Synergy between Innovation, Governance and Accounting in Public Stock Management: Guidelines for Sustainable Practice

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Abstract: This study examines the integration between governance practices, accounting information, and public stock management in the context of the COVID-19 pandemic, focusing on sustainable decision-making in a Brazilian public health institution. Efficient stock management in public health is critical for ensuring resource availability, cost control, and service continuity, especially during crises. Conducted as a qualitative descriptive case study at the Oswaldo Cruz Foundation (Fiocruz), the research involved semi-structured interviews with 14 stock management experts. While existing literature explores governance and accounting separately, few studies analyze their intersection with stock management in public health emergencies, leaving a gap this work seeks to address Data analysis, based on content analysis, identified three core dimensions: accounting instruments, knowledge dissemination, and governance perception. The findings reveal significant challenges, including the lack of standardized information systems, limited formal training, and weak interaction between accounting and stock management areas, which hinder the strategic use of accounting information. Despite collaborative practices and adaptive governance during the crisis, the absence of systemic integration undermines operational efficiency and transparency. The study proposes guidelines to strengthen intersectoral cooperation, enhance technical capacity, and implement digital tools, including a managerial dashboard for stock control. By aligning governance, accounting, and stock management, the proposed framework supports innovation, optimizes resources, and promotes sustainable practices in public administration. This research is limited by its single-case design and reliance on expert perceptions, suggesting the need for broader studies in diverse institutional contexts.
Keywords: sustainability; governance; stocks; accounting.

1. Introduction

In January 2020, the World Health Organization (WHO) declared a Public Health Emergency of International Concern due to the spread of the novel coronavirus (SARS-CoV-2) [1]. Shortly thereafter, the Brazilian Ministry of Health declared a public health emergency of national concern, and in March, the WHO officially declared COVID-19 a pandemic. This event triggered an unprecedented health crisis, the impacts of which went beyond the health field, significantly affecting economic, social, and environmental dimensions [2,3].

In this context, public and private institutions were forced to adopt emergency decisions, often under conditions of high uncertainty, reviewing governance mechanisms to ensure more agile, coordinated, and transparent responses. The literature indicates that crisis situations require the adoption of adaptive governance practices, characterized by rapid response capacity, flexibility, and intersectoral cooperation [4,5], to mitigate risks, preserve the continuity of essential services, and reduce the social and economic damage resulting from the emergency.

Decision-making based on agile and accurate information has become a strategic element, especially in contexts of digital transformation. In this scenario, the Oswaldo Cruz Foundation/Fiocruz stood out for its leading role

in confronting the crisis, being recognized by the WHO as a reference for combating the novel coronavirus in the Americas. With a history of action in health emergencies, the institution mobilized strategic resources and stocks, aligning with guidelines that prioritize the integration of digital systems, data analysis and evidence-based decisions. In the context of the pandemic, the pressure for rapid deliveries has heightened the tension between timeliness and the effectiveness of control mechanisms.

Accounting information, recognized as a management support tool, is essential for optimizing inventory control and resource allocation. The integration of management accounting and supply chain management helps reduce risks and improve decision-making [5].

Based on this context, this work presents the results and conclusions of a case study in a public health institution, the governance practices applied to the management of consumer goods inventories during the pandemic, focusing on the use of accounting information by internal managers. Based on this context, this work presents the results and conclusions of a case study in a public health institution, the governance practices applied to the management of consumer goods inventories during the pandemic, focusing on the use of accounting information by internal managers.

2. Methodology

This is a descriptive, qualitative case study conducted at the Oswaldo Cruz Foundation/Fiocruz. The objective was to analyze managers' perceptions of knowledge dissemination as a governance tool, focusing on the use of accounting information for sustainable decision-making [8].

The sample included 14 managers specializing in public inventories, intentionally selected for their expertise. Data were collected through semi-structured online interviews, recorded and transcribed, following a script structured around six thematic areas: accounting integration, risk mitigation, accounting practices, interdisciplinary dialogue, training, and equity impact. The evaluation followed the principles of Content Analysis [9], with an inductive approach and supported by Atlas.ti 22 software. Categories were defined based on the interview script, consolidated into three dimensions: (a) accounting instruments; (b) knowledge dissemination; (c) perception of governance.

