

# REWARDS AND MANAGEMENT CONTROL SYSTEMS: A META-SYNTHESIS OF PRIMARY CASE STUDIES

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## ABSTRACT

The research aimed at establishing how primary case studies have related the “reward” element with management control systems in the pursuit of organizational goals. To that end, a survey based on the meta-synthesis of primary qualitative case studies was carried out, in line with the strategy proposed by Hoon (2013), in order to provide a theoretical contribution beyond what could be achieved by the original studies. Using five articles identified in the *Web of Science* database, the results suggest the following meta-casual network: reward and compensation policies, as part of the management control system, are influenced by both the institutional and the external environments and aim at promoting and enabling the achievement of the organization’s goals. This research contributes by proposing a theoretical model that relates the reward system with the external and institutional environments, thus allowing the achievement of goals set by the management control system.

**Keywords:** Case study; Meta-Synthesis; Reward; Management Control System.

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## RESUMO

*A literatura acadêmica considera que a existência de recompensas ou compensações no contexto do sistema de controle gerencial pode influenciar positivamente no desempenho organizacional. Contudo, resultados em estudos de caso podem se apresentar coerentes ou dispersos, o que demanda uma condensação que possibilite uma melhor compreensão dessa relação. A pesquisa teve por objetivo verificar de que maneira estudos de caso primários considerados relevantes relacionaram o elemento “recompensas” com o sistema de controle gerencial em um cenário de busca pelos objetivos organizacionais. Para isso, realizou-se uma investigação de cunho epistemológico estruturalista, baseando-se na meta-síntese de estudos de caso qualitativos primários de acordo com a estratégia proposta por Hoon (2013), visando fornecer contribuição teórica além do que possa ser alcançado por meio dos estudos originais. Os resultados indicam a seguinte rede meta-causal: as políticas de recompensa e compensação, como parte do sistema de controle gerencial, recebem influência do ambiente institucional e do ambiente externo na sua configuração e visam promover e facilitar o alcance dos objetivos da organização. Espera-se que os resultados contribuam para um melhor entendimento das variáveis abordadas para a pesquisa em Contabilidade e Controle Gerencial.*

**Palavras-chave:** Estudos de Caso; Meta-Síntese; Recompensas; Sistemas de Controle Gerencial.

## 1 INTRODUCTION

The case study is a type of research that, when applied to accounting and management control, helps understand its nature, as well as which techniques, procedures and systems are used and how they are employed (SCAPENS, 1990). Besides, it may help researchers to highlight the relevance and scientific validity of accounting research, thus producing knowledge that will develop the theory and improve the practice (COOPER; MORGAN, 2008). In order to test the theories, it is also useful to raise new questions and provide new ways to solve the problems (EISENHARDT, 1989; COOPER; MORGAN, 2008). Therefore, in an area in which theories are lacking and it is difficult to define the context, a greater consideration should be given to the advantages that case studies may provide to accounting researches (HAGG; HEDLUND, 1979).

According to Otley and Berry (1994), the main role of case studies in the fields of accounting and management control is exploration, which goes beyond the limits of simple description, contributing particularly to the generation of new theoretical elements arising from observations and descriptions. That is to say that, according to the authors, case study is a vehicle through which theories may be developed, or changed, in light of empirical data. To that end, this strategy aims, among other purposes, to understand the dynamic elements that will be present in a certain scenario in which management accounting is inserted (EISENHARDT, 1989).

Among the many elements that interact with management control systems, both in changing situations and in other rather static contexts, rewards are present (ITTNER; LARCKER, 1997; MALMI; BROWN, 2008). Theory development is deemed to be a core activity of researches carried out in organizations (EISENHARDT, 1989). The author also believes that case studies involving certain elements may present whether consistent or diffuse results, which leads to the need of summarizing them so it is possible to develop a better understanding of a certain phenomenon (HOON, 2013). Thus, seeking to consolidate what has been discovered in other primary case studies with regard to the relation between rewards and management control systems in order to strengthen or complement the existing theoretical body on the subject and to foster improvements in the corporate practice, this investigations seeks to answer the following question: **How have case studies related the existence of rewards with management control systems?**

Thus, the study aims at establishing how primary case studies relate the “reward” element with management control system in the pursuit of organizational goals. It is noticed that,

typically, case studies are more used in the research fields of accounting and management control than in other research fields in accounting (COOPER; MORGAN, 2008). Case studies, which usually apply when the researcher is interested in ascertaining contextual conditions deemed relevant to the phenomenon under investigation (YIN, 2001), are usually presented in organizations with ongoing accounting, management and cultural changes, where the influence of these dynamic elements may be observed (COOPER; MORGAN, 2008).

