

**UPPER ECHELON CHARACTERISTICS AND THE USE OF MANAGEMENT
CONTROL SYSTEMS: AN INTEGRATIVE REVIEW**
***CARACTERÍSTICAS DO ALTO ESCALÃO E O USO DE SISTEMAS DE
CONTROLE GERENCIAL: UMA REVISÃO INTEGRATIVA***

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ABSTRACT

Top management teams use Management Control Systems (MCS) to guide the performances of their subordinates and also the decisions made by them, promoting and implementing strategies based on the organizational behavior. The choices made by upper echelon members can determine how the organizational goals will be achieved by using MCS. This integrative review aims to examine the literature addressing the ways in which upper level executives use Management Control Systems in organizations, highlighting and categorizing the expected linkage between the use of MCS and upper echelons characteristics. The results allowed a synthesis of the theme based on the identification

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of a taxonomy for top managers' characteristics that have influenced on MCS usages, as well as some provocative questions as a way of reflection for future researches.

Keywords: Upper Echelon; Management Control Systems; Integrative Review.

RESUMO

Equipes de alto escalão utilizam Sistemas de Controle Gerencial (SCG) para guiar o desempenho e também as decisões dos seus subordinados, promovendo e implementando estratégias a partir do comportamento organizacional. As escolhas feitas pelos membros do alto escalão podem determinar como os objetivos organizacionais serão alcançados com o uso dos SCG. Esta revisão integrativa visa examinar a literatura abordando como os executivos do alto escalão utilizam os Sistemas de Controle Gerencial nas organizações, destacando e categorizando as relações esperadas entre as formas de uso dos SCG a partir das características dos membros da alta gestão. Os resultados permitiram a síntese do tema a partir da identificação de uma taxonomia para as características dos executivos de alto escalão que influenciam nas formas de uso dos SCG, assim como a exposição de algumas perguntas provocativas como forma de reflexão para futuras pesquisas.

Palavras-chave: Alto Escalão; Sistemas de Controle Gerencial; Revisão Integrativa.



1. INTRODUCTION

Top managers are viewed in the literature as those responsible for defining and implementing policies that drives the organization activities, having an authority to make decisions on organizational management practices (Hambrick & Mason, 1984).

Among the management practices and processes, Management Control Systems (MCS) are considered an important part of strategic implementation (Simons, 1991), responsible for providing information for planning, controlling, and assessment (Reheul & Jorissen, 2014).

Currently, it is perceived that managerial control can be effective through a variety of formal and informal instruments, such as performance measurement systems, budgets, corporate policies and regulations, employee selection and training, codes of conduct or even “tone at the top” (Goebel & Weißenberger, 2017).

Previous research on strategic management indicates that the role of top management teams is crucial for the successful adoption, implementation and use of MCS innovations (Lee, Elbashir, Mahama, & Sutton, 2014). In this regard, involvement of the upper levels with MCS aims to ensure alignment of strategic priorities and organizational outcomes (Naranjo-Gil & Hartmann, 2006; Bedford, 2015), such as innovations, organizational learning, entrepreneurship, and market orientation (Henri, 2006).

Managers selection - among diverse determinant factors of business performance and that can be controlled - is of utmost strategic importance. For the firms, a mistake in selecting a top manager may lead to undesirable consequences and poor outcomes in terms of production and technology development. By contrast, the right choice of the president or CEO of a firm may have a positive impact on up to 40% of the results. In addition, firms should always select persons with integrity in order to prevent frauds, whether in the public or private sector. It is estimated that corruption costs accounts for 5% of a firms' revenues. A mistake in hiring a manager reduces the possibility of a firm doing its business properly and restricts its ability to achieve the strategic goals (Zehnder, 2012).

However, little is known about how and why high level managers' characteristics are important to the way that MCS are used and, consequently, how it affects directly to the organizational results improvement. The main academic call is for urgency in establishing a causal relationship that would help understand *how* and *why* the managers' characteristics are related with the strategic outcomes (Oppong, 2014).

In general, there is a well-developed theory about top management characteristics and its managerial implications, but still with controversial empirical results and conditioned to certain environmental situations. However, when one seeks to understand the involvement of top managers in strategic processes and, more specifically, in the MCS, research is still considered an emergent theme because of the lack of a wide range of studies, most of them quantitative studies, usually testing the relations pointed out by theory. Thus, an integrative review would contribute to providing an overview on the influence of high level managers' characteristics in using MCS and a taxonomy involving the use of MCS (Torraco, 2005).

