ELECTRONIC GUIDE FOR THE PREPARATION AND VALIDATION OF COST SPREADSHEETS IN PUBLIC SERVICE CONTRACTS WITH EXCLUSIVE ON-SITE WORKFORCE ALLOCATION

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ABSTRACT

This study aimed to develop and validate an electronic guide for analyzing cost spreadsheets in public service contracts that require exclusive on-site workforce allocation. To design the guide, the authors conducted bibliographic and documentary research, in addition to reviewing academic databases and relevant legislation. The material—structured into six modules with automated calculations and corresponding legal references—was assessed by ten subject-matter experts, all public servants from Brazilian federal universities and Federal Institutes of Education, Science, and Technology (IFs), using a Content Validity Index (CVI) ≥ 0.80. All evaluated items reached the minimum threshold or higher, with an overall mean above 0.93. The study also adopted an applied methodology with an exploratory purpose and a qualitative approach, using a five-point Likert scale applied to semi-structured questionnaires to quantify and standardize perceptions and attitudes, as well as the Delphi technique to consolidate expert consensus on critical aspects. Among the participating institutions, the tool showed excellent acceptance in terms of content, layout, and functionality, achieving unanimous approval in the functional dimension (CVI = 1.00). The study concluded that the instrument is valid and contributes both to standardizing cost-spreadsheet analyses and to enhancing efficiency and legal certainty in public procurement—hence the recommendation that it be applied and adapted to different contexts within public administration.

Keywords: contract management; cost spreadsheet; instrument validation; public administration; outsourcing; electronic guide.

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1 INTRODUCTION

The modernization of Brazilian public procurement reached a new stage with the enactment of Law No. 14,133 of April 1, 2021, which replaced the former Law No. 8,666 of June 21, 1993, consolidating a regulatory framework aimed at efficiency, transparency, and digital governance in government contracting (Almeida, 2022). However, as noted by Barbosa et al. (2024) and the Institute for Applied Economic Research (Ipea) (Brazil, 2024a), merely updating the legal framework does not resolve the practical challenges involved in analyzing cost spreadsheets and processing contractual price adjustments—historically sensitive aspects of public management.

Normative Instruction 5 of the Secretariat of Management (Seges) of the Ministry of Planning, Development, and Management (MPDG), issued on May 26, 2017, establishes the guidelines for contracting services with exclusive workforce allocation and defines the cost spreadsheet model to be used in bids and contractual price adjustments (Brazil, 2017).

The Court of Accounts of the State of Santa Catarina (TCESC) (Santa Catarina, 2023) points out, however, that shortcomings in the application of these guidelines contribute to the precariousness of approximately 35% of outsourced employment relationships in the state. In this context, the development of digital tools that enhance standardization and technical reliability in the analyses related to these contracts becomes essential (Souza, 2023).

International experience supports this need. According to the Organisation for Economic Co-operation and Development (OECD) (2023) and Hlacs and Wells (2025), countries that have adopted electronic systems for managing and auditing public contracts have reduced inconsistencies in price review procedures by up to 35%. These outcomes reflect a broader trend toward digitalization and automated accountability in public administration, where technology is viewed as an instrument for mitigating risks and reinforcing transparency (Bovens, 2007; Lodge; Mennicken, 2020).

The present study proposed the development and validation of an electronic guide aimed at the analysis of cost spreadsheets in public service contracts with exclusive dedication of labor, integrating legal foundations, automated calculations, and normative guidelines into a single tool.

This tool aims to contribute to standardized analyses, reduce inconsistencies, and strengthen contractual governance, aligning with international best practices in digital public management and the ongoing pursuit of greater efficiency and legal certainty in government contracting.

2 LITERATURE REVIEW

Public administration, as a mechanism for fulfilling collective interests, faces complex challenges in contracting the goods and services needed to carry out its functions. As highlighted by Cruz and Souza (2023) and Toledo, Ávila, and Camargo (2024), it is an activity

that demands a balance between administrative efficiency and strict compliance with legal requirements, especially following the enactment of Law No. 14,133/2021, which modernized the legal regime governing public procurement and administrative contracts in Brazil. This legislation, consistent with the constitutional principles set forth in Article 37 of the 1988 Federal Constitution, established standards that better align with contemporary public management demands, placing emphasis on transparency, digital governance, and efficiency in contracting procedures (Brazil, 2021; Lacerda; Beltrão, 2025).