The methodological approach of this paper is justified as it is an investigation that allows the structural configuration of a phenomenon (HOON, 2013), from in-depth studies, which brings elements to offer ground for future researches that require aspects of originality, such as doctoral researches. From a practical point of view, considering that case studies may provide information that substantiates professional practices or decision-making in many fields of activity (BAXTER; JACK, 2008), the consolidation of evidence obtained by case studies may contribute significantly to that end.

In addition to the theoretical contribution expected to consolidate what has been discovered on this relation in primary case studies, aiming at building a theoretical body in that respect, the investigation may be deemed important also from a practical point of view, as studies involving the context and changing elements in management accounting may contribute to a better understanding of the theory and the practice in this field of investigation (BURNS; VAIVIO, 2001). Still on the theoretical aspect, Chenhall (2006) understands that researches involving management control systems and elements linked to human resources management are important and may provide relevant insights. Therefore, the management and scientific relevance of this study is precisely in bringing to light the relation between the reward element and the management control system, demonstrating the relationship with external and institutional environments, fostering the achievement of corporate goals and allowing researchers to understand and apply these results within other institutions.

In addition to background information, problems and justifications presented in this section, the article is built as follows: the second section brings the theoretical platform of the study, which highlights institutional factors involved in a changing process and its relation with reward system within the management control system. The next item discusses the methodology of Hoon's meta-synthesis (2013), adopted in this investigation. Item 4 brings an analysis of data obtained in the meta-synthesis, in line with the steps laid out by the author of such methodology, to then conclude with the final considerations and references used in the research.

## 2 LITERATURE REVIEW

All human activities, both in a social and in a non-social environment, are subject to habit, as they may be standardized when performed on a repeated basis and, consequently, may save future efforts, without, however, deteriorating its meaning. In this context, institutional theory deals with establishing the set of influences over an organization, which gives rise to its characteristics and change process, aiming at providing explanations on how organizational processes are legitimated (BERGER; LUCKMANN, 1985).

Management accounting may also be considered as a routine capable of being institutionalized within organizations (BURNS; SCAPENS, 2000). How Guerreiro et al. (2005) explained, while in management accounting rules may be understood as a set of techniques that are not formally defined, routines are procedures that are effectively implemented which, when widely accepted and deemed incontrovertible, may become institutionalized.

Management accounting is one of the constituents of an organization's management control system. Management control systems are understood by Simons (1995) as formal routines and procedures based on information, which are used by managers to maintain or change the patterns of activities carried out by an organization. Abernethy and Chua (1996), in turn, consider management control systems as a combination of control mechanisms developed by managers with the purpose of increasing the possibility of players acting in compliance with organizational goals.

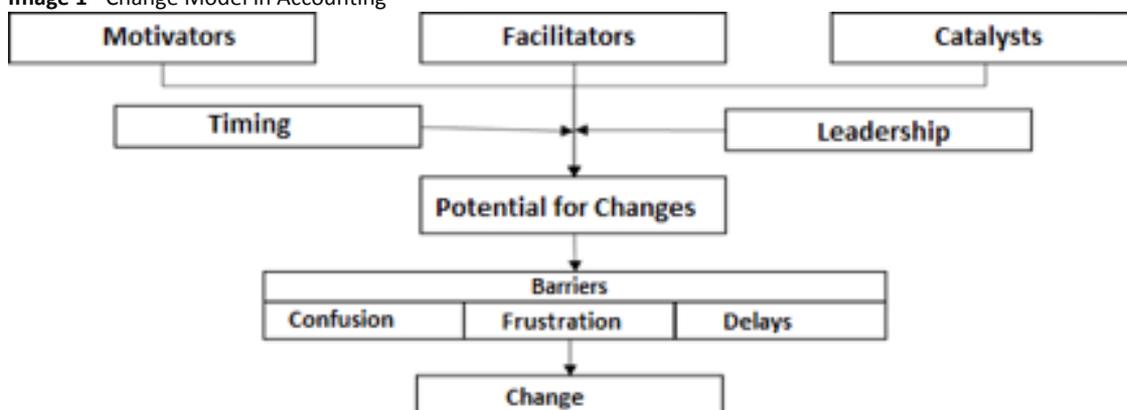
As for the elements that make up a management control system, Malmi and Brown (2008) developed a platform based on a summary of four decades of studies on management control system, listing the following control groups: (i) cultural controls (clans, values and symbols); (ii) planning controls (long-term plans and action plans); (iii) cyber controls (budgets and performance measurement systems); (iv) management controls (governance, organizational structure and policies and procedures); and (v) rewards and compensations.

