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THE MAIN CHALLENGES IN STANDARDIZING LOGISTICS PROCEDURES IN AN ORGANIZATION FROM THE AMAZON REGION

AS PRINCIPAIS DIFICULDADES DE PADRONIZAÇÃO DE PROCEDIMENTOS LOGÍSTICOS EM UMA ORGANIZAÇÃO AMAZONENSE

LAS PRINCIPALES DIFICULTADES PARA ESTANDARIZAR LOS PROCEDIMIENTOS LOGÍSTICOS EN UNA ORGANIZACIÓN DE LA REGIÓN AMAZÓNICA

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Abstract
Standardization represents an organizational effort to rationalize procedures to achieve efficiency, effectiveness, and productivity gains. This project aims to describe the formalization difficulties faced by an Amazonian organization in standardizing its logistics procedures. The survey method was used, with data collected through a semi-structured interview script with logistics professionals and the organization's managers, analyzed using semantic analysis techniques and organized in synthesis tables, with results generated from content analysis and interpreted comparatively with the theoretical reference framework prepared for the research. The results showed a) seven reasons for non-

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standardization, b) the difficulties for standardization are the high demand for activities, lack of physical space, low interest in investments and the need for trained employees, c) difficulties exist due to task overload, lack of interest from leadership and low complexity of activities; and d) the consequences of non-standardization are the direct compromise of the quality and performance of logistics procedures. The conclusion shows that the lack of formalization is not only due to technical limitations, but also to management's mistaken perception of the simplicity of processes, which results in a chronic lack of priority and investment in training and technology. The main contribution of the study to science is to demonstrate that the lack of standardization is not only a technical problem, but also a managerial and cultural phenomenon.
Keywords: Standardization; Logistics procedures; Standardization difficulties; Consequences of lack of standardization; Reasons for lack of standards.

Resumo

A padronização representa um esforço organizacional para racionalizar os seus procedimentos, de modo a alcançar eficiência, eficácia e ganhos de produtividade. Este projeto tem como objetivo descrever as dificuldades de formalização enfrentadas por uma organização amazonense na padronização de seus procedimentos logísticos. Foi utilizado o método de levantamento, cujos dados foram coletados por meio de um roteiro de entrevistas semiestruturadas junto aos profissionais de logística e às chefias da organização, analisados por meio de técnicas de análise semântica, organizados em tabelas sintetizadoras, com os resultados gerados a partir da análise de conteúdo e interpretados de forma comparativa em relação ao quadro teórico de referência elaborado para a pesquisa. Os resultados mostraram a) sete razões para a não padronização, b) as dificuldades para a padronização são a alta demanda de atividades, falta de espaço físico, baixo interesse em investimentos e a necessidades de funcionários capacitados, c) as dificuldades existem devido à sobrecarga de tarefas, falta de interesse da liderança e baixa complexidade das atividades; e d) as consequências da despadronização são o comprometimento direto da qualidade e do desempenho dos procedimentos logísticos. A conclusão mostra que a ausência de formalização não decorre apenas de limitações técnicas, mas também de uma percepção equivocada da gestão quanto à simplicidade dos processos, o que resulta em uma crônica falta de prioridade e de investimentos em capacitação e tecnologia. A principal contribuição do estudo para a ciência é demonstrar que a ausência de padronização não é apenas um problema técnico, mas também um fenômeno gerencial e cultural.

Palavras-chave: Padronização, Procedimentos logísticos, Dificuldades de padronização, Consequências da falta de padronização, Razões da falta de padrões.

Resumen

La estandarización representa un esfuerzo organizacional para optimizar sus procedimientos con el fin de lograr mayor eficiencia, efectividad y productividad. Este proyecto tiene como objetivo describir las dificultades que enfrenta una organización en la región amazónica al estandarizar sus procedimientos logísticos. Se utilizó el método de encuesta, con datos recopilados mediante una guía de entrevista semiestructurada aplicada a profesionales de logística y a la gerencia de la organización. Los datos se analizaron mediante técnicas de análisis semántico, se organizaron en tablas resumen y los resultados se obtuvieron mediante análisis de contenido, interpretándose comparativamente con el marco teórico desarrollado para la investigación. Los resultados mostraron: a) siete razones para la falta de estandarización; b) las dificultades para la estandarización radican en la alta demanda de actividades, la falta de espacio físico, el bajo interés en las inversiones y la necesidad de personal capacitado; c) las dificultades se deben a la sobrecarga de trabajo, la falta de interés del liderazgo y la baja complejidad de las actividades; y d) las consecuencias de la falta de estandarización son el compromiso directo de la calidad y el desempeño de los procedimientos logísticos. La conclusión muestra que la falta de formalización no solo se debe a limitaciones técnicas, sino también a una percepción errónea por parte de la dirección sobre la simplicidad de los procesos, lo que se traduce

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en una falta crónica de prioridad e inversión en formación y en tecnología. La principal contribución del estudio a la ciencia consiste en demostrar que la ausencia de estandarización no es solo un problema técnico, sino también un fenómeno gerencial y cultural.

