

Influence of Cognitive Factors on the Judgment of the Usefulness and Acceptance of the Cost Information System

Filipy Furtado Sell

Ph.D. in Accounting

Federal University of Pará, UFPA, Brazil

filipysell@ufpa.br

<http://lattes.cnpq.br/7867452877557402>

<https://orcid.org/0000-0003-4335-4055>

Vinicius Costa da Silva Zonatto

Federal University of Santa Maria, UFSM, Brazil

viniciuszonatto@gmail.com

<http://lattes.cnpq.br/1916486402947867>

<https://orcid.org/0000-0003-0823-6774>

Availability: <https://doi.org/10.5965/2764747112232023069>

Submission Date: April 6, 2023

Approval Date: June 30, 2023

Issue: v. 12, n. 23, p. 069-095, Dec. 2023



revistas.udesc.br/index.php/reavi/index



[@rbceg.udescaltovale](https://www.instagram.com/rbceg.udescaltovale)



rbceg.ceavi@udesc.br

ISSN 2764-7471



Influência de Fatores Cognitivos no Julgamento de Utilidade e na Aceitação do Sistema de Informação de Custos (SIC)

Resumo

Objetivo: Diante do contexto de adequações no setor público à administração pública gerencial, esta pesquisa visa investigar a influência de fatores cognitivos perante o julgamento de utilidade e a aceitação do sistema de informação de custos (SIC) aplicado ao setor público.

Método: Esta pesquisa caracteriza-se como descritiva, realizada a partir de *survey single entity*, com abordagem quantitativa dos dados. A entidade escolhida para análise foi a Secretaria da Fazenda do estado do Rio Grande do Sul em virtude do avançar do estado na implantação do SIC. Para análise dos dados coletados, utilizou-se a *path analysis*. Percebeu-se no caso analisado que os fatores cognitivos influenciam o julgamento de utilidade e a aceitação do novo SIC. **Resultado:** Existe consonância cognitiva da maioria dos indivíduos com o SIC, mitigando a resistência à implantação do novo sistema. **Contribuições:** Adiciona-se à literatura aplicada as perspectivas cognitivas na implantação de sistemas de controles gerenciais no setor público, principalmente no SIC, e a variável aceitação dos servidores diante de novos sistemas de controles gerenciais. Além do avanço na literatura, esta pesquisa pode contribuir com gestores e servidores públicos para compreensão de que a consonância entre os fatores cognitivos pode mitigar processos de resistência à mudança e atuar na organização como auxiliador na implantação de novos sistemas de controle gerencial.

Palavras-chave: Fatores cognitivos. Julgamento de utilidade. Aceitação. Sistema de informação de custos.

Influence of Cognitive Factors on the Usefulness Judgment and Acceptance of the Cost Information System

Abstract

Objective: Given the context of adaptations in the public sector to managerial public administration, this research aims to investigate the influence of cognitive factors on the judgment of utility and acceptance of the cost information system (CIS) applied to the public sector. **Method:** This is a descriptive research, carried out from a single entity survey, with a quantitative approach to the data. The entity chosen for analysis was the State Treasury of the state of Rio Grande do Sul (RS) due to the progress made by RS in the implementation of the Cost Information System (CIS). For analysis of the collected data, path analysis was used. It was noticed in the analyzed case that the cognitive factors influence the judgment of utility and the acceptance of the new Cost Information System. **Result:** Most individuals have cognitive consonance with the Cost Information System, diminishing resistance to the implementation of the new system. **Contributions:** Cognitive perspectives in the implementation of management control systems in the public sector (especially CIS) and the varying acceptance of managers and civil servants in front of new management control systems can be added to the specialized literature. In addition to advancing the literature, this research can contribute to managers and civil servants to understand that the consonance among cognitive factors can mitigate processes of resistance to change and support the implementation of new management control systems.

Keywords: Cognitive factors. Usefulness judgment. Acceptance. Cost information system.



Influencia de los Factores Cognitivos en el Juicio de Utilidad y Aceptación del Sistema de Información de Costos (SIC)

Resumen

Objetivo: Dado el contexto de adaptaciones en el sector público a la gestión pública gerencial, esta investigación tiene como objetivo investigar la influencia de los factores cognitivos en el juicio de utilidad y aceptación del sistema de información de costos aplicado al sector público. **Método:** Esta investigación se caracteriza por ser descriptiva, realizada a partir de una encuesta de una sola entidad, con un enfoque cuantitativo de los datos. La entidad escogida para el análisis fue la Secretaría de Hacienda del estado de Rio Grande do Sul (RS) debido a los avances del estado en la implantación del Sistema de Información de Costos (SIC). Para el análisis de los datos recopilados, se utilizó el análisis de ruta. Se notó en el caso analizado que los factores cognitivos influyen en el juicio de utilidad y en la aceptación del nuevo Sistema de Información de Costos. **Resultado:** Hay consonancia cognitiva de la mayoría de los individuos con el Sistema de Información de Costos, mitigando la resistencia a la implementación del nuevo sistema. **Aportes:** Se suma a la literatura aplicada a las perspectivas cognitivas en la implementación de sistemas de control de gestión en el sector público, principalmente en el SIC, la variable aceptación de servidores frente a nuevos sistemas de control de gestión. Además de avanzar en la literatura, esta investigación puede contribuir a que los gerentes y funcionarios comprendan que la consonancia entre los factores cognitivos puede mitigar procesos de resistencia al cambio y actuar en la organización como coadyuvante en la implementación de nuevos sistemas de control de gestión.

Palabras clave: Factores cognitivos. Juicio de utilidad. Aceptación. Sistema de información de costos.

Introduction

Changes to adapt to managerial public administration tend to motivate resistance due to changes in the behavior of individuals, as they may consider changes in operationalization in the organization as a design of self-depreciation or depreciation of the department in which it operates (Rezende, 2002). Regardless of their persuasiveness, individuals can reject them even if established in the organization (Luthans & Kreitner, 1991; Latham & Locke, 1991). Restructurings face disputes over the propensities of individuals that aim to optimize government entities for greater efficiency in the application of public resources and greater transparency in the acts of public administration to the detriment of individuals who reap the rewards of the inefficiency of the public system (Rezende, 2012).

Van de Walle and Hammersmid (2011) observe that conceptions of the new managerial public administration are divergent from public policies, service provision, and responses to citizens' needs proclaimed in public administration. Mitigating this dysfunction requires changing the role of professionals linked to the public sector. The acceptance and use of management control instruments are necessary to qualify the public entity's management processes.

The use of the cost information system (CIS) has been highlighted as an element that can contribute to better management of public resources (Machado & Holanda, 2010; Rezende et al., 2010) by providing information that contributes to the control and analysis of public spending (Bjornemak, 2000; Verbeeten, 2011), aiming to eliminate expenses or reallocate



resources to improve services provided to the population. The lack of a specific cost information system can mean that managers do not notice the waste of resources in the inefficient allocation of efforts in public policies.

Despite these aspects, what is observed is that it is difficult to accept the change and its effective adoption in all spheres of government. Capobiango et al. (2013) point out that the changes proposed by the new public management administration appear as resistance to change by individuals motivated by fear of new systems and work routines. Therefore, changes in habits and customs are fundamental for understanding the information produced by management control systems (Rezende et al., 2010). Once the potential benefits of their adoption are adequately understood, these systems are expected to be more easily adopted, accepted, used, and subsequently institutionalized in the management processes of public bodies.

In this context, it appears that individuals' lack of knowledge and beliefs can influence their choices and perceptions regarding the judgment of the usefulness of cost information systems (Jermias, 2001) and, subsequently, their acceptance. The difficulties in judging the usefulness of this system are related to the inertia of individuals in accepting the changes proposed by the organization to implement the CIS, as well as the state of cognitive dissonance. This state occurs when individuals have beliefs and/or attitudes that differ from the organization's objectives, so they tend to exhibit behavior that resists changes (Jermias, 2001).

Changing beliefs is necessary to promote cognitive consonance (Birnberg et al., 2007; Festinger & Carlsmith, 1959) because if individuals decide to act in disagreement with their beliefs, but per the precepts of the new administration public, there may be a cognitive conflict, which will result in questions about the actions to be developed, their need, relevance, and adequacy. Cognitions refer to "any knowledge, opinion, or belief about the environment, about oneself, or about one's behavior" (Festinger, 1975, p. 13).

