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Quality of accounting and tax information in Brazil

Calidad de la información contable y tributaria en Brasil

Qualidade da informação contábil e fiscal no Brasil

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Abstract

Purpose: Analyze the economic, political, and technological factors influencing the production of accounting and tax information in municipalities.

Methodology: Data were collected from the 200 largest Brazilian municipalities. Multiple linear regression was performed with the accounting and tax information quality index as the

outcome variable. The explanatory variables included economic complexity, tax dependence, manager qualifications, employee qualifications, transparency, and internet access.

Results: The results demonstrated a significant relationship between the variables tax dependence, employee qualifications, and municipal transparency.

Contributions of the Study: The study contributes to both national and international literature by demonstrating emerging trends related to accounting and tax information quality. It also highlights the benefits of producing higher-quality accounting and tax statements.

Keywords: Accounting and tax information quality; Economic conditions; Political constraints; Technological constraints; Municipalities.

Resumen

Objetivo: Analizar las limitaciones económicas, políticas y tecnológicas relacionadas con la producción de información contable y fiscal en los municipios.

Metodología: Se recogieron datos de los 200 mayores municipios brasileños y realizó una regresión lineal múltiple, teniendo como variable de resultado el índice de calidad de la información contable y fiscal y como variables explicativas la complejidad económica, la dependencia fiscal, la calificación de los gestores, la calificación de los servidores, la transparencia e internet. acceso.

Resultados: Los resultados demostraron una relación significativa entre las variables dependencia fiscal, calificación de los empleados y transparencia municipal.

Contribuciones del Estudio: Se cree que el estudio contribuye a la literatura nacional e internacional al demostrar nuevas tendencias relacionadas con la calidad de la información contable y tributaria y resaltar los beneficios de producir mejores declaraciones contables y tributarias.

Palabras clave: Calidad de la información contable y tributaria; Condiciones económicas; Restricciones políticas; Restricciones tecnológicas; Condados.

Resumo

Objetivo: Analisar os condicionantes econômicos, políticos e tecnológicos relacionados à produção da informação contábil e fiscal dos municípios.

Metodologia: Foram coletados dados dos 200 maiores municípios brasileiros e realizada uma regressão linear múltipla, tendo o índice de qualidade da informação contábil e fiscal como variável de resultado e como variáveis explicativas a complexidade econômica, dependência fiscal, qualificação do gestor, qualificação do servidor, transparência e acesso à internet.

Resultados: Os resultados demonstraram uma relação significativa das variáveis dependência fiscal, qualificação do servidor e transparência municipal.

Contribuições do Estudo: Acredita-se que o estudo contribui para literatura nacional e internacional ao demonstrar novas tendências relacionadas a qualidade da informação contábil e fiscal e evidenciar os benefícios da produção de melhores demonstrativos contábeis e fiscais.

Palavras-chave: Qualidade da informação contábil e fiscal; Condicionantes Econômicos; Condicionantes Políticos; Condicionantes tecnológicos; Municípios.

1 Introduction

Numerous countries across the European, African, and American continents have undertaken reforms in their accounting systems to ensure the production of relevant and reliable statements and reports (Abimbola et al., 2017; Biondi, 2014; Polzer, Garseth-Nesbakk & Adhikari, 2019; Abdulkarim, Umlai & Al-Saudi, 2020). In the private sphere, accounting and tax information quality is paramount to safeguarding the interests of shareholders and other stakeholders (Baioco & Almeida, 2017). Within the public sector, such information is indispensable for upholding democracy, constituting society's right to monitor and control the utilization of public resources (Borges et al., 2010).

In addition to bolstering democracy, robust accounting practices deter illegal activities within the public sector. According to Abimbola, Kolawole, and Olufunke (2017), corruption scandals within the public sector have led to global concerns regarding transparency, accountability, and the generation of accurate accounting statements. These authors argue that corruption undermines the legitimacy and authority of governments by depleting public funds earmarked for financing essential public policies, consequently impeding national development.

Accounting systems are pivotal in driving change within the public sector, fostering greater transparency and facilitating public oversight. Moreover, these systems are intricately influenced by the political and socioeconomic dynamics of individual countries (Chan, 2006). For instance, Jordan grappled with significant budget deficits, mounting debt levels, high tax burdens, and inadequate public services. Consequently, budgetary reforms were implemented to enhance financial transparency and streamline revenue collection processes, improving efficiency and fairness. These reforms encompassed enhancements in teamwork, coordination, planning, controls, goal alignment, and resource allocation (Alsharari, 2019).

In Brazil, there is a growing emphasis on achieving greater information completeness, particularly at the municipal level, in preparing and publishing accounting statements. This trend is evidenced in studies by Cruz et al. (2011), Raupp (2016), and Silva and Bruni (2019), which have highlighted a notable lack of transparency in numerous municipalities. Disparities in transparency levels exist across different regions of the country, with various factors influencing this phenomenon. Silva et al. (2019) revealed that municipalities with larger populations and higher levels of human development tend to exhibit greater transparency. Conversely, Baldissera and Asta (2020) identified additional determinants of openness, such as municipal income, educational levels, and revenue collection. In the realm of transparency, the quality of financial statements produced by municipalities holds particular significance, as it sheds light on factors that may indicate why some municipalities produce higher-quality statements than others.

The production and dissemination of high-quality statements are multifaceted processes requiring alignment with the realities of the entities involved. This alignment must consider the influence of political, economic, organizational, and sociological factors to generate valuable information for accountability and decision-making (Sasso & Varela, 2020).