About rewards and compensations, Malmi and Brown (2008) mention that this type of control may increase individual performance of employees, who try to converge their own interests with those of the company, which takes place through the control over the orientation, length and intensity of their efforts.

The perception on the influence of reward and compensation systems may be better understood by viewing management control systems as something subject to change. Change may take place by the influence of many factors, such as information technology developments, competition, changes in the organizational structure and new management practices (BURNS; SCAPENS, 2000). In this context, research on accounting and management control also focus on ascertaining the factors that may affect their rules and routines;

The model designed by Kasurinen (2002), represented in Image 1, approaches the factors that affect this change in accounting.

Image 1 - Change Model in Accounting



Source: Adapted from Kasurinen (2002)

According to Kasurinen (2002), the model represented in Image 1 may aid in analyzing the context in which accounting changes take place, represented by motivators, facilitators, catalysts, the influence of the right timing, leadership and barriers to change. Many factors may be

assigned to each of the groups presented.

According to Brignall and Modell (2000), institutional theory considers that one of the decisive elements of organizational functioning is the pressure exerted by the entity's stakeholders, whether internal or external, who seek to ensure their assets over a given period of time. Factors such as the existence of a rigid organizational culture and failures in the attempt to legitimize intended changes can also influence this process, either as resistances or barriers (MA; TAYLES, 2009).

Considering also that accounting and management control practices also suffer from the influence of institutional factors, Ma and Tayles (2009) place individual interests among these factors. In this way, incentives and rewards are considered as tools that influence individual behavior and may even have impacts on accounting and management control practices.

As Flamholtz (1996) points out, a reward system is a set of methods and procedures developed in order to manage factors deemed important by the members of the organization, in such a way as to motivate people to achieve goals (*ex-ante* control) and to consolidate the previous behavior (*ex-post* control). According to the same author, the operation of a reward system is key for organizations, since, other than determining the desired performance according to the current targets, it is able to reinforce people's commitment to the organization and targets efforts towards the development of future capabilities of the enterprise.

As for the role of rewards in the control system, Flamholtz (1996, p. 101) indicates that its main role is to work as a component "(...) that activates or energizes people's behavior." As the author explains, the organizational planning process indicates the desired direction of behavior, which in turn becomes the basis for the performance evaluation process and, consequently, for the management of rewards. As people seek to change their behavior to obtain rewards, this is a motivating element of the management control system.

Likewise, Ittner and Larcker (1997) consider the existence of reward systems as a factor that can positively influence management control systems and corporate performance, especially when these rewards are closely linked to the organizational strategy. This understanding and its relevance are also observed in the analysis platforms of organizational performance evaluation systems developed by Otley (1999) and Ferreira and Otley (2009).

Strauss and Zecher (2013), on the other hand, consider rewards as a key element of a management control system, along with planning and performance evaluation, and are present in all forms of management control systems. More emphasis is given by the authors on its role in result-oriented management control systems, which means, those intended to guide the actions of employees in accordance with the concerns about the consequences of their actions and behaviors. The consequence is that results provided by employees are the very goal of the management control system, having meritocracy as a guiding element of results, in which the highest rewards are offered to those who present the best results.

Drury (2013) also highlights the importance of rewards and punishments in the context of management control. For the author, the establishment of rewards and punishments would be the last stage to enable the achievement of performance-oriented management controls, which would be preceded by the establishment of performance indicators, performance targets and the measurement of individual or group performances.

In practice, Merchand, Chow and Wu (1995) explored the differences in the measurement, evaluation and reward of managers in four different companies, two in the United States and two in Taiwan. As a result, they observed that some variables, besides the national cultural background, better explain corporate practices, such as: education and experience of senior managers, stage of the company's economic development, beliefs of managers about the

operation of the stock market, type of business of the company, mobility of the workforce, company growth pattern and hiring of consultants.

On the other hand, the case study carried out by Sartorius et al. (2011) investigated how interactive management controls can enhance a performance evaluation system to motivate the staff of a state-owned research organization. Their results indicate that the evaluation system motivated the researchers, in addition to facilitating the achievement of organizational goals. Results also indicated the presence of a wide range of interactive management controls that were deployed to design and implement performance evaluation such as leadership enthusiasm, ownership, and open communication.