When this conflict occurs, it becomes necessary to develop actions, converging efforts to reduce or eliminate an individual's dissonant cognitive state (Festinger & Carlsmith, 1959; Konow; 2000), to reduce or even eliminate (whenever possible) the sources of inertia (Jermias, 2001). In this case, if an individual does not change their beliefs by accepting the change, they tend not to effectively implement and make viable the precepts adopted from the perspective of managerial public administration.

In this regard, Chabrak and Craig (2013) ensure that individuals are exposed to modifying their cognition to absorb or add new facts, given their ethical and moral preservation, diverting or choosing appropriate elements to enable behavioral change, reorganizing desires, beliefs, opinions, attitudes or technical and practical knowledge to obtain a new consonant state. However, this does not occur equally among people, and some individuals may have greater difficulty assimilating and accepting changes.

In this aspect, Jermias (2001) found evidence suggesting the influence of organizational commitment, confirmation, and feedback on the judgment of the usefulness of management accounting systems. This research found that individuals who committed to a particular CIS refused to change systems despite receiving negative feedback about their choice. His experiment also highlighted that individuals understand that their judgment should be in the direction of their actions, even if unconsciously, the judgments contradict the intended action or previous beliefs.



Given the above, it appears that a state of cognitive consonance is necessary between the beliefs and attitudes of individuals with the organization regarding implementing the CIS so that an adequate judgment of its usefulness and acceptance can be promoted. Likewise, individuals with knowledge related to cost issues are expected to realize that cost information will qualify the management of public resources. In this case, it is also expected that these individuals will show behavior willing to change operational procedures to enable the implementation of the new CIS, reducing sources of inertia and resistance to change.

Since such relationships have not been investigated in the context of adopting CIS in the public sector, this research seeks to investigate the **influence of cognitive factors on the judgment of the usefulness and acceptance of the cost information system applied to the public sector**.

The investigation of the individual in judging the usefulness of the new CIS applied to the public sector becomes evident due to the need to change paradigms for understanding and using the new cost system (Rezende et al., 2010). Holanda (2011) reinforces this by advising that a necessary effort is to change the culture of using cost information to qualify the decision-making process, and, despite the Union's commitment to promoting the matter, states and municipalities are expected to embrace this challenge.

Also noteworthy as a contribution is empirical evidence related to the new managerial public administration, demonstrating the reform of public management robustly and reliably (Van de Walle & Hammersmid, 2011), as well as demonstrating the need to change the behavior of the individuals involved in the change process (Kuipers et al., 2013).

Regarding the social and practical contribution, Stone and Cooper (2001) determine that literature must advance in new directions pointed out in literary recovery, offering insights into human social behavior in public organizations. Thus, this research may find evidence indicating potential sources of resistance concerning change or implementing CIS in the public sector.

The Influence of Cognitive Factors on Human Behavior

In implementing or changing a Management Control System (MCS), here understood as a formal system composed of instruments that make it possible to maintain or change activity patterns (Chenhall, 2003), it is necessary to overcome some difficulties and resistance to have implementation effectiveness. Thus, if individual behavior is not favorable or is credulous with the new procedures and objectives, it is used as a source of resistance to change (Bell, 2010; Festinger, 1975; Jermias, 2001; Resende et al., 2010), as changes in organizations are linked to individuals (Piderit, 2000).

Different elements can generate sources of resistance to change. Five factors influencing an individual's behavior are addressed to carry out this research: beliefs, knowledge, commitment, feedback, and inertia.

For Festinger (1975), belief is embedded in the concept of cognition, which must be observed as values, knowledge, and attitudes about a given subject, defined as right or wrong (or simply better or worse) and acquired through past experiences or observations of the environment in which one is inserted. In this sense, beliefs demonstrate the individual's



perception of daily events based on past experiences, collective perceptions, and future perspectives, being positioned in this work on the individual's perspectives regarding implementing the CIS and the available information.

In line with Festinger's (1975) proposal, the term knowledge is an integral part of the concept of cognition, defined in social psychology. In this research, the term knowledge is positioned as the individual's expertise regarding experience, skill, methods of application, and use of the information made available from the CIS. In this sense, observing the study by Jermias (2001), the knowledge received by the individual may demand attention from the subject when they are in situations that require their positioning in the face of change, in this case, the alteration of a CIS.

Organizational commitment demonstrates the individual's determination with some fact or perception linked to the organization. According to Meyer and Allen (1997), organizational commitment is a psychological commitment of the subject to the organization. In this research, commitment is directly linked to loyalty and application of efforts when changing/choosing a particular cost information system, and this organizational commitment will cause individuals to become insensitive to the benefits present in the rejected system (Festinger, 1975; Harmon-Jones et al., 2009; Jermias, 2001).

Feedback is characterized by informational feedback regarding decisions made by individuals. After choosing a particular alternative over another, individuals are believed to seek and give importance to positive feedback (reactions that approve of their conduct) and reject negative feedback (reactions that disapprove of their conduct (Festinger, 1975; Jermias, 2001).

Inertia is conceptualized by the individual's divergence in accepting new proposals contrary to their beliefs and knowledge, projecting little effort and commitment to the contemporary, preferring procedures already absorbed in previous dynamics. This concept is aligned with Festinger (1975), as it predicts that individuals reject alternatives that are at odds with their cognition, and with Jermias (2001) when showing that after a defined choice about a particular CIS, individuals become inert to change, resisting the exchange of systems.

Judgment of the Usefulness and Acceptance of the Change in the CIS

Historically, the Brazilian public budget strongly influences the accounting method and the structure of financial statements applied to the public sector. After the proposed reforms for a new managerial public administration and, in parallel, the harmonization of international accounting standards applied to the public sector, a change was observed towards equity-oriented accounting and considering the premises of the accrual basis.

According to Pigatto, Holanda, Moreira & Carvalho (2010), a regime other than the accrual regime, i.e., the cash or financial regime, distorts the result calculated from the costs of government activities. Therefore, it is recommended to apply the accrual basis to carry out government costs correctly and to implement the CIS according to an MCS instrument (Cardoso et al., 2011; Conselho Federal de Contabilidade, 2011; Machado & Holanda, 2010; Pigatto et al., 2010). In this sense, it is necessary to change the basis for calculating costs, migrating from budgetary information to information coming from all informational



subsystems of the entities that make up the public sector (Conselho Federal de Contabilidade, 2011).

It is worth noting that, in public administration, strict submission to the dictates of budget management traditionally prevails (Schick, 1998). In this way, budget management prioritizes already established standards concerning proposals for greater flexibility in generating and obtaining information, searching for effective results for society, and efficiency in the application of public resources offered by the new managerial public administration (Luque et al., 2008), thus, the process to migrate to the new information bases will be gradual (Cardoso et al., 2011), taking into account the need for cognitive changes and organizational tasks to absorb new procedural concepts.

Even the tradition rooted in budgetary dictates is not free from problems in controlling costs through the budget, as highlighted by Luque et al. (2008), namely:

- (i) Budgetary inertia, being treated as the tendency to apply resources in actions that are out of focus on the real needs of society and inefficient sectors to serve interest groups;
- (ii) Lack of operational and administrative flexibility;
- (iii) Lack of metrics that verify whether operational results reflect efficiencies in the provision of public services to society.

The reformulation of the budget system was included in the study by Shick (1998), demonstrating that in countries in the development phase and where perceptions of efficiency and effectiveness in the provision of public services were implemented, there was a distancing of domains concentrated in the budget in search of greater functional flexibility for public managers, in which greater budgetary flexibility for managers can only be made possible with the implementation of efficient and reliable control systems. Among the established controls, the indispensable presence of CIS is observed (Luque et al., 2008).

In this sense, implementing the CIS requires users to understand the informational relevance generated by the new cost system. The change in perception for the implementation of the CIS is stimulated by the judgment of the usefulness understood by managers, considering the beginning of implementation being motivated by external coercion (Cardoso et al., 2011), since cost management information provides essential data for the debate on public policies and efficient application of public resources (Parker & Gould, 1999; Verbeeten, 2011).

