

## EFFECTS ON THE USE OF COST SYSTEM IN THE QUALITY OF PUBLIC MANAGEMENT BASED ON THE PERCEPTION OF MUNICIPAL MANAGERS IN SANTA MARIA/RS, BRAZIL

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### ABSTRACT

A case study was conducted in the municipality of Santa Maria/RS, Brazil, in order to analyze the effects on the use of the cost system on the quality of public management, based on the perception of municipal managers, from a qualitative, exploratory and descriptive approach. The data were collected through documental analysis, observation and interviews of 12 public agents who work as managers. The results show that the use of the cost system in municipal public administration relies on the decision of the managers, emphasizing that the attributes of the cost information related to utility and purpose are perceived as means to develop the culture of decision based on cost information. However, its use will be effective in municipal management with the adoption of technological tools that facilitate the calculation of service costs and the dissemination of results. In turn, the repercussions of the use of the cost system on the quality of public management are highlighted by managers based on planning and performance indicators generated from exceeding the expectations of service users, public value generated to society, comparisons with historical data and other bodies, compliance with legal aspects and economy. The results may contribute with other public managers and bodies to justify the investments for the adoption of the cost system, with a view to improving quality in public management.

**Keywords:** Efficiency in public management. Cost information. Municipality.

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## 1 INTRODUCTION

Periods of economic and financial crisis affect the whole society, with the public sector perceiving characteristic events such as wage installments, increase in indebtedness and greater demand for public services by the population (Sané, Amorim, Amorim, & Carlin, 2019). In this sense, the municipalities are the ones that most suffer from the scarcity of resources in the face of greater demands, and it is up to the managers to use systems of management controls in order to avoid waste and to ensure the quality of public management (Cavalcante, 2014). To achieve the goals, the use of cost systems is emphasized (Anthony & Govindarajan, 2008). In the public sector, the cost system is a tool to meet internal demands for information that aims to assist management in the decision-making process, promoting greater transparency, quality and reduction of public spending (Lapsley & Wright, 2004). Initially developed to serve the private sector, the cost system is now indicated to public bodies, contributing to the management process (Mohr, 2015). This indication gained strength from the administrative reforms of the State, mainly under the influence of the so-called New Public Management (NPM) movement (see Hood, 1991). In line with Blonski, Prates, Costa and Vizeu (2017), NPM emphasizes the use of management tools in public bodies, aiming at their efficiency. The use of cost information in the Brazilian public sector is suggested in the main Public Finance laws (Law 4,320/1964; CF/1988; Complementary Law 101/2000) and in the Brazilian Norms of Accounting Applied to the Public Sector (NBCTSP), especially standard 16.11, which deals with the implementation of the Cost Information System (CIS), whose scope extends to all bodies of the federation. The use of the CIS aims to support the decision-making process by providing information to internal and external users regarding the efficiency of public services, performance evaluation and budget planning (Suzart, 2012).

Based on the referenced standard, different investigations at the national level were carried out, notably case studies and investigations about the design and implementation of the CIS, especially about the difficulties of implementation in states and municipalities (Ching, Silveira & Freire, 2011; Araújo, Carneiro & Santana, 2015; Rosa, Silva & Soares, 2015; Soares & Parcianello, 2018). It is noteworthy that most of these studies are based on the model of conceptual guidelines and theoretical design proposed by Machado e Holanda (2010), used in the adoption of the CIS at the federal level.

The use of management practices from the private sector in public organizations has influenced other studies focusing on the quality of public management (Paes de Paula, 2010). However, one of the main problems underpinning the theme is the issue of how to measure quality, considering its complex and poorly objective aspects and the lack of specific measures (Alencar & Fonseca, 2016; Scheren, Wernke & Zanin, 2018).

The investigation on the quality of public management presents different approaches, having the external or internal users as focus of analysis. With external users, these surveys aim at measuring satisfaction with the services provided, based on the development and application of indicators (Mainardes & Lourenço, 2010; Novaes, Lasso, & Mainardes, 2015). With internal users, it considers quality from organizational and management processes (Parasuraman, Zeithaml & Berry, 1985; Novaes *et al.*, 2015).