In summary, based on the academic literature review, it may be implied that reward and compensation systems play an important role in management control systems, acting as a catalyst for changes in people's behavior and performance and, as a consequence, in the achievement of organizational goals present in a management control system. In addition, internal and external factors need to be taken into account in the analysis of reward systems of organizations. Aiming, therefore, to answer the research question, and based on the above-mentioned theoretical assumption, the next section brings the methodological procedures adopted for this investigation.

### 3 METHODOLOGY

The research, with a realistic ontological orientation and objective epistemological orientation, based on the positivist paradigm and with a documentary methodological approach (SACCOL, 2009), used the strategy proposed by Hoon (2013): the meta-synthesis of primary qualitative case studies, meaning that they have not yet been subject to any previous unification effort. According to the author, this strategy is capable of gathering primary data and synthesizes the main empirical results obtained and that are currently diffuse, in order to provide a theoretical contribution that goes beyond what could be achieved with original studies, by consolidating primary empirical studies for the construction of theories.

The methodology proposed by Hoon (2013) is detailed in eight steps, namely:

1. Framing the research question: determine which research field is intended to be addressed and identify a clear research question, with the purpose of properly operating the variables and extracting data that meets the outlined goal;
2. Finding relevant research: identify researches that may be considered relevant to the scope of the research, which is made by defining the keywords related to the proposed question, in order to obtain a set of reliable qualitative case studies;
3. Defining exclusion criteria: apply clear criteria for the exclusion or inclusion of case studies, taking into consideration the methods, theoretical platform, research focus, research question and quality, with the aim of adding more quality and reliability to the results to be obtained;
4. Extracting and coding data: it involves a careful reading of the selected studies, which will result in the categorization of evidence present in each investigation;
5. Specific analysis of each case: to identify the sequence of variables involved in each case and their relevant relationships found in each research, in order to pinpoint the main concepts, subjects and relationships of each study under analysis;
6. Synthesizing cross-studies: it is the process of creating a meta-casual network from the relationships found in each study, in order to identify patterns and reinforce the validity of the set of investigations;

7. Building a theory from the meta-synthesis: identify the concepts that may explain the relationships discovered between the variables; and
8. Discussion: discuss the results of the meta-synthesis, legitimize the validity and reliability of the processes and reflect on their potential limitations.

The eight steps according to Hoon (2013) are detailed below.

## 4 META-SYNTHESIS

### 4.1 Step 1 - Framing the Research Question

In this first stage, we defined the problem and the phenomenon to be investigated. For the development of the meta-synthesis, we sought to understand the relations between the management control system and rewards, which brought us to the following research question: How have case studies related the existence of rewards with management control systems? After defining the research question, in line with the purposes of the meta-synthesis, we sought to select the primary case studies related to the subject of the research.

### 4.2 Step 2 - Finding Relevant Research

In the second step, we sought to identify the articles that would be relevant for the development of the meta-synthesis. To that end, we used the electronic database Web of Science, in its core collection, in which we can find studies in the field of Social Sciences. Two searches were carried out, restricted to the keywords “*management control system\**” and “*compensation\**”, and “*management control system\**” and “*reward\**”, considering the entire timespan in which the database allows articles to be available.

This search led us to 38 articles, 34 articles of which were published in journals and four in congresses, as indicated in Table 1.

**Table 1 - Articles derived from Step 2**

Research Procedure: Electronic search in the Web of Science database (core collection; topic search). Search term: topic (management control system and reward) and (management control system and compensations)		
National and International Journals	Timespan	Articles by journal (n=34)
<i>Accounting, Organizations and Society</i>	Until Jan.16	(6)
<i>Management Accounting Research</i>	Until Jan.16	(5)
<i>Journal of Accounting Research</i>	Until Jan.16	(3)
<i>European Accounting Review</i>	Until Jan.16	(2)
<i>Journal of Business Ethics</i>	Until Jan.16	(2)
<i>Studies in Management and Financial Accounting</i>	Until Jan.16	(2)
<i>Accounting and Business Research</i>	Until Jan.16	(1)
<i>Accounting Research</i>	Until Jan.16	(1)
<i>Advanced Technology in Teaching</i>	Until Jan.16	(1)