Another factor that encourages the implementation of CIS is, according to Cardoso, Aquino, and Bitti (2011), the perspective of usability of the data made available by the system for management controls and to assist in the decision-making process. It is also observed, according to Cardoso, Aquino, and Bitti (2011, p. 1568), that the accounting literature highlights four characteristics that potentially make the system attractive for use, namely: “(i) the frequency of disclosure, (ii) the level of detail, (iii) the classification of cost behavior and (iv) the analysis of variations.”

The use of information generated by the cost system is linked to the usefulness of cost reports by managers, aiming, according to Cardoso, Aquino, and Bitti (2011), to manage and measure program performance and assist in budget preparation. The authors advise that



regardless of the public manager's allocated organizational position, they will be responsible for allocating and efficiently using public resources.

Bearing in mind the informational needs, the CIS will gradually address the desires of managers, enabling the efficient management of public resources, management focused on results, comparability between organizations and organizational sectors, and social effectiveness in the provision of public services (Cardoso et al., 2011; Machado & Holanda, 2010; Pigatto et al., 2010; Rezende, Cunha & Bevilacqua, 2010; Rezende, Cunha & Cardoso, 2010), in addition to helping the efficient planning of public policies (Verbeeten, 2011).

In this context of judging the usefulness of a new MCS, there is a need for the individual to accept the use of the implementation of the new tool. Bjornenak (1997) highlights that accepting a new cost system requires persuading organizations towards individuals so that acceptance of the proposed change is effective, following a path of awareness, demonstrations of the system's functionalities, and implementation planning. The author also highlights that this process of accepting change can be disseminated in the organization through consultancy, a fact observed in implementing the cost system in the public sector and adapting it to international standards.

In the public sector, adopting new management accounting techniques is noted to be occurring, however, at a slow pace. According to Perera, McKinnon, and Harrison (2003), such implementation occurs in the following sequence: firstly, it comes from a political and normative decision, which determines the adoption of the new accounting technique; then, the individual's acceptance of the new required technique becomes necessary. Therefore, implementing the new CIS in Brazil has been recommended in legal determinations. Therefore, for its adoption to occur effectively, it is necessary to adapt the beliefs of individuals who work in this sector so that they have the initiative to promote such change.

Lapsley and Wright (2004) reinforce that the standards issued by the government have a strong influence on the implementation of new techniques applied to public accounting. The drivers for implementing a new CIS, which will bring benefits in controlling public spending, will come from legal determinations. However, legal determinations alone will not be enough for implementation. Kavanagh and Ashkanasy (2006) observe that managers are fundamental to implementing changes to a management control system. The authors determine that the success of MCS change is related to the pace of change and the direction in which the organization's culture is oriented.

Therefore, communication between managers and other individuals in the organization must be frequent and transparent. Furthermore, if there is no uniformity in the perception of the organizational culture with the beliefs of managers and individuals, there will be no success in implementing the new cost information system. Therefore, individuals resistant to change will have difficulty accepting the new CIS.

Evidence in the literature dedicated to CIS in the public sector highlights aspects that hinder its implementation, namely the non-implementation of patrimonial procedures, such as the depreciation and linking of stock products with said entry (Fontes et al., 2020); the lack of experience with the CIS and the lack of cost culture in the public sector (Alonso, 2022); low incentive for employees to adopt new management practices (Pessoa & Callado, 2023); the use of CIS depends on managers' decision to adopt the system and use it in decision-making (Soares et al., 2020); the lack of Information Technology (IT) professionals with expertise in



the business area and staff time to dedicate themselves to the implementation of the CIS (Silva et al., 2022).

In line with this, it is clear that the CIS is still being implemented in government entities despite recognizing its importance for greater efficiency, economy, and transparency of various legal devices that require its use (Brandão, 2022). Thus, it demonstrates the contemporaneity of this research and the relevance of observing cognitive factors related to CIS to present evidence that helps managers and employees in its implementation.

The lack of acceptance and resistance to change makes changing the CIS cognitively arduous, challenging, and exhausting (Nor-Aziah & Scapens, 2007). Therefore, given the difficulty encountered, these authors advise that one must persist in applying the change process to the new CIS, observing the routines already implemented and verifying the need to change new routines, habits, and customs to enable necessary operational changes.

Based on the above, it is expected that:

H1: Cognitive factors are associated with the judgment of the usefulness of the new cost information system.

H2: Cognitive factors are associated with acceptance of the new cost information system.

Based on the study developed by Jermias (2001) to evaluate such relationships, some factors were selected that may influence such a relationship. Additionally, the variable acceptance of change was included as an essential element of analysis not previously evaluated in the study developed by this author. Thus, to individually test each of the relationships presented in these general research hypotheses (H1 and H2), seven sub-hypotheses were established to test relationships between cognitive factors and the judgment of system usefulness (H1), and eight related to cognitive factors and acceptance of the cost information system (H2), as seen in Table 1.

Table 1 – Relationships tested in the second and third research hypotheses

General Hypothesis	Relationships investigated	Expected Relationship
H1: Cognitive factors are associated with the judgment of the usefulness of the new cost information system.	H1a: Individuals' prior beliefs are positively associated with the judgment of the usefulness of the new cost information system.	Positive
	H1b: The choice of the new cost information system is positively associated with the judgment of the usefulness of the new cost information system.	Positive
	H1c: Cognitive dissonance is negatively associated with the judgment of the usefulness of the new cost information system.	Negative



	H1d: Organizational commitment is positively associated with the judgment of the usefulness of the new cost information system.	Positive
	H1e: Confirmation of the choice of the new cost information system is positively associated with the judgment of the usefulness of the new cost information system.	Positive
	H1f: Feedback is positively associated with the judgment of the usefulness of the new cost information system.	Positive
	H1g: Inertia is negatively associated with the judgment of the usefulness of the new cost information system.	Negative
H2: Cognitive factors are associated with acceptance of the new cost information system.	H2a: Individuals' prior beliefs are positively associated with acceptance of the new cost information system.	Positive
	H2b: The choice of the new cost information system is positively associated with acceptance of the new cost information system.	Positive
	H2c: Cognitive dissonance is negatively associated with acceptance of the new cost information system.	Negative
	H2d: Organizational commitment is positively associated with acceptance of the new cost information system.	Positive
	H2e: Confirmation of the choice of the new cost information system is positively associated with acceptance of the new cost information system.	Positive
	H2f: Feedback is positively associated with acceptance of the new cost information system.	Positive
	H2g: Inertia is negatively associated with acceptance of the new cost information system.	Negative
	H2h: The judgment of the usefulness of the new cost information system is positively associated with acceptance of the new cost information system.	Positive

It is based on the premise that implementing the new CIS changes the environment in which the individual is inserted, intending to restructure organizations to absorb the new CIS and manage service provision and accountability (Broadbent & Guthrie, 2008). Thus, changing the dissonant environmental cognitive element to consonant is necessary to reduce or eliminate the cognitive dissonance experienced.

This way of reducing dissonance is considered highly complex since the individual will have to present a high degree of control over the environment in which they are inserted (Festinger, 1975). Thus, to become in tune with the environment, the way that will require the



least effort for the individual is to change their behavior from being at odds with the environment to behaving in line with the environment (Festinger, 1975).

Behavior change is highly resistant to change since if the individual has a line of behavior, it is challenging to change to new forms of conduct (Harmon-Jones, 2012). If the individual manages to change their behavior according to the environment, they may still be in dissonance if their behavior is at odds with their cognitions (Harmon-Jones et al., 2009). In this context, cognitive factors are expected to be associated with the judgment of the usefulness and acceptance of the new cost information system.

Methodological Aspects

This research is characterized as descriptive, using a single-entity survey with a quantitative approach to the data. The entity chosen for analysis was the State Treasury of the state of Rio Grande do Sul (RS) due to the state's progress in implementing the CIS, according to information provided by the Technical Group for the Standardization of Accounting Procedures (GTCON) and the Technical Group for Standardization of Reports and Fiscal Statements (GTREL) linked to the National Treasury (STN).

The regulations in RS come from the Accounting and General Auditing area of Rio Grande do Sul (CAGE). Thus, the research population was defined as civil servants available in Accountant, State Auditor, and State Tax Auditor positions linked to the Rio Grande do Sul Finance Department (SEFAZ/RS). Aiming to identify potential responding servers with access to the CIS used by the state (Custos/RS), a population of 179 potential responding servers was reached. Of the 179 potential respondents, it was not possible to contact 23 of them because they were on vacation, leave, external audit, retired, or no longer working at SEFAZ/RS.

