Analysis of the perception of auditors from a federal public network HEI concerning the institutionalization of internal control practices

Análisis de la percepción de los auditores de una IES pública de la red federal sobre la institucionalización de las prácticas de control interno

Análise da percepção de auditores de uma IES pública da rede federal acerca da institucionalização de práticas de controle interno

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Abstract
Purpose: To analyse the perception of auditors from a federal public network HEI on the institutionalization of internal control practices.

Methodology: The questionnaire was administered to internal auditors from a federal public network HEI, and the content of their answers was analysed using Iramuteq® software. The

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software resources used were factor analysis, similarity analysis and word clouds. These resources served to capture the intended meanings in the set of answers of the three research participants and how their words are associated with the institutionalization of control practices.

Results: The auditors presented a more critical perception of the institutionalization process in the sedimentation phase of internal control practices, although they reported aspects that confirm actions corresponding to all phases of this process in the focal HEI.

Contributions of the Study: This study confirms that internal auditors from a public HEI in the federal network better perceive the practices of internal control when they are in the sedimentation phase, which influences their evaluation of these university practices.

Keywords: Perception, Auditors, Institutionalization, Practices, Internal Control.

Resumen
Objetivo: Analizar la percepción de los auditores de una IES pública de la red federal sobre el proceso de institucionalización de las prácticas de control interno.

Metodología: Se aplicó un cuestionario a los auditores internos de una IES pública de la red federal y se analizó el contenido de sus respuestas a través del software Iramuteq®. Los recursos de software utilizados fueron análisis factorial, análisis de similitud y nube de palabras. Estos recursos sirvieron para captar las intenciones de significado del conjunto de respuestas de los tres participantes de la investigación y cómo las palabras presentadas por ellos se asociaron con el proceso de institucionalización de las prácticas de control.

Resultados: Los auditores presentaron una percepción más crítica del proceso de institucionalización en la fase de sedimentación de las prácticas de control interno, aunque relataron aspectos que confirman acciones correspondientes a todas las fases de este proceso en las IES investigadas.

Contribuciones del Estudio: El estudio confirma que los auditores internos de una IES pública de la red federal perciben mejor las prácticas de control interno cuando están en la fase de sedimentación, lo que influye en la evaluación de estas prácticas en la universidad por ellos.

Palabras clave: Percepción, Auditores, Institucionalización, Prácticas, Control interno.

Resumo
Objetivo: Analisar a percepção de auditores de uma IES pública da rede federal acerca do processo de institucionalização de práticas de controle interno.

Metodologia: Um questionário foi aplicado a auditores internos de uma IES pública da rede federal e o conteúdo de suas respostas analisado por meio do software Iramuteq®. Os recursos do software utilizados foram a análise fatorial, de similitudes e a nuvem de palavras. Esses recursos serviram para captar as intenções de sentido do conjunto de respostas dos três

participantes da pesquisa e como as palavras apresentadas por eles estiveram associadas ao processo de institucionalização das práticas de controle.

Resultados: Os auditores apresentaram uma percepção mais crítica do processo de institucionalização na fase da sedimentação das práticas de controle interno, apesar de terem se reportado a aspectos que confirmam ações correspondentes a todas as fases desse processo na IES pesquisada.

Contribuições do Estudo: O estudo confirma que os auditores internos de uma IES pública da rede federal percebem melhor as práticas de controle interno quando estas se encontram em fase de sedimentação, o que influencia a avaliação dessas práticas na universidade por eles.

Palavras-chave: Percepção, Auditores, Institucionalização, Práticas, Controle Interno.

1 Introduction

Higher education institutions (HEIs) began to be treated as 'businesses' in the 1990s (Mainardes, Miranda & Correia, 2011). These HEIs were influenced by the environment of economic, political and financial instability and began to seek new ways to improve their management models, with a focus on efficiency (Meyer Junior, Pascucci & Murphy, 2012).

The internal controls of universities followed these changes and began to assume a central role in achieving goals and objectives efficiently. Internal control practices became even more representative for the management of these institutions, as they can ensure the functioning of internal processes and provide reasonable assurance that objectives and goals will be achieved (CGU, 2016).

In public entities, in general, control took on a greater dimension than just being present across all hierarchical levels due to the need to use public money responsibly and to meet society's demands regarding the provision of quality services (Linczuk, 2012).

In federal public universities, control was characterized as an aspect inseparable from the need to manage a significant volume of resources (Linczuk, 2012). As an agent of social transformation, it reinforced the need for university administrators to prioritize control over the use of resources (Castro, 2011). Assessing the adequacy of these controls has become the main activity of internal audits, bodies that evaluate the extant processes in universities.

Research on the relationship between auditing and the evaluation of processes through internal controls began in 1900 (Lee, 1971). The classical aspect of controls established by Max Weber and Taylor focused on bureaucracy, from which later emerged the accounting aspect addressed by Anthony (1965) and Hopwood (1972). Both views related the focus of controls to the centres of the responsibilities, costs and budgets of institutions.