With a financial perspective, quality is now investigated in the context of public spending efficiency (Rezende, Cunha, & Bevilacqua, 2010; Scheren *et al.*, 2018). However, when referring to the quality of public management, Carvalho and Tonet (1994) highlight the need for a systematic effort of the sector to promote improvements in management and services offered to citizens, especially with more efficient working practices that allow the development of processes and people.

In this context, there is a theoretical gap, since there are few studies on the use of cost information in the public sector and its effects on the quality of municipal public management, from the perspective of internal users of this information. Thus, we are left with this investigation problem: how do municipal public managers perceive the effects on the use of cost information on

the quality of public management? Therefore, the study aims to analyze the effects on the use of cost information in the quality of public management on the perception of municipal public managers. In this sense, a case study was developed in the municipality of Santa Maria/RS, Brazil, due to the fact that it has implemented a cost system, and its managers use cost information in the decision-making process.

The study is justified from the need to investigate the use of the cost system and its effects on the quality of public management, contributing to the sector and other researchers in the area. The inexistence of cost information in government planning and other management acts can be a reason for inefficiency, whereas if effects that promote greater quality are verified, the public managers themselves can develop actions to overcome difficulties for the deployment and use of the cost system. Within this, the results herein evidenced can also contribute to the promotion of improvements in the quality of public management, and consequently improving the performance of the services offered to society. Thus, it is expected that municipal public managers realize that the use of cost information contributes to the improvement of the quality of public management.

## **2 THEORETICAL REFERENCE**

### **2.1 Use of the cost system in the public sector**

The use of widespread accounting practices in the private sector has been instrumental for the development of public management reforms, including new financial information systems, the introduction of decentralized budgets, amendments in public audits, performance measurement and cost information (Berry, Coad, Harris, Otley, & Stringer, 2009). As in the private sector, there are indications for the adoption of the cost system in the public sector, with the purpose of registering, processing and evidencing the costs of managing resources and public assets, subsidizing the administration with information on the costs of the programs, projects and activities developed, in addition to evidencing the good use of public resources and ascertaining the costs of accounting units (Carneiro, Silva Neto, Locks & Santos, 2012).

In Brazil, from the main Public Finance standards (Law no. 4320/1964; Federal Constitution of 1988; Complementary Law no. 101/2000, Fiscal Responsibility Law - FRL), the cost system gained space in the public sector. However, since 2008, with the process of convergence to international accounting standards, the NBCTSP was instituted, highlighting standard No. 16.11 for emphasizing the need to adopt the Cost Information System (CIS) in all spheres of government (Federal, State and Municipal). According to this standard, the CIS aims to register, process and evidence the costs of goods and services produced and offered to society by public organizations, in addition to enabling performance evaluation, comparing bodies and supporting the preparation of planning and budget with information aimed at improving the quality of public spending.

Based on the FRL and on the process of convergence to international standards, the cost systems started to present tangible aspects for elaboration, whose use aims to meet management purposes. During this period, there was a discussion about the adequate costing methods to the cost system for the sector, with the adoption of ABC funding being initially defended, considering the experiences of the private sector. Nevertheless, both traditional and strategic systems respond to the information objectives, and it is pointed out that each organization must be concerned with its project, so as to meet its properties and peculiarities for best performance (Machado & Holanda, 2010). Thus, the cost system adopted in the public sector generally uses costing methods adapted from the private sector (Suzart, 2012).

Among the characteristics of the investigation in this area, Suzart (2012) emphasizes the absence of a theoretical affiliation and the disregard for the particularities of each organization, in addition to the purposes of the system, highlighting that the procedures adopted in the private area are not always appropriate for the public sector. Furthermore, studies related to the use of the cost system in the public sector, based on successful cases, are scarce in the literature (Verbeeten,

2011). Among these are the studies by Lapsley and Wright (2004), Verbeeten (2011) and Mohr (2015) who investigated the design and implementation of CIS in public bodies, mentioning its use.