Political influence on accounting and tax information quality manifests through support and investment in accounting systems. Therefore, public managers must be inclined to produce statements that promote greater transparency in governmental actions. This inclination can be fostered through support from accounting bodies, universities, and other entities, which can encourage such practices by providing incentives for accountant remuneration, offering training courses, and providing access to advanced and modern equipment and tools (Hyndman & Connolly, 2011).

Additionally, economic and technological influences play a significant role, requiring municipalities to ensure financial stability to support such investments. For instance, enhancing software and hardware for statement production and providing the population with access to technology can empower citizens to demand and access information from the public sector, thereby fostering accountability (Chan, 2006; Rakhman & Wijayana, 2019).

Hence, considering the myriad factors influencing accounting and tax information quality, the following research problem arises: **How do economic, political, and technological conditions contribute to explaining the accounting and tax information quality in Brazilian municipalities?** Therefore, this study delves into the economic, political, and technological determinants affecting accounting and tax information disclosed by local governments in the country.

Quality accounting statements yield numerous benefits, facilitating effective management of public debts, formulation of macroeconomic balance policies, and enhancing creditworthiness for acquiring loans and financing (Brusca, Gómez-Villegas & Montesino, 2016). According to Biondi (2014), governments must strive for the same level of quality and transparency in financial reporting as the private sector, necessitating an examination of the factors influencing this quality.

The findings of this study show a significant correlation between economic, political, and technological factors and the quality of accounting and tax information in Brazilian municipalities. Notably, the variable of tax dependence exhibited an inverse relationship with the quality of accounting and tax information, highlighting that municipalities reliant on transfers and with limited revenue collection may encounter challenges in producing high-quality accounting statements. Moreover, the variable of employee qualifications underscores the vital role of skilled professionals in fulfilling public functions, particularly within the accounting sector. As anticipated, the transparency variable also exhibited a strong association with accounting and tax information quality, as municipalities prioritizing the disclosure data tend to generate comprehensive and accurate statements more easily.

The relevance of this study lies in its capacity to prompt reflection among accountants, public managers, and society at large regarding factors that impact the quality of accounting and tax information. Furthermore, it offers valuable insights to local governments by highlighting the potential benefits of modernizing accounting systems, which can enhance information quality and transparency.

2 Literature Review

2.1 Institutional Theory and accounting and tax information quality

The institutional theory emerged in the 19th century with contributions from economists such as Thorstein Veblen, John Commons, and Westley Mitchel, as well as sociologists like Emile Durkheim and Max Weber (Carvalho & Vieira, 2003). This theory posits that organizations are influenced by normative pressures from the state or within the organization

itself. These pressures compel them to adhere to legitimate procedures for professional certification (Zucker, 1987).

One strand of institutional theory focuses on the economic aspect, exemplified by the work of Douglass North, who compares institutional environments through formal and informal rules. Formal rules refer to organizations' requirements to garner support, legitimacy, and efficiency. Conversely, informal rules encompass cultural aspects such as values, symbols, and beliefs – behavioral norms shaped by society's cultural heritage (Carvalho & Vieira, 2003; Liszbinski, 2014).

Institutional theory is relevant to the attainment of accounting and tax information quality. This is evident in the pressure exerted by the State Court of Accounts and the population for improvements in preparing these documents. Formal rules are established by the requirements of the Brazilian Accounting Standard Applied to the Public Sector (NBC TSP) and the Accounting Manual Applied to the Public Sector (MCASP). Informal rules encompass the customs and culture of accountants, managers, and other local government members, all of whom influence this process.

The quality of accounting information is a subject of discussion within the realm of its informational utility in decision-making and control processes within administrative organizations. These discussions underscore the relevance of accounting as a mechanism for constructing organizational information (Araújo & Calado, 2017).

While the topic has garnered attention in recent years, the definition of accounting quality remains in its nascent stages. Morais and Curto (2008) argue that the term is still nebulous and challenging to pin down. Notably, the International Accounting Standards Board (IASB), tasked with developing International Public Sector Accounting Standards, does not explicitly define the quality of accounting information (Cappellesso, Rodrigues, & Vieira, 2017).

According to the International Federation of Accountants (IFAC, 2018), the qualitative characteristics of accounting information encompass relevance, faithful representation, understandability, timeliness, comparability, and verifiability. Thus, the quality of accounting information is attained when these characteristics are met.

Relevance refers to the ability of financial and non-financial information to influence the goals of financial reporting, possessing both confirmatory and predictive value. Faithful representation ensures that economic phenomena are depicted accurately, completely, neutrally, and without material errors (IFAC, 2018). These attributes aid managers in decision-making and efficient management of public resources, directing public policies to the areas most in need (Chan, 2006; Schmidhuber, Hilgers, & Hofmann, 2020).

Understandability refers to the clarity of information, allowing users to grasp its significance. Timeliness entails making information available to users before it loses its relevance for accountability and decision-making. Comparability enables users to discern similarities and differences between two sets of phenomena. Lastly, verifiability ensures that users can trust that financial and non-financial information accurately represents the intended economic phenomena (IFAC, 2018). These characteristics foster citizens' confidence in the government's transparency regarding its actions.

Measuring the quality of accounting and tax information is a complex endeavor. Nonetheless, entities such as the National Treasury, through the Brazilian Public Sector Accounting and Tax Information System (SICONFI), have sought to gauge the information submitted by municipalities to encourage the production of higher-quality accounting and tax statements. Table 1 outlines various dimensions for assessing the quality of accounting information, categorized into information management, accounting, tax, and accounting vs. tax.