Palabras clave: Estandarización, Procedimientos logísticos, Dificultades de estandarización, Consecuencias de la falta de estandarización, Razones de la falta de estándares.

1. Introduction

Standardization seems to be a phenomenon that marks two different stages of organizational evolution. The first refers to managerial professionalization, understood as the application of tools and procedures for the institutionalization of planning, organization, direction, and control processes (Brito et al., 2016; Silva et al., 2021; Almeida et al., 2022; Nascimento-e-Silva, 2016). Many times, they are executed with information and communication technology (ICT) support, such as ERP (enterprise resource planning), which integrates all organizational sectors (Rezende et al., 2023; Weiand et al., 2022), with the starting point being uniformity of procedures, indicators, and metrics, commonly known as registration. The second is the organization's effective entry into the competitive market universe, in which efforts converge to enable comparative parameters such as strengths and concurrent fractures, for example, but also to meet demand requirements. This means that registration is related to customer satisfaction, as can be seen in the studies by Kim and Kim (2025), Kang and Asnur (2025), and Hossain et al. (2025).

The registration therefore represents a qualitative leap in our organizational efforts dedicated to the continuous improvement of our procedures. The standardization effort implies the need to measure what is being done or what will be produced, to compare the result obtained with what is expected, or to configure the evaluation process. When an organization does not have its essential standardized procedures, it is natural to assume that continuous improvement is not a concern. However, for this to be empirically supported, it is necessary to have evidence that allows us to test this hypothesis. Thus, this study aims to reduce the formalization difficulties faced by an Amazonian organization in registering its logistical procedures. Specifically, it aims to: a) know why the company's logistical

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procedures are not formalized; b) identify the main difficulties encountered in formalizing these procedures; c) understand why these difficulties exist; and d) identify the consequences that the lack of registration has caused the company.

Two supporting forms for the elaboration of this research proposal. First, it is theoretical in nature, contributing to scientific knowledge by advancing explanations of the phenomenon of registration and presenting systematized empirical evidence of the reasons why an organization does not have its formally standardized procedures. The second justification is practical, as it aims to contribute to logistics professionals and entrepreneurs by developing a map of the harmful consequences of the lack of registration.

2. Literature Review

A literature review identified 17 types of registration approaches. This means that this is a complex and multidimensional phenomenon, which still lacks studies to advance the understanding of its internal logic and its forms of operationalization in the various fields of reality. The registration activity was the most frequently encountered approach (Tang; Bian, 2024; Zulkifli; Radiah, 2023; Dlamini; Olanrewaju, 2021; Wang, 2020; Hălălișan et al., 2020; Lubis et al., 2020). The term activity refers to something active, in action, with attitude, or in movement. Activity is any activity or task performed by a person, such as working, studying, or even moving. Registration is a specific type of activity because it is something that is repeated several times, with little or no variation; something standardized and, in a certain way, harmonized. The purpose of these standardized actions is precisely to establish a pre-established and formalized quality standard, as a standard operational procedure.

Process was the second most common registration approach (Perri et al., 2023; Woldeyohannes et al., 2023; Papamichael et al., 2023; Abbasov, 2022; Hadid et al., 2020). Process can be defined as a sequence of stages within a logical system to obtain a result. As an example, we can cite a bolus recipe, in which each

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year is divided into logical stages that culminate in the result: a bolus ready to be consumed. Standardization is a specific process because each stage requires a degree of uniformity; it cannot be altered. In this way, a standardized process is a strategic and systematized order.

Grau was a registration approach identified in the studies of Paredes et al. (2024), Tsoeu et al. (2023), and Gong et al. (2023) to designate a state that represents a level in relation to a progressively higher or lower series. This is the case, for example, of a company that can classify its products in conformity grades, such as A, B, and C, since each grade represents a level of care for established parents. In this sense, registration is a degree of systematic organization established in accordance with a defined norm. This level of organization follows a uniform and strategically structured line.

The thermostructure was another approach mapped by science, identified in the studies of Khanam (2021) and Mignacca et al. (2025). A structure, in terms of management and organization, is a complex formed by centralization, formalization, and complexity. Centralization means respect for the distribution of power in the organization or in one of its sectors; The formalization of the internal norms, rules and laws that formally discipline the procedures, explicitly, written and transmitted to the entire functional body; The complexity is relative to the number of subunits or subdivisions of the organization, whether it is concentrated (when there is only one physical installation) or deconcentrated (when there are two or many geographically spread units). Thus, the greater the number of norms, the distribution of power, and the complexity, the more structured the organization will be.