Data were collected in person and via telephone call. In both cases, the interviewee was asked whether the interviewee was interested in participating in the research, after which the informed consent form was read. Then, questions about the research variables were asked. Participants' responses were collected on the printed questionnaires.

Thus, of the 156 respondents who were contacted, 83 questionnaires were completed. Based on the completed questionnaires, a response rate of 46.36% of the research sample and 53.20% of the contacts made were obtained.

Data were collected based on the research construct, presented in Table 2, via a questionnaire with a seven-point Likert scale.

Table 2 – Research Construct

Block	Parameter	Indicator	Quest. No. Appendi x. A	Base Author
01	Knowledge about Cost Management	Formal cost management responsibility	CGC_01	Shields and Young (1994);
		Experience in cost management	CGC_02	
		Cost management by comparing expenditures incurred against the budget	CGC_03	



		Cost management for goals	CGC_04	Zonatto (2014)
		Cost management style	CGC_05	
		Assessment of results and costs involved	CGC_06	
02	Beliefs about Cost Information	Importance of information: for public management	CRIC_01	Created based on Festinger (1957) and Jermias (2001)
		...for resource allocation	CRIC_02	
		...to identify the need for resources for the continuity of services	CRIC_03	
		...for performance assessment	CRIC_04	
		...to evaluate the efficiency of the services provided	CRIC_05	
		...for more appropriate actions in planning, evaluation, and control	CRIC_06	
		...for better budget forecast	CRIC_07	
		...to reduce costs	CRIC_08	
03	Choice of the Cost Information System	Additional information for management	ESC_01	Created based on Festinger (1957) and Jermias (2001)
		Better planning of government actions	ESC_02	
		Better assessment of the performance and results of government actions	ESC_03	
		Identification of inefficiencies	ESC_04	
		Much more important information for public management	ESC_05	
		Allows detailed assessment of the costs of services provided and government plans	ESC_06	
04	Cognitive Dissonance	Does not provide more accurate information	DC_01	Created based on Festinger (1957) and Jermias (2001)
		Does not qualify the decision-making process	DC_02	
		Not necessary for management	DC_03	
		Implantation will not be successful	DC_04	
05	Organizational Commitment	Willingness to help the organization	COM_01	Mowday, Steers, and Porter (1979); Jermias (2001); Zonatto (2014)
		I speak well of this organization	COM_02	
		Accept any assignment to remain with the organization	COM_03	
		Personal values similar to those of the organization	COM_04	
		Proud to work for this organization	COM_05	
		The organization motivates me	COM_06	
		Satisfaction with working in this organization over another	COM_07	
		Best organization to work	COM_08	
		Concern about the fate of the organization	COM_09	
06	Confirmation	Able to provide cost information that qualifies management	CON_01	Created based on Jermias
		More appropriate information	CON_02	



		More useful information	CON_03	(2001) and Pike, Tayles, and Mansor (2011)
		More accurate information	CON_04	
07	Judgment of the Usefulness of the Cost Information System	Uses multiple factors to allocate costs	JUT_01	Created based on Festinger (1957) and Jermias (2001)
		Information collected from other systems	JUT_02	
		Better allocation of costs to government services/plans/actions	JUT_03	
		More accurate cost information	JUT_04	
		Assistance in the decision-making process	JUT_05	
		Better evaluation of results	JUT_06	
08	Feedback	Development of activities	FEE_01	Created based on Festinger (1957) and Jermias (2001)
		Accounting records	FEE_02	
		Management reports	FEE_03	
		Budget forecast	FEE_04	
		Work performance	FEE_05	
09	Inertia	Dissatisfaction with cost information	INE_01	Created based on Festinger (1957) and Jermias (2001)
		Failure to provide cost information	INE_02	
		Does not improve cost information generation	INE_03	
		Interest in changing the choice of cost information system	INE_04	
		Resistance to the use of the cost information system	INE_05	
10	Acceptance of the Cost Information System	Acceptance of the change to the new cost information system	ACT_01	Libby and Waterhouse (1996)
		Re-tasking for data generation	ACT_02	
		Changing accounting routines for data generation	ACT_03	
		Study time to adapt to the new system	ACT_04	
		Changes to procedures already implemented and consolidated	ACT_05	

Path analysis was used to assess the collected data. Applying this multivariate analysis technique presents itself as confirmatory, determining the validity of the theoretical model in light of the actual data obtained and determining cause and effect relationships between variables (MARÔCO, 2011).

The Influence of Cognitive Factors on the Judgment of Usefulness of the Cost Information System

In this topic, the influence of cognitive factors on the judgment of the usefulness of the cost information system is evaluated according to the theoretical analysis model developed by



Jermias (2001). Based on path analysis, the relationships found in the theoretical analysis model of Jermias (2001) will be highlighted, demonstrating the theoretical relationships validated or refuted in the context of the Brazilian public sector based on the data collected. It is noteworthy that the internal validity of the construct was assessed using Crombach's Alpha, with all variables presenting values greater than acceptable (0.7), according to Hair Jr, Black, Badin, Anderson, and Tatham (2009).

It is noteworthy that Jermias (2001) carried out an experiment with 82 first-year accounting students, resulting in the following findings: the judgment of usefulness of the cost system was influenced by the commitment to the previously chosen cost system; individuals committed to a particular cost system, even receiving negative feedback about their choice, refused to change the system; and the confirmation that individuals understand that their judgment should be in the direction of their actions, even if unconsciously the judgments are contrary to the intended action.

Table 3 presents the coefficients found in the path analysis for the influence of cognitive factors on the judgment of usefulness.

Table 3 – Results of the path analysis of the first hypothesis of this research

Dependent Variables	Independent Variable	β -standard	t-statistic	P-value	R ²	Standard Error	F	Sig Anova
ESC	CRIC	0.153	1.392	0.168	0.023	6.309	1.937	0.168
DC	ESC	-0.561	-6.092	0.000	0.314	4.384	37.117	0.000
COM	DC	-0.118	-1.074	0.286	0.014	6.835	1.154	0.286
CON	COM	0.172	1.573	0.120	0.030	4.123	2.475	0.120
JUT	COM	0.756	10.397	0.000	0.572	4.385	108.096	0.000
FEE	ESC	0.731	9.643	0.000	0.534	3.375	92.988	0.000
INE	FEE	-0.569	-5.856	0.000	0.353	3.364	21.842	0.000
	COM	-0.059	-0.608	0.545				
INE	FEE	-0.592	-6.607	0.000	0.350	3.351	43.654	0.000
JUT	CRIC	0.065	1.083	0.282	0.741	3.546	30.595	0.000
	ESC	-0.038	-0.372	0.711				
	DC	0.026	0.318	0.752				
	COM	-0.009	-0.139	0.889				
	COM	0.471	5.481	0.000				
	FEE	0.524	5.581	0.000				
JUT	INE	-0.003	-0.027	0.979	0.735	3.469	111.025	0.000
	COM	0.461	6.462	0.000				
	FEE	0.501	7.027	0.000				

Source: prepared by the authors (2022).