Table 1
The Ranking Dimensions and Information Quality Attributes

Dimensions	Purpose
Dimension I - Information Management	Information management entails examining the behavior of Brazilian states regarding the submission and maintenance of information in the system SICONFI. This includes sending all declarations on time and the frequency of corrections, among others.
Dimension II – Accounting	The dimension ‘accounting’ involves assessing the accounting data received to ensure compliance with the rules outlined in the Accounting Manual Applied to the Public Sector (MCASP) and checking for consistency between different statements.
Dimension III – Tax	This dimension encompasses checks relevant to the analysis of tax data contained in the submissions. This includes assessing conformity with the provisions outlined in the Tax Statements Manual (MDF), ensuring consistency between statements, and other relevant factors.
Dimension IV – Accounting Vs. Tax	It involves cross-referencing accounting and tax data to evaluate the consistency and accuracy of values across different statements.

Source: Adapted from *Secretaria do Tesouro Nacional (2022)*.

Accounting and tax information quality is attained when public entities submit all mandatory information as requested by the controlling bodies. This ensures that accounting information adheres to the guidelines outlined in the Accounting Manual Applied to the Public Sector (MCASP), while from a fiscal standpoint, it aligns with the requirements of the Tax Statements Manual (MDF). Additionally, consistency between accounting and tax data is crucial, ensuring that both sets of information convey the same details accurately.

2.2 Previous studies

Accounting and tax information quality has garnered considerable attention in the private sector (Moura et al., 2016; Mazzioni & Klann, 2017; Silva et al., 2020; Andrade & Fujino, 2023), influencing financial markets. Although less extensively studied, it has also been a subject of interest in the public sector. For instance, Pereira et al. (2022) examined the Brazilian state of Rondônia and its municipalities, revealing that the state ranks fourth among the 27 states, with cities like Santa Luzia d’Oeste, Cerejeiras, and Ji-Paraná also performing well. Interestingly, no correlation was found between the quality of government information, as per the ranking, and factors such as population or territorial area.

Gomes and Silva (2022) found that the ranking of accounting and tax information quality in Brazilian municipalities is influenced by various factors, including the Firjan Municipal Development Index (IFDM), the Municipal Management Effectiveness Index (IEGM), and GDP per capita. Notably, among the top 100 cities in the ranking, 51 are situated in the south region, while the north and southeast macro-regions of Brazil scored the lowest.

Witt et al. (2023) analyzed the quality of accounting information in budgetary accuracy across the 295 municipalities of Santa Catarina. They observed a high rate of budgetary inaccuracies, with the quality of information not yet being a decisive factor. Silva et al. (2021) also investigated the effects of fixed asset depreciation on accounting and tax information quality. Their findings significantly impacted equity results, as accumulated depreciation contributed to institutional deficits. Hence, they emphasized the importance of management planning to replace depreciating assets over time.

Costa and Leitão (2023) surveyed 85 accountants from the Brazilian Army to assess their perception of accounting information quality. The accountants affirmed that accounting information plays a vital role in the decision-making process for planning and controlling actions. Moreover, they indicated that the Army's accounting information is comprehensible and reliable, exhibiting key attributes such as understandability, timeliness, comparability, and verifiability.

2.3 Hypotheses development: economic, political, and technological factors related to accounting and tax information quality

The first economic variable pertains to economic complexity, gauged by the sophistication or diversity of a region's productive structure. This complexity correlates with indicators such as GDP, income levels, and education attainment, representing a municipality's economic advancement (Cavalcante, Monea & Ferreira, 2020). Local governments prioritizing educational initiatives often cultivate an engaged citizenry capable of effectively comprehending and utilizing accounting information (Mitozo & Massuchin, 2020). Consequently, such cities require producing relevant, comparable, timely, and reliable accounting and tax reports, among other qualitative attributes. Thus, the first hypothesis posits:

H1 - Municipalities with higher levels of sophistication in their production structure (economic complexity) tend to produce higher-quality accounting and tax statements.

The economic dependence of certain municipalities can influence the production of higher-quality accounting and tax statements. According to Amor and Ayadi (2019), globalization and extensive economic partnerships can foster dependence on external resources, thereby shaping government behavior. This heightened exposure to external scrutiny compels governments to publish their financial documents. Araújo and Souza (2020), Boolaky, Mirosea & Omoteso (2019), Manini (2019), and Sasso (2017) assert that accounting serves as a financial management tool, revealing the necessity for transfers, loans, or financing, with the control of these resources being evident through accounting data.

Tax dependence is measured by current transfers and total current revenue, with the latter consisting of Taxes on Services of Any Nature (ISS), the Tax on the Transfer of Real Estate (ITBI), the Tax on Urban and Territorial Property (IPTU), and various fees and contributions (Massardi & Abrantes, 2014). Consequently, municipalities with lower revenue experience greater tax dependence, potentially impacting the quality of their accounting and tax information. Thus, the second hypothesis is as follows:

H2 - Municipalities with higher tax dependence exhibit higher-quality accounting and tax information statements.

The production of accounting statements hinges on the competency of the accounting team. Many city halls encounter challenges in training and enhancing the skills of their employees, leading them to outsource accounting services (Sediyama, Aquino & Lopes, 2017). Oliveira (2015) highlighted that inadequate qualifications among public sector employees can result in failures, errors, and irregularities, rendering management vulnerable. Therefore, public servants with higher educational qualifications are indispensable for generating quality accounting and tax statements. In this vein, hypothesis 3 is proposed:

H3 - Municipalities with highly qualified employees are inclined to develop higher-quality accounting and tax information.

