

Original Article

## Barriers to Balanced Scorecard institutionalization in a Brazilian army unit

Barreiras na institucionalização do balanced scorecard em uma unidade do exército brasileiro

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### ABSTRACT

**Purpose:** Based on Kasurinen's model (2002), this study aims to analyze the barriers in the BSC institutionalization process in a Brazilian Army unit, discussing its main influencing factors.

**Design/methodology/approach:** It is a case study with a descriptive approach. The collection of evidence was conducted through interviews, questionnaires, document analysis, and observation.

**Findings:** The study mapped five barriers in the project: lack of top management sponsorship; organizational culture; fear of exposure of people; lack of training; and lack of systems integration. Due to the power structure in this type of organization, the barrier linked to the lack of management support exerted the main influence on the process.

**Originality/value:** The research contributed by discussing the processes of implementation and institutionalization of management control tools and the possible barriers found in public organizations. Furthermore, it discussed how organizational characteristics can influence the process, providing factors that public managers should consider when formulating projects.

**Keywords:** Balanced Scorecard; Barriers; Brazilian army; Public organizations

### RESUMO

**Objetivo:** Baseado no modelo de Kasurinen (2002), este estudo tem como objetivo analisar as barreiras no processo de institucionalização do BSC em uma unidade do Exército Brasileiro, discutindo seus principais fatores de influência.

**Desenho/metodologia/abordagem:** Trata-se de um Estudo de caso, com abordagem descritiva. A coleta de evidências se deu por meio de entrevista, questionário, análise de documentos e observação.

**Resultados:** O estudo mapeou cinco barreiras no projeto: falta de patrocínio da alta gestão; cultura organizacional; medo de exposição das pessoas; falta de capacitação; e, falta de integração dos sistemas. Devido à estrutura de poder neste tipo de organização, a barreira ligada à falta de apoio da gestão exerceu a principal influência no processo.

**Originalidade/valor:** A pesquisa contribuiu ao discutir os processos de implementação e institucionalização de ferramentas de controle de gestão e as possíveis barreiras encontradas em organizações públicas. Ademais, discutiu como as características organizacionais podem influenciar o processo, fornecendo fatores que os gestores públicos devem considerar na formulação de projetos.

**Palavras-chave:** *Balanced Scorecard*; Barreiras; Exército brasileiro; Organizações públicas

## 1 INTRODUCTION

Pressured by the increase in indebtedness and the need to change the way of managing the public sector, since 1990s Brazil has been implementing changes in public management at the federal, state, and municipal levels in the search for more efficiency and effectiveness in the consumption of resources and provision of services. Developed countries such as the USA and England, which were going through similar scenarios, helped to initiate and consolidate a movement called New Public Management. This movement gained strength in Brazil with the ideals of defending society included in the 1988 Constitution, and aims to implement in the public sector principles, practices, and management control tools used in the private sector. (Blonski, Prates, Costa & Vizeu, 2017).

The Balanced Scorecard (BSC) is one of these tools, developed by Kaplan & Norton (1997). It is a methodology to measure companies' performance, considering that organizations' survival depends on the management and measurement of performance based on strategies and capabilities. This tool emerged to meet a demand from the private sector as a managerial approach capable of analyzing financial and non-financial aspects (Santos & Callado, 2019).

Non-financial aspects become even more important when applied to the public sector. For non-profit organizations, success should not be measured solely by budgetary limits or cost reductions; they achieve their objectives when provided

services meet the interested parties (Kaplan & Norton, 1997). In addition, the authors mention that public bodies have responsibilities to taxpayers and the community.

In the search for continuous improvement, the Brazilian Army (BA) has sought private sector practices and academic knowledge to modernize management, including the BSC (Portal SE-EB, 2015). The Third Military Region (3rd RM) sought to implement the BSC, aligned with institutional values, focused on innovation, improved management, and improved results (PG 2015-18). However, the implementation of new management control methodologies impacts many organizational variables. In particular, the analysis of implementing a management control tool in the BA seems adequate to focus on social interactions in an institutionalization process (Berger & Luckmann, 2004; Burns & Scapens, 2000).

The institutional approach can demonstrate elements capable of inhibiting or catalysing implementation and use (Hoque, 2014). Santos & Callado (2019) analyzed the BSC implementation level by the State Public Ministries of Brazil (SPM). They identified that only the MP of the State of Bahia presents all the elements satisfactorily. Such an approach is supported by a series of factors that impact each change process and the interaction between them, making the process complex and changeable even after implementation (Innes & Mitchell, 1990), given the social control with continuity characteristic that they can acquire as they are institutionalized (Berger & Luckmann, 2004).

Other barriers identified in studies related to the implementation of management control tools in the public sector are strategic misalignment, controversial objectives, resistance to change, unprepared users, budget constraints, and organizational culture (Afonso, Romano, Júnior & Portugal, 2015; Fryszman, 2015; Cunha & Kartz, 2016). Kasurinen (2002) developed a change management process model in this line. The study classified the barriers that act in introducing new management technologies, divided into three categories: confusing, frustrating, and retarding. The author highlights the importance of identifying and analyzing the forces that act on change to overcome them.