Lapsley and Wright (2004) investigated the dissemination and adoption of managerial accounting practices in the public sector, including cost system, budget and performance. The results indicate that the adoption of these practices is largely affected by government influence, whose use in local bodies is driven mainly by legislation and in response to external demands. For the authors, the successful adoption of accounting techniques seems more likely when supported by the government or when organizations are required to originate cost efficiencies.

Verbeeten (2011) investigated the importance of cost information to public organizations, considering that it allows reducing expenses, decentralizing activities, increasing management responsibility and providing performance management. The study aimed to validate the statement that the development of the public sector has increased the demands and the use of cost information, based on NPM, and a quantitative survey was conducted with financial managers of bodies in the Netherlands. The results show that ABC funding is not used on a large scale, and that the German costing method (RKW) is used by most public organizations in the country, mainly by financial managers for accountability purposes, not being employed for managerial purposes, and uncommonly used by political managers. The findings indicate that the use of the cost system in the public sector satisfies regulations and legitimizes the activities carried out for external users, rather than providing opportunities for management improvements (Verbeeten, 2011).

Mohr (2015), for his part, analyzed four reasons pointed out in the literature for the use of cost accounting in public organizations, through a study in 81 American cities with a population of over 100,000 inhabitants. The results of the study point out that performance management, recovery of indirect expenses, fee adjustments and cost management to reduce fiscal stress are correlated with the use of cost information.

## **2.2 Quality of public management**

The idea of quality dates back to the Industrial Revolution (18<sup>th</sup> Century), however, its concept means the ability to plan in order to avoid waste and, in a market vision, to provide greater consumer satisfaction (Deming, 1990). In general, the concept of quality considers that the organizational mission is subject to changes, according to the changes in the political, economic, social and cultural scenario in which the organization is inserted (Pollitt & Bouckaert, 2003). Parasuraman *et al.* (1985) argue that quality is a mental construction that is indescribable and without definition, given that the interpretation of what is quality varies from individual to individual. Thus, the quality of a product, from the perspective of the customer, may be different from the perspective of who manufactured it. Thus, because it is so broad and subjective, quality is a construct that is defined in different ways in each organization (Misoczky & Vieira, 2001).

Carvalho and Tonet (1994) mention that, in public administration, quality must be related to obtaining better financial and budgetary results, besides being observed from the satisfaction of the users regarding the services provided. Misoczky and Vieira (2001) assert that the evaluation of quality in public administration is a complex issue, considering that there are few elements that allow concrete definitions and measures. According to the authors, quality analysis can be based on the perception of organizational groups in relation to management results in three dimensions: (i) structural; (ii) human resources; and (iii) political. In this sense, quality has a positive connotation, combined with the advantage that its real implications remain extremely vague and imprecise (Pollitt, 1994).

As a result of the subjective aspects, Sowa and Lu (2017) highlight that investigation on quality in public management requires the perception of the agents involved in the process, considering the perspective of internal users (managers and servers). Thus, the evaluation of the quality of public management must observe the managerial aspects, emphasizing the role of public

management as a formal or informal process of orientation to the acts performed by public agents towards organizational objectives (Hill & Lynn, 2009).

With this understanding, Hill and Lynn (2009) analyzed the public manager as a creator of policies, laws and structures, as well as creator of strategies, capabilities and results. The authors highlight, as an investigation opportunity, the need to understand the quality of public management through the investigation of public agents, environments, structures and strategies. In addition, they stress the need to investigate how people perform such services and interrelate to achieve organizational goals (Hill & Lynn, 2009).

Among the models identified in the literature to explain the perception of quality, noteworthy is the model proposed by Reeves and Bednar (1994) that uses four perspectives: excellence, value, compliance and overcoming expectations. This model was used in the public sector context in the studies of Misoczky and Vieira (2001), Mainardes and Lourenço (2010) and Novaes *et al.* (2015). In the mentioned studies, from the perspective of quality as excellence, the element of comparability between public organizations in the same sphere of government is regarded. From the perspective of value, the generation of value to society is observed, while compliance considers legal norms as determinants of standards. Quality, on the other hand, from the perspective of exceeding expectations, considers the satisfaction of the users of public services.