Implementation was another approach found (Jaswir et al., 2023; Damoiseaux, 2021), with semantic proximity with use (Rege et al., 2021). Both implementation and use require a second look at whether the standards only exist; in fact, they are implemented and put into use. The specifications and all the representative forms, as contained in plans and projects, cannot be considered standardization if they are not executed, because execution is what it is called. This is to say that patterning is the dynamic of using representative schemes in the

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making of something. It is not an abstraction disconnected from reality, but reality itself as it expresses the abstraction that guides the execution. Thus, there is no sense in a logical registration scheme that has not been executed or implemented.

Some of the other approaches found in the literature review only present a record, which indicates that there are still no studies. To extend how padronization was defined, one of them (Berrio et al. 2023), with reference to the level of padronization, identifies two levels of operation and production in a process. The study by Zhang et al. (2022) shows padronization as the identification of conformities and non-conformities; or, from Kehoe et al. (2022), we see how the changes are made in the way that the stages of the procedures are executed in a system, becoming more linear, simple, and harmonious. Patterns are defined as a set of rules, criteria, or delimitations that originate from regular observations or are formally instituted by an institution (Kajla et al. 2024). Mohamed's study (2023) explains padronization as a process of resizing; or, from Tsopra et al. (2021), it is considered a representation of how operating procedures are established and executed in an organization, with rules and process criteria established and followed. The system was also considered equivalent to registration in the study by Dhanwade et al. (2023) because it is a set of intellectually organized elements that are executed in an integrated and interdependent manner to achieve a specific purpose. Standardization is also addressed as a text (Pund et al., 2022), which details, in each manual, how to achieve conformity and avoid nonconformities in a process, as well as the transformation (Salman; Klein, 2021) of non-standardized and unified systems, processes and materials (Goel et al., 2023) the execution of processes, the use of resources and the measurement of objectives and goals.

These different ones found in the literature denote a previous stage of deregistration and another subsequent stage of registration. This passage, change, or transformation is not done without difficulties. The idea of difficulty is seen in three basic ways in the literature consulted. At first, it is like a gradation that begins at a lower level, temporarily evolves to increasingly higher levels until it reaches a maximum point. This is the idea of grading that is in the conception of the study by

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Giyanti and Oktaviyanthi (2025), relative to the skill level of two students in correctly solving certain quests, so that the smaller the number of correct answers, the greater the difficulty. The study by Furuya et al. (2025) also uses this interpretative form, more applied to the decision-making process, so that the greater the difficulty of the problem, the lower the decision-making capacity tends to be. Similarly, Uçar's study (2025) measures the degree to which work can provide opportunities to understand tasks: the greater the capacity, the lower the difficulty tends to be. The study by Fragkedaki et al. (2025) considers difficulty as a measure of the success of certain attempts to achieve a result: the greater the probability of success above the average, the greater the difficulty. The study by Nyitrai et al. (2025) relates difficulty to incapacity: the greater the inability to coordinate people, the greater the difficulty in doing what is expected of them. These three concepts (gradation, media and disability) can also be observed in different scientific studies on the difficulties of registration.

Various studies show that registration is an important stage of the control process, which, in turn, integrates the management process. The managerial process is the procedure that managers adopt to achieve organizational objectives and goals by using resources (Brito et al., 2016; Silva et al., 2021; Almeida et al., 2022; Nascimento-e-Silva, 2016). The managerial process is composed of the processes of planning, organization, direction, and control (2013), which work in a cyclothymic way, renewing and updating the organizational objectives and goals based on the behavior of the external environment (2019). The planning process determines the objectives and goals to be pursued and the strategies to be followed; The organizational process defines the resources to be used to achieve the objectives and chosen strategies; The management process is linked to the human dimension of the organization; The control process monitors the corrections so that the intended objectives are achieved. The control process is generally composed of a) defining two performance indicators to be worked on; b) standardization of the use of these indicators and two procedures; c) measurement of what is being executed; d) assessment that was executed in relation to the objectives and goals, based on the defined standards and e) replanning, case or result of the assessment

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is negative, or that means non-conformity with the indicators and standards.

The study by Mora e Mace (2025) reveals difficulties in collecting samples from certain specimens and integrating them into the clinical workflow, which may prevent the adoption of advanced technologies to obtain the intended results. These lines of evidence, in general, are only procedures used to obtain data that can then be analyzed and organized, generating results that allow us to understand the behavior of a certain aspect of reality. When these procedures are not standardized, problems tend to occur because of this non-standardization. The studies by Painter et al. (2025), Ge et al. (2025) and Blancas & Contreras (2025) provide examples of difficulties in registering procedures relating to given years; or by Agustini et al. (2025) reports difficulties in registering assessments, which are comparative between a register and the results of measurements; or Hassan (2025) describes difficulties in registering reports, which only contain documents where the procedures and evaluative results are described; e o de Harsono & Nasution (2025 shows the difficulties encountered in standardizing the quality of services. The data in Table 1 summarize these points.