Thus, considering the adoption of the BSC in the BA as a potential target of these barriers, based on Kasurinen's model (2002), this study aims to analyze the barriers in the BSC institutionalization process in a Brazilian Army unit, discussing its main influencing factors. Characteristics linked to military organizations, such as the rigid hierarchical model, focus on processes, and organizational culture, can influence the implementation of new tools and create barriers during the process. Barriers linked to deeply rooted organizational culture and resistance to change can be a potential threat; therefore, in addition to contributing by analyzing the process of implementation and institutionalization of management control tools in public organizations and the possible barriers encountered, this study discusses how the particularities of an organization can interfere with this. The results presented can help public managers plan and build implementation strategies that consider factors with the potential to make the process more efficient and effective.

## **2 THEORETICAL REFERENCE**

### **2.1 Institutional Theory**

Until the 70s, someone generally understood formal organizations from a technical environment, whose evaluation occurred by efficient work processing. However, since Meyer & Rowan (1977), this conception has been expanded by the understanding that formal organizational structures arise in institutionalized contexts. Someone led to incorporating practices and procedures defined by the predominant rationalized concepts of organizational work and institutionalized in society. For the authors, this fact increases the legitimacy and the perspective of survival, regardless of the immediate effectiveness of practices and procedures.

In this perspective, someone sees the organizational structure as an adaptable vehicle molded in reaction to the characteristics and commitments of the organization's actors and the influences of the environment (Selznick, 1996). For Scott (1987), Selznick's

vision conceives institutionalization as a process that happens to the organization over time, assuming different levels in addition to the technical requirements of the activity.

Differently from being institutionalized or not, Zucker (1977) believes that the vision of the process allows an understanding of the variations in the levels of institutionalization. Tolbert & Zucker (1999) state that there are three sequential processes – capitalization, objectification, and sedimentation – which suggest variability in levels of institutionalization and behavioral patterns concerning the degree to which they are rooted in the social system.

Habituation, pre-institutionalization, involves the generation and formalization of practices and procedures in response to organizational problems. In this, independent organizations can adopt similar innovations, which are subject to the same context, called isomorphism (DiMaggio & Powell, 1983). Objectification is about developing some degree of social consensus among decision-makers about the value of practices and procedures. It is a consequence of monitoring competitors, efforts to increase competitiveness, or the presence of individuals with particular interest (champions) in the change. Finally, sedimentation is related to the virtually complete propagation of the new structure and long-term perpetuation (Tolbert & Zucker, 1999). During this process, the extent to which new practices and procedures are disseminated and maintained can be affected by constraining factors, including group resistance, lack of cultural promotion and support; lack of advocate groups, and lack of positive results (Machado-da-Silva & Gonçalves, 1999).

## **2.2 Balanced Scorecard**

The BSC is an inducer of Strategic Planning (SP) consolidation. In its initial stages, it receives subsidies from the mission, vision, strategic objectives, and reading of the internal and external environments. Four perspectives are usually analyzed: client/beneficiary, financial, internal processes, and institutional growth and learning (Osório, 2003). Without underestimating past performance's financial measures, it

incorporates future financial performance drivers. These vectors, which cover the customer's perspectives, internal processes, learning, and growth, are born from a conscious and rigorous effort to translate the organizational strategy into tangible objectives and measures (Kaplan & Norton, 1997).

Each perspective has its importance in this process. The financial perspective allows identifying whether the implementation and execution of a given strategy reflects in better financial results; from the perspective of customers/beneficiaries, it is possible to identify critical factors for the attraction, retention, and satisfaction of these users; the perspective of internal processes makes it possible to identify and draw up plans to improve internal processes that are critical to the success of the strategy; and the learning and growth perspective allows identified the infrastructure needed to achieve these organizational goals (Kaplan & Norton, 1997). Although the initial focus was on companies, the BSC can provide relevant motivation and responsibilities for government institutions, based on the rationale for the institution's existence, serving customers and maintaining budgetary limits (Kaplan & Norton, 1997). Regarding objectives, Cislighi & Serafim (2006) mention that the public sector is not motivated by the pursuit of financial gains. Efficiency and effectiveness in meeting customers' needs are the focus of these organizations, with the financial factor being an element that will favor or hinder the achievement of objectives.

At this point, the BSC can make its greatest contribution, enabling the balance between financial and non-financial elements. However, as it is a tool created to meet the demands of the private sector, applying the BSC in public organizations requires assistance in adapting its metrics and indicators in a centralized and bureaucratic environment (Blonski, Prates, Costa & Vizeu, 2017). In this sense, for application in the public sector, the BSC may require some changes, among which the use of the budgetary perspective stands out as a basis for the others. This implementation can generate benefits for public organizations, such as integrating budgetary and non-

budgetary measures, the connection between strategy, strategic planning, and budget, the alignment of objectives and goals, and greater clarity in identifying the actions that must be taken to meet society's needs (Félix, Félix & Timóteo, 2011). On strategy, Arvenson (2015) points out the typical differences found between public and private organizations (figure 1).

Figure 1 – Differences between public and private sector strategies

		PRIVATE SECTOR	PUBLIC SECTOR
S T R A T E G I C  A T T R I B U T E S	General strategic objective	Competitiveness	Mission effectiveness
	General financial objective	Profit; growth; market share	Cost reduction; efficiency
	Values	Innovation; creativity; disposition; recognition	Commitment to the public; honesty; justice
	Desired result	Customer satisfaction	Customer satisfaction
	Interested	Shareholders; owners; customers	Contributors; inspectors; legislators
	Budget priorities	Customers' demand	Leadership; legislators; planners
	Justification for secrecy	Protection of intellectual capital; Copyright	National security
	Key success factors	Growth rate; profits; market share Exclusivity Advanced technology	Best management practices Isonomy; economy of scale Standardised technology

Source: based on Arvenson (2015)

Kaplan & Norton (1997) state four steps for the implementation of the BSC: a) translation of the vision: building consensus on the strategic vision; b) communication and connection: communicating the strategy in the vertical and horizontal sense of the organizational structure, linking the strategic goals with the goals of the units; c) business planning: allocate resources in line with strategic priorities; d) feedback and learning: monitor the strategy to adjust it to needs, a continuous process of improvement.