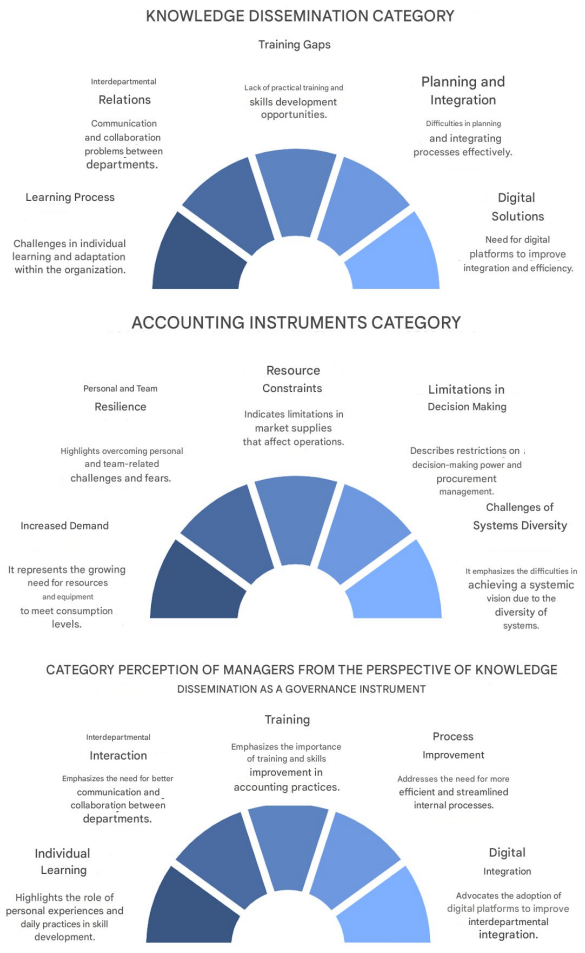
The project was approved by the Ethics Committee (Opinions No. 6,225,917 and 6,301,040), adhering to national and international guidelines for research involving human subjects.

3. Results and Discussion

3.1. Avaliação das categorias do estudo: Accounting Instruments Category, Knowledge Diffusion Category and Managers' Perception Category from the perspective of knowledge diffusion as a governance instrument.

The entire study was categorized into three categories, and the interviews culminated in key expressions that indicated the most expressive elements in the interviewees' statements, as can be seen in Figure 1, with information collected by Categories.

Figure 1 - Information collected by Categories



The case study demonstrated that asset control in organizations requires agile and accurate information for efficient inventory management, encouraging integration between functional areas and promoting institutional agility [10]. Through interviews with inventory managers, the use of accounting instruments in decision-making was analyzed, highlighting their relevance and benefits, especially in internal environments and challenging external situations, such as during the COVID-19 pandemic [7].

The institution studied has experience in scientific research and is well-equipped to deal with change. However, each moment challenges managers to address new challenges. Organizations seek to improve their performance, and knowledge management emerges as a fundamental strategy to achieve this goal. To this end, it is essential to identify where knowledge exists and is generated within organizations. The use of knowledge auditing, as explained by [11], guides the organization to manage "what is truly necessary." Discussing knowledge means establishing a dialogue between what is formal and what is informal, between what is available and what is "in the heads of individuals."

According to Terra (2001), knowledge management can be understood as the ability of organizations to utilize and integrate different sources and types of internal knowledge in order to develop competencies and boost innovation capacity. This process continuously results in the creation of new products, the improvement of processes, the implementation of more efficient management systems, and the consolidation of market leadership.

In the category Perception of managers from the perspective of knowledge dissemination as a governance instrument, the questions address topics related to control, risks, procedural changes, inter-agency dialogue, recognition of the importance of accounting information, the relevance of training, and the impact of inventory investments. Recording units such as training, controls, risks, learning, systems, and dissemination were captured. The context presented a difficult and challenging internal and external management environment, with the potential for this to occur at any time, present or future, as in the COVID-19 health emergency [7].

According to Oliveira and Malinowski (2016), accounting information systems consist of an integrated set of data whose objective is to organize, measure, report, and analyze information related to the economic events of organizations. They provide their users with the financial information necessary to control their organizations.

The interviews revealed that there is no single information system, which hinders a systemic view of the whole at the time of decision-making. The interviewees' statements did not identify the use of accounting information systems in the decision-making process. However, currently, a vision aligned with business trends is achieved in financial management through the analysis of financial statements, which are considered essential raw material for the preparation of analyses, opinions, and decision-making.[14] because "accounting, characterized by recording all of the corporation's transactions, constitutes a large database"[15].

The lack of standardization in the use of computerized systems for warehouse control significantly contributes to increased accounting errors, higher storage costs, greater difficulty in identifying operational failures, and limits the effectiveness of decision-making based on reliable data.