Table 1. Examples of difficulties in registration procedures.

References	Registration difficulties	Consequences
Mora; Mace (2025)	Recording of sample collection of specimens	Limitation of the adoption of emerging technologies
Painter et al. (2025)	Registration of data between systems	Commitment to reliability and analysis
Harsono; Nasution (2025)	Registration of quality of services	Difficult integration of tourist services
Hassan (2025)	Registration of reports	Avoid reaching high standards of governance
Agustini et al. (2025)	Standardization of appraisal methods	Variability in results
Ge et al. (2025)	Registration of ecological data	Dice Transfer Challenge
Blancas; Contreras (2025	Standardization of dice sets	Limits model implementation
Nyqvist et al. (2025)	Registration of solutions	Establishment of a region
Rao et al. (2025)	Registration of legislation	Commitment to two recycling objectives
Neethirajan (2025)	Difficulty of registering the production of children	Prevents legal approval

Fonte: data collected by authors.

The study by Neethirajan (2025) reveals the difficulties encountered in standardizing the structure or production process of children so that they can be explored marketing, both for industrial and clinical purposes; or by Saravanan et al.

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(2025) presents an analysis that expands two models of packaging waste, concentrating attention on the difficulties of registering the legal archive on recycling that compromises the achievement of circular economy objectives; e o from Nyqvist et al. (2025) shows that operational barriers cause difficulties in standardizing solutions for certain manufacturing processes or that, in turn, they can lead to the establishment of a region. These studies provide examples of how registration difficulties also affect various other procedures that are not contemplated in the fourth stage of the management process: the control process. This means that registration difficulties are highly likely to be present in the logistical procedures, the object of this investigation.

3. Methodology

This study aims to reduce the formalization difficulties faced by an Amazonian organization in registering its logistical procedures. Its analysis unit was composed of the logistics professionals of a company that operates in the city of Manaus, with a level of sectoral analysis, since the discoveries generated are only applied to the reality of the organizational sector, not being possible for their generalization. Furthermore, a transversal analysis perspective, also known as synchronic and cross-sectional, was adopted because it portrays a situation or phenomenon at a certain moment (Nascimento-e-Silva, 2020; 2021a).

3.1 Guiding quests

The general objective of the research was divided into four guiding questions (Nascimento-e-Silva, 2021b): 1) Why are the logistical procedures not formalized? 2) What are the main difficulties encountered in the formalization and registration of two processes in the company? 3) Why do these difficulties exist? 4) What are the practical consequences of not registering two procedures in the company?

3.2 Study design

The achievement of the general research objective is carried out in 11

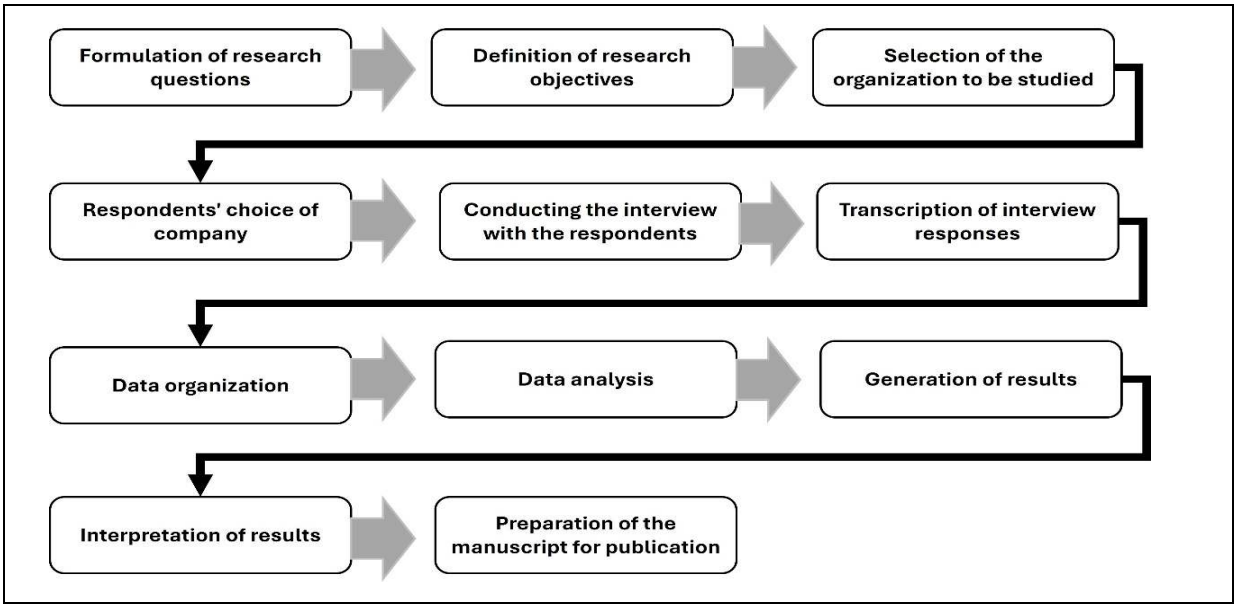
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stages, as shown in Figure 1. The initial stage consists of formulating the research questions (main and guiding) and transforming them into objectives (general and specific) by substituting two interrogative pronouns in the questions with non-infinitive verbs. The third stage consisted of the selection of an organization that operates in the city of Manaus, whose logistical processes are still not subject to any sponsorship effort, followed by the selection, by the selected organization, of two collaborators who occupy positions of greater logistical responsibility, such as managers and leaders, or who correspond, in the fourth stage.