In the public sector, these stages need to be aligned along the entire chain covered by the resources that will be invested. The strategy must represent the purpose of the public service to be provided and be communicated at all levels of the public bodies involved. Thus, with the formalization and alignment of the strategy through strategic planning, public organizations will have more subsidies to ensure the efficient application of the resources received and, as stated by Cunha and Kratz (2016), enable the receipt of new budgetary resources through management that fully meets its purpose before society. However, any processes involving management accounting practices are actions that alter organizational rules and routines suited to the institutional lens (Burns & Scapens, 2000). For this reason, according to the authors, the analysis of changes is understood as a process, not a result, of institutionalization to become an organizational practice. The process is subject to different resistances and barriers, discussed in the next topic.

### **2.3 Barriers to the implementation of management control tools**

For Kaplan & Norton (1997, p. 200), the difficulty in implementing an organizational strategy or practice is due to obstacles called “traditional managerial barriers”. The authors identified four types of barriers: no executable vision and strategy; strategy not associated with the goals of departments, teams, and individuals; strategies not associated with resource allocation; and tactical feedback, not strategic.

Burn & Scapens (2000) explained the barriers to implementing control systems from complex relationships between accounting and other organizational routines and institutions. They dedicated themselves to building a framework for the institutionalization process, with three main barriers: formal and declared resistance due to conflicting interests, lack of capacity (knowledge and experience) to deal with change, and cultural resistance through fidelity to established ways of doing and thinking.

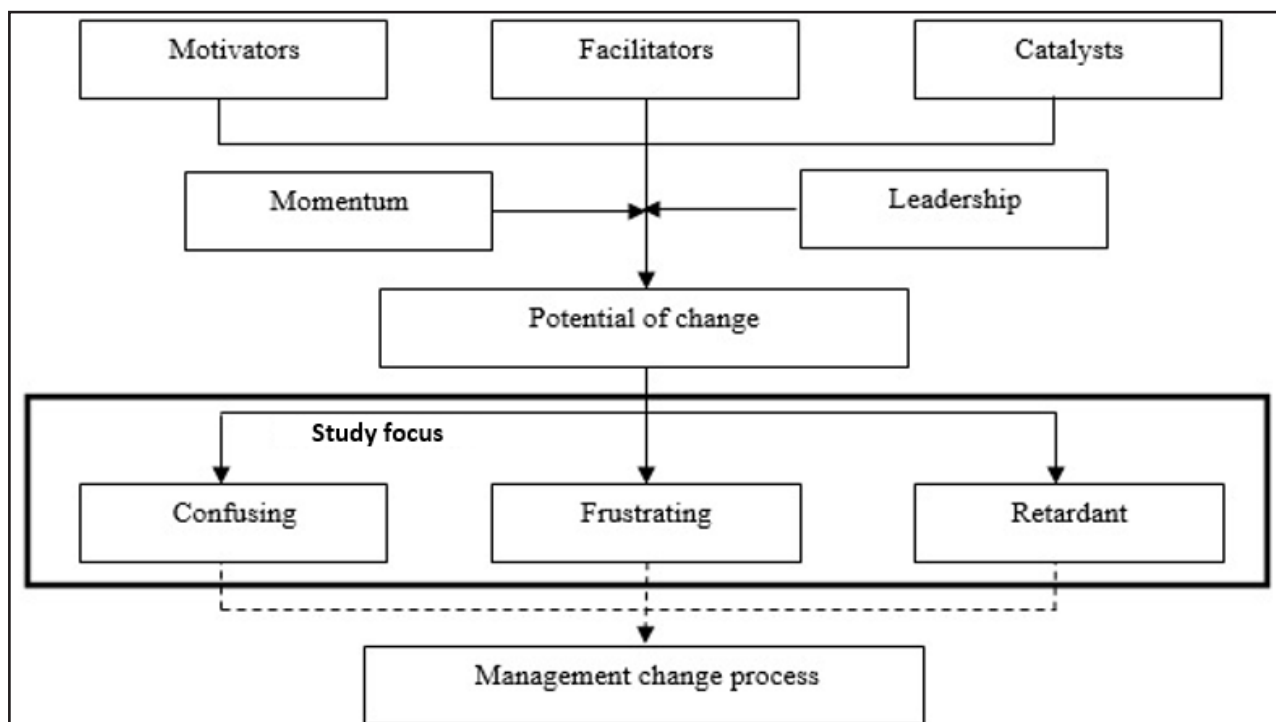
Along these lines, it is possible to identify that in addition to the barriers arising directly from formulating, executing, and monitoring the organizational strategy, it is necessary to



consider barriers linked to institutional aspects such as culture and resistance to change. Among the studies that paid special attention to the change process in management controls and barriers, Kasurinen (2002) stands out. The author categorized the types of barriers that hinder, delay, or prevent a process of change in management control based on a study developed in implementing the BSC in a Finnish organization and proposes three categories of barriers: confusing, frustrating, and retarders.