The postaccounting approach formed the 'theory of control', represented by Merchant (1985) and Macintosh (1994). These authors identified controls as approaches responsible for ensuring the achievement of effective results, inspiring Wickramasinghe and Hopper (2005) to subsequently relate internal control theory to behavioural aspects and anthropological and cultural issues.

The proper function of internal controls in federal universities has been a requirement of the Federal Constitution since 1988. In turn, the alignment between these controls and the guidelines established by bodies such as the *Committee of Sponsoring Organizations of the Treadway Commission* (COSO) has occurred since 2004, when the internal control practices of public institutions first adhered to the recommendations of the *International Organization of Supreme Audit Institutions* (INTOSAI), already adopted by the Federal Court of Auditors (TCU).

All this alignment was facilitated by the subsequent publication of Ordinance CGU/MP 01/2016 (Brasil, 2016), which treated all components and the concept of the INTOSAI structure as a reference for public institutions within the federal government. The adherence of control practices to the INTOSAI recommendations aimed to strengthen management in federal public educational institutions regarding the responsible use of public resources and the protection of assets against loss and damage.

For the management objectives of a public university to be efficiently achieved, its internal control practices must be properly institutionalized. Institutionalization creates the habits, rules and routines within institutions, whereby these practices are gradually accepted by the servers.

When the meaning of internal control practices is correctly perceived by auditors, they become part of the organizational culture of the focal HEI, making it more autonomous and independent, in addition to ensuring its continuous operation (Tolbert & Zucker, 1999). Accordingly, this study seeks to answer the following question: **what is the perception of the auditors from a public HEI in the federal network regarding the institutionalization of internal control practices?**

To answer this question, this study aims to analyse the perception of auditors from a public HEI in the federal network on the institutionalization of its internal control practices. For such controls to function properly, civil servants must perceive their institutionalization and its functioning properly.

A control structure is institutionalized when it becomes taken for granted by the social actors involved (Jepperson, 1999), which justifies the focus on auditors' perception in this study. The employees selected for this investigation were internal auditors due to their responsibility for evaluating the adequacy of controls in public universities.

The aim of this study is to investigate the perception of internal auditors on internal controls, the basic institutional element, to ensure a positive social and economic impact of HEIs on society (Chiarini & Vieira, 2012), in addition to fostering the achievement of the institutional results expected by management. Institutionalization represents an offshoot of institutional theory, which explains how and why institutional practices acquire value conditions and are socially legitimated, from their objectification to isomorphism phase (Tolbert & Zucker, 1999).

Regarding the contributions of this study, the theoretical implications are reflected in its continuity with recent studies, demonstrating that the proper functioning of internal control practices is directly related to the correct perception of their adequacy among internal auditors (Wickramasinghe & Hopper, 2005). This study therefore confirms the approach of authors in the postaccounting literature who have argued that an adequate functioning of controls is directly related to the cognitive, behavioural and cultural issues of agents.

The practical contributions are reflected in how internal auditors from a public HEI perceive the institutionalization of control practices in their university. In turn, this

disclosure enables other universities to identify the extent to which their auditors understand this process and how this may influence their evaluation of internal control practices.

The methodological contribution of this study is the novel use of Iramuteq® to investigate the perception of the focal auditors. Although its use has become common in certain research in this area, this study innovates on its applications by using factor analysis and similarity as elements in the disclosure of perception. The reason for choosing Iramuteq® is its allows in-depth analysis of participants' responses in a survey questionnaire.

The article is structured in five sections, which follow this introduction. In Section 2, the literature review is presented together with its respective subsections. Section 3 presents the methodological procedures and its subsections. Section 4 includes the results and their analysis and is followed by Section 5, which offers the final considerations, and below, the references consulted in this study.

2 Literature Review

2.1 Institutional Theory, Institutionalization Process and Perceptions of This Process

The first formulations of institutional theory occurred at the end of the 19th century in the studies of the sociologists Thorstein, Veblen, Emile Durkheim and Max Weber. In the organizational sphere, this theory was further developed by Selznik (1996) in the 1950s and in the neo-institutional movement via the works of Meyer & Rowan (1977) and DiMaggio & Powell (1983).

This theory suggests that organizations incorporate institutionalized rules and beliefs to be perceived as legitimate. Thus, Guerra & Aguiar (2007) state that institutional theory was constituted from the perception that institutions evolve and that they adapt to the pressures in their environment, whereby they are guided not only by reasons of rationality and efficiency but also by their need for legitimation and social acceptance.

In Brazil, institutional theory has been used in empirical studies since the late 1980s (Carvalho, Vieira & Goulart, 2005). This approach has been applied from three different perspectives, economic, political and sociological, highlighting concepts such as institutionalization, legitimacy, myths and norms. Despite the diversity of their contexts, such studies have tended to explore isomorphism, the legitimation strategies used by organizations in various sectors and the processes of institutionalization in organizational fields (Ribeiro, 2011).