In addition to employee qualifications, managers possessing degrees and expertise in accounting statements can foster the production of superior-quality statements. Guimarães and Oliveira (2019) assert that municipal managers, acting as political agents, assume technical, administrative, and financial roles within public entities to enhance societal well-being through effective management practices. Moreover, they emphasize the manager's responsibility to possess knowledge of municipal public finances, oversee the balance of public coffers, and regularly report their activities to external oversight bodies. Thus, the fourth hypothesis is formulated as follows:

H4 – Municipalities with highly qualified managers tend to deliver higher-quality accounting and tax information.

A local government that prioritizes transparency endeavors to conspicuously present accounting statements on the municipality's online portal and website. Transparent governance entails furnishing data on adopted actions and observed outcomes, thereby showcasing management performance and facilitating societal participation at large (Leite Filho et al., 2018).

According to Araújo and Romero (2016), transparency can be either active or passive. Active transparency entails proactive disclosure by public organizations, whereas passive transparency arises from external requests, such as the right to access information. Both forms of transparency may encompass accounting and tax statements, enabling municipalities that adhere to such disclosure practices to disseminate information more effectively and produce higher-quality statements. Hence, the fifth hypothesis is posited as follows:

H5 - Municipalities with a higher municipal transparency index tend to deliver higher-quality accounting and tax information.

One of the modern characteristics of public management is the dissemination of public information through online portals (Gama & Rodrigues, 2016). In this regard, Bezerra, Borges, and Valmorbidia (2012) assert that access to data available online enhances social control and facilitates monitoring of the efficiency in the allocation and execution of public spending. Through this accessibility, the population can discern the qualitative characteristics embedded in the published data. Within the municipal context, active transparency is achieved by ensuring information availability on websites that are easily accessible, with user-friendly layouts conducive to citizen consultations, while also adhering to timely updates. Passive transparency, on the other hand, requires the municipality's websites to offer channels for requesting information easily, alongside providing prompt feedback. Hence, internet connectivity becomes crucial for the populace to access such information. It is presumed that municipalities with improved internet accessibility offer higher-quality information. Thus, the final hypothesis is formulated as follows:

H6 - Municipalities with better internet access for the population tend to deliver higher-quality accounting and tax information.

In summary, political, economic, and technological variables may influence the quality of accounting statements in Brazilian municipalities. Consequently, theoretical hypotheses will be examined to ascertain whether these aspects exert positive or negative effects.

3 Methodological Procedures

3.1 Sample definition and design

The research is categorized as quantitative and descriptive. The study population comprises the 200 largest Brazilian municipalities. According to Rakhman and Wijayana (2019), larger institutions are typically associated with higher-quality accounting reports. Therefore, the aim is to investigate the economic, political, and technological conditions that correlate with the quality of accounting and tax information in these municipalities.

The data pertaining to the dependent variable are from the year 2021, which serves as the reference year for collecting explanatory variables. Consequently, the research adopts a cross-sectional approach. It is worth noting that not all variables used were available for the base year, and the most recent information accessible was collected. Data were retrieved from various sources, including the Transparent Treasury platform, Superior Electoral Court, Brazilian Public Sector Accounting and Tax Information System (SICONFI), Annual List of Social Information (RAIS), Municipal Competitiveness Index (ICM), General Comptroller of the Union (CGU), and National Telecommunications Agency (ANATEL).

3.2 Operationalization of the Study: Conditionl factors and Municipal Innovation Indicator

The data analysis technique employed for this study was multiple linear regression (MLR), aiming to illustrate changes in a dependent variable in relation to one or more explanatory variables (Hair et al., 2005). This technique was chosen due to the multitude of independent variables (conditions) that could influence the quality of accounting and tax information in municipalities. Control variables are outlined in Table 2, along with their dimensions, descriptions, reference years, data sources, and anticipated relationships.

Table 2

Independent and control variables

Variable	Description	Year	Source	Expected relationship	Authors
Economic complexity	Indicator of economic complexity that measures the level of sophistication of the municipal production structure.	2019	RAIS	+	Cavalcante, Monea & Ferreira (2020) and Mitozo & Massuchin (2020).
Tax dependence	Ratio between the current transfers made and the total current revenue of the local public administration.	2019	SICONFI	+	Amor & Ayadi (2019), Araújo & Souza (2020), Boolaky et al. (2019), Massardi & Abrantes (2014), Manini (2019) and Sasso (2017)

Manager qualification	Dummy for mayors' education level divided into 0 for those with primary education, 1 for secondary education, and 2 for higher education.	2020	Superior Electoral Court	+	Sediyama, Aquino & Lopes, (2017) and Oliveira (2015).
Employee qualification	Ratio between the number of municipal public servants in direct administration with higher education and the total number of municipal public servants in direct administration.	2019	RAIS	+	Guimarães & Oliveira (2019)
Municipal transparency	Score on the "Brazil Transparent Scale 360 ^o " of municipal public administration, covering scores in passive and active transparency.	2020	CGU	+	Araújo e Romero (2016) and Leite Filho et al., (2018).
Internet access	Ratio between the number of broadband accesses and the municipality's population (per group of 100).	2020	Anatel	+	Bezerra (2012) and Gama, (2015).

Source: *Research data.*

The software STATA®: Statistic/Data Analysis 14 was used to operacionalize the data. Thus, the following model was specified:

$$QICFi = \beta_0 + \beta_1 CE_i + \beta_2 DF_i + \beta_3 QG_i + \beta_4 QS_i + \beta_5 TM_i + \beta_6 AI_i + \varepsilon_i$$

Where: β_0 = Angular Coefficient; β = Parameters; ε = Regression Error Term; EC: Economic Complexity, TD: Tax Dependence; MQ: Manager Qualification; EQ: Eemployee Qualification; MT: Municipal Transparency; IA: Internet Access.