Kasurinen's model was developed from two previous works (Ferreira, 2011). In the first, Innes and Mitchell (1990) identified three factors linked to change processes: a) motivators: those that drive the process; b) catalysts: directly linked to change and their appearance corresponds to the moment of change; c) facilitators: are related to the conditions that lead the organization to change, but are not sufficient for it to happen. The second, Cobb, Helliard, and Innes (1995), identified the leadership of people and the expectation of continuous change as influencers of the process. Figure 2 illustrates the model.

Figure 2 – 'Kasurinen's model (2002)



Source: based on Kasurinen (2002)

As can be seen, to arrive at the proposed classification, Kasurinen (2002) advanced from the understanding of how the factors identified by Innes and Mitchell (1990) and Cobb, Helliard, and Innes (1995) impacted the process of managerial change that is, how these factors that generate the potential for change behave during the implementation process and what types of barriers they can cause. Research by Cobb, Helliard, and Innes (1995) had already identified barriers to implementing change. However, Kasurinen (2002) realized the need to classify them to facilitate their recognition in the process, as shown in figure 2.

Figure 3 – Barriers classification

<b>TYPES</b>	<b>DESCRIPTION</b>	<b>BARRIERS</b>
<b>CONFUSING</b>	Factors that may confuse or disturb the future of the project.	Lack of project sponsor with high hierarchical level; uncertainties related to the future role of the BSC; lack of motivation to implement a change proposed by someone else; decrease in implementation priority; differences in objectives between organisational levels; imposition of indicators; absence or uncertainties regarding the “owner” of the project; confusion of goals, the complexity of the organisational environment; different visions of change.
<b>FRUSTRATING</b>	Initiatives and actions that can suppress the changes.	Problems in the change process information system; internal power struggles; increased exposure of people, sections or other parts of the company; fear that the change will not meet needs; organisational culture; fear of losing position stability; the existence of another management system project.
<b>RETARDANT</b>	Factors that delay change; are usually temporary and of a technical nature.	Lack of a clear strategy and inadequate information system; solid positions (comfort zone); lack of incentive to individual achievement.

Source: based on Kasurinen (2002)

According to the author, this classification provides potentially useful ways to analyze the processes of changes in the initial phase, when someone can avoid many barriers, and its classification can circumvent practical problems (Kasurinen, 2002). In the model, the barriers exert different influences on the process.

## **2.4 Barriers to public entities**

To identify and discuss the barriers already identified in implementing and institutionalizing management control tools in public organizations, some studies that analyzed this topic and highlighted in their results the barriers identified throughout the process were selected. In addition, we classified the barriers according to Kasurinen's model (2002), as shown in figure 4.

Based on the studies, the main barriers found are frustrating, emphasizing those related to communication failure, strategic misalignment between hierarchical levels, and organizational culture. Retardant barriers such as unprepared personnel and resistance to change can also be highlighted. Lack of clarity in defining objectives and goals appears as a confusing barrier. It is possible to perceive the harmful role of some factors in implementing tools. As stated by Kasurinen (2002), to some extent, there is a relationship between the barriers and their possible impacts, for example, lack of knowledge about the BSC with the effect of delaying the process and requiring training, and the organizational culture acting as a bias confirmation to thwart the process.

Figure 4 – Related studies

Source	Purpose	Barriers	Classification
Blonsky, Prates, Costa and Vizeu (2017)	Analysing how the BSC development occurs in Brazil's Federal Revenue.	Deficiency in strategic alignment and organisational strategy restricted to senior management.	F
		Definition of controversial goals and Indicators	C
		Resistance to change	R
		Budget constraints	NI
Cunha and Kratz (2016)	Understanding the critical success factors in the implementation of the BSC in Federal Institutions of Higher Education	Unprepared users	R
		Absence of incentives linked to the strategy	C
		Lack of commitment from managers	C
Alcântara, Gramacho, Mascarenhas and Sampaio (2015)	Someone is presenting the successful experience of the Attorney General's Office of the State of Bahia, which opened space for reflection and implementation of strategic management amid the suffocating demand for legal processes.	Organisational culture	F
		Lack of knowledge of managers	NI
		Resistance to change	R
		Differences in priorities in the organisation	C
Nobeschi, Siqueira and Lugoboni (2015)	Describing the implementation process of the BSC at SEFAZ/SP.	Distrust regarding the future of the project (lack of practical results)	C
		Lack of strategy management system	R
		Clear communication with all employees about their performance	F
Afonso, Romano, Silva Júnior and Portugal (2015)	Someone is analysing the use of the BSC as a strategic management model in Audit Courts in Brazilian states.	Lack of knowledge of managers.	NI
		Unprepared users.	R
Fryszman (2015)	Focusing on the issue of the importance of cultural aspects so that the initiative to implement the results-based management model in public administration can be successful	Organisational culture	F
		Lack of information for lower levels	F
		Lack of knowledge of goals by the operational	F
		Ignorance of results agreement	F
		Imposition of goals and indicators	C
		Inadequate management of the implementation project	C
		Lack of participation from lower levels	NI
		Lack of leadership sponsorship	C
		Distance from planning to execution	NI
Resistance to change	R		
Bilar and Moura (2014)	Someone is analysing the effectiveness of using the BSC as a measurer and enhancer of performance by the Civil Police of Pernambuco.	People's fear of exposure	F
		Lack of training for managers to operationalise the tool	NI
		Lack of a computerised system for feeding the indicators	F

Source: the authors

Note. \*Classification as Kasurinen (2002): C (confusing); F (frustrating); R (retardant); NI (not identified).