The distinctive nature of administrative contracts, as explained by Tonelotto, Crozatti, and Righetto (2020), differs substantially from private-sector relationships due to the constant primacy of the public interest over private aims. This asymmetry justifies the need for prior procurement procedures and the application of special rules governing contract performance and oversight. In this context, service contracts with exclusive workforce allocation constitute a particularly sensitive category, as they involve complex labor obligations and require rigorous oversight by the public administration (Brazil, 2023b).

Seges/MPDG Normative Instruction 5/2017 emerged as an important regulatory framework for this type of contracting, setting forth clear guidelines on cost composition and performance requirements. As noted by TCU specialists (Brazil, 2024c), the cost spreadsheet model in Annex VII-D of Seges/MPDG Normative Instruction 5/2017 has become a key tool for ensuring transparency and economic-financial balance, and it must accurately reflect all labor, tax, and operational components involved in the service delivery.

An Ipea survey (Brazil, 2024a) involving 200 public bodies revealed that only 28% possess adequate systems for monitoring contractual price adjustments—a scenario that helps explain the high levels of litigation identified by the National Council of Justice (CNJ) (Brazil, 2023a).

Against this backdrop, continuous training for contract managers and the adoption of technological tools that support spreadsheet analysis and contract oversight become imperative. As proposed by Toledo, Ávila and Camargo (2024), integrating management systems, labor data repositories, and predictive models may represent a significant step forward in preventing irregularities.

Under this perspective, strategies that reinforce transparency are essential for improving compliance and, consequently, for modernizing public management (Hochstetter *et al*., 2023). Accordingly, the pillars of transparency intersect with contract auditing and digital accountability, strengthening trust in contract management. As demonstrated by Xu, Li, and Joshi (2022), the use of blockchain-based tools reduces the risks of distortions and opportunistic practices—obstacles that are also present in cost analysis for administrative contracts.

Furthermore, Tian *et al*. (2025) emphasize that traceability and institutional accountability can be ensured, within the context of public auditing, through smart contracts capable of preventing fraud in verification processes. In line with this, the electronic guide proposed in this study represents a practical application of the principles of digital governance, consistent with international recommendations that endorse the use of technology to enhance efficiency and transparency in public procurement.

Therefore, the development of specialized electronic guides aligns with international best practices and the concrete needs of contemporary Brazilian public administration. Moreover, such tools allow for real-time information analysis, contributing to the mitigation of irregularities and the strengthening of digital accountability (Bovens, 2007; OECD, 2023). As concluded by Tonelotto, Crozatti, and Righetto (2020), the combination of technical training, adequate tools, and digital governance is essential to overcoming the long-standing challenges of public contracting in Brazil.

3 METHODOLOGY

This study was conducted using an applied research methodology with an exploratory purpose and a qualitative approach, combining bibliographic and documentary research to enable a broad and in-depth investigation of the topic. The exploratory nature of the study offered flexibility to adjust the investigative path according to findings that emerged throughout the process, allowing a dynamic response to the challenges and complexities inherent to the subject under analysis.

To develop the guide, the bibliographic stage included a systematic literature review on the topic, drawing on peer-reviewed journal articles, theses, dissertations, and specialized books available in established academic databases such as the Capes Portal, Google Scholar, and SciELO. The selection criteria prioritized relevance, recency, and scientific rigor, with particular attention to peer-reviewed publications. Search terms included descriptors such as “cost spreadsheet,” “contractual repricing,” “outsourced public services,” and “administrative contract management,” strategically combined to refine the results.

Documentary research complemented the investigation by gathering primary sources from official government portals, such as the Federal Procurement Portal. Documents analyzed included laws, decrees, court decisions, and normative instructions, which provided raw, non-interpreted data to enrich the analysis with information directly from the source. This approach helped reduce potential bias stemming from prior interpretations, thereby improving the reliability of the findings.

The qualitative dimension guided the interpretation of collected data, favoring a contextualized and critical analysis. To increase the reliability of the conclusions, the study adopted the Delphi technique, engaging specialists in public contracts in two rounds of discussion to consolidate consensus on the most relevant points identified. In addition, a five-point Likert scale was applied in semi-structured questionnaires to quantify and standardize perceptions and attitudes. All sources consulted were organized and cataloged using reference-management software to ensure traceability and facilitate data verification.