Figure 1. Study design



Source: elaborated by authors.

The fifth stage consisted of conducting interviews, for which it was necessary to identify the availability times of two respondents. Subsequently, in the sixth stage, the responses were transcribed using the data collection instrument called "dice mass". The seventh stage involved organizing and consolidating the material in a text processor, replacing the interviewees' names with A, B, and C and synthesizing the information in small tables. The eighth stage was dedicated to analyzing the data to identify recurring or significantly divergent responses. In the ninth stage, the number of similar and different answers is verified. In the tenth stage, the interpretation of the data is carried out by comparing the results of the field research and the review of the literature of the study. The last stage was the preparation of

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the manuscript, as discovered by the research, for submission to the appreciation of the scientific community and to publication.

3.3 Research subjects

For three days, I collected three responses from different managers and leaders of their respective areas. The first respondent, represented by the letter A, is male, is 24 years old, and has 5 years of experience in the organization; this is his first formal employment. Works on stock management and in the organization's overall logistics routine, which are its main activities. He only has a medium level of schooling, with training courses in rapier and computer assistants. He demonstrates knowledge and understanding of the matter discussed (standardization of logistical processes).

Respondent B is the company's owner, male, and is the most important figure in the organization, being responsible for marketing and purchasing. He is 46 years old and has more than 23 years of experience in management and leadership. Meanwhile, he only had a medium level of schooling (second report, starting at the Faculty of Administration, but discontinued in the first period). You realize, during the conversation, that you have certain technical knowledge and understanding of the matter, as well as demonstrating interest in applying for registration in the future in your organization.

The third respondent, represented by the letter C, has 46 years of experience, 17 years of experience in pregnancy and female sex. His responsibilities are concentrated in sales and human resources. She also holds an important position in the organization and was the only respondent with a higher education level. During the conversation, he demonstrated certain difficulty in relating the standardization process to the organization's routine; therefore, he presented ancient documents and manuscripts that divide the stages of some non-daily recurring processes in his sector.

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3.4 Data collection instrument

The data were collected through semi-structured interviews, carried out with the help of a list of questions (Nascimento-e-Silva, 2023). Each guide question arose from the theoretical framework of reference, which points to a series of registration difficulties in logistical activities. Based on the theoretical architecture, the interview sequence continues as follows: 1) list the main difficulties in the collection of materials; 2) know how these difficulties will occur; 3) ponytail hair less an example of each type of difficulty; 4) identify the agents that could help alleviate or eliminate each difficulty; and 5) prepare a map of what each agent could do with that intention. After elaboration, the guide was validated by comparison with the theoretical table to generate the study's findings.

3.5 Data collection strategy

Over the course of three days, each respondent was interviewed individually during breaks in their operational routine. The interviews were spread across different days and conducted at times that were most convenient for each employee. Due to time constraints, each session lasted a maximum of approximately fifteen minutes. The initial stage of the interview consisted of a brief overview of the study and its primary objective (Nascimento-e-Silva, 2023). Subsequently, participants were asked about their prior knowledge of the concept of standardization, and all indicated familiarity with the topic. In the second stage, the guiding questions were administered, and preliminary notes were recorded in a physical document. Respondents found it easy to answer the questions. During this process, practical examples of routine situations encountered in their departments were presented, accompanied by relevant documents and brief explanations of the procedures in question.

3.6 Data organization and analysis techniques

Once collected, the data were transcribed and typed into a word processor exactly as the questions were asked and the answers provided. The purpose of this

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procedure was to maintain complete data fidelity, ensuring the analysis process remained uncontaminated (Nascimento-e-Silva, 2026). Following transcription, a table was created for each response. In the left-hand column of the table, respondent names were replaced by a letter (A, B, or C), while the right-hand column contained the provided answers. The data were organized as follows: the left side of the table listed the respondents, followed by the reasons for the lack of standardization that prompted the answer to the first guiding question. For all subsequent questions, a column was added on the right to record data specific to that guiding question.