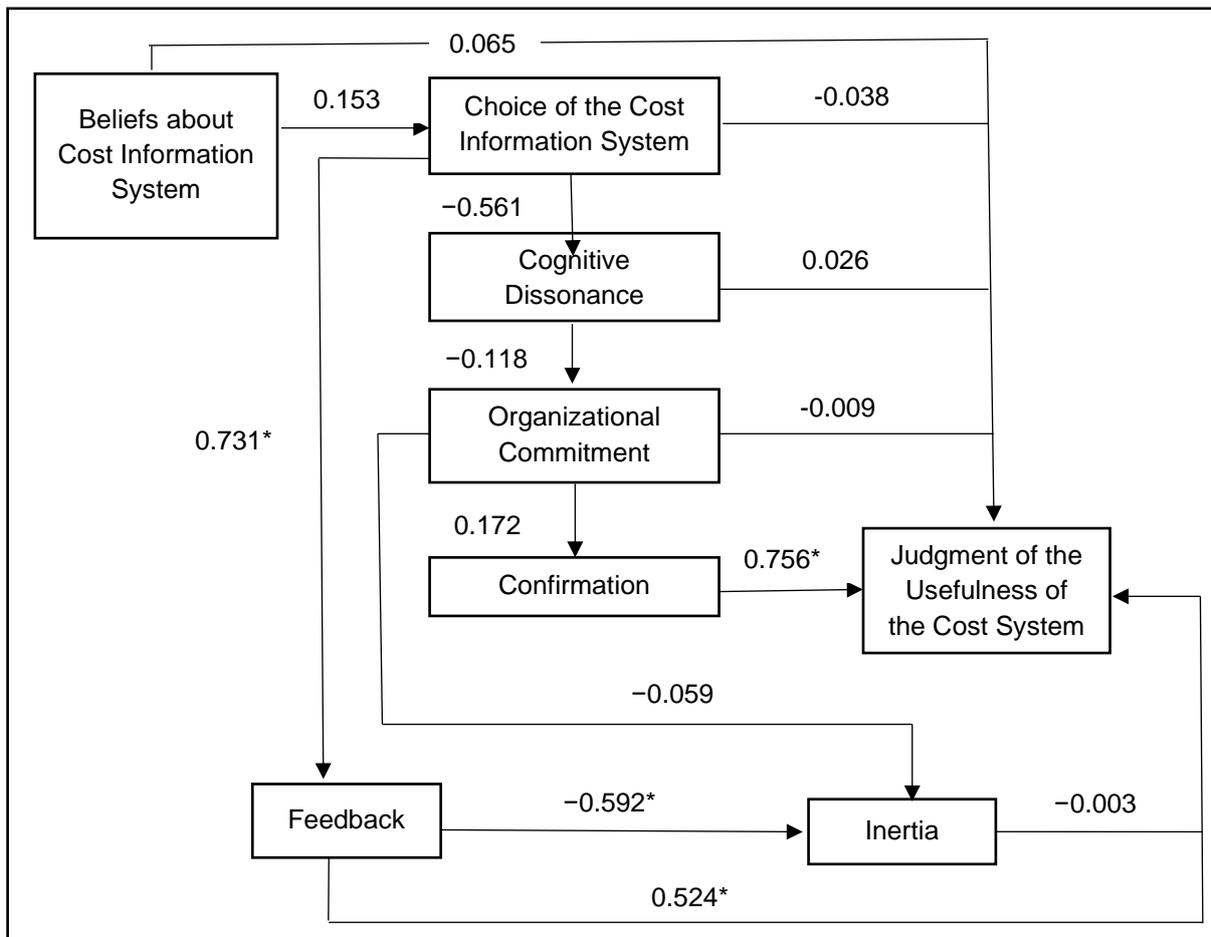
In Table 1, the most significant influence of the independent variable on the dependent variable stood out as coming from the combined influence of the variables: beliefs, choice, cognitive dissonance, commitment, confirmation, feedback, and inertia in the judgment of usefulness, demonstrating an R² of 0.741. It is worth noting that of the seven variables that



influence the usefulness judgment, only two variables (CON and FEE) have statistical significance (p -value = 0.000).

The second most significant influence on the dependent is Confirmation in the Judgment of the Usefulness, influencing 57.2%. Figure 1 summarizes the visualization of the relationships obtained by the path analysis of the variables observed in this model.

Figure 1 – Path Analysis of Judgment of the Usefulness of the Cost Information System



* Significance level at 1%.

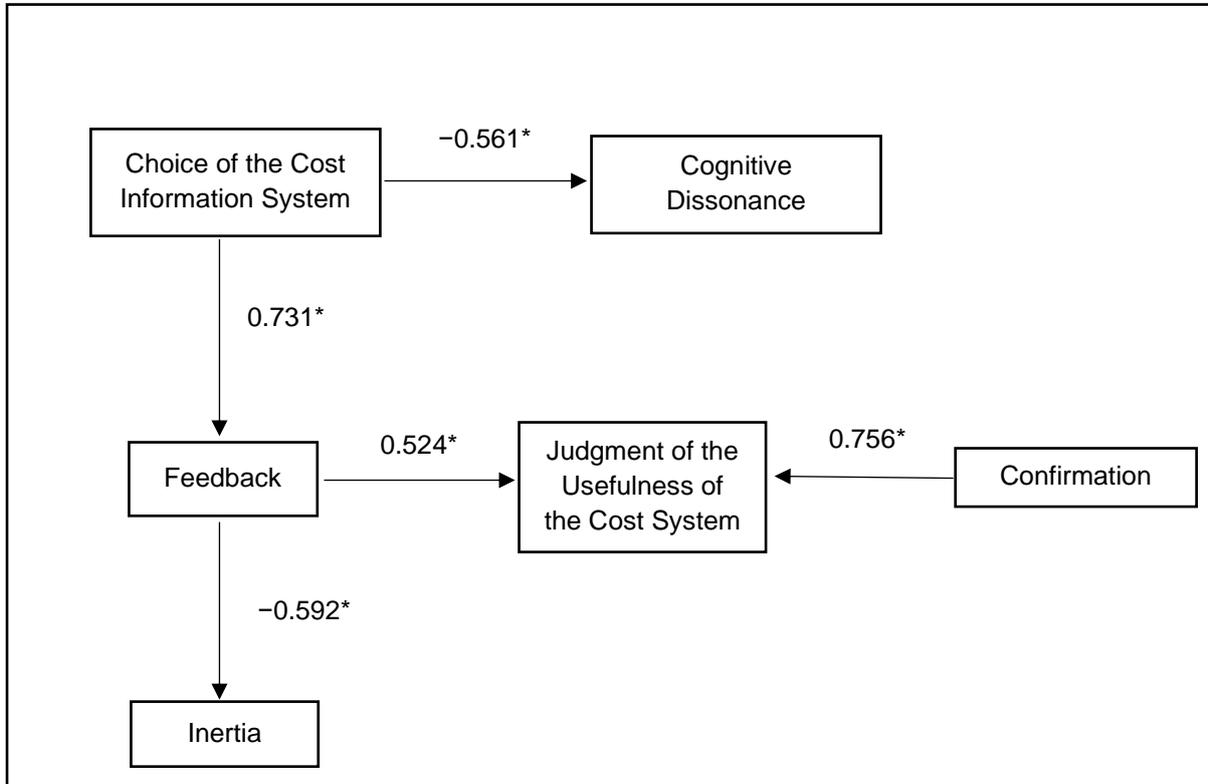
The results presented in Figure 1 show the significant and non-significant paths of the relationships determined to analyze the influence of cognitive factors in judgment of the usefulness of the cost information system implemented in Rio Grande do Sul. The choice of cost system explains 56.1% of cognitive dissonance, being negatively influenced ($R^2 = 0.314$). Likewise, the choice explains 73.1% of the positive influence associated with Feedback ($R^2 = 0.534$). In turn, Feedback explains 52.4% of the judgment of the usefulness, being positively influenced ($R^2 = 0.741$), and also elucidates 59.2% of the negative influence associated with Inertia ($R^2 = 0.350$).

In this case, Feedback explains 59.2% of the negative influence on Inertia ($R^2 = 0.350$). Finally, Confirmation elucidates 75.6% of the Judgment of the Usefulness, being a positive



influence ($R^2 = 0.572$). Figure 2 presents the final purified model, excluding observed relationships that did not reach statistical significance.

Figure 2 – Path Analysis of Judgment of the Usefulness of the Cost Information System (Purified Model)



* Significance level at 1%.

Given the above, it can be stated that the employees' judgment of the usefulness of the new cost information system is directly influenced by feedback and confirmation of the chosen cost system. The finding differs in parts from the findings found by Jermias (2001). Regarding convergences with the theoretical model of analysis proposed by Jermias (2001), a direct relationship between confirmation and judgment of the usefulness is observed; the direct influence between the Choice of Cost System on Cognitive Dissonance and Feedback; and the direct relationship between Feedback and Inertia.

As for divergences, there is a direct relationship between Feedback and Judgment of the Usefulness. Jermias (2001) tested an analysis model in which the author found no direct or indirect relationship between Feedback and Judgment of the Usefulness. He also did not identify a relationship between Cognitive Dissonance and Organizational Commitment, Organizational Commitment and Confirmation, and Organizational Commitment and Inertia.