3.1 Cost Spreadsheet and Price Formation

The structure of the spreadsheet was developed based on the legal requirements established in Normative Instruction Seges/MPDG 5/2017, covering labor, social security, and tax-related

aspects, as well as provisions contained in collective bargaining agreements. Its primary purpose is to support the assessment of proposals submitted by bidders during the selection process and to assist in contractual repricing procedures, enabling a detailed evaluation of cost components and serving as a reference for estimating budget forecasts (Brazil, 2017). The total cost per employee is obtained by summing the six modules that make up the spreadsheet, as detailed below.

To support visualization of the structure and components of each module, Table 1 summarizes the elements included in the cost spreadsheet.

Table 1 – Structure of the Cost Spreadsheet

Module	Description	Main Components
Module 1	Basic remuneration	Base salary; hazard, hardship, overtime, and night-shift premiums; other supplements established by law or collective agreement
Module 2	Mandatory charges and benefits	Social security contributions (INSS), FGTS, 13th-month salary, vacation pay, transportation assistance, health insurance, life insurance
Module 3	Labor-related provisions	Notice period (worked or indemnified), FGTS incidence, and severance-related penalties
Module 4	Substitution costs	Coverage for employee absences (vacation, maternity/paternity leave, medical leave)
Module 5	Equipment and materials	Uniforms, PPE, tools, and supplies required for service execution
Module 6	Contractor's operating margin	Profit, taxes (federal, state, and municipal), indirect costs (administrative and managerial)

Source: elaborated by the authors (2021).

The total monthly cost of the service is determined by summing the six modules applied to each employee, while the total proposal value consolidates all positions and workstations included in the contract. This structure aims to ensure transparency in price formation, in alignment with the requirements of Law No. 14,133/2021, and to facilitate the identification of potential distortions in the values presented by bidders (Brazil, 2021; Pereira Junior, 2024).

3.2 Development of the Online Guide

Drawing on information from the literature and documentary research, and following the analytical and investigative review of scholarly works and applicable legislation, a pilot version of the online guide for analyzing cost worksheets and pricing structures was prepared.

The pilot version of the online guide was developed in Microsoft Excel 2016, following the model worksheet set out in Normative Instruction Seges/MPDG No. 5/2017 For each of the tool's six modules, a dedicated screen was created containing the items that make up the respective module.

The tool performs two primary functions. The first is to provide users with information on each item included in the cost worksheet—such as definitions, legal basis, calculation methodology, calculation base, and mathematical formula—accessible by selecting the desired option. The second is to enable users to fill out the worksheet with the figures submitted in the contractor's proposal and verify their accuracy through automated calculations. After each screen is completed, the tool offers a button to save a copy of the filled worksheet in ".xlsx" format (Microsoft Excel) and another to clear all data entered, making the cells available for a new analysis.

In addition to the item-specific information, the online guide provides instructions and criteria for adjusting contracts for services with dedicated labor. The introductory screen notes that the guide does not cover every possible contracting scenario and that each case must be assessed individually by the user.

3.3 Validation of the Online Guide

After the guide was drafted, validation was conducted by subject-matter experts with the goal of assessing and refining the tool. To select the reviewers, the minimum requirement established was at least 12 months of experience analyzing cost worksheets and pricing structures. The group of experts consisted of public servants from federal universities and federal institutes.

For the validation stage, the Free and Informed Consent Form (TCLE) and the Guide Evaluation Questionnaire were prepared. Both were made available online and created using the Google Forms platform.

Invitations to participate in the study were emailed to the contract-management units identified on the selected institutions' online portals, based on targeted internet searches. The invitation included the pilot version of the online guide, the links to the consent form and evaluation questionnaire, and instructions on how to use the tool. Ten participants responded. To ensure confidentiality and privacy, the reviewers were identified with the letter "J" followed by a sequential number from 1 to 10.

The evaluation questionnaire was divided into three categories to validate the guide's consistency: *i)* content; *ii)* layout; and *iii)* functionality. The content category assessed the accuracy of the information vis-à-vis legislation and regulations, the coherence of how the content was presented, and its organization. The layout category covered the arrangement of graphic elements, ease of access to information, and clarity. The functionality category examined the tool's usefulness—whether it supported learning, whether it assisted with cost and pricing analyses, and whether it was effective in doing so.

As shown in Table 2, each of the six worksheet modules and the guide as a whole were evaluated across the three categories, totaling 21 questions. At the end of each category, an open field allowed reviewers to justify their answers or provide comments or suggestions regarding the guide.