The institution represents a social order or standard that has reached a certain state or property, and institutionalization represents this process, which leads to the achievement of this state. Thus, institutionalization unfolds within the institution over time according to its particular history, the people who worked within it, the groups that encompass the various interests that are created and the ways in which the institution adapts to its current environment (Selznick, 1972).

Institutionalization occurs in all societies but involves varying degrees in the various systems and subsystems of social life within any society. This process leads to a definition of roles, which ensures the functioning of norms, generating patterns of institutional behaviour that may even be defined as legitimate in a given situation. According to Tolbert & Zucker

(1999), institutionalization occurs when individuals transmit what they consider socially real, and these practices are then repeated and assimilated by other individuals in their organization.

Berger & Luckmann (2003) argue that the institutionalization process is perceived by individuals through formed habits, to which all human activities are subject. This process occurs whenever there is a reciprocal typification of habitual actions among types of actors. Meyer & Rowan (1977) define institutionalization as the process through which social processes, obligations or circumstances assume norm status in social thought and action.

Institutionalization has been clearly defined by Tolbert & Zucker (1999), who have established the stages or phases thereof. According to them, institutionalization occurs in three stages: the preinstitutionalization or habitualization phase, the semi-institutionalization or objectification phase, and the total institutionalization or sedimentation phase.

Specifically, in the habitualization phase, the organization seeks to develop standardized methods for the maintenance and operation of organizational activities, whereby based on the problems that arise within the entity, the formalization of activities for solving these problems is sought. This stage comprises all innovations and changes that are made in response to specific organizational problems that lead to preinstitutionalization, with limited and few permanent operations. In preinstitutionalization, the solutions adopted in other institutions are taken into account, and mimicry may occur.

During objectification, it is possible for individuals to perceive heterogeneity in the institutions that adopt these structures. Their actions are no longer transmitted by imitations but by normative reasons, with policies shaped by the institution itself. In this second phase, the development of meanings linked to the behaviours in the first phase allows the transposition of actions to a context beyond their origin (Tolbert & Zucker, 1999).

During sedimentation, individuals perceive the complete institutionalization of their organization. In this phase, the focal procedures, practices and norms are taken for granted and are no longer questioned. Total institutionalization is driven by the action of three variables: resistance of opposition groups, continued support of groups of defenders and positive correlation with expected results (Tolbert & Zucker, 1999).

Institutionalization is a process developed through sequential steps. This set of stages indicates that there is variability in the levels of institutionalization, i.e., some patterns of social behaviour are more subject than others to critical evaluation, adaptation or elimination by the individuals participating in the focal context.

In addition to the three phases set out by Tolbert & Zucker (1999), two other aspects influence institutionalization, namely, legitimation and isomorphism. Regarding isomorphism, DiMaggio & Powell (1983) indicate the existence of the homogeneity of organizational practices within a given environment. The homogeneity of these practices represents isomorphism itself.

Isomorphism can be competitive or institutional, but the focus of institutional theory is the latter. In this context, there are three types of isomorphic mechanisms that can coexist in the organizational environment, with different results and origins: coercive, mimetic and normative (Dimaggio & Powell, 1983).

In turn, legitimation has been studied by Scott (2013), who has defined it as the main objective of institutionalization. Legitimacy acts on the three pillars of institutions: regulatory, normative and cognitive. The regulatory pillar refers to compliance with legal requirements, whereby a legitimate organization in the regulatory pillar is established and operates in accordance with legal requirements.

Regarding the normative pillar, it entails that a deep moral basis is emphasized to assess legitimacy. Under this pillar, an organization is legitimized according to its adherence to norms recognized as standards for behaviour. In turn, cognitive legitimacy is based on the notion of sharing, wherein legitimacy derived from a common standard of reference is emphasized (Alves, Castro & Souto, 2014).

2.2 Internal Control in Public Administration

The implementation of internal control in the public sphere, whether at the federal, state or municipal levels, is a requirement determined by the Federal Constitution of 1988. In public administration, control has always been treated as one of the fundamental functions among the legal requirements provided for in constitutional texts over the years. Its existence has always been linked to finances and always elicits a focus on the verification and discipline of the exercise of activities (Castro, 2011).

The concept of internal control has been clarified over time, having been *conceptualized* for the first time in 1905 (Lee, 1971). Here, control was presented as the plan and actions of the organization intended to keep it assets safe, ensure and verify the reliability of information, and ensure both the policies defined by management and the achievement of its objectives.

The AICPA definition of internal control has been improved over time, leading to the nonuniformity in the concept of internal control. This fact is directly associated with the inefficiency in the implementation and limitation in the operation of control systems in organizations across various sectors (Barnier, 2015).

In the public sector, a slow positivization has taken place, albeit in line with the evolution of management control theory. Norms such as Law 4,320/1964 and Decree Law 200/1967 reflect the prevalence of the accounting school represented by Anthony (1965) and agree with the guidelines of earlier bureaucratic theory.