<i>Asian Business &amp; Management</i>	Until Jan.16	(1)
<i>Asia Pac J Manag</i>	Until Jan.16	(1)
<i>Contemporary Accounting Research</i>	Until Jan.16	(1)
<i>Creativity and innovation management.</i>	Until Jan.16	(1)
<i>Information Technology Human Values, Innovation and Economy</i>	Until Jan.16	(1)
<i>International Journal of Manpower</i>	Until Jan.16	(1)
<i>Korea Convergence Society</i>	Until Jan.16	(1)
<i>Management Decision</i>	Until Jan.16	(1)
<i>Production Planning and Control</i>	Until Jan.16	(1)
<i>RAC</i>	Until Jan.16	(1)
<i>SAJEMS</i>	Until Jan.16	(1)
<b>International Events</b>	<b>Timespan</b>	<b>Articles by event (n = 04)</b>
<i>AAA 2011 Management Accounting Section (MAS) Meeting Paper</i>	Until Jan.16	(2)
<i>Proceedings of 2<sup>nd</sup> annual international Conference on Accounting and Finance</i>	Until Jan.16	(1)
<i>Proceedings of 3rd International Forum of Human Resource Strategy and Development</i>	Until Jan.16	(1)

Source: The Authors

The search in the Web of Science platform resulted in one national and 19 international journals, with differentiated strata and pertaining to the field of Accounting and Management. Besides, four articles published in annals of three congresses resulted from the search of the selected terms.

#### 4.3 Step 3 – Exclusion Criteria

The third step refers to the exclusion of studies that were not considered relevant for the development of this research. After a first selection in the investigated articles, we observed that from the 38 articles, 33 were not part of the scope of investigation for the following reasons: (i) the methodology employed was not case study (25 articles); and (ii) some articles had only the summary available for download (eight articles). It is worth noting that these last articles were searched in other databases, however the access was restricted, which led to the exclusion of such studies from this investigation. Table 2 lists the studies that were excluded and the reasons for each of them.

**Table 2 - Exclusion Criteria for Step 3**

<b>Criteria</b>	<b>Justification</b>	<b>Excluded References</b>
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(i) Case Study (qualitative)	Theoretical studies were excluded from the sample.	Langfield-Smith (1997) Merchant, Van der Stede and Sheng (2003) Rosanas and Velilla (2005) Malmi and Brown (2008) Chen and Ni (2010) Davila (2012) Tessier and Otley (2012)
	Quantitative studies were excluded from the sample.	Lindsay, Lindsay and Irvine (1996) Abernethy and Brownell (1999) Fullerton and McWatters (2002) Sacovschi and Matos (2003) Dossi and Patelli (2008) Verano-Tacoronte and Melián-González (2008) Merchant et al. (2009) Abernethy, Bouwens and van Lent (2010) Ahn, Choi and Hwang (2010) Ahn, Choi and Kwon (2011) Mahlendorf et al. (2012) Sopp and Baumuller (2012) Speckbacher and Wentges (2012) Daniel, Lee and Reitsperger (2014) Abernethy, Dekker and Schultz (2015) Son (2015)
	Studies which methodology was experiment were excluded from the sample.	Choi, Hecht and Tayler (2009) Choi, Hecht and Tayler (2013)
(ii) Studies available for download	Articles that were not available for download were excluded from the sample	Kim and Suh (1991) Choe (2008) Gordon et al. (2008) Daniel et al. (2011) Aureli and Salvatori (2012) Kang, Jia e Wang (2012) Siska (2013) Gong and Ferreira (2014)

Source: The Authors

According to Table 2, in the first criterion set out in this step, theoretical, quantitative and experimental studies were excluded from the sample. The second criterion was the availability of the articles; eight articles were not available and for that reason, they were left out of the meta-synthesis database. Therefore, the final sample resulted in five articles that were incorporated into the meta-synthesis. These studies were analyzed in terms of quality, as indicated in the next steps.

#### 4.4 Step 4 – Extracting and Codifying Data

In this step, the data were extracted and codified, in order to categorize the evidences of studies selected in the meta-synthesis. According to Hoon (2013), this step gives the researcher autonomy to define the parameters that will be used for the codification of the studies.

In this study, Hoon's model (2013) for the fourth step was adapted, according to the possibility of the answer to the investigated question, and as shown in Table 3.