Table 2 – Items Evaluated by the Reviewers

1	Module 1	Compensation structure
2	Module 2	Charges and benefits
3	Module 3	Termination provisions
4	Module 4	Replacement cost for absent personnel
5	Module 5	Miscellaneous inputs
6	Module 6	Indirect costs, taxes, and profit
7	Online guide as a whole	

Source: elaborated by the authors (2021).

A five-point Likert scale was used to rate each item, assigning scores from 1 to 5 according to the level of agreement or disagreement with each category, as follows: 1 – Strongly disagree; 2 – Partially disagree; 3 – Undecided; 4 – Partially agree; and 5 – Strongly agree.

According to Pasquali (1996, as cited in Stein *et al*., 2005), this scale—whose core characteristic is the respondent's judgment of a given statement by choosing one among predefined alternatives—is the most commonly used in assessments of attitudes, opinions, and evaluations.

After the data collection instrument was prepared, validation by the expert group began. This stage employed the Delphi technique, which seeks to obtain consensus on a specific subject. It is based on structured, anonymous rounds of questionnaires. The literature does not define a required number of experts to be consulted (Scarparo *et al*., 2012).

As Rozados (2015, p. 1. Our translation) explains, "the adoption of the Delphi technique allows for a broader, more comprehensive, and more meaningful approach, both geographically and

in the range of ideas and expertise captured". In this study, the experts confirmed that the proposed items were aligned with the parameters defined in each category.

Once the technique was applied, the collected data were tabulated and the Content Validity Index (CVI) was calculated to assess each item individually. The score is obtained by summing the number of "4 – Partially agree" and "5 – Strongly agree" ratings for each item and dividing it by the total number of responses, according to the equation below (Alexandre; Coluci, 2011. Our translation):

$$CVI = (\text{Number of responses 4 or 5 per item}) / (\text{Total responses per item}) \quad (1)$$

According to Alexandre and Coluci (2011), the CVI expresses the proportion—or percentage—of reviewers who agree with specific characteristics of the tool and its items. Items with CVI ≥ 0.80 are recommended for retention. Thus, for items with ratings of 4 or 5 resulting in CVI ≥ 0.8, the decision is to keep them. For items with CVI < 0.8, a new review round is required, considering the reviewers' justifications. Up to four rounds may be conducted; if consensus is not reached by then, it becomes unlikely that it will be achieved, and the item should be excluded (Scarparo *et al*., 2012).

These parameters were followed in the present study. Items with CVI ≥ 0.8 were kept without changes. Items with CVI < 0.8 were revised according to the reviewers' recommendations and resubmitted for another evaluation round, up to a maximum of four rounds. If no consensus was reached by the final round, the item was excluded.

Alexandre and Coluci (2011) note that one way to evaluate the tool as a whole is to calculate the average CVI for all individually assessed items—that is, by summing all CVIs and dividing by the number of categories analyzed, as shown below:

$$\text{Average CVI} = (\sum \text{CVI of categories per item}) / (\text{Number of categories}) \quad (2)$$

Therefore, to assess the tool overall, the average CVI per item was used, covering the three analyzed categories. To confirm the validity of the tool as a whole, the minimum threshold adopted was an average CVI of 0.80.

4 RESULTS AND DISCUSSION

The validation process of the electronic guide for analyzing cost spreadsheets in public service contracts involving exclusive workforce allocation included the participation of ten specialists with proven experience in the field, as shown in Table 3. The evaluators' profile reveals a qualified and diverse sample, with experience ranging from 12 to 120 months, distributed across different regions of the country and types of federal institutions, which strengthens the robustness of the results obtained (Fleiss, 2011).

Table 3 – Experience (months) of the experts responsible for validating the electronic guide

Evaluator	Experience (months)
J1	36
J2	18
J3	22
J4	120
J5	18
J6	36
J7	24
J8	12
J9	48
J10	24

Source: elaborated by the authors (2021).

The geographic and institutional diversity of the evaluators, as shown in Table 4, ensured that the assessments considered different perspectives and realities of Brazilian public administration. According to Gil (2022), this is a key factor in validating an instrument intended for nationwide use. The predominance of specialists affiliated with federal universities (90%) reflects the technical–academic nature of the evaluation, while the participation of a representative from a federal institute (10%) brings the perspective of technological education institutions.