Some constitutional norms, such as Article 74 of the Federal Constitution of 1988 (CF, 1988) and other infraconstitutional norms with tax purposes, such as Complementary Law 101/2000, have brought to light the importance of institutionalizing concepts and practices for the proper performance of internal controls to protect heritage and make public policies more effective (De Sousa, Souto & Nicolau, 2017). Since then, internal control in public management has become a tool for monitoring actions and adopting corrective measures to ensure that resources are used effectively.

3 Methodology

3.1 Research Strategy and Method

This study analysed the perception of internal auditors on the institutionalization of internal control practices in a public HEI in the federal education network. This analysis was performed by questioning the focal auditors directly using a questionnaire with open-ended questions.

3.2 Research participants

The selection of three internal auditors as the research participants occurred because

these individuals are responsible for evaluating the extant control practices at the federal university selected for this accessibility research.

The questionnaires were sent to the e-mail addresses of these auditors. Based on their transcribed responses, content analysis was performed in two parts: interpretation of the responses and analysis via Iramuteq® software. The identities of the participants were protected, as established in the Free and Informed Consent Form (ICF).

3.3 Definition of Variables and Database

The questionnaire consisted of 23 open-ended questions adapted from Soares (2017) and constructed based on the literature review. Soares (2017) was selected because this study investigates the institutionalization stage of organizational sustainability in another educational institution.

The questions were categorized into sections and subsections related to institutionalization—habitualization, objectification, sedimentation, legitimation and isomorphism—as shown in Table 1.

Table 1

Categories, subcategories, descriptions and authors

Category	Subcategory	Description
Habitualization	Innovation	Action that results in fundamental changes causing disruption or continuous improvement seeking improvement of services.
	Structure - Generation Of New Structural Arrangements	The way in which work is divided into different tasks and how these are coordinated.
	Policies and Procedures - Standardization of Arrangements in Policies and Procedures of a Given Organization	The new organizational arrangements acquire specific policies and procedures within the organization.
Objectification	Social Consensus	The higher the degree of institutionalization, the lower the resistance and the greater the social consensus on the value of the structure.
	Interorganizational Monitoring	Analysis of competing companies in order to seek legitimate actions.
	Structure Diffusion	Organizational forms become more legitimate as they spread.
	Presence of Champions	Structure can promote its diffusion.
Sedimentation	Positive Results	A positive relationship between institutionalization and outcomes is needed.
	Continuity of the Structure	Historical continuity of the adopted structure.
	Low Resistance	The low resistance ensures the perpetuation of the structure over time.
Legitimation	Regulatory Legitimacy	A legitimate organization is one that is established and operates in accordance with legal requirements.
	Normative Legitimation	An organization is appropriate when it obtains a positive normative evaluation from society and its stakeholders.

Isomorphism	-	Practices and institutionalized forms of organization that are disseminated by the community of agents in the same field exist through isomorphism.

Source: *Soares, LFDM (2017). The institutionalization of sustainability at the Federal Institute of Education, Science and Technology of Paraíba: the case of the João Pessoa Campus (Master's thesis, Brazil).*

3.4 Data Analysis

The interpretation of the participants' answers involved comparison between the divergent and common points identified in each questionnaire. The analysis with Iramuteq® utilized factor analysis, similarities and word clouds to capture the intended meanings in each set of responses and how the words presented by the participants related to the institutionalization of internal control university practices.

Via factor analysis, it was possible to associate their responses to the stages of the institutionalization process and identify how the auditors understood the relationship between the control practices performed by management and institutionalization phases. Analysis of similarities confirmed whether the perception of the auditors identified via factor analysis showed convergence or divergence. Finally, the word clouds illustrated the perception of the three auditors regarding the focal internal control practices and phases of institutionalization.

4 Results and Analysis

This analysis of the results is presented in two stages: analysis of the auditors' responses to the questions, corresponding to the stages of the institutionalization of internal control practices, and analysis of the perception of these auditors via *Iramuteq®*.

4.1 Institutionalization of Internal Control Practices

4.1.1 Habitualization

In the Innovation subcategory, when asked about what changes they perceived in the institution through the implementation of internal control, one of the auditors acknowledged that *"the implementation of internal control helped to add value to the various bodies that make up the institution"*. Another auditor acknowledged that this implementation stimulated *"the improvement of operational controls through the search for compliance with the most current standards and relevant to the performance of activities"*.

He concluded by stating that *"internal control is undoubtedly capable of introducing and developing a culture that seeks constant improvements in the effectiveness, efficiency and effectiveness of the operations performed within the institution"*. Two other auditors acknowledged that the implementation of internal control improved certain administrative controls of some procedures and that their perceived changes were related to the improvement of the work processes in the units that implemented these controls.