Given the above, the main purpose of this study is to investigate in the literature how upper level managers have been using MCS, highlighting and categorizing the expected connection between MCS usages and the top managers' characteristics.

This study contributes to the literature on strategic management by examining the linkage of upper echelon characteristics and management practices, more specifically MCS as an element of strategic implementation. Only a few studies were identified on this topic, making it as one with the largest gaps on upper echelon research along with: (i) relationship between the managers' characteristics and performance; (ii) relationship between management practices and organizational performance; (iii) relationship between management practices and employees' attitudes at work; (iv) relationship between employees' attitudes at work and organizational performance (Oppong, 2014).

Regarding the MCS literature, this review provides a synthesis of studies that consider upper level executives as precursors in the use of MCS; even further, how the literature on management accounting may benefit from the analysis of the usage related to accounting information systems as an integral part of MCS, and also identifying promising routes for future researches.

The practical implications of this research also include benefits for the owners and board members once MCS are major influencers of attitudes at work (motivation and effort), and may lead negatively to dysfunctional behaviors among employees, especially when rigid financial systems are used. Thus, it is important to consider the attributes of top managers and, consequently, to contribute to the understanding of trends reflected in control and evaluation systems (Reheul & Jorissen, 2014).

Chief Executive Officers (CEOs) must also be aware of their influence on evaluation systems as a key for an organization success. Board members and owners, responsible for hiring the CEO and other high level managers, should also know which managerial



practices reflect the CEO characteristics and determine if they fit in the desired context (Reheul & Jorissen, 2014).

2. THEORETICAL FRAMEWORK

The study on organizational strategic management has recognized that top managers' characteristics influence on the organizational cognitive development. The clout of top management on strategic choices and organizational results have been addressed in the literature since the 1980s, having as a guiding theory the Upper Echelon Theory (UET) introduced in Hambrick & Mason (1984) seminal study. The UET shows how the upper echelon demographic characteristics (age, education, experience, tenure, and management team heterogeneity) can be determinant on how an organization adopts innovations.

The theoretical base supports that demographics are good predictors of backgrounds and experiences that form the managers' cognitive basis (values, beliefs, and ability to influence on decision-making). Thus, such characteristics can be used as proxies to measure individual cognition (Kleine & Weißenberger, 2014). The UET emphasizes the understanding of the factors that influence organizations in adopting innovations and changes in management practices as a consequence of top managers personal characteristics.

This perspective differs from the institutional approach, which emphasizes the organization's social context in work arrangements. Although both perspectives have been widely diffused and studies have suggested the key role played by top executives, it is unknown whether their personal characteristics are more or less important than work arrangements, resulting in poor organizational efforts towards innovations diffusion and changes (Young, Charns, & Shortell, 2001).

More than thirty years after the introduction of the theory, one can see a consistent body of studies that examined empirically the implications highlighted by Hambrick & Mason (1984). Most of the UET studies consider characteristics, especially those observable ones (such as gender, age, experience and academic background, origin, tenure, and group characteristics), as proxies to assess the choices and decisions of top managers (Wang, Holmes Jr, Oh, & Zhu, 2016).

These works focus primarily on investigation of demographic variables of management teams and CEOs, linking them with strategic processes and organizational outcomes



results. However, the use of demographic indicators leaves a loss regarding the real psychological and social processes that drive the managers' behavior, an issue known in the literature as "black box". That is to say, by using demographic variables, the dynamic nature of the connections studied tends to remain a mystery. The UET suggests that experiences, values, and personalities of firm executives influence their interpretations of situations they face and, as a consequence, affect their choices (Andersen & Lueg, 2017). The UET recent research has focused on several individual personality constructs - such as narcissism and (internal) locus of control - that relate to a person's positive self-concept (Wang et al., 2016).

