these important managerial practices, it increases the risk of producing partial research results of little value for practitioners. It seems that more basic research on the actual use of management control systems is needed.

The concept of control as a package describes the entire set of existing control mechanisms in an organization, regardless its internal consistency. In the literature this concept extends to other components of the organization as culture and organizational structure since them –it is argued– actually influence the behavior of individuals and can help to ease the control problem (Otley, 1980; Fisher, 1995, Chenhall, 2003; Malmi & Brown, 2008). This extent seems to be supported by empirical evidence, and therefore the need for a coherent organizational design involving culture, structure, management control mechanisms and strategic planning process is essential. However, concluding that the concepts of organizational structure and culture should be considered as control mechanisms would imply that management control and organizational design should be treated as synonymous, and this seems to be too forced and against managerial practice. This trend strengthen the need for a deeper discussion on the boundaries and complementarities between management control systems (or package) and other areas of knowledge.

The vagueness in the scope of management control in its relationship with strategic planning is one of its most important weaknesses. A century ago the concept of control was separated from planning (Fayol, 1916). But succeeding developments showed that separation brought practical problems, stating for instance that while they are conceptually distinct processes, it is impossible to separate them in practice (Anthony, 1965). Others go even further and argue that taking into account the dynamics in strategy formation (Mintzberg & Lampel, 1999), it is not possible to separate neither the processes nor the concepts of strategy formation and control (Simons, 1991, 1994, 1995). Some authors have put forward the existence of dynamic relationships between competitive strategy and management

control (Otley, 2003). This means that although the formal planning processes can be analyzed separately from those of management control, the continuous and emergent formation of a strategy should be considered integrated with management control. However, although the symbiosis of the processes of strategy formation and management control might be accepted, the objectives (organizational problems) of both processes are different. This combined process, then, should address complementary objectives: to continuously design a competitive strategy to beat competitors on the one hand, and to ensure that members of the organization act in its best interest on the other hand. To sum up, probably a higher level of agreement on these boundaries and complementarities could help researchers in arriving to conclusions with higher impact on managerial practice.

Confusion with the structure also attracted the attention of numerous important authors. The first contributions can be attributed to Taylor (1911) as representative of scientific management, Fayol (1916) of theory of the administrative or departmentalization, and Weber (1947) of theories of bureaucracy. Certainly, these schools are not primarily concerned with developing the concept of control, but their proposals focused on the design of mechanisms to achieve certain employee behavior. When considering human beings as a mechanical part of the production system, their control concerns focused on determining the best ways to perform each activity (design procedures and jobs) and a control system supposedly designed to maximize individual productivity (monitor outputs and rewards). Then, without separating the design of the organizational structure of the design of control systems, they worried about the best ways of organizing work (departmentalization and formalization), thus strongly influencing behavior. From the contributions of several authors who worked specifically on this border (Perrow, 1965; Thompson, 1967; Woodward, 1970; Ouchi, 1977<sup>4</sup>; Mintzberg, 1979, 1980, 1983, 1987), now the boundaries between organizational structure and control management are better identified. Organizational structure is concerned with the formal definition of the boundary of the organization, the formal division of tasks within these borders, the degree of specialization and delegation necessary to carry out the activities, and the formal mechanisms of coordination between tasks. However, on this last point there is a boundary with blurred limits with management control systems, since some formal coordination mechanisms are based on information and seek to

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<sup>4</sup> In previous contribution Ouchi (Ouchi & Maguire, 1975) discusses control functions from a paradigm of control inside organizational structure, showing an evolution on his perspective.

solve the control problem and some control mechanisms seek to solve coordination problems. Even further, recent contributions related to control as a package might be introducing some sort of confusion, given the implicit higher conceptual position attributed to control compared to that of structure and culture. The relationship between management control and organizational culture is very similar to that discussed for the organizational structure. Though, it presents a special challenge because several authors explicitly considered culture as part of the control system (Ouchi, 1980; Simons, 1995; Malmi & Brown, 2008; Berry *et al.*, 2009). As a result, depending on the departing point of view, some management mechanisms may be at the same time part of the organizational structure or culture and a control mechanism, or organizational structure and culture are just portions of the overall control system. This is not a problem by itself, though, since different approaches might bring some light to such a complex phenomenon. The problem lays in the low level of mutual recognition and cross-breeding of the different areas of knowledge. Taken as complementary concepts and managerial tools instead of considering one part of the other, management control theory could benefit from structure and culture research, and vice versa.

### Conclusions and Final Thoughts

Management control theory needs a higher degree of agreement on central concepts as it works as a common language for researchers and practitioners. In the same way, this would lead to improved complementarities and collaboration. At the same time, diverse approaches are required to enhance discussion and convey new ideas and standpoints. This research has identified three concrete and fundamental issues that seem to be harming the development of management control theory due to their misspecification. All the same, each of these issues offers questions and opportunities for further research.

The first critical issue is that the definition of the control problem presents some unclear areas. What control mechanisms are designed for management decision-making? What are designed for directing employee behavior? Is there any critical inconsistency? If so, what is its impact? How will the same systems help in solving operative control problems (decisions related to the amount of inputs) and, at the same time, strategic controls problems (decisions related to adapting to external changes)? Is it really possible? Or should we end up with different management control systems in the same organization? Are management control systems designed to align the behavior of all members of an organization? (Including the highest level supposed to "control" others).

In addition, the description of control mechanisms is confusing and contradictory. The idea of using three different and independent dimensions has been put forward: formal versus informal, social versus bureaucratic, and spontaneous versus designed mechanisms. Will this idea have any impact on practice? Are managers really using formal-organic or informal-mechanic control mechanisms? Are there any relevant unconsciously designed control mechanisms? What is their impact?

Finally, there is a problem related to the lack of clarity in the boundaries of management control systems and other managerial concepts such as strategic planning, organizational structure and organizational culture. How would the management control system be better designed to efficiently implement strategies from formal strategic planning process and, at the same time, help in promoting and capturing emergent strategies? Is it possible to conciliate the organizational structure and culture approaches with the management control theory? Is there an opportunity to join efforts between human resources and management control research? Should management control be equated to organizational design?

Hopefully, the possibilities for research proposed in this work might contribute to the development of the management control theory, at least to a limited extent.

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