Furthermore, the research by Cunha and Kratz (2016) identified a hierarchy between the barriers. Using Niven's classification (2005), in vision, human, managerial, and resource barriers, the authors were able to classify them according to the priority level attributed by the respondents, pointing out that the barrier that most need attention is the human one, followed by managerial, vision, and resource barriers. Understanding these factors can contribute to the excellence of the services provided. Furthermore, according to Kasurinen's (2002) model, highlighting the barriers that could potentially suppress the project may be more important than those that would delay it. In addition to identifying the restrictive factors in implementing a new practice, this study seeks to classify them according to the understanding of the function of each barrier. As exposed by Tolbert & Zucker (1999), analyzing the factors that affect the scope of diffusion and the conservation of a practice or procedure is fundamental for understanding its institutionalization process in an organization. Therefore, the theoretical proposition that guides this study is:

**Theoretical Proposition:** The identification and classification of barriers proposed by Kasurinen (2002) as key elements for understanding the different stages of the BSC institutionalization process.

In this sense, it is important to understand the organizational factors that contributed to the formation of these barriers and the implications of these barriers on the institutionalization process as a whole, providing important information for planning, execution, and monitoring of the implementation processes of management control tools in public organizations.

### 3 METHODOLOGY

Considering the study's objective, a single case study we used as a research strategy, with a descriptive and qualitative approach (Gil, 2010). The case study makes it possible to analyze a phenomenon in depth and with more information. In this case,

identifying the barriers to implementing a management control tool in a restricted organization such as the army can be complex without an analysis that allows broad access to several primary sources of information. We collected evidence through semi-structured interviews, questionnaires, systematic observation, and document analysis. We conducted the semi-structured interview with the management advisor (key informant) and the BSC implementation process manager. The choice of participants is justified by the importance of both in the implementation process, also considering the small number of people involved. The interviews took place at the institution's headquarters, recorded in audio, lasting more than one hour. We based on a research script inspired by Ferreira's interview (2011): the emergence of the need for a Performance Measurement System (PMS); the choice of PMS; the description of the implementation process; training offered; assembly of indicators; and participation of personnel from different levels of the organization.

Afterward, we sent a questionnaire to three people involved in implementing the BSC, indicated by the key informant (Ferreira, 2011), allowing triangulation information. The points addressed were the beginning of the BSC implementation process; the process phase; influencing factors; and which ones had the greatest impact. One of the sent questionnaires returned one from the military that participated since the beginning of the process (2008), treated in this one as a respondent. This information was classified and compared with the interviews' content to guarantee the evidence's reliability.

Also, as a source of evidence, systematic observation was carried out since one of the researchers has known the institution since starting the implementation of the BSC to verify the environment of some sections after the beginning of the process (Gil, 2010). The aspects captured in this process were the flow of processes and the adequacy of the location to serve the public.

The collection also covered documents produced during the implementation and even after, in the search for data that rectified or ratified the information passed by the key informant and those received via questionnaire (Gil, 2010). Among the

documents, 2009-2012 (PG 2009-12) and 2015-2018 (PG 2015-18) management plans stand out, which contain the organizational SP, the strategic maps of the referred plans, and the annual management reports of 2009 to 2014.

Afterward, we carried out a content analysis, starting with reading the collected documents and listening to the interview material, using the theoretical framework as a basis for the categories of analysis (Silva & Fossá, 2015). We used Kasurinen's (2002) classification for categorization, considering the barriers that interfere with implementing a management system (Table 2). Thus, the types of barriers are the categories of analysis, and the barriers are the subcategories of this research. The information extracted from the interviews, questionnaires, and documents were classified according to categories and interrelated to consolidate the evidence used to build the results.

## **4 RESULTS**

### **4.1 BSC characterization and implementation process in the 3rd RM**

The Command of the 3rd RM has seventeen military organizations directly subordinate (MODS). This study treats the Command of the 3rd RM and its MODS as the 3rd Military Region (3rd RM). A large part of the institutional mission of the Command of the 3rd RM is carried out by its MODS, and the BSC under analysis involves the entire 3rd RM.

According to Kaplan & Norton (1997), the BSC implementation process takes approximately twelve months. In charge of the 3rd RM, the implementation process started in 2008 and reached 100% in 2015. The system that receives and processes performance measurement information from other organizational systems is GPWeb. GPWeb is a strategic and project management software whose main objective in the 3rd RM is the management of strategic planning and the entire life cycle of projects linked to it.

Such performance in the implementation process is indicative of the existence of barriers. In addition, as discussed in Hoque (2014), it is possible to identify, in this case, the greater complexity of political and social interactions in public bodies, which can lead to unplanned changes in command, conflicts of interest, and ideological interference that can further delay the process. For analysis, we divided the implementation process into two periods, from 2008 to the first half of 2013 and the second, from June 2013 to 2015. This division occurred so that the barriers could be analyzed both in the period of choice and customization of the BSC and in the period of sedimentation of the tool. In addition, the change in command of the 3rd RM made it possible to analyze the importance of top management support. The characteristics of each period and barriers are studied below.

#### **4.2 Period from 2008 to the first half of 2013**

Studies by the management consultancy contracted in 2006 by the Command of the 3rd RM identified the need for a performance measurement system since the Army Command had determined that all Military Organizations (MO) should implement a PMS and, according to an interview, the development of the strategy of the MO was accompanied by isolated actions, making it difficult to control, to reach the objectives established in the planning and to disseminate the strategy to lower levels. Upon his arrival and verification of the 3rd RM environment, the interviewee expressed that one of the problems identified was the performance measurement issue. There was no performance measurement. They were all isolated actions.