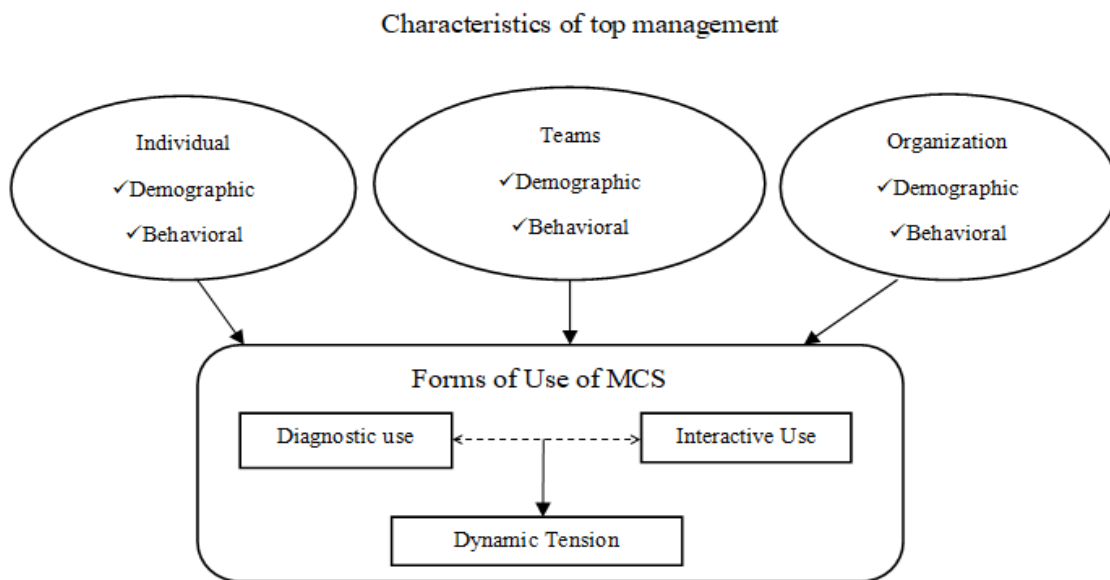


Figure 1.

Proposed Review Model.

Prepared by the authors.

For the purposes of this study, designed in Figure 1, the concept of top management team is considered as the most influential group of executives in the management team, ultimately in the organization, functionally called CEO (Chief Executive Officer), CFO (Chief Financial Officer), CIO (Chief Information/Technical/Other Officer), and Board of Directors. These executives have the authority and responsibility to make strategic choices and global decisions as fundamental organizational policies, adopt and for the adoption of management practices and , direction of the activities direction related to information systems and control, and also for the final organizational results (Doll, 1985; Baysinger & Hoskisson, 1990; Young et al., 2001; Abernethy, Bouwens, & Van Lent, 2009; Hartmann & Naranjo-Gil, 2009, Lee et al., 2014).

Top management teams use MCS to guide the subordinates' behavior and decisions, promoting and implementing strategies based on the organizational behavior (Simons, 1991; Pavlatos, 2012; Kleine & Weißenberger, 2012; Hiebl, 2014; Morelli & Lecci, 2014). The teams shape the organizational behavior by means of the availability, interpretation, and screening of managerial information provided by MCS (Naranjo-Gil & Hartmann, 2006). Top management teams with diverse characteristics would be better able to handle the conflicting demands of adopting new strategic policies and reducing short-term performance downturn (Naranjo-Gil, 2016)

During When the strategy formulation is in process, MCS are used to explore and evaluate strategic alternatives and the viability of the strategies available, as well as the organization's strategic needs. During the strategy implementation process, , MCS should support the financial analysis, and monitor results and information on resources allocation. Finally, in the controlcontrolling and feedback stage, MCS should address information on success drivers and their causes and failures (Naranjo-Gil & Hartmann, 2007a).

The MCS scope of usage defines the degree to which a MCS supports strategic and operational decisions (Pavlatos, 2012). In certain circumstances, top managers use MCS much more actively to intervene in the organizational decision-making process. To represent the forms of MCS usage in this research, part of the conceptual framework of the "Levers of Control" (Simons, 1990) was used, which assumes the way managers use MCS, either as a diagnostic control or interactive control use.

The MSC *diagnostic use* represents the role of traditional feedback on how MCS are used to control and reward the achievement of predefined goals. A diagnostic use style provides motivation and direction to reach goals by focusing on deviations corrections regarding to pre-established performances patterns. Use as diagnostic control consists of critical success evaluation factors to be monitored and coordinated during the implementation of previously designed strategies. It represents a negative force once it focuses on errors and negative deviations (Simons, 1994).

The *interactive use* of MSC represents the positive force of MCS being used to expand opportunities and enhance learning process throughout the organization. The interactive use focus the attention and communication forces across the organization, reflecting the signals from the upper echelons. It encourages the development of new ideas, initiatives, and guides to build a bottom-up strategy focusing on strategic uncertainties (Henri, 2006).