With another approach, Paes de Paula (2010) emphasizes that public management should have its quality measured based on criteria formulated on the evaluation of costs, like in the private sector. However, in practice, financial information in the public sector, in most cases, has been prepared with the simple purpose of complying with the law and does not provide management information to users (Grateron, 1999).

### **3 METHODOLOGICAL PROCEDURES**

Based on a qualitative, descriptive and exploratory study (Creswell, 2010), a case study was conducted, based on the perception of municipal public managers involved in decision-making processes. Yin (2015) conceptualizes a case study as an empirical investigation of a given contemporary phenomenon in depth and in its real world context. Thus, the case study aims to know an in depth social body in order to understand what and how such phenomenon occurs, evidencing its exploratory and descriptive properties, according to the problem investigated (Yin, 2015).

Based on Machado and Holanda (2010) defending the use of the cost system as a management mechanism, with the role of identifying the application of resources in continued or specific actions, in addition to spending in terms of structure, this study adopts, as a proposal, that the use of cost system in the public sector allows greater quality of public management, being perceived by public managers. For this, the case to be studied was selected, being necessary that the municipality already had the cost system in place, besides convenience and accessibility to data. According to Soares and Parcianello (2018), the municipality of Santa Maria/RS, located in the central region of the state of Rio Grande do Sul, Brazil, adopted a cost system and meets the conditions to make the investigation viable. It is emphasized that the chief executive was exposed to the objectives of the study, and authorization was granted to carry out the study. In the city, the public agents, in the exercise of their functions, whether strategic or managerial, use different SCG for the achievement of organizational objectives and cost information, which makes it relevant to know their perceptions about its use, as well as its possible effects on the quality of municipal public management.

Thus, the study included the contribution of public agents as units of analysis, being six political managers of strategic level and six public servants of career who occupy management positions. The strategic managers participating in the study make up the Nucleus of Strategic Management (NSM) of the Municipality (Secretary of Management – E1; Secretary of Finance – E2; General Controller – E3; Attorney General – E4; Chief of Civil Office – E5; Mayor – E6), in

exercise during the period of data collection, conducted through interviews (October to December 2018). Besides these managers, it was necessary to understand the actions in the tactical aspect, being up to the investigation with the superintendents nominally referred by the NSM members, due to their contributions in favor of reaching the management objectives (Internal Control – E7; Administrative Management – E8; Budget and Financial Management – E9; Information Technology – E10; Human Resources – E11; and Bidding – E12).

Facing the selection of the case and its analysis units, the study used different techniques for triangulation of data sources and to assign greater reliability to their findings (Yin, 2015). Thus, documentary analysis (based on work instructions, laws and internal rules) and observation were used, in addition to semi-structured interviews, carried out in the research participants' own work environment, previously scheduled according to their availability, being recorded and later transcribed. The respective transcriptions were presented to the interviewees for information attestation, being confirmed and authorized for analysis.

The data analysis used the content analysis, whose concept refers to the set of techniques and systemic procedures in order to describe the content of the data collected, enabling the inference of knowledge about the constructs investigated (Bardin, 2011; Câmara, 2013). Its adoption presupposes three phases: pre-analysis; exploration of the collected material and treatment of the results for interpretation. This last phase resulted in 8 categories of analysis for presentation and discussion of the results: Management controls and formal regulations; Utility and purpose of cost information; Comparability; Excellence; Value; Compliance; Overcoming expectations; and Economy.

#### **4 RESULTS AND DISCUSSIONS**

Founded on May 17, 1858, the city of Santa Maria is located in the central region of the State of Rio Grande do Sul, Brazil, being the fifth largest city of the State in terms of population, according to IBGE, and its Municipal Human Development Index (HDI) is 0.845, considered very high by the United Nations Development Program (UNDP). As disclosed in the transparency portal, the city had 3,318 tendered public servants and 257 commissioned positions in December 2018, totaling 3,575 public agents in executive power.

According to the city's Organic Law and its amendments, the municipal executive is structured with 15 secretariats, in addition to the Mayor and Deputy Mayor's offices, with specific attributions and purposes. A secretary and an assistant secretary, chosen by the chief executive, represent each secretariat. Besides the secretaries, who act at a strategic level, the hierarchical structure also has the Superintendents in managerial functions, whose attributions refer to the responsibility for the public assets under their management, personnel control and monitoring of goals and results.