These initial pieces of evidence are coherent with pre-institutionalization, or capitalization (Tolbert & Zucker, 1999), identifying the need for a PMS to respond to a specific organizational problem. Furthermore, the fact that all MOs need to implement a DMS seems consistent with the isomorphism (Di Maggio & Powell, 1983). In addition, the difficulties faced by the unit during the first attempt to implement a management control tool point to failures precisely in this initial process of identifying needs and



the most appropriate tool to meet them. These difficulties may be due to the need for more specialized team involvement and the lack of clear, well-communicated planning aligning all actions with the strategy.

Thus, in 2008, discussions began implementing a PMS in the 3rd RM. The proposed system was the BSC, as it was known by those involved, and the BA itself had opted for it for its planning. This movement towards a more permanent and widespread status of the BSC in the 3rd RM seems to align with the objectification stage of the institutionalization process (Tolbert & Zucker, 1999). There was a consensus among the decision-makers (advisor and commander) regarding adopting the practice. For the authors, this consensus can emerge from the presence of individuals with particular interests (champions).

In the 3rd RM, someone characterized the inter-organizational monitoring using evidence collected in MO that had already implemented the BSC. As exposed by Tolbert & Zucker (1999), the adoption of a “pre-tested” practice generates relatively smaller obstacles than adopting a new and unknown tool, in addition to the fact that decision makers’ perception of the relative costs and benefits of this adoption is generally influenced by observing the behavior of other organizations. Additionally, as familiar with the tool, decision-makers acted as influencers in objectification.

In December 2008, they created the first management plan, containing the objectives, diagnosis, strategic map, and result indicators, with a temporal scope from 2009 to 2012 and using the BSC (RG 2009).

As explained, choosing the BSC (objectification) was not difficult, as the hired advisor received support from the highest authority. The lack of another competing system also contributed to facilitating the choice. Thus, no barriers were identified due to a lack of senior management support.

For the advisor, during this period, implementation moved very slowly in the Command and cannot be evaluated in the MODS. He said, “We’ve been working on

this since 2008, but things exactly didn't happen as we wanted. There was a lot of resistance." When asked about a percentage representing the implementation at this stage in the Command, the advisor said, "30% [...], I am being very optimistic". According to the advisor and the questionnaire respondent, this obstacle was due to five barriers: lack of sponsorship from a high authority; organizational culture; fear of exposure of people; lack of staff training; and lack of systems integration.

Although commanders recognized the need for the PMS, they did not become directly involved, and this apparent lack of implementation support became a barrier. Sponsoring a high authority is important for the success of the PMS implementation process in any organization (Alcântara et al., 2015). It is more prominent in the Armed Forces, as they are institutions based on hierarchy and discipline. (Brasil, 1988). Conceição (2012) identifies that rigid discipline and the rooted sense of obedience to orders facilitate change in a military organization. Still, when there is no adequate prioritization for a management project by senior management, they become barriers.

The organizational culture, understood as the set of values, ways of solving problems, behaviors, and decision-making, which define the "personality" of the organization (Lugoboni et al., 2015), played a significant negative role in the process during this period, according to the interviewee and the respondent, in line with evidence found in research by Neely et al. (2000) and Bititci et al. (2006). For the interviewee, people, at least in the initial moment, do not want to change the way they carry out their tasks, the way they solve the difficulties of their function, and, much less, the way they relate to other people in the organization, because for there to be a behavior change, it is necessary to create a favorable environment, when individuals get closer. Greater group interaction generates intimacy and trust (Lugoboni et al., 2015).

According to the advisor, fear of exposure was another factor reflected in this phase, usually due to the fear of exposing some inefficiency during the process or in routine activities. During the implementation of PMS, when individuals feel threatened,

some behaviors may emerge: discrediting the measures; cheating the system; and preventing it from being deployed (Neely et al., 2000).

In this phase, training was limited to some senior management individuals, acquainting these people with BSC concepts and terminologies through lectures. According to an interview, they have not extended this training to the MODS for different reasons, which can limit knowledge sharing between people, contributing to fear (Rabelo et al., 2012).

Another commented barrier was the lack of systems integration. The advisor stated that people complain about feeding the GPWeb system manually with data from other systems. Figueiredo et al. (2005) conceptualize integration as the ability of the PMS to interact with all parts of the organization and its main information systems. For the authors, it is one of the key characteristics for evaluating the PMS, and its absence in the institution increased the number of people activities, contributing to resistance and inefficiency in implementation.

The barriers between the beginning of 2008 (the BSC's objectification stage) and the subsequent period are consistent with the process of sedimentation of the BSC in the MO. For Tolbert & Zucker (1999), it is in this path of the institutionalization process that factors that affect the scope of diffusion of a given practice or procedure may arise.

In the case unit, someone associated the lack of sponsorship with the distinct interests of the commander (Burn & Scapens, 2000). On the other hand, organizational culture barriers, people fear of exposure, and lack of systems integration are consistent with group resistance (Tolbert & Zucker, 1999). For the authors, this fact occurs when there is a set of actors who are, in some way, affected by the new practice and are capable of collectively mobilizing against it. Although someone can also understand the system as a contingency factor, he believed that people discomfort in feeding the data portrayed the group resistance. Some described the lack of staff training as a barrier to the institutional process (Burn & Scapens, 2000).