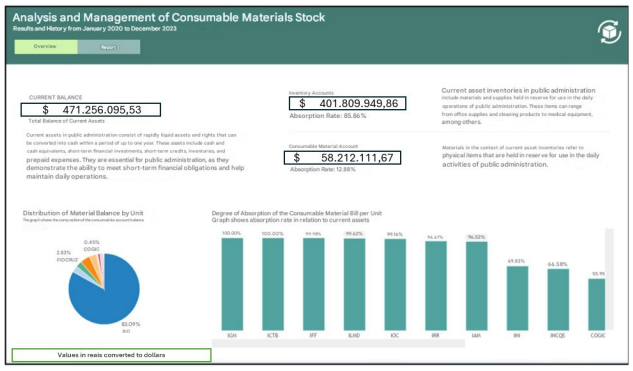
According to Taschner and Charifzadeh (2020), the governance structures of each organization or institution vary, with different effects on knowledge sharing, learning, and performance in their supply chains.

Based on the discussions, it was found that decisions are not based on accounting data during the decision-making process. Furthermore, a diversity of internal systems was identified, which makes it difficult to build a systemic view as a whole. Although they do not use accounting information regularly, they identify the absence of a cooperation network between the inventory and accounting areas. The individual learning process is a continuous journey, collaborative practice is also observed in the work environment, the sharing of experiences, in which tacit knowledge is disseminated collaboratively; a lack of training

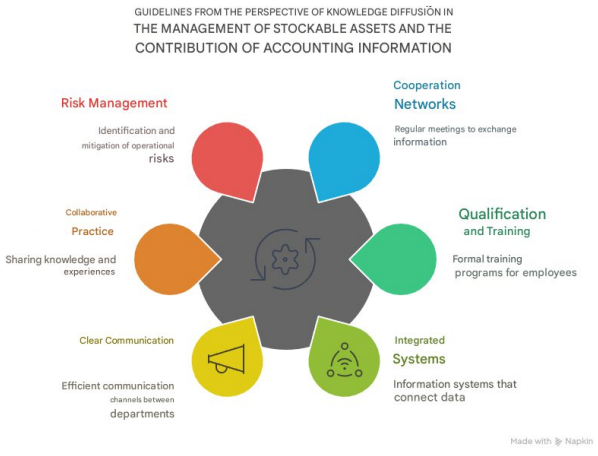
in accounting practice was noted, training was sometimes carried out in daily practice without formal training. There is no clarity regarding the dialogue between the inventory and c Regarding accountability, a dichotomy is noted among the interviewees, while some point out a distance between the inventory management area and the accounting part, while others have a good relationship, highlighting weaknesses in the interaction between the areas. There is no clear dissemination network, which can compromise the challenges faced by the Institution at national and international levels. Therefore, investing in strengthening the various cooperation and interaction networks among the partners that make up the management of storable assets within the Organization will contribute to business success, as the dissemination of knowledge between multidisciplinary areas inspires concern and the need for management attention.

Given the perception of inventory managers, efforts were mobilized to develop an inventory material dashboard, as shown in Figure 2.

Figure 2 - Consumable Material Management Dashboard



The analyses conducted highlighted the need to improve integration between the inventory and accounting sectors within public administration. In this regard, guidelines are proposed to foster synergistic action based on intersectoral cooperation, strengthened communication, the technical qualification of employees, and the strategic use of digital technologies, as shown in Figure 3. Suggested Guidelines.



3. Conclusion

The analysis revealed that the lack of effective integration between the inventory and accounting departments compromises the institution's systemic vision and hinders the strategic use of accounting information in decision-making. The lack of

standardization in internal systems, the scarcity of formal training, and the absence of clear communication channels reinforce the need for structured actions to promote intersectoral cooperation. Although collaborative practices and examples of resilience exist, especially during the pandemic, weaknesses persist that directly impact operational efficiency and the quality of institutional governance.

The results highlight the importance of investing in the creation and strengthening of permanent collaboration networks, combined with the use of digital technologies for data and process integration. These measures, combined with ongoing professional development, foster transparency, accountability, and innovation in the management of inventories. The proposed implementation of an inventory-focused accounting management dashboard represents a strategic tool to support data-driven decision-making, increase interaction between departments, and consolidate more robust and sustainable governance practices.

In this scenario, the establishment of collaborative networks and the systematization of knowledge not only strengthens public management but also drives academic progress and improves the quality of services provided to society. The implementation of a dashboard, featuring functions such as real-time monitoring of inventory and costs, emerges as a tangible step to overcome communication barriers between sectors. However, it is essential to acknowledge that adopting these measures will face challenges, including the need for technological investments and cultural shifts within teams. Future research could test the applicability of this model in other public administration contexts. By aligning governance, accounting, and inventory management, institutions not only optimize resources but also prepare to respond swiftly to future crises, ensuring sustainability and efficiency in an increasingly complex environment. The work consolidates itself as a practical and analytical reference, paving the way for future studies and the improvement of public management.

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