Municipal Law No. 6,109 (2016) established the Office of Governance, called the Nucleus of Strategic Management (NSM), with the purpose of advising the Mayor in the process of analysis, strategy formulation, decision-making and evaluation of priority plans, programs and projects, including the promotion of measures capable of avoiding the dispersion of tasks and resources, favoring the flow of information and communication with the administration bodies. Legally, the NSM is responsible for: (i) formulating institutional governance policy; (ii) analyzing and deciding on strategic actions, according to the government's priorities; and (iii) formulating objectives and goals to be accomplished by the municipal direct administration bodies.

The NSM comprises the 5 secretariats that carry out intermediary activities and advise the other secretariats that provide final services to citizens. However, when necessary, the chief executive may request the participation of other municipal servants who have the necessary knowledge to assist in decisions. Among the issues handled by the NSM, we can mention the studies on public spending reduction, which highlights the need for cost information for strategic purposes.

Based on the norms published by the National Treasury Administration (NTA) and NBCTSP No. 16.11, a work team was created in 2014 aiming to develop studies on the design of the cost system, based on the model used by the federal government, identifying cost measurement units from the organizational (cost centers) and programmatic (government programs) structure. The Santa Maria Cost Information System (SMCIS) began its implementation in 2015, partially and gradually, in the Finance Secretariat and in the City Attorney's Office as a pilot project. To this end, an accountant was assigned to coordinate the implementation, with the help of an administrative agent, and a sector was created to meet the demands, training and guidance to the other employees of the municipality.

The development of the activities involved the elaboration of consultations to the management systems of the municipality, determining the costs with labor (payroll system), direct material (warehouse system), depreciation (asset system) and other direct expenses by cost center (accounting system) identified at the time of the expense settlement, according to the location that consumed the resource. However, all this survey was carried out manually, with the use of electronic spreadsheets for the calculation of the results.

With the development of activities and the gradual implementation of the system in the other secretariats, the totality of the municipal executive was reached in the year 2017, being SMCIS structured with 612 cost centers. With reduced staff and other work demands, the cost sector continued to meet the demands of the NSM, with the issuance of reports and assessments to aid decision-making. Additionally, the cost sector provides information to the users, helping in the process of linking the expenses to the cost centers with the use of electronic spreadsheets, which leads to rework, untimeliness and informational lag.

#### **4.1 Managers' perception on the use of cost information**

In view of what was reported, the aim was at the perception of managers regarding the use of the cost system, and it was possible to identify that the interviewees attribute direct relationship of the subject to the budgetary aspect. This relationship corroborates Suzart's statement (2012) regarding the purpose of a cost system adoption in the public sector being focused on planning, execution and control of expenses incurred from providing services to society. However, it was questioned which control systems need to be adopted in municipal public management, and the need for management controls and formal regulations was highlighted, with citation of the legislation that encompasses public institutions and internal and external control agencies. In relation to the external sphere, participants in the survey mention the Court of Auditors, the Legislative power and society itself, in accordance with those stated by Paes de Paula (2010). In the internal sphere, the interviewees emphasize the importance of the budget as a formal control and expenditure limiter, constituted both to assist in planning and to control its execution.

The reports issued by the computerized management system in use in the municipality are also referenced as instruments to aid control. Implemented since 2012, the management system was contracted via a bidding process, providing a platform composed of different modules or subsystems (such as budget, revenues, protocol, bids, assets, fleets, warehouse, people management, treasury and accounting) that allow the integration of accounting information and meet legal requirements. However, the management information made available does not meet the needs of the users, and it is necessary to use parallel controls, citing as an example the unavailability of the cost module. Table 1 presents a summary of the statements that highlight the management controls and formal regulations as an analysis category.

Table 1

**Management controls and formal regulations**

E2	<i>"Today we are able to find out some costs related to personnel, material expenses and contracts, within a cost methodology, by sectors, in spreadsheets, but we are still not able to know the correct value of a certain service provided to society".</i>
E10	<i>"We need to expand investments in technology in order to acquire and develop information systems that allow us to monitor performance indicators to measure results and assist managers in making decisions".</i>

Source: Research data.