#### 4.2.1 Barriers and Kasurinen's Model (2002)

The lack of a sponsor seems to have caused confusion and embarrassment, contributing to the BSC project not moving forward; it would be a confusing barrier. However, it appears not to have occurred initially. The need to adopt a PMS originated at higher levels was able to promote only the initiative, not enough for the continuity of the process, reinforcing the perception of the complexity of relationships (Hoque, 2014) by higher authorities outside the unit and the local authority. Furthermore, this situation may have created other barriers, fueling resistance to change and a lack of commitment in the search for solutions for integrating management systems. Authors described similar facts in the studies by Cunha & Kratz (2016) and Blonski et al. (2017). The first fact points to the managers' lack of commitment as a critical factor for implementing the BSC in Federal Institutions of Higher Education, a confusing barrier. The second mention is that political interference can be a frustrating barrier to implementing the BSC in the Federal Revenue of Brazil. Still, Alcântara et al. (2015) report that this factor was practically null, as the institution's highest authority was involved in the PMS implementation process, unlike the case analyzed here.

Organizational culture is generally a frustrating barrier because of its ability to suppress the BSC project. Bititci et al. (2006) explored the link between organizational culture and performance measurement. They suggested that the organizational culture affects the implementation of PMS in a way that compromises the initiative, corroborating Kasurinen (2002). Likewise, Lugoboni et al. (2015) concluded that there is a strong relationship between the two. However, in the case under study, given that the project continued, the barrier acted differently, confounding, and restricting the progress of the process, that is, as confusing.

A possible cause for the change in organizational culture barrier action is the obligation given by the Army Command to implement PMS in military organizations (Portal SE-EB, 2015). In addition, the fact that BA adopted the BSC in a higher hierarchical

level unit may have influenced continuity, even if slowly (Portal SE-EB, 2015). When asked which factor most negatively influenced the implantation, the respondent reported the individual's fear of exposure. This barrier is classified as frustrating, but in the implementation under study, it also acted as a confounder, probably for the same reasons that altered the influence of organizational culture.

The almost nonexistent training, revealed by the advisor, is a retardant barrier and may have contributed to the existence, maintenance, or increase of the other barriers. Neely et al. (2000) cite that training is a step towards institutionalizing a PMS, as knowledge of the new management technology is crucial for successful implementation (Alcântara et al., 2015).

The lack of PMS integration is also a kind of retardant. Problems with data collection of indicators were also a barrier that Kasurinen (2002) found. It was not reported as important by the assessor nor mentioned by the respondent, unlike the definition given by the study of Figueiredo et al. (2005).

Although slowly, the implementation process continued, according to the management advisor's statement, confirmed by the respondent, and evidenced in the Management Report for 2010 to 2014 (RG 2010-14). Also, the very existence of the following period proves the continuity of the BSC project in the 3rd RM.

### **4.3 Period from June 2013 to 2015**

This phase, still in the BSC sedimentation process, was inaugurated with the change of command of the 3rd RM. The advisor presented the methodology and its potential to measure performance and enable the implementation of the SP to the new commander. In early 2014, he understood the need and chose the implementation of the BSC as a priority.

Regarding this priority election, the advisor commented: "It broke resistance, [...] it was fundamental". From there, the project went from 30% in the previous period to almost 100% implemented in the Command and 40% in the MODS, demonstrating

the importance of senior management as a sponsor, particularly in institutions where the command structure has greater power over the actions. Of the barriers of the previous period, the lack of personnel training and integration of the PMS with the other systems remained.

In a meeting with senior management, he ordered everyone to adapt to the BSC methodology and adopt the necessary measures for its implementation. As expressed by the advisor, this fact was enough to overcome most of the barriers that operated in the process. In the Armed Forces, someone not questioned prompt compliance with orders may even constitute a military crime provided for in the Military Penal Code (Brasil, 1969; Conceição, 2012), which differentiates such an organization in the sense of reducing expected effects by Hoque (2014) due to the complex context of relationships. In addition, the superior's effective involvement helped define clearer metrics and, consequently, the evolution of the implementation process.

Based on the commander's guidance, meetings were held for two months in 2014 with the heads of echelons and sections to define indicators and targets. At the same time, there was a decision from the upper echelon to readjust the structure. Thus, these changes were addressed, the construction of indicators and needs so that the organizational structure facilitated the achievement of strategic objectives. At the end of 2014, the commander signed the 2015-2018 Management Plan, including the deployment of the 3rd RM SP, built using the BSC methodology (PG 2015-18). In examining the strategic map, someone verified the following perspectives: institutional; learning and growth; critical processes; and users. The latter is the focus of actions, having the strategic objectives of continuously improving the provision of services and their perception of added value. In a BSC environment, the adopted measures must be derived from the established strategy to integrate the perspectives and make the planning tangible (Kaplan & Norton, 1997).

Two examples observed when visiting the facilities can be cited in this sense. The first was at the Regional Identification Office, where someone issued identity cards

for the internal public. There was a change in the location of the facilities and works carried out to serve users better, direct access from the public road, access for people with special needs, electronic service of queues, and new furniture, among others. The second is the Inactive and Pensioners Section, where more than 15,000 processes are managed, and services are provided to the public. They adapted the facilities, electronic queuing service, and measures to speed up the service, corroborating the advisor's statement: "Now things are happening according to plan".

The lack of training for the advisor is the most significant barrier in the MODS and has prevented, so far, further progress in implementation. He cited the example of one of the seventeen MODS, where there is trained personnel, and they already implemented the BSC.