4 Results and Analyses

Initially, a descriptive analysis of the study's dependent and independent variables was carried out. Table 3 presents the values of the means, standard deviation, median, maximum, and minimum values of economic, political, and technological indicators.

Table 3
Descriptive data analysis

Variables	Median	Standard deviation	Minimum	Maximum
ATIQ	0.7779	0.1755067	0.12	1
EC	2.064495	0.599942	0.4863086	3.422979
TD	0.6629895	0.1151294	0.3307987	0.9601831
MQ	1.832487	0.4132504	0	2
EQ	0.5083529	0.144291	0	0.9782549
MT	7.31805	1.868412	2.64	10

IA	21.2575	9.166163	2.92	45.29
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Note: QICF: Accounting and tax information quality; EC: Economic complexity; TD: Tax dependence; MQ: Manager qualification; EQ: employee qualification; MT: Municipal transparency; IA: Internet access.

Source: *Research data*.

4.2 Multivariate Data Analysis

After the descriptive analysis of the data, Table 4 presents the results for the multiple linear regression.

Table 4

Results estimated by multiple linear regression

Variables	Coefficients	Standard error	T	P-Value
EC	0.035446	0.0233969	1.51	0.131
TD	-0.2762066	0.1611897	-1.71	0.088
MQ	-0.0032836	0.281816	-0.12	0.907
EQ	0.3328781	0.841502	3.96	0.000*
MT	0.0128834	0.0063867	2.02	0.045**
IA	-0.0019246	0.0018432	-1.04	0.298
Constant	0.3890729	0.0642595	6.05	0.000
<i>Adjusted R²</i>	0.1841	<i>Dependent variable</i>	QICF	
<i>Prob. (F)</i>	0.0000			

Key: *Significant at 1%. **Significant at 5%. ***Significant at 10%.

Source: *Research data*.

The model's estimated coefficients exhibit a satisfactory fit, and the test yielded significant results, with less than 1%, indicating that the variables can elucidate the phenomenon under study. It is worth noting that in models of this nature, the maximization of R^2 is not pursued due to the simplicity of the explanatory structure adopted.

The initial variable showing a significant and negative correlation is Tax Dependence – an increase in tax dependency leads to a decline in the quality of accounting and tax information. This finding contradicts the findings of studies by Amor and Ayadi (2019), Araújo and Souza (2020), Boolaky Mirosea & Omoteso (2019), Manini (2019), and Sasso (2017), suggesting that accounting statements in Brazilian municipalities have not served as a tool for financial assistance.

Municipalities with higher tax dependence and lower revenue collection may encounter institutional and financial hurdles in producing quality accounting and tax statements. The production of such statements entails financial investments, including frequent employee training, infrastructure, software, and other technological aspects (Chan, 2006).

According to Divino, Bezerra Filho, and Nossa (2019), municipalities with more efficient tax collection demonstrate higher transparency. With reduced tax revenue,

governments are inclined to prioritize public services in high demand among the population, potentially diverting attention away from investing in the publication of accounting data. Similarly, this may also impact the investment in the quality of these accounting statements.

The variable of employee qualification exhibited a positive and significant relationship, corroborating the findings of Oliveira (2015). Employees with lower qualifications may produce accounting statements of inferior quality, riddled with flaws, errors, and irregularities, compromising public sector accountability and the decision-making process. Furthermore, it is crucial to highlight that highly qualified accountants possess extensive knowledge of legislation, adhere strictly to established formal rules, and avoid accounting practices that contravene current regulations.

In a study conducted by Sedyama, Aquino, and Lopes (2017), a passive stance was observed among local government employees in technical positions who were responsible for the accounting function, characterized by minimal team training. Consequently, outsourcing to software companies becomes a common alternative. The authors highlight a weak relationship between the public accounting system, the courts of accounts, and the National Treasury Secretariat.

As highlighted, the quality of accounting and tax information hinges on the qualifications of employees. However, many municipalities allocate resources toward outsourcing accounting services rather than investing in training public employees. Moreover, the lack of political support complicates efforts to persuade managers of the potential benefits of utilizing accounting information (Sedyama, Aquino, and Lopes, 2017).

On the other hand, the municipal transparency variable demonstrated a positive and significant impact. As anticipated, the quality of accounting information correlates with the disclosure and visibility of financial statements. Technological advancements, particularly the internet, have ushered in the era of electronic government, fostering modernization in public administration and enhancing government process efficiency. Data dissemination via publicly accessible electronic platforms has facilitated access to and comprehension of information through standardized formats, reports, graphs, charts, and tables (Zuccolotto & Teixeira, 2019). Passive transparency, allowing users to request accounting and tax statements, has also contributed to accountants' efforts to improve statement production (Araújo & Romero, 2016).

The transparency of public data is intertwined with compliance with legislative requirements (formal rules) and a cultural inclination toward prioritizing information disclosure (informal rules). A symbiotic relationship exists between transparency and the quality of accounting and tax information. Municipalities with low data publication rates, as evidenced by the studies of Cruz et al. (2011), Raupp (2016), and Silva and Bruni (2019), often exhibit subpar quality in their accounting and tax statements, resulting in diminished social accountability and participation.

Therefore, it is clear that economic, political, and technological factors are interlinked with accounting and tax information quality. Tax dependence, manager qualifications, and transparency play pivotal roles in governments' endeavors to produce superior accounting and tax statements.