When asked about how the insertion of internal control was processed and what interferences this process entailed, one of the auditors highlighted the following:

"I cannot say for sure the year or the circumstances that involved the introduction of internal control at the university [...], but I can say that various interferences are made in the

internal audit and other internal control bodies, especially by government agencies. As an example, it is possible to mention SFC Normative Instruction No. international practices existing at the time. Although it was later revoked, its importance is undeniable for the internal control activity to have reached the level it is at today".

A second auditor highlighted that *"the controls were defined by the units based on adjustments to the internal standards of the sector (bylaws/bylaws), preparation of manuals, flowcharts and checklists, definition of routines and procedures, assignment of responsibilities and segregation of duties".*

In the Innovation subcategory, the auditors recognized the importance of internal controls from a technical and conceptual perspective. The internal control practices were recognized by them, in terms of their institutionalization, as elements for the improvement of the organizational environment of the focal educational institution.

In the Structure subcategory, the auditors were asked how the idea of including internal control practices in the university's actions came about. One of them highlighted that *"the adoption of control practices is an obligation in the public sphere expressly provided for in Law 4,320/1964 and in Decree-Law 200/1967".*

Among the three respondent auditors, two were unable to clearly articulate how the idea of including control practices in their HEI had arisen. Only one of them, the one with the longest tenure in the internal audit department, scored that the adoption of these practices was a result of law.

When asked about the involvement of external institutions, such as the Ministry of Education (MEC), in the implementation of internal control at the university, this auditor highlighted that *"ministerial supervision usually occurs through the enactment of legislation, decrees and normative instructions for compliance by the entities linked to it".*

When asked about the "pressure" exerted by society and the administrative staff from other sectors in the HEI on the implementation of internal control, the auditor with the longest tenure at AUDIN reported that *"the process occurred naturally due to the mandatory"* law.

Regarding the exact date on which the focal HEI decided to include internal control in its agenda, this auditor also reported that this followed Law 4,320/1964 and Decree-Law 200/1967. When asked about the main actors involved in this implementation of internal control practices, the auditors indicated the *"heads and coordinators of sectors, centre directors, deans and superintendents".* One respondent also highlighted the *"Comptroller General of the Union (CGU) and the Federal Court of Auditors (TCU)".*

The influence of the CGU and TCU on the implementation of internal control practices, as indicated by this auditor, revealed the influence of the inspection of external control agencies on the fulfillment of laws and decrees, which drove the implementation of the internal controls in the focal HEI.

When asked about the existence of specific policies and procedures of internal control in this HEI, all the auditors identified the Internal Regulations of internal audit as the main guide for the sectors to implement and execute these practices. Even when asked about how the university adapted to address the new structures created by the insertion of internal control, one of the auditors stated that he did not perceive any characteristics that pointed to this process of adaptation; however, the other two stated that

"First, it was necessary to provide a physical space and equipment so that the internal control could be performed by the technical staff of the unit. Furthermore, it was necessary that

part of the university budget be set aside for the training and improvement of internal audit employees".

In the Habitualization phase, these internal controls were institutionalized to ensure compliance with laws and address inspections by external control agencies. This result is corroborated by the responses presented in both the Innovation and Structure subcategories, which indicate that the internal control procedures were implemented as tools for improving the internal environment of the HEI.

4.1.2 Objectification

In the Social Consensus subcategory, the auditors were unable to articulate whether there was resistance during the implementation of internal control at their university. When asked about resistance to internal controls in the organizational environment of the HEI, the auditor with the longest tenure reported no perceived internal resistance to control.

On the other hand, the auditors with shorter tenures reported resistance to controls in the institution's internal environment. They pointed out that *"some units still understand that the adoption of control only tends to increase bureaucracy".* The auditor with the shortest tenure stated the following:

"Yes, there is some resistance to internal control by some sectors, but I believe that much of this problem is due to the lack of knowledge of the true duties and purposes of an internal control body. Some sectors have some resistance to presenting information or do so with some trepidation, as if internal audit were a body that acted against the management of the entity".

Consequently, when asked about the existence of a consensus on the value of the internal control structure among the other sectors of the institution, two of the respondents confirmed that there was no such consensus. The auditor with the shortest tenure highlighted the following:

"[...] Some sectors are still unaware of the true importance of an internal audit for the institution or misinterpret it as a unit that is contrary to the management or the servers".

In the Social Consensus subcategory, the responses presented by the auditors with less tenure were more extensive, confirming the difference between the length of service of employees in the audit department and the phases in the institutionalization of internal controls.

Regarding the Interorganizational Monitoring subcategory, none of the auditors were able to articulate whether, at the time when the internal controls were inserted into the institution's agenda, it sought to verify how other universities were inserting and putting this theme into practice in their agendas.