From this information, it was questioned which controls are considered useful to management. Unanimously, managers highlight the need for investment in technology in order to acquire and develop information systems that offer performance indicators for measuring results and monitoring. In the managers' perception, the usefulness of cost information in the decision-making process is adjectivized as *"very important"* (E6); *"essential"* (E2); *"extremely important"* (E1); *"crucial"* (E9) and *"indispensable"* (E7).

Next, its purpose was questioned, identifying that the cost information has objectives of control, comparison and performance evaluation. The purpose of the control refers to the management actions, aimed at monitoring the budget planning and its execution, with a view to the decision-making process. Such aspects converge with the findings of Verbeeten (2011). The comparison, on the other hand, aims to monitor the application of resources, to highlight the behavior of public spending with historical data and to determine the result, comparing with other bodies that use forms of calculation of costs and routines that make it possible to signal possible distortions, as discussed by Ching *et al.* (2011). Finally, the cost results allow the evaluation of the performance of the public body through indicators that allow the adoption of measures to reduce costs and to obtain economy, aiming at the efficiency of services. Table 2 presents a summary of the interviewees' statements about the utilities and purposes of cost information, identified as an analysis category.

Table 2

**Utility and purpose of cost information**

E1	<i>"Cost information is the correct subsidy for decision-making".</i>
E3	<i>"Improving efficiency in the delivery of the service with quality".</i>
E9	<i>"Just by setting up the cost structure, you start to understand the organization".</i>
E12	<i>"If you have the notion of how much you spend, you can save, doing better with less. If you do better with less, public service is provided with more quality and less cost. Therefrom, there is money left for something else".</i>

Source: Research data.

When asked for what specific purpose the survey participants have already used the cost information, it can be identified that everyone demands cost information in the pursuit of their functions. In this aspect, the purpose of the search for efficiency is evidenced, requiring data that allows decision-making regarding expenses, acquisition of products and services, accomplishment of public contest and appointment of new servers.

**4.2 Managers' perception on the quality of public management using the cost system**

When investigating how cost information is reflected in the quality of municipal public management, we can note that the answers show that managers perceive positive effects, highlighting that respondents identify important improvements in the management of the municipality, mainly in budget monitoring and allocation of funds. However, the purpose of subsidizing decision-making is one of the most referenced. Managers emphasize that the use of cost information has a direct impact on decision support, bringing guarantees of rationality and greater possibilities for agile and effective decisions. Thus, in the perception of the respondents,

the use of cost information is reflected in public management, in the aspect of economy and quality of public spending.

In contrast, the results show that the cost model used in the city, even based on the structural and programmatic dimension, does not meet the informational needs of managers, emphasizing the importance of determining the effective cost of services provided. This result reopens a previous discussion, contradicting the guidelines defended by Machado e Holanda (2010) regarding the use of the direct funding method in determining the cost in the public sector.

In this sense, besides the internal users of cost information, citizens can also make use of the information disclosed in the municipality's transparency portal. Thus, it was questioned how cost information can be useful to society and demonstrate the quality of public management. The results show that the disclosure of cost information to external users complies with the principle of transparency and efficiency, enabling citizen participation in social control.

The cost information helps the organization internally in the development of actions aimed at meeting the needs of the population, through the provision of public services with higher quality, whose analysis indicates that the managerial utility of the cost system and its adherence to the theoretical plan, besides being possible, are necessary. This result corroborates the findings of Ching *et al.* (2011). For the authors, it is necessary to promote the managerial use of information when implementing the cost system, in an attempt to avoid that these activities do not become just bureaucratic routines to comply with legislation.

To investigate the ways of evaluating the quality of municipal public management, the Reeves and Bednar's model (1994) is used, with the following analysis categories: excellence, value, compliance and overcoming expectations, adding the economy category. According to the participants of the survey, it is verified that the evaluation of the quality of public management passes through the quality of the services and the form of delivery to the users, emphasizing the need to raise information through satisfaction surveys. However, such surveys could be carried out by type of service, according to the need of what one intends to evaluate. In this context, Hill and Lynn (2009) emphasize the need to survey the satisfaction of users of public services as one of the main indicators of quality in public management.