Given the relationships evidenced by the path analysis, the individuals in the sample investigated in this research, upon realizing that the new CIS, compared to the previous system, is superior in providing additional information for management, in the management of public expenditure, and in allowing better evaluation of public spending (Choice of the Cost Information System), they also realize that the new CIS is capable of providing more accurate information, qualifying the decision-making process (Cognitive Dissonance). Thus, there is a



relationship of consonance between the Choice of the Cost System and Dissonance, which contributes to the majority of these individuals reducing resistance to change (FESTINGER, 1957; Harmon-Jones, 2012).

Individuals who choose the new CIS are noted to find it easier to develop their operational activities, produce management reports, and evaluate their performance (Feedback). Thus, they also perceive greater usefulness in the new Cost Information System adopted by the State, as it allows for better allocation of public resources and better evaluation of expenses incurred (Judgment of the Usefulness). These relationships support the notes highlighted in the studies by Machado and Holanda (2010), Rezende, Cunha, and Cardoso (2010), and Verbeeten (2011), as they determine that the new CIS will enable the efficient management of public resources, management focused on the result, the comparability of information between organizations and organizational sectors, and social effectiveness in the provision of public services.

The relationship between the Choice of the new CIS, Feedback, and Inertia demonstrates that individuals, when indicating that the new CIS provides new information and facilitates the development of their activities, would be satisfied with the information made available by the new CIS and would not change this system by the old one. Therefore, there is cognitive consonance between the variables Choice of the Cost Information System, Feedback, and Inertia, which mitigates the emergence of resistance factors to change.

Thus, considering that the majority of individuals participating in the research are in a state of cognitive consonance, in these cases, there should be no generation of sources of inertia, which will positively impact the process of using and disseminating the cost culture in the state of Rio Grande do Sul. South. However, it should be noted that some individuals presented the opposite situation, which must be observed by the managers responsible for implementing the cost information system so that actions can be developed to change this state to a condition of consonance, eliminating possible sources of inertia.

The next topic highlights the path analysis for the influence of cognitive factors on the acceptance of the cost information system.

The Influence of Cognitive Factors on the Acceptance of the Cost Information System

This topic highlights the path analysis for the influence of cognitive factors on the acceptance of the cost information system. The variable acceptance of the information system was added to the relationships tested in the model proposed by Jermias (2001) due to verification in the literature pertinent to administration and public accounting of the individual's need to accept changes in habits and customs rooted in operational activities so that successful change can be promoted (Rezende et al., 2010; Machado & Holanda, 2010; Van de Walle & Hammersmid, 2011).

Table 4 presents the coefficients obtained to analyze the relationships investigated in this research stage.



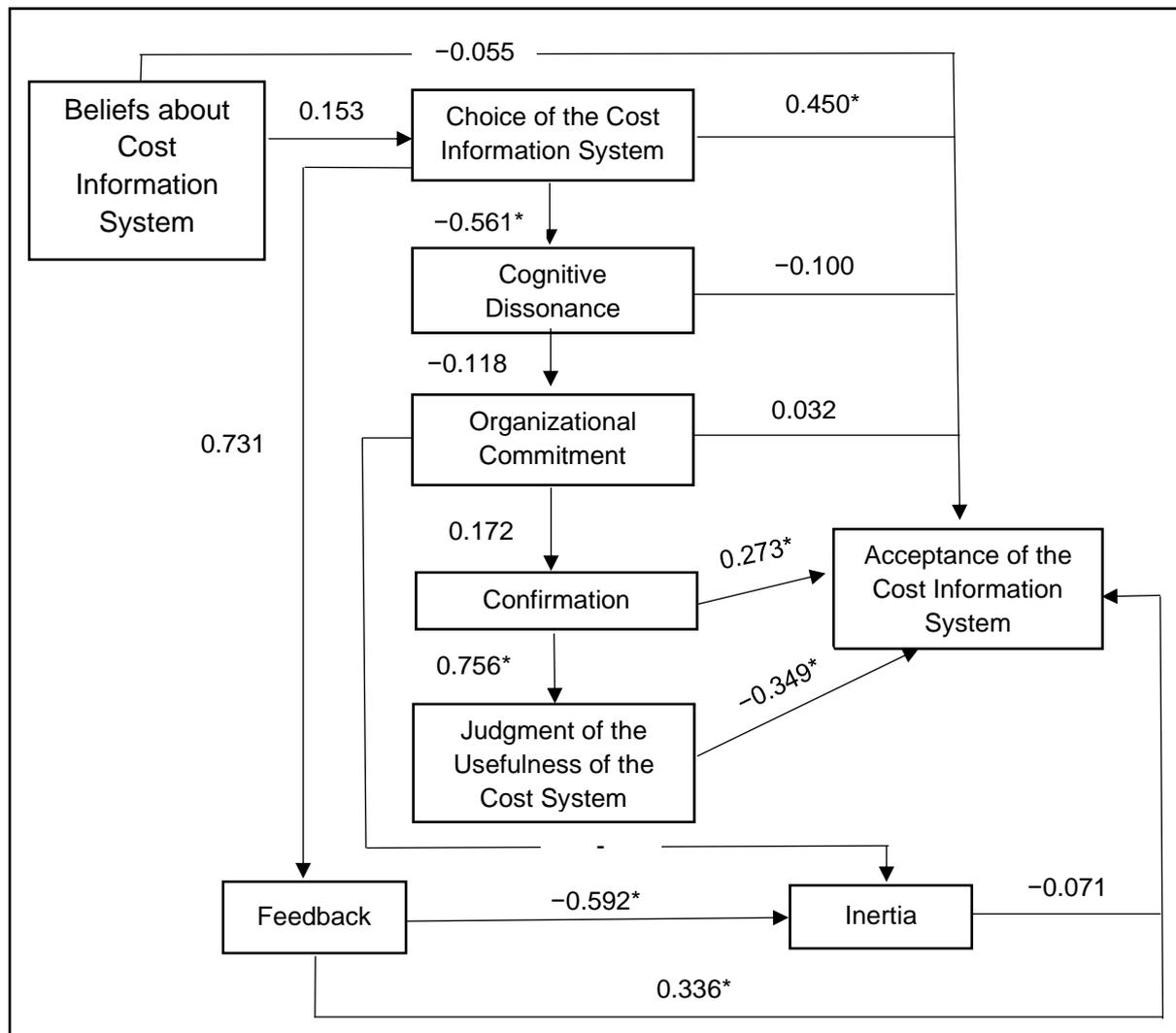
Table 4 – Results of the path analysis of the second hypothesis of the research

Dependent Variables	Independent Variable	β -standard	t-statistic	P-value	R ²	Standard Error	F	Sig Anova
ACT	CRIC	-0.055	-0.777	0.439	0.646	3.224	16.877	0.000
	ESC	0.450	3.701	0.000				
	DC	-0.100	-1.026	0.308				
	COM	0.032	0.421	0.675				
	CON	0.273	2.280	0.026				
	JUT	-0.349	-2.567	0.012				
	FEE	0.336	2.555	0.013				
	INE	-0.071	-0.612	0.542				
ACT	ESC	0.534	4.875	0.000	0.631	3.208	33.279	0.000
	CON	0.319	2.836	0.006				
	JUT	-0.368	-2.749	0.007				
	FEE	0.343	2.735	0.008				

Table 2 shows that the independent variables (CRIC, ESC, DC, COM, CON, JUT, FEE, and INE) used by Jermias (2001) influence the dependent variable acceptance (ACT) by 64.6% (R²). Of the eight variables proposed, only four present a relationship with a statistically significant influence (ESC, CON, JUT, and FEE). Figure 3 presents the results of the path analysis of all relationships in the theoretical model of Jermias (2001), adding the acceptance variable.