In the subcategory Diffusion of Structure, the auditors were asked about the presence of internal controls in the actions of the university. Two of them reported a diffusion of controls in many of the actions performed by the university, although the auditor with the shortest tenure highlighted the following:

"[...] Internal control is part of the actions of the university, but there is a need for this performance to be greatly improved. At times, internal audit has been confused in its institutional role, being charged for matters beyond its remit and excluded from issues that could be analysed by it. Fortunately, this is an issue that has been worked on and that has borne much fruit over time as the audit acts and clarifies its real role and the importance of its performance".

The auditor with the longest tenure corroborated the above answer by the auditor with the shortest, stating the following: *"[...], when adopted, has the attribute of preventing the occurrence of wastage of resources and, consequently, increases efficiency"*.

In the subcategory Presence of Actors in the Dissemination of Control Practices, the auditor with the longest tenure stated that he had not perceived the presence of these actors or the components of the internal audit team in the institution. The auditor with the shortest tenure stated the following: *"We have experienced a continuous approach among the managers of the university over time and, increasingly, we have received support, ensuring that our activities can be performed in the best possible way and have a structure compatible with the complexity of the work"*.

On the other hand, the auditor with the longest tenure stated the following: *"The internal audit unit is one of the actors that has frequently advocated the adoption of and/or improvements in the institution's internal control practices that can lead to the efficiency of the public administration of the organization"*.

In the objectification phase, the auditors presented distinct perceptions regarding resistance to the implementation and execution of the controls among the servers in other sectors, the insertion of control in the agenda of the university and the diffusion of control practices throughout the university.

4.1.3 Sedimentation

In the Positive Results subcategory, the auditors with longer tenures presented rather similar responses that contrasted with the auditor with the shortest tenure.

The auditors with greater tenure recognized that *"Audit reports are being issued on the actions established by the audit unit in which it makes recommendations for the improvement of administrative procedures [...]",* when asked about the internal control practices that have achieved good results thus far.

In addition, they pointed out that *"in some studies carried out by internal audit that address this subject, it is noted that internal controls need to be improved and put into practice and that they need awareness work in the university community to show the positive benefits that their adoption can provide"*.

On the other hand, the auditor with a shorter tenure stated, *"[...] The performance of internal control bodies such as audit are increasingly able to add value to management"*. He added that *"in the last monitoring performed by our unit in early 2020, we began the implementation of a benefit accounting system, through which we can relatively easily glimpse the scale of the impact that the actions taken by internal audit have on the various university bodies. For example, regarding financial benefits alone, approximately 500 thousand reais were recovered through the audit activity"*.

When asked how they envisioned the future of internal control at their university, the auditors expressed a more optimistic view of the implementation of their practices. The auditor with the longest tenure stated that he views the future of internal control to have *"more efficiency, establishing the institution's own audit manuals"*.

The other auditor with a longer tenure stated the following: *"Any public institution that aims to deliver quality services to society cannot do so without controls in the activities that, along with planning, are one of the pillars of good public governance"*.

The auditor with the shortest tenure stated that his expectation is that *"internal control may continue to evolve and reach a level of excellence in the future. We still have many limitations, but we are committed, and we hope that our efforts will bear fruit soon. I believe that the biggest challenge at the moment is to strengthen rapprochement with managers, clarifying our attributions so that they can see internal control bodies as adding value to management".*

Regarding the positive results, the auditors with less tenure presented a less optimistic view than the civil servant with the longest tenure in regards to the internal audit department of the surveyed HEI. This result may be explained by the fact that auditors with greater tenure tend to reflect on internal controls from a more rational perspective.

In the subcategory Continuity of the Structure, the auditors were asked about whether the internal control practices represent a permanent theme in the actions of the focal university. The auditors with longer tenure recognized that *"ideally, the internal control practices should be established as continuous"* and that these practices tend to be continuous because *"there is a legal provision for this to occur".*

In the Low Resistance subcategory, the auditors were asked about the degree of resistance of the actors involved in the insertion of internal control practices in their HEI. The one with the shortest tenure reported that *"the resistance is medium and is restricted to a few sectors, being closely linked to the lack of knowledge of the true role of the internal control bodies".*

One of the auditors with the longest tenure reported that *"managers, albeit to a lesser degree, understand that the adoption of controls tends to increase bureaucracy, thus showing more resistance to the process".* When asked about whether the human, financial and technological resources are sufficient for the permanent role of the internal control practices in the HEI, the auditors stated that these are not sufficient. The auditor with the longest tenure acknowledged that *"there should be more staff in the audit unit"* of the HEI.

The other auditor with a longer tenure stated the following: *"The internal controls need to have a permanent endorsement of the top management, but with the change in the dean that occurs periodically as a result of the succession process the matter may be discontinued if the new manager does not care about it. That is, more than a management policy, internal controls need to become an institutional policy".*

The auditor with the shortest tenure also agreed that there are currently no necessary resources in the audit sector. In addition, *"there is a need for greater investments in the training of employees who are part of the internal control and the provision of more improved control tools, especially in the virtual environment".*

In terms of the sedimentation phase, the auditors were optimistic about the prospects for the future operation of the internal controls and felt "freer" to communicate any flaws and needs to improve the execution of the controls in the internal environment of the HEI, which could be the result of failures during the previous stages of the institutionalization of control practices.