The satisfaction survey generates performance indicators, whose behavior should be analyzed over time to diagnose possible correction needs, as mentioned by Mohr (2015). In this sense, the need to adopt different evaluation instruments is revealed, having as object of investigation the users of public services, both external (citizens) and internal (public servants). As mentioned by an interviewee (E3), one of the ways of identifying the quality of public management is observed through voting. The possibility of reelection is a way for the population to present its conformity with that government project and the actions adopted by it.

In the same vein, contributing to the issue, it is evident that the satisfaction of the user of public services must include the information of the cost of the service as an element of quality evaluation. Thus, the quality of public spending highlights the need to analyze the cost of services and their results as an indicator of quality and performance, corroborating the findings of Paes de Paula (2010). Thus, when considering the cost information, the economy as a quality factor is evident, whose elements of analysis can be verified in the statement of E10: *"it's all about spending as little as possible and doing the most effective actions for the community"*. On the other hand, we highlight the interviewee E12, who pointed out the press as an opinion maker and as a support for the dissemination of the results of public management. Likewise, according to this interviewee, the common problems and relevance to the community are disseminated by the communication media, such as newspapers, radio and television. Moreover, with the high number of users of social networks, ease of access and the speed of information, citizens started to use social networks as a channel to expose issues, bringing their questions to the attention of public authorities, and demanding quick solutions.

By highlighting the need to generate indicators for monitoring and evaluating quality over time, managers were asked about the aspect of comparability of management results with itself

and with other organizations in the municipal context. This question meets the criteria of excellence present in Reeves and Bednar's quality perception model (1994). At this point, innovation and technological evolution are emphasized as motivating elements for improvements in the historical aspect in the city.

The use of information systems, availability of online services and the transparency portal are pointed out as significant advances that allow perceiving improvements in municipal public management in recent years in attention to e-Government, corroborating the results found by Bryson, Ackermann and Eden (2007). Aspects of geographic location, economic structure, size of the city, internal management structure, fundraising and budget, in addition to partnerships with other local organizations, are mentioned by managers as indicative of quality. However, disorganized growth and lack of planning in some sectors appear as negative aspects and require long-term solutions and public policies.

When it comes to comparison with other public entities, especially municipalities, it can be seen that the investigated managers recognize the quality of the servers and the entity's reputation for excellence when participating in events, with emphasis on the results obtained and on the quality of the services developed. On the other hand, interviewee E6 emphasizes that bureaucracy is a barrier that hinders the achievement of management objectives.

As for the value generated to society as a criterion to verify the quality of management, it was questioned how municipal agents perceive the quality of public management through the services provided. The answers mention the generation of value to society through the provision of services in electronic form, whose simplification in the processes generates facilities for citizens. An example of this is the availability of tax collection guides through the Internet, avoiding the displacement of the taxpayer to the agency to request and waiting in lines (E2; E10).

The generation of public value is also understood by the bias of providing quality services to citizens, especially in relation to basic services related to education and health. In the same way, the area of social development is taken into consideration, since the creation of public value allows the perception of higher quality of management when measures that promote the improvement of the citizen's quality of life are adopted, with the asphaltting of streets, renovation of squares and opening of daycare centers. However, the economic development is highlighted as a generator of public value when measures that aim to speed up the opening of companies and make possible the granting of permits are referenced, allowing the exercise of economic activity, the generation of jobs and the consequent increase in tax collection (E2; E3; E4; E5; E6; E9).

Another aspect of the mentioned quality perception refers to the overcoming of expectations, being used in the context of the public sector through user satisfaction. With this concern, the study questioned the perception of public agents as to the quality of public services provided to users. By analyzing the answers, it appears that managers recognize that the services provided by the municipality require improvement, and a negative evaluation is perceived by users, especially regarding health and infrastructure. In this sense, respondents attribute this dissatisfaction to the lack of servers in certain areas, since the demand for servers is a historical lag. The need to develop the qualification of the staff is also verified, besides promoting the spirit of public servant as a fundamental element to serve the population (E7; E11; E12). On the other hand, the education area that made school enrollment via Internet possible is mentioned as a positive aspect, as well as satisfactory results from the Basic Education Development Index (IDEB), with emphasis on the application of financial resources above the minimum requirements (E1; E2; E4; E7; E8; E11).