The MCS *diagnostic* and *interactive control uses* work simultaneously but with different purposes (Figure 1). Although the diagnostic use can be seen as a form of control used to monitoring, revising, and supporting the expected goals achievement, the interactive use is a system of human control applied for supporting the emergence of communication processes and mutual adjustment of the organizational actors goals (Henri, 2006). In other words, the diagnostic use restricts MCS role to a measurement tool whereas the interactive use expands its role to a strategic management tool.

The combined usage of MCS as diagnostic and interactive control forms to produce inherent organizational tensions creates the so-called *dynamic tension*, defined as a dynamic relation that involves both dynamic competition (positive versus negative feedback) and complementarity (focus on intended and emergent strategies (Simons, 1990).

Previous researches on management accounting tended to focus on the relative importance of MCS in organizations instead of making efforts to determine the causes of the differences in MCS usage by management (Abernethy et al., 2010). The literature has already established that certain managerial characteristics such as age, educational background, and tenure can impact management accounting practices by using tools as innovative management accounting systems, MCS (diagnostic or interactive), and financial and non-financial performance measures (Bobe & Kober, 2018a).

Results showed that differing use of MCS can impact the development of organizational capabilities and creativity, both crucial in running an organization. Given their focus on different types of information and differing use of MCS, managers with varying personal characteristics are likely to make dissimilar decisions, leading to divergent outcomes (Bobe & Kober, 2018b).

Including top managers influence on design and usage of control systems would help to create deeper knowledge of its antecedents if compared to an isolated study of environmental and firm-level factors (Andersen & Lueg, 2017). Thus, this research aims to present top managers' characteristics in which influence the way that MCS have been used.

3. RESEARCH METHOD

To achieve research objective it has used the integrative review method literature, which is applied to studies that address top managers involvement with MCS in organizations (Torraco, 2005). The benefits of an integrative review include generation of new insights through a review and synthesis of an emergent theme based on a new perspective and chance of identifying an agenda for future research efforts (Rose, Shuck, Twyford, & Bergman, 2015).

Table 1

Procedures for the selection of the Bibliographic Portfolio (BP).

Phase I – Selection of the Bibliographic Portfolio	Results
Definition of the research axes, keywords, keywords combinations	<p>Axis 1: Upper Echelons Keywords: “upper echelon” or “top managers” or “top management” or “cfo” or “ceo” or “directors” or “executive leadership” or “ceo leadership”</p> <p>Axis 2: Management Control Systems Keywords: “management account*” or “management control” or “control systems” or “managerial characteristics”</p>
Databases consulted	Science Direct, Wiley Online Library, Gale, Scopus, Jstor, Emerald and Web of Science.
Search for articles in databases	3 and 4 January, 2019
Gross articles stock	6138 articles
Articles filtering for redundancy	5824 articles
Titles filtering	=100 articles
Repository K – Articles with titles alignment and scientific recognition	38 articles ≥ 90 citations
Repository P – Articles with titles alignment and recognition not yet identified	62 articles
Repository A – Articles from Repository K with abstracts alignment and scientific recognition	= 10 articles
Analysis of Repository P – Authors Bank (AB)	+1 article
Analysis of Repository P – Recent articles	+17 articles
Repository B – Repository P filtering	= 18 articles
Repository C (A + B)	28 articles
Elimination of non-aligned articles	- 2 articles
Primary Bibliographic Portfolio	=26 articles
References representative test	+5 articles
Bibliographic Portfolio (BP)	31 articles

Source: prepared by the authors, based on Ensslin L. et al. (2010, *apud* Lacerda, Ensslin & Ensslin, 2012)

The integrative review process has begun with the selection of studies that were examined for the present research, showed in Table 1. The structured and systematized process called Knowledge Development Process (*Proknow-C*) proposed by Ensslin L. et al. (2010, *apud* Lacerda, Ensslin & Ensslin, 2012) was used at this stage. The choice of *ProKnow-C* to compose the research provides a Bibliographic Portfolio (BP) that fits the object of study, based on the researcher's perception and scientific relevance, allowing the accomplishment of an integrative review in a scientifically validated stock of articles. Table 2 describes the BP for this research.

Table 2
Synthesis of the Bibliographic Portfolio (BP).