5 Final Considerations

This study aimed to analyze the economic, political, and technological factors influencing the quality of accounting and tax information in Brazilian cities. It was observed that tax dependence, reflecting the economic and financial status of the municipality, can impact

the availability of resources for acquiring equipment and fostering qualifications necessary for producing accurate accounting and tax statements.

In this regard, local governments are encouraged to invest in training and improving the skills of their workforce, aiming to decrease reliance on third-party services (such as software companies) and to enhance the preparation of public accounts. Additionally, municipalities are obligated to prioritize enabling citizens' access to high-quality accounting information through financial statements, recognizing that transparency is intricately connected to democratic principles.

In essence, this study endeavors to prompt new reflections and perspectives on the quality of accounting and tax information within the public sector. It explores how local governments and control agencies, including the courts of accounts, controllerships, accounting councils, the Brazilian National Treasury Secretariat, and other stakeholders, contribute to enhancing reporting practices and accounting statements. Moreover, it addresses issues of transparency, corruption, and their influence on decision-making processes, all of which are intricately linked to the quality of accounting and tax information and the effective management of public resources.

This study is envisioned to potentially aid in implementing International Public Sector Accounting Standards (IPSAS) in Brazil, aiming to elevate the quality of financial statements. Consequently, municipalities failing to achieve favorable evaluations in the quality ranking of accounting and tax information by the National Treasury would require adjustments in economic, political, and technological realms. This might involve reducing tax dependence, investing in the professional development of public employees, and fostering a culture of transparency in public data.

Another noteworthy aspect is the study's contribution to the quality analysis of municipal accounting and tax statements. Numerous studies have underscored the institutional challenges local governments encounter compared to their counterparts at the state and federal levels. This study identifies variables linked to producing high-quality accounting statements and suggests potential institutional changes, such as increased investment in regular employee training and infrastructure programs, including software and other technological advancements. Moreover, in contrast to previously published studies, this research offers a comprehensive overview of the accounting and tax quality across the entire country.

However, it is essential to acknowledge certain limitations. The study's scope was constrained by the lack of available data for all 200 municipalities, which prevented the consideration of additional economic, political, and technological variables. Additionally, the sample size was restricted due to data unavailability for many municipalities.

Future research endeavors could explore other social, psychological, and cultural factors that might influence the quality of accounting and tax information in municipalities. Furthermore, a comparative analysis of the different macro-regions of Brazil could shed light on whether institutional dynamics in the south, southeast, northeast, central-west, and north influence accounting and tax statement quality differently.

References

Abdulkarim, M. E., Umlai, M. I. & Al-saudi, L. F. (2020) Exploring the role of innovation in the level of readiness to adopt IPSAS. *Journal of Accounting & Organizational Change*, 16(3), 469-495. <https://doi.org/10.1108/JAOC-12-2019-0119>

- Abimbola, O. A., Kolawole, A. A., & Olufunke, A. O. (2017). Impact of International Public Sector Accounting Standards (IPSAS) adoption on financial accountability in selected local governments of Oyo State, Nigeria. *Asian Journal of Economics, Business and Accounting*, 3(2), 1-9. <https://doi.org/10.9734/AJEBA/2017/33866>
- Alsharari, N. M. (2019). As mudanças contábeis e além dos princípios do orçamento (BBP) no setor público: isomorfismo institucional. *International Journal of Public Sector Management*, 33(2/3), 165-189. <https://doi.org/10.1108/IJPSM-10-2018-0217>.
- Amor, D. B., Damak, S. (2019). The profile of IPSAS-adopters. *Accounting & Management Information Systems/Contabilitate si Informatica de Gestiune*, 18(2), 262-282.
- Andrade, L. M. N. & Fujino, A. (2023). Condicionantes da qualidade da informação contábil à luz do regime de informação do sistema de governança corporativa: uma aproximação conceitual. *Boletim de Conjuntura*, 16(48), 533–562.
- Araújo, J. F. F. E., & Romero, F. T. (2016). Local government transparency index: determinants of municipalities' rankings. *Internacional Journal of Public Sector Management*, 29(4), 327-347.
- Araújo, R. H. M.; & Callado, A. A. C. (2017). Características Qualitativas da Informação Contábil: A Percepção de Profissionais de Controle Interno do Setor Público. In *XVII Congresso USP* (p.18). São Paulo, SP.
- Araújo, J. G. N., & Souza, F. G. (2020). Walking toward IPSAS adoption: A discussion about Brazilian public sector changes under the perspective of Institutional Theory. *Contabilidade, Atuária, Finanças & Finanças*, 3(1), 103-113. <https://doi.org/10.23925/cafi.v3i1.45465>.
- Baioco, V. G., Almeida, J. E. F. (2017). Efeitos do comitê de auditoria e do conselho fiscal na qualidade da informação contábil no Brasil. *Revista contabilidade financeira*, 28(74), 229-248.
- Baldissera, J. F. & Asta, D. (2020). Panorama Teórico e Empírico dos Determinantes da Transparência Pública. *Sociedade, Contabilidade e Gestão*, 15(4), 88-111.
- Bezerra, R. O., Borges, L. J. & Valmorbida, S. M. L. (2012). Análise das prestações de contas na internet da Universidade do Estado de Santa Catarina. *Revista GUAL*, 5(1), 66-82.
- Biondi, Y. (2014). Harmonising European Public Sector Accounting Standards (EPSAS): Issues and Perspectives for Europe's Economy and Society. *Accounting, Economics, and Law: A Convivium*, 4(3), 165-178.
- Boolaky, P. K., Mirosea, N. & Omoteso, K. (2019). The adoption of IPSAS (Accrual Accounting) in Indonesian Local Government: a neo-institutional perspective. *International Journal of Public Administration*, 1-14. <https://doi.org/10.1080/01900692.2019.1669047>
- Borges, T. B., Mario, P. C., Cardoso, R. L., & Aquino, A. C. B. (2010). Desmistificação do regime contábil de competência. *Revista de Administração Pública*, 44(44), 877-901.