**Table 3 - Codification Script for Step 4**

No. Item	General Details of the study
1	Author(s)
2	Title
3	Journal/Congress
4	Date of Publication
5	Type of Study
<b>What do the authors intend to achieve?</b>	
6	General Objective
7	Research Question
8	Contributions
<b>Theoretical Framework</b>	
9	How does the study discuss the aspects of rewards in the Management Control System?
10	How does the study discuss the aspects of rewards?
11	Concepts / understanding of the Management Control System
12	Concepts / understanding of the reward
<b>Definition of the context in which the study was carried out</b>	
13	Country
14	Industry / sector
15	Research Context
16	Research location
17	Research definition
<b>Methodology</b>	
18	Research Project
19	Approach
20	Analysis unit
21	Number of investigated cases
22	Sampling strategy
<b>Data collection and sourcing technique</b>	
23	Timing and sequence of data collection
24	Data collection techniques
25	Data Source
26	Quantity of data / validity
27	Data management techniques
<b>Data Analysis Approach</b>	
28	Data Analysis Method
29	Analysis Techniques
<b>Perspectives</b>	
30	Main conclusions pointed in the summary, introduction and conclusions

31	Events, factors or standards highlighted on rewards and the Management Control System
32	Effects of the reward in the Management Control System
33	Environmental Conditions
34	View of the Conceptual Model or Table
<b>Discussion</b>	
35	Discussion of the main results
<b>Contribution</b>	
36	Contribution to Management Accounting
37	Contribution to other fields
<b>Limitations</b>	
38	General Limitations
39	What is the relevance of this study for the problem under investigation?
40	What is the validity of this study?
41	Which information are unsubstantiated?
42	Additional Comments

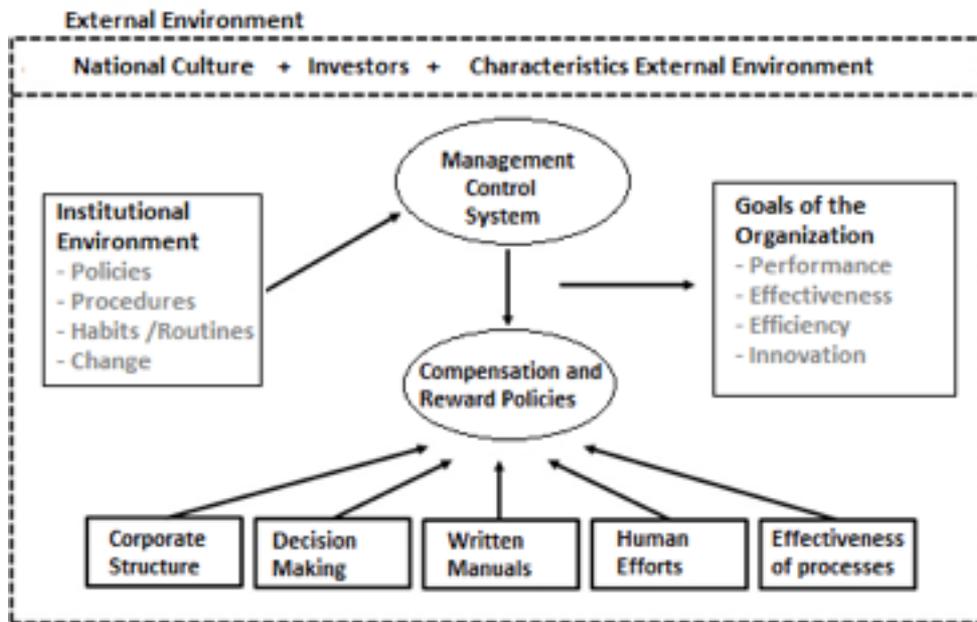
Source: based in Hoon (2013)

For Hoon (2013), the purpose of the open questions indicated in Table 3 is to provide the researcher with new insights; in this investigation, the final script was constituted by these 42 items used for data extraction and codification.

#### 4.5 Step 5 – Specific Analysis of Each Case

In this step, we identified in each article the variables that allow the establishment of causal networks and the specific understanding of each case of the analysis. This step allows the selected articles to be analyzed in a global way, initially identifying the common variables among the studies. After mapping these variables, it is possible to connect how each article shows the concepts, which allows the explanation of the causal network in the next step. The analysis resulted is the establishment of networks exhibited in Image 2.

Image 2 - Meta-Casual Network of Step 5



Source: the authors

Based on Image 2, we can identify five causal networks: external environment, institutional environment, Management Control System, reward and compensation policies and organizational purpose. External environment is represented in the articles as something under the major influence of national culture, investors and the specific features of the external environment, such as the marketplace and competitors. The institutional environment, on the other hand, represents the context for conducting case studies, particularly its characterization as a sequence of habits, rules, policies and procedures that can undergo a change process until they are fully embedded in the organization.

On the other hand, management control system comes from the configuration of the institution itself and serves as basis for the establishment of reward and compensation policies; the structuring elements of these policies, as we observed in the case studies, are: the structure and configuration of the company, focus on allowing the decision-making by managers, delimitation by means of written manuals, human effort as a key element to achieve it and efficiency of processes as a goal of its preparation. The fifth element - organizational objectives - was represented in the studies by performance, effectiveness, efficiency and innovation items of the organization's processes.