The freedom to highlight these flaws and the need for improvement in the internal controls shows that some of these practices have become sedimented in the institution. However, many of these still need to be corrected and re-institutionalized.

4.1.4 Legitimation

In the subcategory Regulatory Legitimacy, the auditors were asked about society, the role of the market and the government in legitimizing internal control practices, a theme to be developed at the HEI, and whether these actors recognized internal controls as part of the service offered by society.

The auditor with the longest tenure believed that *"the government recognized the internal and external controls and so did society [...]"*. The other auditor with greater tenure corroborated the view of the first auditor through the following statement: *"mainly, the control bodies, such as the Comptroller General of the Union and the Federal Court of Auditors, have acted strongly, ensuring that the institution implements procedures of control, when absent, or improves existing ones, when considered deficient [...]"*.

The auditor with shorter tenure also acknowledged that *"there is a growing demand from external agents for a higher quality of services made available to society by the university, and such improvements are natural consequences of the performance of a good job by the internal control bodies. It is to be expected, therefore, that more and more importance will be given to internal control"*.

In the Normative Legitimation subcategory, the auditors were asked about the impact of the implementation of internal control practices in the institution's actions on its legitimacy. The auditor with the longest tenure affirmed this impact, as *"there were procedures applied after the audits were performed"*.

The other auditor with a longer tenure also acknowledged the following: *"given the enormous responsibility that exists for the institution's managers, if adopted, controls tend to improve the efficiency of processes and help in the proper application of public resources. In this regard, controls can be seen as a protection tool that managers have in their favour"*.

The auditor with the shortest tenure stated the following: *"although they are not able to ensure or guarantee the legitimacy of the institution, internal control practices, because they aim to add value to the university's activities, provide greater security and adequacy in the compliance and adoption of effective and efficient techniques within the scope of the entity"*.

In the legitimation phase, the auditors perceived the controls to be tools for continuous improvement in the focal HEI, both in the organizational processes and in the aggregation of value to the activities of management and the university as a whole.

4.1.5 Isomorphism

In terms of the isomorphism phase, the auditors were asked about the university's aim to resemble other institutions that had added internal control into their planning. One of the auditors with the longest tenure acknowledged that *"it is common to copy and implement a control model, with the appropriate adjustments, that has already been adopted and properly functioned in another institution"*.

The auditor with the shortest tenure also reported isomorphic practices between the surveyed HEI and these other institutions: *"the interest in constant improvement in its performance comes, first, from the internal control bodies themselves, such as internal audit. I can say that, on our part, there is a constant search for an approximation of the audit with the best audit practices undertaken by our peers at the federal level"*.

When asked if there was a concern when evaluating the cases of other educational institutions—the problems they faced, the improvements they implemented—in which internal controls were already implemented, the auditors with greater tenure reported having no knowledge of this.

In contrast, the auditor with less tenure stated that he was concerned with evaluating the cases of other educational institutions and their problems and improvements related to internal controls: *"we have maintained a constant dialogue with other internal audit offices of federal educational institutions, seeking, therefore, to improve our work by adopting the best practices observed"*.

In the isomorphism phase, the institutionalization process acquires aspects of continuity. In the focal HEI, aspects of isomorphism were noted more in the evaluation of the internal control practices performed by internal audits than in the implementation stage of these practices.

Of all the phases in the institutionalization process, sedimentation entailed the highest level of criticality by the internal auditors; in regards to the other phases, such as habitualization or objectification, the auditors with higher and lower tenure expressed no agreement.

4.2 Analysis of the Institutionalization of Internal Control Practices via *Iramuteq®*

Factor analysis was performed on the words with the highest significance level, i.e., those used the most by the auditors. The results are presented in Figure 1 below, illustrating how these words were used by the participants throughout their responses.

Figure 1 *Factor analysis of the words most used by the auditors*
Source: *Survey data (2020).*

Through this factor analysis of the words with the highest significance level, assigned by *Iramuteq®*, the intended meanings in each set of responses by the focal auditors were revealed. Most of these words are concentrated in the centre of the Cartesian plane, highlighting the responses with the same meanings for the participants.

The words most used by the auditors were "internal control", "university" and "no". This shows that they reported more on the controls and the environment in which these controls

are performed (university); their use of the word no resulted from their denials when asked about the existence of certain practices or because they did not know how to answer certain questions.

The words "audit", "internal audit" and "process" were spoken less often than "internal control", "university" and "no", which proves that the auditors had not participated in the initial stages of the auditing process, the phase of implementation of internal control in the university.

The words "internal control" and "university" were not used with the same intensity as "internal audit" and "processes" because AUDIN employees focus on internal controls, which demonstrates how they critically positioned themselves in the sedimentation stage.