- Brusca, I., Gómez-Villegas, M. & Montesinos, V. (2016). Public financial management reforms: the role of IPSAS in Latin-America. *Public administration and development*, 26, 51-64. <https://doi.org/10.1002/pad.1747>
- Cavalcante, L. Monea, G. K. A. & Ferreira, F. F. (2020). Ranking de complexidade econômica dos estados brasileiros. *Redeca*, 7(2), 143-157.
- Cappelleso, G., Rodrigues, J. M., Vieira, E. T. (2017). Qualidade da informação contábil: uma investigação sobre o nível de percepção qualitativa dos contadores e auditores do distrito federal. *Revista Ambiente Contábil*, 9(2), 1-22.
- Carvalho, C. A. & Vieira, M. M. F. (2003). Contribuições da perspectiva institucional para a análise das organizações: Possibilidades teóricas, empíricas e de aplicação. In: CARVALHO, C. A., VIEIRA, M. M. F. (Orgs.). *Organizações, cultura e desenvolvimento local: a agenda de pesquisa do Observatório da Realidade Organizacional*. Recife: Editora UFPE, p. 23-40.
- Chan, J. (2006). IPSAS and government accounting reform in developing countries. In Lande, E. & Scheid, J. C. (Eds.). *Accounting reform in the public sector: mimicry, fad or necessity* (pp. 1-15). Paris: Expert Comptable Media.
- Costa, J. R. R. & Leitão, C. R. S. (2023). Qualidade da informação contábil: Percepção dos contadores do Exército Brasileiro. *Research, Society and Development*, 12(13), 1-14.
- Cruz, C. F., Ferreira, A. C. S., Silva, L. M. & Macedo, M. A. S. (2011). Transparência da gestão pública municipal: um estudo a partir dos portais eletrônicos dos maiores municípios brasileiros. *Revista de Administração pública*, 46(1), 153-176.
- Cruz, C. F., & Afonso, L. E. (2018). Gestão fiscal e pilares da Lei de Responsabilidade Fiscal: Evidências em grandes municípios. *RAP-Revista de Administração Pública*, 52(1), 126-148. doi:10.1590/0034-7612165847
- Cruz, C. F., Ferreira, A. C. S., Silva, L. M., & Macedo, M. A. S. (2012). Transparência da gestão pública municipal: Um estudo a partir dos portais eletrônicos dos maiores municípios brasileiros. *RAP-Revista de Administração Pública*, 46(1), 153-176. doi:10.1590/S0034-76122012000100008
- Cruz, C. F., Macedo, M. A. S., & Sauerbronn, F. F. (2013). Responsabilidade fiscal de grandes municípios brasileiros: Uma análise de suas características. *RAP-Revista de Administração Pública*, 47(6), 1375-1379. doi:10.1590/S0034-76122013000600003
- Diefenbach, T. (2009). New Public Management in public sector organizations: The dark sides of managerialistic 'enlightenment'. *Public Administration*, 87(4), 892-909. <https://doi.org/10.1111/j.1467-9299.2009.01766.x>.
- Divino, S. N., Bezerra Filho, J. E. & Nossa, S. N. (2019). Motivações para a Transparência Orçamentária Municipal. *Management and Connections Journal*, 8(2), 140-157.

Gama, J. R. & Rodrigues, G. M. (2016). Transparência e acesso à informação: um estudo da demanda por informações contábeis nas universidades federais brasileiras, *TransInformação*, 28(1),47-57.

Gomes, P., Fernandes, M. J., & Brusca, I. (2019). Implementing the International Public Sector Accounting Standards for consolidated financial, *Public money & management*, 39(8), 544-552. <https://doi.org/10.1080/09540962.2019.1654318>.

Gomes, N. C. & Silva, M. C. (2022). Análise dos Fatores Explicativos do Ranking da Qualidade da Informação Contábil e Fiscal. *The journal of globalization, competitiveness and governability*, 16(3), 101-116.

Guimarães, L. A., Oliveira, A. F. F. V. (2019). A Importância da Formação em Gestão Pública Municipal para os Gestores Públicos no Exercício de suas Funções. *Id on Line Revista Multidisciplinar e Psicologia*, 13(45), 356-372.

Hair, J. R., Black, W. C., Babin, B. J., Anderson, R. E. & Tatham, R. L. (2006). *Multivariate Data Analysis*. 6ª ed. Upper Saddle River, NJ: Pearson Prentice Hall, 2006.

Hyndman, N., & Connolly, C. (2011). Accrual's accounting in the public sector: A road not always taken. *Management Accounting Research*, 22(1), 36-45. <https://doi.org/10.1016/j.mar.2010.10.008>

International federation of accountants (IFAC). Handbook of International Public Sector Accounting Pronouncements, 2018. Disponível em: < <http://www.ifac.org/publications-resources/2018-handbook-international-public-sector-accounting-pronouncements>>. Acesso em: 20 de julho.

Leite Filho, G.A, Cruz, C. F., Nascimento, J. P. B., Silva, T. G. (2018). Relação entre a qualidade da gestão fiscal e a transparência dos municípios brasileiros. *Cadernos Gestão Pública e Cidadania*, São Paulo, 23(76), 337-355.