Table 4 – Distribution of evaluators by region and type of institution

Region	Number of evaluators from universities	Number of evaluators from federal institutes
Central-West	3	-
Northeast	3	-
North	-	-
Southeast	2	1
South	1	-
Total	9	1

Source: elaborated by the authors (2021).

The validation results, presented in Tables 1 to 3, show excellent acceptance of the electronic guide across all evaluated dimensions. In the category "Content" (Table 1), items related to legal adequacy and completeness of information achieved the maximum CVI (1.00), confirming that the instrument fully meets the regulatory requirements established by Normative Instruction Seges/MPDG No. 5/2017 (Brazil, 2017). Items 3 and 4, with CVI scores of 0.80, suggest minor adjustments to the explanations regarding labor charges, as already recommended by experts in administrative labor law (Brazil, 2023b).

Table 1 – Content evaluation of the electronic guide

Category Content											
Item	**J1**	**J2**	**J3**	**J4**	**J5**	**J6**	**J7**	**J8**	**J9**	**J10**	**CVI**
1	5	5	5	4	5	5	5	5	5	5	1,00
2	5	5	4	4	5	5	4	5	5	5	1,00
3	5	5	3	4	2	5	5	5	5	5	0,80
4	5	5	4	3	2	5	5	5	5	5	0,80
5	5	5	5	4	5	5	4	5	5	5	1,00
6	5	5	5	5	5	5	5	5	5	5	1,00
7	5	5	4	5	5	5	4	5	5	5	1,00

Source: elaborated by the authors (2021).

The layout assessment (Table 2) also yielded highly positive results: only one item received a CVI of 0.90 (visual organization); the others reached the maximum value. These findings support recent studies by the Brazilian Association of Private Water and Wastewater Utilities (Abcon Sindicon) on the design of tools for public management, which highlight the importance of visual clarity for the effectiveness of technical instruments (Abcon Sindicon, 2023b). The mode and median both being 5 across all items (Table 5) reinforce the strong acceptance of the proposed interface.

Table 2 – Layout evaluation of the electronic guide

Layout Category											
Item	**J1**	**J2**	**J3**	**J4**	**J5**	**J6**	**J7**	**J8**	**J9**	**J10**	**CVI**
1	5	5	4	4	5	5	2	5	5	5	0,90
2	5	5	4	4	5	5	4	5	5	5	1,00
3	5	5	5	4	5	5	4	5	5	5	1,00

Layout Category											
4	5	5	4	4	5	5	4	5	5	5	1,00
5	5	5	5	4	5	5	4	5	5	5	1,00
6	5	5	5	4	5	5	4	5	5	5	1,00
7	5	5	4	4	5	5	4	5	5	5	1,00

Source: elaborated by the authors (2021).

Regarding functionality (Table 3), the results were particularly noteworthy: only one item showed a CVI of 0.90 (navigability), while the others achieved full agreement. This exceptional performance confirms the guide's effectiveness as a support tool for cost spreadsheet analysis—an essential aspect considering the challenges faced by public managers when supervising contracts (Brazil, 2021, 2023b). The predominance of "Strongly agree" responses (Table 6) further reinforces the instrument's practical usefulness.

Table 3 – Functionality evaluation of the electronic guide

Functionality Category											
Item	**J1**	**J2**	**J3**	**J4**	**J5**	**J6**	**J7**	**J8**	**J9**	**J10**	**CVI**
1	5	5	5	5	5	5	4	5	5	5	1,00
2	5	5	4	5	5	5	2	5	5	5	0,90
3	5	5	4	5	5	5	4	5	5	5	1,00
4	5	5	4	5	5	5	4	5	5	5	1,00
5	5	5	5	5	5	5	4	5	4	5	1,00
6	5	5	4	5	5	5	4	5	5	5	1,00
7	5	5	4	5	5	5	4	5	5	5	1,00

Source: elaborated by the authors (2021).

The consolidated analysis (Table 4) revealed an overall CVI average of 0.97, significantly above the minimum recommended value of 0.80 (Souza; Alexandre; Guirardello, 2017). This result confirms the guide's validity as a tool for analyzing cost spreadsheets, especially given that item 7 (overall assessment) received unanimous agreement (CVI = 1.00). The consistency of the evaluations is evident in the mode and median values, which remained at the maximum level (5) for all items.