The analysis of similarities is presented in Figure 2 below. This analysis shows how the words presented by the auditors relate to the phases in the institutionalization process. Through the relationships among these words, it is possible to perceive how AUDIN employees perceive the institutionalization of internal control practices in the focal university.
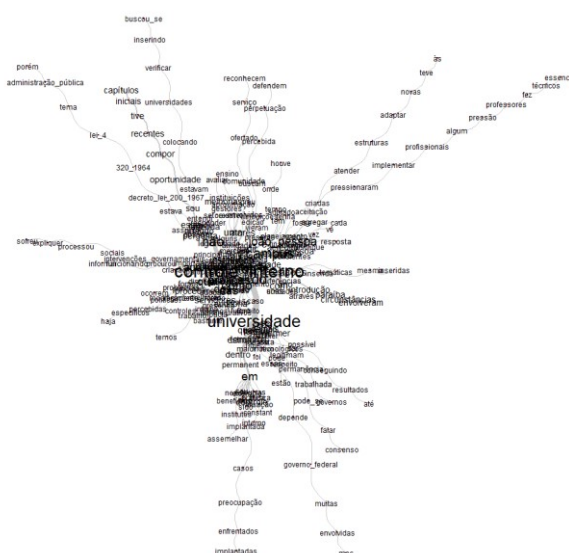
Figure 2 *Analysis of similarities of the words most used by auditors*
Source: *Survey data (2020).*

Figure 2 locates the words "internal control" and "university" as the two centres of action among the auditors in regards to the institutionalization of control practices. Most of these words concerned internal controls rather than university students.

The words "opportunity", "teaching", "pressured", "structures", "professionals", "service", "perpetuation" and "essential" concern internal control, highlighting the importance attributed by the auditors to the institutionalization actions regarding these university practices.

Fewer words concern the term "university", underscoring the institutionalization process of internal control practices. The words "federal government", "concern" and "similar" reinforce the external agents that influence the institutionalization of these practices.

This word cloud is shown in Figure 3 below. It illustrates how the words presented by the auditors are structured in relation to the entire process of institutionalization of internal control practices.

Figure 3 *Word cloud*
Source: *Survey data (2020).*

Figure 3 confirms that the terms "internal control" and "university" were the words most used by the auditors when referring to the institutionalization of control in terms fo the focal university's practices. This process was followed by other aspects, i.e., "no", "campus", "practices", "internal audit" and "institution".

These terms confirm that the auditors reported aspects that confirm the actions corresponding to all stages in the institutionalization of internal control practices in the focal HEI but that internal audits evaluate these practices in particular, consequently, provide a more critical understanding of the sedimentation phase during institutionalization.

5 Final Considerations

The objective of this study was to analyse the perception of auditors from a public HEI in the federal network concerning the institutionalization of internal control practices. This was achieved, as the results have revealed the focal auditors' perception of the institutionalization of internal control practices across different phases and processes and the disparate participation of the actors in this process.

In the habitualization phase, the auditors' perception was that the internal controls were institutionalized due only to the need to comply with laws and supervision by external control bodies at the university. During objectification, the auditors presented distinct perceptions regarding resistance in the implementation and execution of the controls by the servers from other sectors, insertion of control in the agenda and diffusion of the control practices throughout the university.

During sedimentation, the auditors were optimistic about the prospects for the future operation of internal controls and felt "freer" to communicate the flaws and needs to improve the execution of controls in the internal environment of the HEI. This result may stem from the failures during the previous stages of the institutionalization of internal control practices.

The freedom to highlight these flaws and the need to improve internal controls shows that certain practices have become sedimented in the institution; however, others still need to be corrected and re-institutionalized, as also recognized by the auditors. In terms of legitimation, the auditors pointed out the controls, as tools for the continuous improvement of the HEI in regards to the organizational processes and the aggregation of value to the activities of management, and the university as a whole.

In the isomorphism phase, the institutionalization of practices revealed a perspective of continuity. In the focal HEI, aspects of isomorphism were noted more in terms of the evaluation of the internal control practices by internal audits than in the implementation stage of these practices.

Among all the phases in the institutionalization process, sedimentation received the highest level of criticism from the auditors; regarding the other phases, such as habitualization and objectification, there was no agreement between those with longer or shorter tenure.

Providing both theoretical and practical contributions, this study has confirmed that the internal auditors from a public HEI in the federal network better perceive internal control practices when they are in the sedimentation phase, which influences their evaluation of these university practices. Perceiving practices that are already established in a university may prevent auditors from mapping the risks posed by other practices still in the phase of objectification and habitualization at the university.

The limitations of the study reflect the scope of the investigation: internal audit employees of only one university. An increase in the number of participants could elicit perceptions that were not ultimately captured in this study concerning the institutionalization of internal control practices. Compared to other HEIs, new institutional environments could demonstrate novel perceptions paths of the internal control practices institutionalized and perceived by auditors; this is a recommended area for future research.

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