Nº.	Authors	Year	Citation	Nº.	Authors	Year	Citation
01	Baysinger & Hoskisson	1990	1817	17	Hiebl	2014	61
02	Simons	1994	1084	18	Wang	2016	55
03	Merchant	1981	965	19	Habib & Hossain	2013	42
04	Simons	1991	909	20	Lee <i>et al.</i>	2014	38
05	Johnson & Hoskisson	1993	636	21	Dde Harlez & Malagueño	2016	36
06	Young, Charns & Shortell	2001	308	22	Pavlatos	2012	26
07	Naranjo-Gil & Hartmann	2007	305	23	Kleine & Weißenberger	2014	24
08	Doll	1985	292	24	Naranjo-Gil	2016	14
09	Merchant	1985	258	25	Reheul & Jorissen	2014	11
10	Naranjo-Gil & Hartmann	2006	216	26	Morelli & Lecci	2014	08
11	Abernethy, Bouwens & van Lent	2010	173	27	Sanchez-Matamoros, Pinzon & Espejo	2014	07
12	Naranjo-Gil, Maas & Hartmann	2009	138	28	Laitinen	2014	04
13	Naranjo-Gil & F. Hartmann	2007	92	29	Andersen	2017	02
14	Bedford	2015	91	30	Bobe & Kober	2018a	01
15	Horovitz	1979	85	31	Bobe & Kober	2018b	-
16	Beekun, Stedham & Young	1998	85				

Source: prepared by the authors.

4. RESEARCH RESULTS

Among the studies addressing the UET aspects, many of them emphasize an investigation of the effects of top managers' characteristics on the adoption, design and use of MCS. Although limited, the studies that examine the influence of high level executives' characteristics on the use of MCS are mostly quantitative surveys. Some studies detail the process of adoption and the MCS usage, and also shows how the characteristics of top executives are connected to the use of MCS.

The UET and management accounting-related researches have used a small number of managers' characteristics as predictors of involvement with MCS: age, tenure, education and experience, homogeneity of top-level teams, leadership styles, absorption capacity, and *status* as owners of top management members. A large variety of managerial characteristics that influence on organizational performance is reported in seminal works and has not been explored yet, such as recruitment (internal and external), socioeconomic *status* of managers, and gender (Hiebl, 2014).

Therefore, due to the theme specificity and still emergent in the literature (Torraco, 2005), an exploratory taxonomy was developed based on the articles selected in this study. To develop this taxonomy, the author begins with the expected relationship between each managerial characteristic and the way they interact with MCS. The contribution appears as a useful conceptualization on the characteristics that can be perceived in managers and top management teams as factors that influence the way of interaction with MCS.

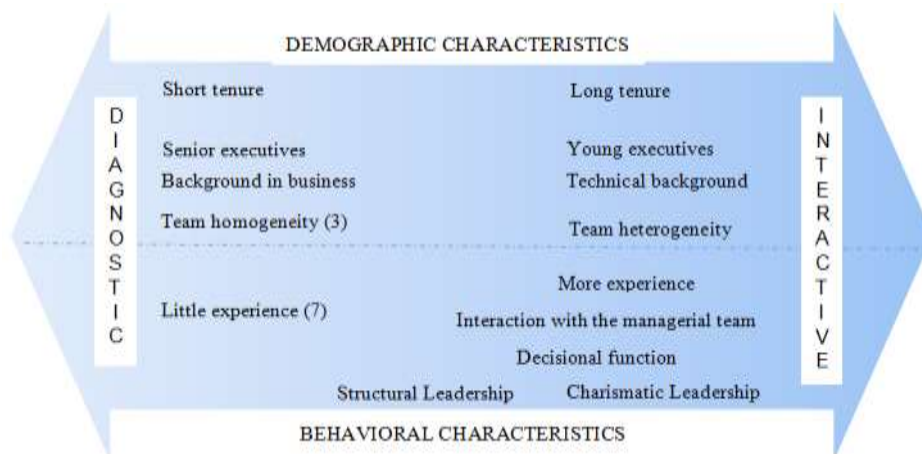


Figure 2.

Top managers characteristics associated with the ways that MCS are used.

Source: prepared by the authors, based on Torraco (2005).

However, such taxonomy was not designed to include possible characteristics of top managers but a general presentation and classification of what literature has available at the time. Such attributes organization is consistent with other researches of this scientific current (Hiebl, 2014). The author recognizes the potential limitation of taxonomy with a limited stock of studies on this theme, restricted to the method of studies selection that comprises this review. In Figure 2 you will be able to see the association between top managers characteristics and the forms of MCS usage.