#### 4.6 Step 6 – Synthesis at a Crossed-Study Level

In this step, we analyzed the variables identified in each case, highlighting the mapping identified in Image 2, seeking to obtain a meta-causal network. In this sense, upon the reading of the articles, the focus of each study was highlighted, pursuant to Table 4.

**Table 4 - Variables and their Rating**

Author / Year	External Environment / institutional environment	Management Control System	Reward and Compensation Policies	Organizational Purpose
1. Merchant, Chow and Wu (1995)	They analyze the import or export of control practices between cultures, questioning if people from different cultures have different preferences for management controls.	Set of measurement, evaluation and reward practices, which may be influenced by the national culture.	In addition to the national culture, they can be influenced by: education and experience, the company's stage of economic development, managers' beliefs about the functioning of the stock market in their country, type of business, mobility of the national workforce, growth standard of the company, and the employment of external consultants.	Rewards as an incentive for employees, aiming at improving the financial performance of the organization.
2. Banker and Mashruwala (2007)	They understand that the effectiveness of the organization depends on the congruence between elements of the organizational subsystem and the demands of the environment, using, to that end, the Theory of Contingency.	Set of financial and non-financial performance measures.	Emphasis on non-financial reward measures, analyzing their connection with the organization's future financial performance and internal decision making (eg.: <i>Balanced Scorecard</i> ).	Organizational effectiveness depends on the social structure of the organization and can be measured by employee satisfaction and workers' productivity.
3. Cools, Emmanuel and Jorissen (2008)	They understand the arrangement of activities as the existence of written policies, rules, standardized procedures and manuals that specify how and sometimes, how not to carry out activities.	Development of rules and organizational standards for signaling, allowing managers to deal with emerging contingencies in a flexible manner.	It is the codification of the best routines and practices and the pressure to follow written manuals.	Reward system and performance evaluation focused on controllability of results and efficiency of resources through compliance with tax regulations.
4. Sartorius et al. (2011)	A series of contingency factors that influence the structure of reward policies, such as investors, economic sector, objectives, strategies, culture and technology.	Separation into formal and informal MCS's. The former are formal routines based on information and procedures intended to set the activities of the organization and its goals. Informal MCS's involve patterns of interpersonal interaction within subgroups in the organizations, in order to strengthen mutual commitment towards common goals.	Complex system involving the simultaneous measurement of human efforts, the functioning of a system and the effectiveness of organizational processes within these systems.	Use motivation as a way to achieve effectiveness of the work structures within the organization.

5. Nilsson and Ritzen (2014)	Analyzed as the change process in Research & Development practices in a highly innovative environment.	Those are systems that can take up a favorable stand in contexts characterized by high levels of uncertainty, such as innovation, providing dynamic frameworks that may adapt to unpredictable situations but stable enough to support understanding and communication.	Continuous use of measurements for two purposes: strengthening existing capabilities (variation between actual and expected results, that is, providing feedback); and signaling the need to challenge the <i>status quo</i> (setting goals within an organization).	Development of processes and capacity of innovation.
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Source: The Authors

#### 4.7 Step 7 – Building the Theory from the Meta-Synthesis

Considering what we discussed and produced in the previous steps, this study shows that researches discussing rewards within the scope of Management Control Systems deals primarily with its link with the external environment and with the institutional environment, in order to demonstrate its relevance to achieve organizational goals and targets. In addition, some studies have specifically illustrated the change in the Management Control System, relating the configuration of reward and compensation policies in this environment.

Such evidence gives rise to the following expression: reward and compensation policies, as part of the management control system, are influenced by both the institutional and the external environments and aim at promoting and enabling the achievement of the organizational goals.

#### 4.8 Step 8 – Discussion

In the last step, the limitations on the heterogeneity of primary studies or the guidelines of how the meta-synthesis was conducted need to be exposed. This research encompasses qualitative case studies developed in the context of reward and management control systems. The limiting factor is the number of studies investigated, considering that the initial search resulted in 38 studies, and in the end, five of them were analyzed. However, in spite of the low number, the studies we analyzed and presented contribute to the development of the Management Control field, since their findings help to foster the discussion about the relevance of rewards and the management control system, through the development of a framework that may support future empirical research.