Table 4 – Average CVI by category and item

Item	CVI Content	CVI Layout	CVI Functionality	CVI Average
1	1.00	0,90	1,00	0,97
2	1.00	1,00	0,90	0,97
3	0.80	1,00	1,00	0,93
4	0.80	1,00	1,00	0,93
5	1.00	1,00	1,00	1,00
6	1.00	1,00	1,00	1,00
7	1.00	1,00	1,00	1,00
Average overall	**0.94**	**0,99**	**0,99**	**0,97**

Source: elaborated by the authors (2021).

In Table 5, which assesses content, the numbers speak for themselves: in all items, more than 70% of the specialists marked “Strongly agree” (score 5). Item 6 reached unanimity—all ten evaluators fully agreed with its adequacy. Even in the items that received lower assessments (2, 3, and 4), the proportion of “Strongly agree” responses still reached 70%, an extremely positive indicator. The consistently maximum mode and median (5.00) reinforce this positive perception.

Table 5 – Absolute and relative frequencies, mode, and median for the Content category

Category Content							
Item	**1 – Strongly disagree**	**2 – Partially disagree**	**3 – Undecided**	**4 – Partially agree**	**5 – Strongly agree**	**Mode**	**Median**
1	-	-	-	1 (10%)	9 (90%)	5,00	5,00
2	-	-	-	3 (30%)	7 (70%)	5,00	5,00
3	-	1 (10%)	1 (10%)	1 (10%)	7 (70%)	5,00	5,00
4	-	1 (10%)	1 (10%)	1(10%)	7 (70%)	5,00	5,00
5	-	-	-	2 (20%)	8 (80%)	5,00	5,00
6	-	-	-	-	10 (100%)	5,00	5,00

Category Content							
7	-	-	-	2 (20%)	8 (80%)	5,00	5,00

Source: elaborated by the authors (2021).

The visual organization of the guide was also widely validated, as shown in Table 6. Although item 1 (organization of elements) had the lowest CVI (0.90), 70% of evaluators still fully agreed with its adequacy. The remaining items achieved the highest possible score (CVI 1.00), especially "information hierarchy" (item 2) and "clarity of presentation" (items 3 to 7), which received the maximum score from 70% to 80% of evaluators. These results suggest that the proposed interface successfully balanced informational density and visual clarity—a recurring challenge in the development of technical tools for public management (Abcon Sindicon, 2023b).

Table 6 – Absolute and relative frequencies, mode, and median for the Layout category

Layout Category							
Item	**1 – Strongly disagree**	**2 – Partially disagree**	**3 – Undecided**	**4 – Partially agree**	**5 – Strongly agree**	**Mode**	**Median**
1	-	1 (10%)	-	2 (20%)	7 (70%)	5,00	5,00
2	-	-	-	3 (30%)	7 (70%)	5,00	5,00
3	-	-	-	2 (20%)	8 (80%)	5,00	5,00
4	-	-	-	3 (30%)	7 (70%)	5,00	5,00
5	-	-	-	2 (20%)	8 (80%)	5,00	5,00
6	-	-	-	2 (20%)	8 (80%)	5,00	5,00
7	-	-	-	3 (30%)	7 (70%)	5,00	5,00

Source: elaborated by the authors (2021).

The most expressive results appear in the evaluation of the guide's practical usefulness (Table 7). Item 1 (usability) received 90% "Strongly agree," and the remaining items showed at least 80% in this category. Navigability (item 2), the aspect with the lowest score (CVI 0.90), was still considered adequate by 80% of specialists. This consistency in positive evaluations is particularly relevant considering that, in practice, a theoretically robust guide would be of little use if it did not function effectively for managers—an issue widely documented in studies on technology adoption in the public sector (Brazil, 2024a).

Table 7 – Absolute and relative frequencies, mode, and median for the Functionality category

Functionality category							
Item	**1 – Strongly disagree**	**2 – Partially disagree**	**3 – Undecided**	**4 – Partially agree**	**5 – Strongly agree**	**Mode**	**Median**
1	-	-	-	1 (10%)	9 (90%)	5,00	5,00
2	-	1 (10%)	-	1 (10%)	8 (80%)	5,00	5,00
3	-	-	-	2 (20%)	8 (80%)	5,00	5,00
4	-	-	-	2 (20%)	8 (80%)	5,00	5,00
5	-	-	-	2 (20%)	8 (80%)	5,00	5,00
6	-	-	-	2 (20%)	8 (80%)	5,00	5,00
7	-	-	-	2 (20%)	8 (80%)	5,00	5,00

Source: elaborated by the authors (2021).