Data analysis was conducted in alignment with the guiding questions. Regarding the question of why logistics procedures are not standardized and what difficulties exist, the analysis focused on: a) the variety of difficulties, b) the most distinct difficulties, and c) the difficulties on which there was the most consensus. The question inquiring into why these difficulties exist focused on the cause: the reasons leading to a lack of standardization. Finally, the guiding question regarding the consequences of disorganization aimed to list the ramifications of the absence of standards in logistical and organizational activities. These applied logical frameworks generated the content for the tables found in the results section of this article.

3.7 Techniques for generating and interpreting results

The results were generated through the successive application of semantic analysis and content analysis. Semantic analysis first identified the theoretical field to which the empirical data belonged, as well as their scope and depth, to situate them conceptually and theoretically. Subsequently, content analysis was used to explore and interpret the meaning conveyed by the data groups and subgroups. For instance, a lack of priority was a point raised by all three respondents; this factor—combined with a lack of time and the use of overly simple processes—constituted a theoretical category that could be termed a lack of managerial professionalization or amateurish management. This, in turn, suggests that cultural elements outweigh

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technical aspects in the company's reality regarding its logistical procedures.

The interpretation of these results involved comparing them with the literature review. The focus was to determine the degree of alignment between the logic revealed by the empirical data and established scientific knowledge, thereby identifying potential differences that would represent the study's contributions to the theoretical scope of logistics and organizational management. Specific results were discussed considering this comparison to formulate an answer to the main research question, as shown in the final paragraph of the results and discussion section.

4. Results and Discussion

This section presents the research findings in the following sequence, in accordance with the guiding questions: a) the reasons for the lack of standardization of logistics procedures within the company; b) the reasons why the procedures are not formalized; c) the difficulties encountered during formalization; d) why these difficulties exist; and e) the consequences of this lack of standardization for the company studied.

4.1 Reasons for the lack of standardization

Table 2 presents nine reasons cited in the study to explain the lack of standardization. Respondents highlighted a lack of priority, a shortage of time, and an absence of technological resources as the primary reasons for the lack of standardization. All three interviewees agreed that the lack of priority and the shortage of time are the main reasons for this lack of standardization. This suggests that, from their perspective, standardization activities are not considered urgent or crucial to the organization's daily operational or strategic activities, and that the absence of technological resources is viewed as a significant obstacle. A lack of adequate tools can hinder the documentation, implementation, and monitoring of standardized processes. Also cited—as shown in Table 2—were a lack of qualified professionals to carry out these standardization activities within the organization, as well as the perception that the processes are simple and, therefore, do not require

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formalization.

Table 2. Why logistics procedures are not standardized

Respondents	Reasons for the non-standardization
A	Lack of time Lack of technological resources Lack of priority
B	Lack of priority Lack of skilled labor Simple process
C	Diverse routine Lack of priority Simple processes

Source: Data collected by the authors.

These results reveal that the lack of standardization of logistics procedures in the organization under study stems far more from managerial and cultural factors than from purely technical limitations. The recurring issue of low priority—mentioned by two of the three respondents—indicates that management does not view the formalization of procedures as a strategic activity; instead, it is constantly sidelined in favor of operational demands deemed more urgent. Time constraints and a scarcity of technological resources demonstrate that the company's daily operations are defined by the immediate execution of tasks, leaving no room for continuous improvement initiatives or process documentation. The perception that the processes are simple leads some managers to believe that formalization is unnecessary, highlighting a limited understanding of standardization's role as a tool for control, training, and increased organizational efficiency. References to a lack of specialized personnel reinforce the finding that the company struggles with the competencies required to structure and implement formal procedures. Furthermore, one respondent's description of a diverse daily routine suggests that constant fluctuations in activities hinder the establishment of stable standards for operational execution. Taken together, these results show that the organization has not yet integrated standardization into its management culture; consequently, formalization is viewed as a secondary activity, even though its absence compromises the organization, consistency and quality of logistics processes—a finding that aligns with this study's objective of understanding the formalization challenges faced by the company.

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4.2 Challenges to standardization

The results presented in Table 3 show that the organization recognizes various benefits associated with formalizing logistics procedures, demonstrating an awareness of their strategic value despite the obstacles to implementation. Improved organization—highlighted by all respondents—underscores that standardization is perceived as the primary mechanism for structuring activities, minimizing ad-hoc workarounds, and ensuring greater process consistency. Improved communication, mentioned by two participants, indicates that documenting procedures fosters alignment among employees, thereby reducing divergent interpretations regarding task execution. Similarly, the perceived reduction in errors suggests that formalization helps minimize operational failures, rework, and waste, enhancing the reliability of logistics operations. Greater efficiency—also cited by respondents—reinforces the idea that standardized procedures enable higher productivity and better utilization of available resources. Furthermore, the mention of ease of training highlights how process documentation facilitates the onboarding of new employees and the dissemination of organizational knowledge, reducing reliance on purely informal knowledge. These results demonstrate that participants recognize procedure formalization as a key management tool capable of strengthening operational performance and the quality of logistics activities, even though its implementation still faces obstacles within the organization studied.