Figure 3 – Path analysis of Acceptance of the Cost Information System

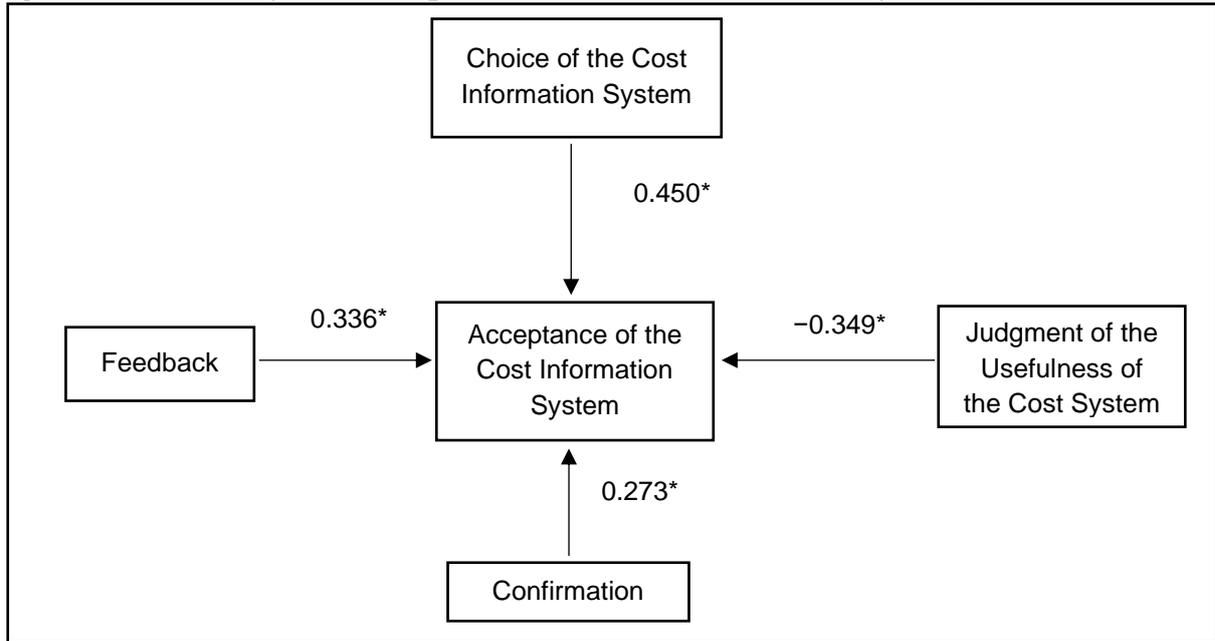


* Significance level at 1%.

It can be seen in Figure 3 that the only variables with a significant influence on Acceptance are the Choice of the Cost Information System, Confirmation, Judgment of the Usefulness, and Feedback. Given this finding, the exclusive influence of these four independent variables was verified on the dependent variable ACT in a purified model. This result suggests an explanation coefficient for the model of 63.1% (R^2) of influence, with a statistical significance of 1%. Figure 4 presents such relationships.



Figure 4 – Path analysis of Acceptance of the Cost Information System (Purified Model)



* Significance level at 1%.

The relationship shown in Figure 10 demonstrates that the Acceptance of the Cost Information System is explained in 45.0% by the Choice of the Cost Information System, 33.6% by Feedback, 34.9% by the Judgment of the Usefulness, and 27.3% by Confirmation. A direct and positive relationship between the variables Choice, Feedback, and Confirmation in Acceptance and a direct and negative relationship between the Judgment of the Usefulness and Acceptance of the CIS are noted.

The relationships evidenced by the path analysis demonstrate, in the researched sample, signs of individuals who choose the new CIS to the detriment of the previous system, above all, because they perceive more useful and accurate information for the management of public resources and qualification of the decision-making process and who judge the new CIS as a facilitator in the performance of their work activities, which is why they accept the changes in routines and the redefinition of tasks proposed to enable the implementation of the new CIS.

Observing these relationships, there are differences in the verification of literary recovery, as in the researched sample, there is no need to change the habits and customs of employees to implement the CIS (Machado & Holanda, 2010; Rezende et al., 2010; Van de Walle & Hammersmid, 2011). Since the implementation process of this system has been going on for some time at the institution, such a change may have already occurred, which is why, at that moment, the individuals participating in the study may have responded that there is no longer a need for changes to the habits and customs for the continued implementation of the new system.

When verifying the negative relationship between the Judgment of the Usefulness and the Acceptance of the system, it is noted that there is a need to change habits and customs to use the information made available by the new CIS. These results align with those reported by interviewees in the exploratory stage of the research. In this way, they support the evidence found in the revisited literature (Parker & Gould, 1999; Rezende et al., 2010). Thus, there is a



need to change the habits and customs of those involved in generating information and the use of the information generated for decision-making (Parker & Gould, 1999; Rezende et al., 2010).

In addition to the divergence in the literature highlighted, there is a negative relationship between the Judgment of the Usefulness and Acceptance of the new CIS, as individuals determine the information generated by the new CIS as applicable but are still not able to accept the change in tasks, routines, and procedures for the implementation and use of the new CIS. The opposite is also true, as some individuals accept changes in habits and routines but do not find helpful the cost information.

In these cases, reducing the dissonance requires the individuals to change their cognitions or perceptions of the action (Bell, 2010). Therefore, individuals must agree with the judgment of the usefulness of the cost information system and the acceptance of procedures and routines for full implementation and use. In this way, reducing cognitive dissonance tends to reduce resistance to change, as organizational changes are linked to individuals' cognitive dimensions (Piderit, 2000).

It is also noteworthy that the cost information system in Rio Grande do Sul is in the implementation phase, providing evidence that individuals may not understand as applicable the cost information generated by the CIS, as they have doubts regarding its effective usefulness due to the implementation phase. Therefore, there is a need to develop new studies related to this topic stands out.

Final Considerations

The article analyzed the influence of cognitive factors on the judgment of usefulness and acceptance of the cost information system applied to the public sector. In the case analyzed, cognitive factors influence the judgment of the usefulness and acceptance of the new CIS. The result implies a state of cognitive consonance in most individuals with CIS.

Added to the literature applied to cognitive perspectives in implementing management control systems in the public sector, mainly in the CIS, is the variable acceptance of civil servants toward new management control systems. It is worth noting that, in the data analyzed, the judgment of usefulness has an inverse relationship with the acceptance of the CIS.

This inverse relationship can be deepened in future studies to analyze, for example, what is the motivation of employees to understand that the CIS, analyzed from the perspective of the new management administration, enables better calculation of costs, better evaluation of results, provides information of more accurate costs, assisting in decision making for resource allocation. Still, they are not willing to change tasks, routines, and procedures and spend time studying this management control system.

Another perspective for future studies is to verify cognitive factors in states or municipalities with a shorter CIS implementation process. In the case analyzed, cognitive consonance may have occurred due to the advanced process concerning other states of implementing the CIS. Thus, a relationship that can be verified in future studies is whether the level of CIS implementation influences cognitive consonance for the judgment of usefulness



and acceptance since change processes are expected to generate movements aimed at cognitive dissonance and, consequently, resistance to change.

In addition to advancing the literature, this research can contribute to managers' and public servants' understanding that consonance between cognitive factors can mitigate processes of resistance to change and act in the organization to aid in implementing new management control systems.

Finally, a research limitation is the non-observance of the influence of the legal determination of the calculation of costs and the CIS on the Judgment of the Usefulness and Acceptance, the adaptation and translation of the research instrument used and the data collected by telephone, as understanding or response biases can affect the results obtained.

References

- Alonso, M. (2022). Custos no serviço público. *Revista do Serviço Público*, 73, 127-152.
- Bell III, T. J. (2010). The social psychology of IT security auditing from the auditee's vantage point: Avoiding cognitive dissonance. *ISACA Journal*, 3(1), 1-4.
- Birnberg, J. G., Luft, J., & Shields, M. D. (2006). Psychology theory in management accounting research. *Handbooks of Management Accounting Research*, 1, 113-135.
- Bjornenak, T. (1997). Diffusion and accounting: the case of ABC in Norway. *Management accounting research*, 8(1), 3-17.
- Bjornenak, T. (2000). Understanding cost differences in the public sector—a cost drivers approach. *Management accounting research*, 11(2), 193-211.
- Brandão, I. F. (2022). Modelo conceitual de sistema de informação de custos aplicado ao setor público brasileiro. *Pensar Contábil*, 24(84), 41-50.
- Broadbent, J., & Guthrie, J. (2008). Public sector to public services: 20 years of “contextual” accounting research. *Accounting, Auditing & Accountability Journal*, 21(2), 129-169.
- Capobianco, R. P., Nascimento, A. D. L., Silva, E. A., & Faroni, W. (2013). Reformas administrativas no Brasil: uma abordagem teórica e crítica. *REGE-Revista de Gestão*, 20(1), 61-78.
- Cardoso, R. L., Aquino, A. C. B. D., & Bitti, E. J. D. S. (2011). Reflexões para um framework da informação de custos do setor público brasileiro. *Revista de Administração Pública*, 45, 1565-1586.
- Chabrak, N., & Craig, R. (2013). Student imaginings, cognitive dissonance and critical thinking. *Critical perspectives on accounting*, 24(2), 91-104.
- Chenhall, R. H. (2003). Management control systems design within is organizational context: finding from contingency-based research and directions for the future. *Accounting, Organization and Society*, 28, 127-168.
- Conselho Federal de Contabilidade. (2011). Resolução CFC nº 1.366/11. Aprova a NBC T 16.11 – Sistema de Informação de Custos do Setor Público. *CFC*.