To demonstrate In order to illustrate the results relating to the top managers factors and their influence on the use of MCS usage, the analysis is organized according to the characteristics examined: (i) demographic and (ii) behavioral.

4.1 DEMOGRAPHIC CHARACTERISTICS

The MCS can be accomplished by organizations in diverse ways and the UET can help predicting those ways from behavior, cognition levels, and values of the upper level teams. Many studies have aimed to predict organizational processes by associating them with top managers' demographics, whether in relation to the individual or group (top-level teams), or organizational-related (the expected role from managers). The most important aspects are age, professional and educational background, tenure, and gender but just a few have directly associated the managers' behavioral aspects with the way that such aspects determine MCS-related choices.

Previous studies have demonstrated that professional and educational background of key executives is a factor that may determine the way they use MCS. Managers with a dominant background in business tend to use diagnostic control focusing on financial performance and goals achievement. In contrast, managers with technical background in business area tend to be more focused on operating outcomes by using MCS with a priority in interactive communication and motivation of employees aiming at operating outcome efficiency instead of financial results.

In this regard, the literature also considers that strategic changes and innovation are more likely to be delivered by top-level teams with more heterogeneous backgrounds. Thus, it is important that MCS be used interactively, involving more communication between the upper levels and the lower levels.

Recently, upper echelon literature has pointed out that heterogeneous TMT (Top Management Teams) – consisting of managers with varying skills and demographic



profiles – can explain the relationship between strategic policy implementation and controlling and organizational performance. Naranjo-Gil (2016) shows that management control systems and TMT diversity have a complementary effect on policies implementation focused on environmental sustainability, mitigating the negative effect of adopting environmental sustainability policies on short-term organizational performance. A broad design of management control systems helps organizations in adopting sustainability policies to achieve long-term performance.

Regarding the age of top executives, it is expected that young managers are more willing to embrace changes, among them, MCS innovations. As a result, the organization would benefit from modern systems that are in harmony with the organizational strategy through controls that support and promote organizational performance. Older managers are less likely to assess new ideas rapidly and integrate them effectively in decision-making. Thus, the use of interactive controls are more common in managers who are open to innovation and changes and, on the other hand, the use of diagnostic control and restricted uses of MCS are common in managers having more rigid characteristics, being the age proxy a predictor of this kind of behavior.

The length of service, or tenure, is also a factor of influence, but controversial regarding its effects. While the UET preconizes that long time in job makes managers become uninterested, unproductive, and more resistant to changes, another perspective that arises is that in a long-term tenure, managers become more capable of managing innovation-related challenges and more willing to accept changes and adoption of innovative practices. Empirical results are still unclear regarding this factor but suggest that managers with shorter length of service use MCS more subjectively (interactively) while managers in long-term tenures have been seen using stringent and rigid controls (diagnostic control) more emphatically.

In a study at public universities, Bohe & Kober (2018b) show that deans who have been longer in academia are more likely to use the MCS in an interactive manner and also use non-financial performance measures if compared to deans who have been in academia for a shorter period of time. The positive association support that deans who have been in academia longer are less likely to embrace the changes associated with the introduction of new public management due to their commitment to previous modes of operation, resulting in hesitation to changes.

Interactive control, scopes with non-financial information, and long-term objectives are aspects of MCS that are expected from more heterogeneous groups of managers.



Empirical surveys with CFOs report consistent results in this regard. Younger managers, with education and experience in business are more likely to use MCS with deeper focus on financial than non-financial aspects. By contrast, the empirical results for CEOs are contradictory (Hiebl, 2014).

Bobe & Kober (2018a) found that female heads of school use MCS in an interactive manner in greater extent than male heads of school leads. Furthermore, female managers make greater use of performance measures than male managers. One reason for females' greater use of MCS in an interactive manner compared to males is related to risk preferences, as female managers use MCS in an interactive manner to reduce uncertainty by involving lower levels of the organization in discussions and decision-makings.

Although the literature brings empirical results about the impact of upper echelon demographics on the implementation of strategies and, more specifically, on MCS-related choices, evidences are still inconclusive and scarce to evolving extent with UET relations and MCS use.