Table 3. Difficulties encountered regarding formalization.

Respondents	Reasons for the non-standardization	Difficulties encountered
A	Lack of time Lack of technological resources Lack of priority	Lack of demand for activities Lack of interest in investments Lack of space for adding new infrastructure
B	Lack of priority Lack of skilled labor They are simple processes	No need for formalizing processes Need to hire qualified staff Standardization is for complex processes
C	Diverse routine Lack of priority They are simple processes	The way of working changes constantly Low priority or urgency regarding formalization Standardization is for complex processes

Source: Data collected by the authors.

These results deepen understanding of the company's lack of formalization

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by highlighting the difficulties encountered when attempting to formalize processes. Key obstacles include a high workload, a lack of physical space, a lack of investment interest, and a need for skilled personnel. The high workload is cited as a primary impediment. This indicates that the team is constantly focused on immediate operational tasks, leaving no time for improvement or documentation activities. The lack of physical space and limited interest in investment reinforce structural and financial constraints, suggesting that the organization does not allocate the necessary resources—whether physical or financial—to support formalization efforts. The need for skilled personnel indicates that employees lack the necessary skills to develop, document, or follow formalized processes, making the initiative dependent on training or new hires.

4.3. Why these difficulties exist

The results in Table 4 show that respondents share a common perception regarding the negative impacts of the absence of formalized logistics procedures, demonstrating that informality directly affects the organization's operational performance. The frequency of responses reveals that the lack of clear standards for task execution fosters process inconsistencies, increasing the likelihood of errors, rework, and coordination challenges among employees. The results indicate that the lack of formalization compromises operational continuity—particularly when training new employees or replacing staff—since knowledge remains tied to individual experience. Another highlighted aspect is that the absence of documented procedures hinders the monitoring and continuous improvement of logistics processes, limiting the company's ability to identify failures, implement corrective actions, and maintain consistent execution standards. This reinforces the fact that formalization is not merely an administrative requirement but an essential mechanism for fostering greater operational control, efficiency, and reliability. Overall, the data support the study's objective by demonstrating that the formalization challenges faced by the Amazonian organization directly impact the quality of logistics management, highlighting the need to develop standardization practices that strengthen organizational performance and process sustainability.

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Table 4. Reasons for standardization difficulties.

Respondents	Reasons for the non-standardization	Why do these difficulties exist?
A	Lack of time Lack of technological resources Lack of priority	High volume of routine activities and tasks Leader's lack of interest Overcrowded current workspace
B	Lack of priority Lack of skilled labor They are simple processes	The processes are simple Lack of priority The activities are not complex
C	Diverse routine Lack of priority They are simple processes	Continuous system updates Processes are executed by experienced staff Applications and software are automated

Source: Data collected by the authors.

These results indicate that respondents attribute these barriers to task overload, a lack of interest from leadership, and the low complexity of the activities. In some cases, partial system automation leads employees to believe there is no need to manually standardize routines, revealing a limited view of the strategic role of standardization. Leadership's lack of interest is a critical factor. Without the support and sponsorship of senior management, standardization fails to become a strategic priority, and necessary resources remain unavailable. Furthermore, the low complexity of activities is frequently cited as a reason, reinforcing the belief that simple tasks do not justify the effort required for standardization.

4.4 Consequences of a lack of standardization

The failure to formalize logistics procedures has significant impacts on operational efficiency and the company's internal organization. Among the main consequences highlighted by respondents is the accumulation of work; this indicates that the absence of standardized processes hinders the balanced distribution of activities and leads to an overload for specific employees. Wasted time and process bottlenecks reveal that a lack of clear guidelines reduces operational flow, compromising productivity and increasing the time required to complete tasks. Inventory discrepancies and disorganization demonstrate that the absence of formalized procedures undermines material control and the reliability of

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logistics data, thereby increasing the risk of operational errors. Another relevant aspect is the increased difficulty new employees face in adapting—a point raised by more than one participant—showing that the lack of process documentation prolongs the learning period and heightens reliance on knowledge informally passed down by experienced staff. Moreover, repeated references to carelessness suggest that the absence of standards contributes to reduced commitment to organizational best practices, fostering a less rigorous approach to executing tasks. Finally, the difficulty of formalization itself stems from the absence of structured processes, creating a cycle in which the lack of standardization hinders the implementation of mechanisms capable of resolving the issue. Taken together, these results demonstrate that the failure to formalize logistics procedures compromises not only operational execution but also organization, control, team integration, and the company's ability to drive continuous process improvements.