- Festinger, L. (1957). *A teoria da dissonância cognitiva*. Stanford University Press.
- Festinger, L., & Carlsmith, J. M. (1959). Cognitive consequences of forced compliance. *The journal of abnormal and social psychology*, 58(2), 203.
- Festinger, L. (1975). *Teoria da Dissonância Cognitiva*. Zahar.
- Fontes, J. I. O., Oliveira, T., & Gurgel, A. M. (2020). Avaliação do sistema de informação de custos em uma instituição federal de ensino: propostas de melhorias e aplicabilidade. *Revista de Gestão, Finanças e Contabilidade*, 10(2), 39-59.
- Hair Jr, J. F., Black, W. C., Babin, B., Anderson, R. E., & Tatham, R. L. (2009). *Análise multivariada de dados*. Bookman
- Harmon-Jones, E. (2012). Cognitive dissonance theory. In V.S. Ramachandran (Ed.), *The Encyclopedia of Human Behavior* (Vol. 1, pp. 543-549). Academic Press.
- Harmon-Jones, E., Amodio, D. M., & Harmon-Jones, C. (2009). Action-based model of dissonance: A review, integration, and expansion of conceptions of cognitive conflict. *Advances in experimental social psychology*, 41, 119-166.
- Holanda, V. B. (2011). Sistema de Informação de Custos do Governo Federal (SIC): uma nova abordagem para a gestão pública. *Revista de Educação e Pesquisa em Contabilidade (REPeC)*, 5(2), 121-127.
- Jermias, J. (2001). Cognitive dissonance and resistance to change: the influence of commitment confirmation and feedback on judgment usefulness of accounting systems. *Accounting, Organizations and Society*, 26(2), 141-160.
- Kavanagh, M. H., & Ashkanasy, N. M. (2006). The impact of leadership and change management strategy on organizational culture and individual acceptance of change during a merger. *British journal of management*, 17(S1), S81-S103.
- Konow, J. (2000). Fair shares: Accountability and cognitive dissonance in allocation decisions. *American economic review*, 90(4), 1072-1091.
- Kuipers, B. S., Higgs, M., Kickert, W., Tummers, L., Grandia, J., & Van der Voet, J. (2014). The management of change in public organizations: A literature review. *Public administration*, 92(1), 1-20.
- Lapsley, I., & Wright, E. (2004). The diffusion of management accounting innovations in the public sector: a research agenda. *Management accounting research*, 15(3), 355-374.
- Latham, G. P., & Locke, E. A. (1991). Self-regulation through goal setting. *Organizational behavior and human decision processes*, 50(2), 212-247.
- Libby, T., & Waterhouse, J. H. (1996). Predicting change in management accounting systems. *Journal of management accounting research*, 8, 137.
- Luque, C. A., Cruz, H. N., Amaral, C. M., Bender, S., & dos Santos, P. M. (2008). O processo orçamentário e a apuração de custos de produtos e serviços no setor público do Brasil. *Revista do Serviço Público*, 59(3), 309-331.



- Luthans F. and Kreitner R. (1991). *Organizational Behavior Modification and Performance*. Unwin-Hyman.
- Machado, N., & Holanda, V. B. D. (2010). Diretrizes e modelo conceitual de custos para o setor público a partir da experiência no governo federal do Brasil. *Revista de Administração Pública*, 44, 791-820.
- Marôco, J. (2011). *Análise estatística com o SPSS Statistics* (5a ed). ReportNumber.
- Meyer, J. P. & Allen, N. J. (1997). *Commitment in the workplace: theory, research and application*. Sage Publications.
- Mowday, R. T., Steers, R. M., & Porter, L. W. (1979). The measurement of organizational commitment. *Journal of vocational behavior*, 14(2), 224-247.
- Nor-Aziah, A. K., & Scapens, R. W. (2007). Corporatisation and accounting change: The role of accounting and accountants in a Malaysian public utility. *Management Accounting Research*, 18(2), 209-247.
- Perera, S., McKinnon, J. L., & Harrison, G. L. (2003). Diffusion of transfer pricing innovation in the context of commercialization—a longitudinal case study of a government trading enterprise. *Management Accounting Research*, 14(2), 140-164.
- Pessoa, M. S. C. M., & Callado, A. A. C. (2023). Custos ocultos comportamentais no setor público: uma abordagem a partir do capital intelectual. *Revista Contabilidade e Controladoria*, 15(1), 77-96.
- Piderit, S. K. (2000). Rethinking resistance and recognizing ambivalence: A multidimensional view of attitudes toward an organizational change. *Academy of management review*, 25(4), 783-794.
- Pigatto, J. A. M., Holanda, V. B. D., Moreira, C. R., & Carvalho, F. A. (2010). A importância da contabilidade de competência para a informação de custos governamental. *Revista de Administração Pública*, 44, 821-837.
- Pike, R. H., Tayles, M. E., & Mansor, N. N. A. (2011). Activity-based costing user satisfaction and type of system: A research note. *The British Accounting Review*, 43(1), 65-72.
- Rezende, F. D. C. (2002). Razões da crise de implementação do Estado gerencial: desempenho versus ajuste fiscal. *Revista de Sociologia e Política*, 111-121.
- Rezende, F., Cunha, A., & Bevilacqua, R. (2010). Informações de custos e qualidade do gasto público: lições da experiência internacional. *Revista de Administração Pública*, 44, 959-992.
- Rezende, F., Cunha, A., & Cardoso, R. L. (2010). Custos no setor público. *Revista de Administração Pública*, 44(4), 789-791.
- Schick, A. (1998). A contemporary approach to public expenditure management. *World Bank Institute*, 68(1), 2-11.



- Shields, M. D., & Young, S. M. (1994). Managing innovation costs: a study of cost conscious behavior by R&D professionals. *Journal of Management Accounting Research*, 6(1), 175-196.
- Silva, A. F., Steindorfer, I. B., Bringel, J. H. F. A, Nobre, J. G., & Vasconcelos, A. C. (2022). Desafios e limitações na implantação do sistema de custos na Prefeitura Municipal de Fortaleza. *Contextus – Revista Contemporânea de Economia e Gestão*, 20(esp.), e81675.B
- Soares, C. S., Rosa, F. S., & Zonatto, V. C. S. (2020). Reflexos do uso do sistema de custos na qualidade da gestão pública com base na percepção de gestores municipais de Santa Maria/RS. *Revista Catarinense da Ciência Contábil*, 19, 1-15.
- Stone, J., & Cooper, J. (2001). A self-standards model of cognitive dissonance. *Journal of experimental social psychology*, 37(3), 228-243.
- Van de Walle, S., & Hammerschmid, G. (2011). The impact of the New Public Management: Challenges for coordination and cohesion in European public sectors. *Halduskultuur*, 12(2).
- Verbeeten, F. H. (2011). Public sector cost management practices in The Netherlands. *International Journal of Public Sector Management*, 24(6), 492-506.
- Zonatto, V. C. S. (2014). *Influência de fatores sociais cognitivos de capacidade, vontade e oportunidade sobre o desempenho gerencial nas atividades orçamentárias das maiores empresas exportadoras do Brasil* [Tese de doutorado, Universidade Regional de Blumenau]. Biblioteca on-line da Universidade de Blumenau.
http://www.bc.furb.br/docs/TE/2014/358328_1_1.pdf