According to the advisor, one barrier preventing the 3rd RM Command from fully implementing the BSC is the lack of systems integration. As an example, he cited, and we observed during a visit to the site, the case of the Inactive and Pensioners Section: management system provides information such as average service time, real-time images of locations, and various statistics. But these are entered manually in GPWeb, causing discomfort, as it is considered rework.

#### 4.3.1 Barriers and Kasurinen's Model (2002)

Cunha and Kratz (2016) found that the lack of training, classified here as a retardant, has acted in this phase. The advisor stated that they prepared the official documents for dissemination within the scope of the 3rd RM, which will regulate the participants, dates, and locations of training, five of which throughout the year, to reach 60% of the BSC implemented in the MODS, according to the strategic objective 4 (SO4) – expand innovative management practices - (PG 2015-18). Team training contributes to raising awareness and motivating people, helping to achieve the objective (Alcântara et al., 2015). A qualified team feels more confident when performing their duties, knowing the metrics by which they will be evaluated. The knowledge added to these people makes them feel like an important

part of the process, increasing motivation to search for better results, minimizing errors and rework, and reducing resistance. The lack of systems integration acts as a retardant barrier. The PMS is an information system of the organization's management process. It must receive information from the other systems, aggregate them, and have relevant information for the decision-making process as outputs, an important characteristic of such an artifact (Figueiredo et al., 2005). The lack of integration of these systems can generate rework, user resistance, data loss, and misinterpretation of information. In this sense, the implementation process must include actions to mitigate these non-conformities and seek new or available technological solutions to make this integration more efficient. Figure 5 summarizes the barriers to the BSC implementation project.

Figure 5 – Barriers, period of operation and classification

Institucionalization process	Institutional factors	Barriers – period 1	Barriers – period 2
Habituation	Problems in performance measurement; Isomorphism.	Not found	Not found
Objectification	Existence of Champion (Advisor); Familiarity of the Commander of the 3rd RM with the BSC;	Not found	Not found
Sedimentation	Someone characterised institutional resistance as Kasurinen's barriers (2002), evidence of results perceived by the actors (structural and process changes).	Confusing: lack of sponsor; fear of exposure of people; Frustrating: organisational culture; fear of exposure of people; Retardant: lack of staff training; lack of systems integration.	Retardant: lack of staff training; lack of systems integration.

Source: authors

Kaplan and Norton (1997) mention that BSC implementation is 12 months long. However, this differed from what happened in the case under study, mainly due to



the barriers listed in Table 4. The main catalyst for the process is the sponsorship of top management, responsible for changing the barriers between the two periods. Organizational culture and people fear of exposure are natural elements in change processes, and management plays a decisive role in these factors. The same form of organization of power in the institution, in which obedience to orders from higher instances is indisputable, makes the lack of a sponsor the main barrier. Such evidence encourages reflection on whether it is decisive in promoting other barriers and how it could overcome them, as higher orders would oblige all other barrier-creating agents to act in favor of the implementation process, regardless of their interests.

## 5 CONCLUSION

The research investigated the implementation of the BSC in the 3rd RM, the institution of the BA, as an institutionalization process, focusing on identifying the barriers present during the progress. This research took place in two phases, from 2008 to June 2013 (P1) and from then until 2015 (P2). The barriers encountered in implementing the BSC were: 1) lack of sponsorship; 2) organizational culture; 3) fear of exposure from people; 4) lack of training; and 5) lack of systems integration.

The lack of sponsorship from a high authority impacted the slow development of the process from 2008 to June 2013. The organizational culture barriers and people fear of exposure during this period acted on the implementation process. Still, they influenced differently from the Kasurinen model, such as confusing barriers, contributing to constraining the project. Thus, one can see that the barriers of Kasurinen's model (2002) can be classified differently from this one according to the impact on the process. Still, problems generated by the lack of knowledge of the actors can catalyze the barriers linked to culture and fear of exposure due to insecurity related to the process and its effects.

There was a change of command in the second period, and the leader prioritized the project. The research participants did not highlight the barriers related to culture

and fear of exposure in this second phase. Thus, although we cannot say these were completely null, their action in the process was no longer noticeable. By the type of command and power organization, one can see the importance of top management support for the process directly and in other barriers to overcome, which may not occur in other institutions. Furthermore, this prioritization was enough to reach the end of the second phase with almost 100% implementation, even if the training and systems integration barriers are still perceived.

This study also showed that differences can occur in the way barriers manifest in a given process. One study of this nature needs to follow the context of an institutionalization process, particularly in public institutions.

The research contributes to the discussion about the implementation processes of management control tools and the possible barriers encountered. In addition, it highlights such elements in the environment of public organizations, which do not have a financial focus, unlike private organizations, for which most management tools were developed. Adapting such models, as well as their implementation processes and how to interpret them, were elements discussed in this research, reinforcing the institutional nature of issues related to management control. Discussing how organizational characteristics can influence the implementation process and the formation of barriers can provide factors that public managers should consider when formulating projects.

The present study restricted its approach to analyzing the barriers cited in the interview or listed by the respondent, not looking for other perceptions in the organization. For future research, in a bibliometric study, one can, from the barriers listed in this study, confront those found in the implementation processes of private institutions to verify possible differences and equalities. Moreover, when identifying the importance of senior management, we suggest a study in other public organizations in which the power structure has a different configuration.

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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	√	√	√	√	√

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