There are evidences that point to the effectiveness of using demographic variables as proxies. Some variables are likely to be better than others, and further research should be carried out to help differentiate out of the demographic variables which are good indicators (Young et al., 2001). Criticism emerges when the so-called UET "black box" is investigated, which represents a set of social processes that intermedate the demographics and the behavior of top level teams in organizations. In other words, approaches involving only demographics often fail to grasp fully the complexity of determining the incentives and motivations of people involved in managerial processes, among them, the choice and use of MCS.

4.2 BEHAVIORAL CHARACTERISTICS

Business management literature highlights the importance of strong traits of interpersonal leadership in communication and in creating a shared vision by the chief executives, inspiring and guiding the employees' behaviors and expectations. The MCS interactive usage facilitates the communication process and personal traits are reflected in the way that MCS is used (Abernethy et al., 2010).

The addition of mediating variables to these investigations such as organizational strategy (strategic changes and competitive strategies) has contributed to results refinement, allowing a combination of upper management factors with contingency factors and



improving results interpretation in different business situations. Moderating aspects such as business industry or public x private organizations, firm sizes, sectors, and countries may also help clarify divergent results.

To investigate the behavioral characteristics of upper level executives there is a limited number of studies with in-depth analysis of upper echelons through functional behavior without the intervention of proxies. These studies have focused on leadership styles, power, and personality once they reveal the behavior adopted at work. Leadership styles reflect behavioral characteristics and the individual's interpersonal traits at work and are used to influence others to understand and accept what and why something should be accomplished (Abernethy et al., 2010).

Empirical results that address distinct leadership styles suggest that the charismatic style encourages subordinates to participate effectively in decision-making, thus contributing to a greater use of interactive controls. However, the influence of leadership styles on managerial controls are still unclear and inconsistent (Hiebl, 2014). The outcomes from the structural leadership style also confirm the influence of top managers' interactive communication in planning and use of control systems, but with less intensity than the charismatic leadership.

Therefore, top managers adopt the structural leadership to achieve the goals in the planning process, defining procedures, rules and short-term objectives, while the charismatic leadership is useful to interact with subordinates, communicating strategic preferences and getting feedback during the process. With regard to leadership styles, researches may consider other classifications, detecting possibilities of behavior that have not been discussed yet (Kleine & Weißenberger, 2014). In addition, studies considering the managers' socioeconomic and cultural aspects were not identified.

Management accounting has paid little attention to the role of leadership in choices of control made by top management. The focus of attention has been on the operating context of the choices to the detriment of top management factors. The accounting literature has not offered clarity yet on how leadership styles may explain different uses of MCS and performance appraisal (Abernethy et al., 2010).

Another approach given to investigations of behavioral characteristics is the role of what organizations expect from managers (the management style put on work functions – interpersonal, informational, and decisional). Such information can help associating certain types of management with the use of MCS (Laitinen, 2014).

The characteristics of the managerial role played specifically by the CEO is also one of the factors associated with the use of MCS because information is a key element of a manager's work, consuming more than half of their daily activities on average. The complexities of the management role affect how managers choose, project, and use information (Laitinen, 2014).

Functions with a decisional emphasis require an information base for decision-making, regular reports development, investment analyses, resources allocation, and communication with subordinates. They also require information on new potential businesses, threats, conflicts and crises, possible external moves by competitors, and performance of development teams. Thus, they prefer broad information (internal and external) with a non-financial emphasis (but also financial), and future oriented. So, one can see the use of managerial controls in a diagnostic and interactive way (Laitinen, 2014).

On the Balanced Scorecard (BSC) context, subjects from an individualistic culture respond differently to the BSC than subjects from a collectivistic culture, putting more emphasis on the financial aspect of the BSC, while subjects from a collectivist cultures emphasize more on long-term perspective. The BSC represents an individualistic ideology, reflecting the managerial styles (Andersen, 2017).

About the importance of cultural controls, individuals with power within the organization are more likely to create budgetary slack. This relates to power distance. However, it is also relevant for upper echelon theory, as it shows how the TMT is able to shape aspects of MCS (Andersen, 2017).

Furthermore, there is little UET research on personality that typically examines a range of related constructs that reflect positive self-concept (holding favorable self-images and more likely to view themselves as exceptional, potent, admirable, and important), referring to a broad construct that describes to what extent top managers positively evaluate themselves and their abilities to influence their environments. However, the UET research on personality is growing and beginning to shed new lights on firm strategic actions (Wang et al., 2016).