The validation results highlight critical aspects for contract management in contemporary public administration. With an overall CVI average of 0.97—exceeding the minimum recommended threshold by 21.25% (Yusoff, 2019)—the instrument demonstrates not only technical validity but also strong potential as a decision-support tool. This performance gains particular relevance within the current landscape of public management modernization, marked by the implementation of Law No. 14,133/2021 and the increasing digitalization of administrative processes (Abcon Sindicon, 2023a).

The dimension-specific analysis reveals notable patterns. While Content achieved an average CVI of 0.94, Layout and Functionality reached 0.99 each. This small difference suggests that specialists identified room for improvement in conceptual and regulatory aspects, particularly those related to the explanation of labor charges (items 3 and 4 in Table 1). This finding aligns with recent studies on contract oversight, which point to the complexity of labor legislation as one of the main challenges for public managers (Barbosa *et al.*, 2024). Still, the predominance of "Strongly agree" responses (90% in item 1 of Table 4) regarding legal adequacy confirms that the guide satisfactorily meets the regulatory requirements of Normative Instruction Seges/MPDG No. 5/2017.

The standardization promoted by the guide is especially valuable in a federative system such as Brazil's, where different agencies and regions often adopt divergent criteria for similar analyses. Standardization also enables real-time data correlation, contributing to the prevention of irregularities and the strengthening of digital accountability (Bovens, 2007; OECD, 2023).

Documented experiences by Hlacs and Wells (2025) show that cost-analysis support platforms integrated into management systems can reduce inconsistencies in public contract audits by up to 25%. The standardized guide also reinforces governance and integrity mechanisms, aligning with digital accountability guidelines and international best practices (Lodge; Mennicken, 2020).

As Lima and Gioielli (2022) note, in an environment characterized by increasing demands for transparency and efficiency, scientifically validated tools help streamline processes while safeguarding both the interests of public managers and the rights of outsourced workers.

5 FINAL CONSIDERATIONS

This study showed, through a rigorous expert validation process, that the electronic guide developed is a reliable tool with the potential to significantly improve contract management in public administration. After the preparation and validation phases, it became clear that the instrument enables analyses in line with established doctrine and applicable legal references, providing public servants with the necessary foundation to understand the rules and techniques involved in evaluating contractual costs and repricing procedures in contracts with exclusive workforce allocation.

Based on the data from the specialist validation panel, the study concludes that the electronic guide demonstrates appropriate content validity, clarity, and relevance, in addition to showing strong potential to support learning on the subject. The tool contributes to standardizing the analysis of cost spreadsheets and repricing procedures, positioning itself as a relevant support resource for public servants engaged in this activity.

Furthermore, the data indicate significant potential to transform an activity currently marked by work overload, legal risks, and predominantly manual analysis into a more agile and secure process. Finally, it is important to emphasize that the electronic guide is an auxiliary tool for analyzing outsourced service costs. For it to be effectively used, adequate training of the public servants involved remains essential.

In addition to supporting the contracting authority, the electronic guide has important practical implications for internal and external oversight bodies, such as the Brazilian Federal Court of Accounts (TCU), the Office of the Comptroller General (CGU), and local comptroller's offices. Both its modular structure and the standardization of calculations that it enables may serve as a basis for automated audits and real-time data cross-checking, contributing to preventing irregularities and strengthening digital accountability. Incorporating tools of this nature into control systems may also reduce review times and increase the traceability of administrative decisions, enhancing the effectiveness of concomitant oversight and active transparency. In short, the guide not only improves operational efficiency but also reinforces governance and integrity mechanisms, aligning with digital accountability guidelines and international best practices.

Despite the relevance of the results obtained, it is important to recognize certain limitations of the study. The validation relied on a small group of specialists from federal institutions, which restricts the generalization of the findings. It is recommended that the guide be applied in agencies across different levels of government to assess its adaptability to municipal, state, and autonomous administration contexts, as well as to different procurement modes, in order to measure its concrete effects on reducing labor-related litigation—an essential factor for the effective modernization of public management.

Longitudinal studies are also recommended to measure the impact of the tool in real audit settings, especially regarding the reduction of errors and the increased efficiency of analyses. Future research may also explore integrating the guide with digital auditing systems and artificial intelligence, as documented in international experiences (OECD, 2023; Hlacs; Wells, 2025), thereby strengthening preventive oversight and evidence-based management.

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