Finally, compliance was addressed as an element of quality perception evaluation. Considering that the public sector is governed by several norms that determine its practices and actions, managers were asked about the perception of quality in relation to legal compliance. The responses confirm that this aspect is strongly considered by the managers, emphasizing the commitment of the employees with more time in the strategic functions as a quality factor reflected in the inexistence of notes from external control agencies (E7; E8; E9; E12).

Complementarily, the results highlight the cost as a relevant element that should be included in the model of quality perception of public management. When mentioning the need to evaluate the economy in quality, managers consider the cost of services provided and the quantitative results obtained with the application of financial resources, described as “*doing more with less*” (E-10). As observed, internal and external users perceive greater quality when evaluating whether the value spent on a given action was satisfactory for the result obtained. Furthermore, according to the survey participants, cost information can contribute to the perception of the quality of public management by promoting greater transparency and citizen participation in social control.

## **5 FINAL CONSIDERATIONS**

With the objective of analyzing the effects on the use of a cost system on the quality of municipal public management, as perceived by public managers, a case study was developed in the municipality of Santa Maria/RS, Brazil, based on a qualitative approach whose data were collected through document research, observation and interviews with the participation of 6 strategic managers and 6 public agents in management positions. The data collected were submitted to content analysis that evidenced 8 categories of analysis (Management controls and formal regulations; Utility and purpose of cost information; Comparability; Excellence; Value; Compliance; Exceeding expectations; Economy), evidencing that the use of the cost system in municipal public administration depends on the decision of managers to adopt actions aimed at generating cost information and the culture of use in the decision-making process for higher quality management.

The results allow us to conclude that the attributes of cost information related to utility and purpose are perceived by public managers as means to develop the culture of decision based on costs. On the other hand, comparability is presented as an indicator for monitoring their behavior and performance. However, its use will be effective in municipal management with the adoption of technological tools that facilitate the calculation of costs and the dissemination of results to managers, via management reports, with agility and timeliness. Such information allows the generation of indicators that enable the planning and execution of actions, considering the needs of managers in relation to cost information of services provided and not only by administrative unit, since it limits strategic decision making.

The impact of the use of SIC on the quality of public management is highlighted by the participants of the survey based on efficiency indicators and the service to the population through public services. At this point, the results allow the conclusion that the quality of management can be perceived by managers when analyzing the satisfaction of service users, the public value generated to society, comparison with other entities and compliance with laws, according to the model of Reeves and Bednar (1994), also including the economy to evaluate the cost of the service and the result generated.

In summary, from the evidence found, based on the perception of managers, it is possible to conclude that the quality of municipal public management can be observed by different aspects. By considering alone each category of analysis in the municipality of Santa Maria/RS, it is possible to verify positive aspects, such as the comparison of the current management situation with historical data and other municipalities, as well as the generation of value to society, considering the advances in the areas of economic development and education. However, better results are expected in the areas of health and infrastructure, since they are the areas with the greatest user dissatisfaction in the managers' perception. Finally, the aspect of compliance with laws is one of the most considered categories to evaluate the quality of public management.

By including economy as an element of quality analysis, the findings contribute to the model of Reeves and Bednar (1994) and to the public sector by identifying measurable elements for evaluation, and may also contribute with other organizations and public managers to justify the

adoption of the cost system, with a view to improving quality. However, it is necessary that new studies are conducted to develop the culture of the use of cost information, as well as its use for performance evaluation and quality measurement in public management.

The study presents as a limitation the fact that it is based on the perception of public managers of a single municipality, at a given moment, and cannot be generalized. However, the results point out elements that may be tested in future investigations. Thus, as a suggestion for future studies, we indicate the use of the constructs identified for evaluating the quality of management in municipal public entities, as well as comparative evaluations between different municipalities that use cost information in public management.

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