There is a call for studies in the area of management control under combined theoretical perspectives in order to provide new insights on factors that influence management control systems effectiveness and greater understanding compared to a single perspective (De Harlez & Malagueño, 2015).



5. FINAL CONSIDERATIONS AND AGENDA FOR RESEARCHES

The purpose of this integrative review was to examine the literature addressing how upper level executives use the Management Control Systems in organizations, highlighting and categorizing the expected relationship between the use of MCS and upper echelon characteristics. Based on a scientifically selection recognized by the Bibliographic Portfolio, it was possible to demonstrate taxonomy and a literature synthesis addressing the influence of top management characteristics on the way that MCS are used.

On the basis of the Bibliographic Portfolio analysis (Table 1 – Procedures for the selection of Bibliographic Portfolio (BP) and Table 2 – Synthesis of the Bibliographic Portfolio (BP)), one can see aspects not yet addressed by the literature on upper echelon characteristics that influence the ways of using MCS. Thus, a new agenda for future researches is proposed using provocative questions that remain forgotten by the academia exposed in Figure 3 (Torraco, 2005).

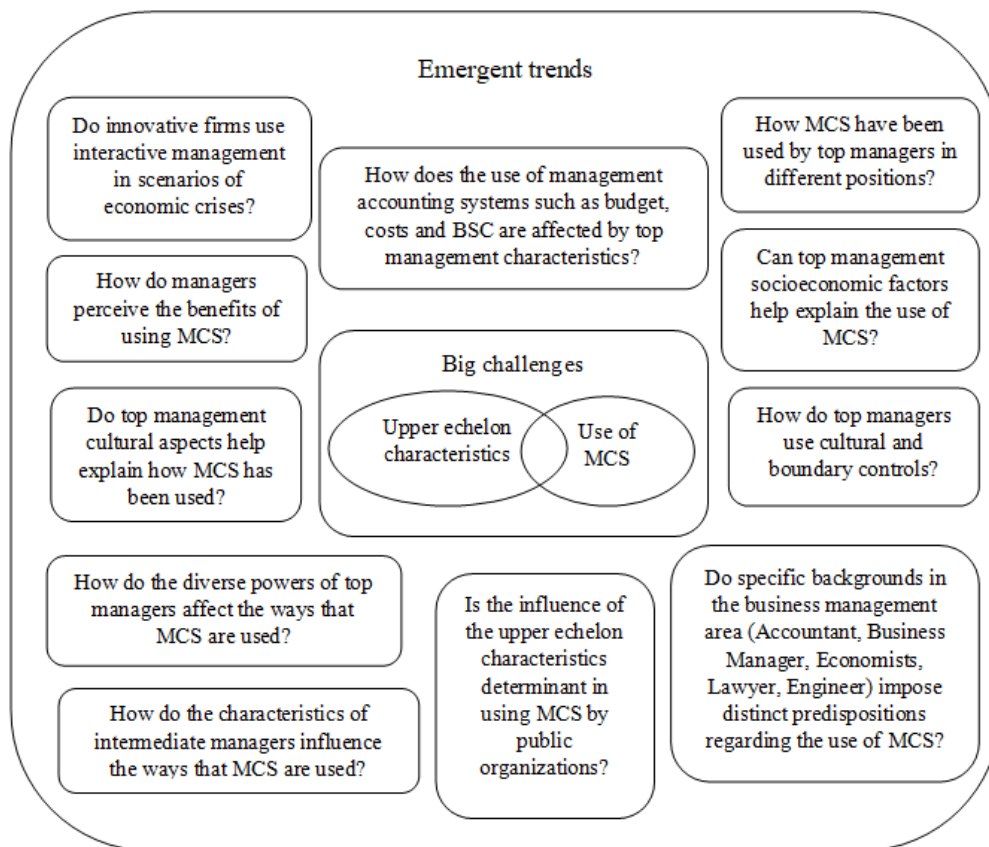


Figure 3.

Agenda for holistic research on upper echelon characteristics and uses of MCS.

Source: prepared by the authors, based on Torraco (2005).

The results of this study have the following limitations: (i) analysis restricted to the studies of the Bibliographic Portfolio; (ii) researcher bias in the analysis and aspects identification with results included in the survey.

We hope having contributed to the academia with this integrative review of an emerging theme that presents numerous research opportunities.

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