Liszbinski, B. B. (2014). Conformidade no reconhecimento de ativos intangíveis: Um estudo na perspectiva da teoria institucional. *Revista Contemporânea de Contabilidade*, 11(24), 85-106.

Manini, M. M. (2019). Institutional isomorphism and adoption of International Public Sector Accounting Standards by African Countries. *International Journal of Scientific Research and Management*, 7(5), 1148-1170. <https://doi.org/10.18535/ijstrm/v7i5.em04>.

Massardi, W. O. & Abrantes, L. A. (2014). Classificação dos municípios mineiros em relação à composição de suas receitas. *Gestão, finanças e contabilidade*, 4(1), 144-161.

Mazzioni, S. & Klann, R. C. (2017). Aspectos da qualidade da informação contábil no contexto internacional. *Revista brasileira de gestão de negócios*, 20(1), 92-111.

- Mitozo, I. B. & Massuchin, M. G. (2020). engajamento público e democracia: uma análise da participação política institucional e não-institucional na cidade de São Paulo. *Revista Teoria & Pesquisa*, 29(2), 41-65.
- Moura, G. D., Ziliotto, K. & Mazzioni, S. (2016). Fatores determinantes da qualidade da informação contábil em empresas brasileiras listadas na BM&FBOVESPA. *Revista de Contabilidade e Organizações*, 10(27), 17-30.
- Oliveira, C. M. (2015). A Contabilidade Pública e os Desafios Enfrentados pelos Servidores Públicos: Uma Análise no Município de Castro Alves. *Revista Formadores: Vivências e Estudos, Cachoeira*, 8(2), 6-24.
- Pereira, R.M., Andrade, L. M. N., Lovo, O. A., Dal Magro, E. F., e Loose, C. E. (2022). Qualidade da informação contábil e fiscal governamental: um recorte extrato de Rondônia. *Research, Society and Development*, 11(4).
- Polzer, T., Garseth-Nesbakk, L., & Adhikari, P. (2019). “Does your walk match your talk?” Analysing IPSASs diffusion in developed and developing countries. *International Journal of Public Sector Management*, 33(2/3), 117-139.
- Raupf, F. M. (2016). Realidade da transparência passiva em prefeituras dos maiores municípios brasileiros. *Revista Contemporânea de Contabilidade*, 13(30), 34-52.
- Rakhman, F., & Wijayana, S. (2019). Determinants of financial reporting quality in the public sector: Evidence from Indonesia. *The International Journal of Accounting*, 54(3). <https://doi.org/10.1142/S1094406019500094>.
- Ribeiro, C.P.P. & Zuccolotto, R. (2012). Fatores Determinantes da Transparência na Gestão Pública dos Municípios Brasileiros. In: Encontro Nacional de Administração Pública e Governo - EnAPG, 2012, Salvador - BA. EnAPG - Encontro Nacional de Administração Pública e Governo, p. 1-16.
- Sasso, M. & Varela, P. S. (2020). Doze anos de convergência das normas brasileiras às IPSAS: avanços e limites das pesquisas. *Revista Fipecafi de Contabilidade, Controladoria e Finanças*, 1(1), 78-102.
- Schmidhuber, L., Hilgers, D. & Hofmann, S. (2020). International Public Sector Accounting Standards (IPSASs): a systematic literature review and future research agenda. *Financial Accountability & Management*, 1-24. <https://doi.org/10.1111/faam.12265>
- Sedyama, G. A. S., Aquino, A. C. B., Lopes, G. B. (2017). A difusão das mudanças na contabilidade pública em municípios. *Revista Contabilidade Vista e Revista*, 28(2), 78-100.
- Silva, W. A. O. & Bruni, A. L. (2019). Variáveis socioeconômicas determinantes para a transparência pública passiva nos municípios brasileiros. *Revista de Administração Pública*, 52(2), 415-431.

Silva, M. C., Nascimento, J. C. H. B., Silva, J. D. & Siqueira, J. R. M. (2019). Determinantes da transparência municipal: uma análise empírica com municípios brasileiros. *Revista globalizacion, competitividad y gobernabilidad*, 87-100.

Silva, N. P., Mazzioni, S. & Vargas, L. A. (2020). Qualidade da informação contábil: uma análise das empresas de utilidade pública listadas na B3. *Brazilian Journal of Quantitative Methods Applied to Accounting*, 7(1), 61-76.

Silva, J. D., Costa, W. P. L. B., Costa, S. V. S. & Kronbauer, C. A. (2021). Efeitos da depreciação em ativos imobilizados que afetam a qualidade da informação contábil do setor público. *Revista de Administração, contabilidade e economia*, 12(2), 79-94.

Schnackenberg, A. K.; Tomlinson, E. C. (2016). Organizational Transparency: A New Perspective on Managing Trust in Organization-Stakeholder Relationships. *Journal of Management*, 42(7), 1784–1810.

Tesouro Nacional. (2022). Ranking de qualidade da informação contábil e fiscal no Siconfi. Disponível em: <<https://ranking-municipios.tesouro.gov.br/>>. Acesso em 20 de outubro.

Witt, C., Gmach, F., & Contesini, S. L. D. (2023). Influência da qualidade das informações contábeis na precisão orçamentária de entes federados. *Revista De Gestão E Secretariado*, 14(11), 20092–20104. <https://doi.org/10.7769/gesec.v14i11.3033>

Zuccolotto, R. & Teixeira, M. A. (2019). *Transparência: aspectos conceituais e avanços no contexto brasileiro*. Brasília, DF: Enap. 75p.

Zucker, L. G. (1987). Institutional Theories of Organization. *Annual Review of Sociology*, 13, 443-464.