From the assumption that reward and compensation policies act directly on the efficiency and effectiveness of organizational goals, we expect that future researches can be developed in this field, in order to test empirically the theoretical model proposed in this research. Considering that the goal of the meta-synthesis is to analyze the constructs, the main variables and existing links in primary qualitative case studies, in order to obtain a new theory or to enhance the existing ones (HOON, 2013), our goal is to take this analysis beyond recent studies, as we believe this methodology offers an empirical consolidation based on an intense search strategy in studies concerning Rewards and Management Control Systems published in both international and national journals and congresses. Thus, the meta-synthesis brought forth from qualitative case studies about a certain subject has a great synthesis potential.

## 5 FINAL CONSIDERATIONS

This investigation aimed to highlight the structure of the relationships between variables linked to “rewards” and “management control systems” based on relevant primary case studies. To that end, we used the meta-synthesis strategy proposed by Hoon (2013), as it is capable of gathering and synthesizing data found in qualitative case studies that have not yet been unified, aiming to provide a more robust theoretical contribution than in addressing the original studies alone.

After following the eight steps of the meta-synthesis process designed by Hoon (2013), we selected five primary case studies, found in the Web of Science database until January 2016, by using the keywords “compensation” or “rewards” and “management control system”, to then codify, analyze and synthesize its data.

The resulting analysis led us to understand that the selected case studies discussing the relationship between Management Control System and Rewards deal primarily with its interrelation with the external environment and with the institutional environment, demonstrating its relevance for the establishment of targets and the achievement of organizational goals. In short, we conclude that reward and compensation policies, as part of the management control system, are influenced by both the institutional and the external environments and aim at promoting and enabling the achievement of the organization’s goals, confirming what has been stated by Merchant, Chow e Wu (1995) and Sartorius et al. (2011).

Attention should be given also to the structuring elements of rewards and compensation policies in the context presented in the meta-causal network: the corporate structure, the decision-making process, the existence of written manuals, the recognition of human efforts and the search for efficiency in internal processes. In the external environment, the highlight goes to: national cultural background, characteristics of investors and characteristics of the external environment.

In the light of these evidences, we observe that the results obtained with this meta-synthesis converge with the theory at issue, since the literature review also indicated studies from which it could be understood that reward and compensation systems play an important role, along with management systems. Studies such as those carried out by Flamholtz (1996) and Strauss and Zecher (2013) have pointed that reward and compensation systems act as an important element in changing people’s behavior and performance, which may lead to the achievement of organizational goals arising from the management control system.

Thus, it is expected that the results of this research will contribute to researches in the fields of accounting and management control, by providing a theoretical model based on relevant case studies that can be empirically tested, as in rare or extreme case studies, and also by providing new information that may aid in a better understanding of theory and practice in this field of study. Elements present in the meta-causal network in Image 2, prevailing in the analyzed researches, can be either confirmed or distorted in further studies, and this validation is expected so that it is possible to solidify the understanding of the effects and relevance of rewards and compensations in management control systems.

In practice, the results we obtained may be useful in highlighting elements that may be deemed critical for the implementation and maintenance of reward and compensation systems within a management control system. The influence of these elements in the use of rewards and compensation systems is believed to maximize the achievement of an organization’s goals, by setting a management control system, which will give rise to a greater efficiency, effectiveness and better organizational performance.

As for the limitations of this research, we should point the issue of the quantity of primary qualitative case studies - five articles -, which, on the other hand, can be considered as relevant sources for the elaboration of a theory about the cataloged variables. However, the low number of qualitative case studies on the subject can be an encouragement for further researches, since this type of in-depth study reveals characteristics that are not perceived by methodologies that do not allow the direct and personal contact with the research subjects. The unavailability of some articles listed in the Web of Science database was also a limitation, which could otherwise provide more solidity to the results, or even, new variables for the meta-causal network.

We advise that future researches should seek to validate the theoretical model presented in this study in different contexts and organizations, widening the debate about the relationship between reward and compensation policies in these institutional environments. We also suggest another issue to be analyzed: the perception of rewards with other aspects of management control systems, providing a broader picture of the organizational structure.

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Contribution	[Author 1]	[Author 2]	[Author 3]	[Author 4]
1. Definition of research problem	√	√		
2. Development of hypotheses or research questions (empirical studies)		√		
3. Development of theoretical propositions (theoretical work)	---	---	---	---
4. Theoretical foundation / Literature review		√		
5. Definition of methodological procedures	√			
6. Data collection	√	√		
7. Statistical analysis	√			
8. Analysis and interpretation of data	√			
9. Critical revision of the manuscript			√	√
10. Manuscript writing	√	√		
11. Other (please specify)				