Table 5. Consequences of the lack of standardization.

Respondents	**Reasons for the non-standardization**	**Consequences of the lack of standardization**
A	Lack of time Lack of technological resources Lack of priority	Backlog of work Wasted time Inventory discrepancies and disorganization
B	Lack of priority Lack of skilled labor They are simple processes	Process bottlenecks Slower onboarding of new employees Negligence
C	Diverse routine Lack of priority They are simple processes	Difficulty with formalization Difficulty adapting new employees Negligence / Lack of diligence

Source: Data collected by the authors.

The consequences identified by the respondents demonstrate that a lack of standardization directly compromises the quality and performance of the organization's logistics procedures. Work backlogs, operational bottlenecks, and wasted time reduce productivity and hinder the meeting of established deadlines. Inventory discrepancies and disorganization increase the likelihood of errors in material control, potentially leading to financial losses, delivery delays, and failures to meet internal and external demands. Furthermore, the difficulty new employees face in adapting highlights how the absence of documented procedures slows down the training process and creates a reliance on the experience of long-standing staff.

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The lack of diligence mentioned by participants also indicates a weakening of operational discipline and the culture of adhering to standards, fostering a recurrence of errors and inconsistencies. Consequently, the company loses efficiency, sees its control over logistics operations diminished, and faces greater challenges in implementing continuous improvements. Collectively, these impacts compromise process reliability, increase operating costs, and reduce the organization's competitiveness, underscoring the importance of formalizing logistics procedures as a tool for management and operational excellence.

4.5 Discussion of results

Comparing the literature review with the study's empirical results reveals that, while theory focuses on the phenomenon's multidimensional complexity, practice exposes severe operational and psychological barriers. The literature highlights standardization as an essential "activity" for process harmonization—as noted in a study by Tang and Bian (2024), which links the term to the pursuit of pre-established quality. In contrast, results from the Amazon-based organization demonstrate that this "activity" is frequently neglected due to a distorted perception that the processes are overly simple, leading managers to view formalization as unnecessary. This discrepancy suggests that the technical rigor proposed by Mohamed (2023) and Tsopra et al. (2021) regarding the representation of operational procedures faces resistance from managerial "common sense," where diverse routines and the immediate execution of urgent tasks hinder the transition from informal work to the systemic model advocated by Dhanwade et al. (2023).

The standardization challenges cited in the literature—such as variability in assessment results (Agustini et al., 2025) and service quality failures (Harsono; Nasution, 2025) take on more pragmatic and structural dimensions in the field research findings. While studies by Painter et al. (2025) and Hassan (2025) emphasize technical difficulties in data and report standardization, the reality of the organization under study points to a scarcity of technological resources and a lack of physical space as critical impediments. The research reveals that the absence of

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specialized labor and a lack of time corroborate Salman and Klein's (2021) thesis regarding the difficulty of transforming non-standardized systems. Thus, it becomes evident that the obstacle facing the company is not merely the absence of a normative "text," as suggested by Pund et al. (2022), but rather the inability to implement such standards in an environment saturated with operational demands that consume the time intended for continuous improvement.

A point of convergence between the literature review and the practice under study lies in the recognition that a lack of standardization leads to detrimental consequences for organizational efficiency—even though the literature tends to focus on technical aspects, whereas the findings highlight behavioral outcomes. Studies such as those by Mora and Mace (2025) warn that a lack of standardization hinders the adoption of advanced technologies; this is empirically validated within the organization through accumulated work and the emergence of persistent operational bottlenecks. The results demonstrate that a lack of leadership interest—a factor less explored in the technical definitions of unification provided by Goel et al. (2023)—acts as the ultimate barrier preventing the strategic prioritization of formalization. Thus, the internal disorganization and inventory discrepancies identified during fieldwork are practical manifestations of the absence of the "set of rules and criteria" described by Kajla et al. (2024), highlighting how informality directly compromises the continuity of logistics operations.

A comparison between the theoretical framework and the research findings also reveals that the challenge of standardization within this Amazonian organization extends beyond the need for mathematical models or linear flowcharts, such as those suggested by Kehoe et al. (2022). While the literature presents standardization as a mechanism for control and efficiency (Wang, 2020; Zulkifli & Radiah, 2023), the research results indicate that the company suffers from a "culture of negligence" and low prioritization by management. Knowledge remains concentrated in employees' individual experience, which complicates the training of new staff and reinforces the importance of the organizational representation discussed by Tsopra et al. (2021). Therefore, the main finding of this comparison is

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that while theory offers the means (unification and transformation), empirical reality demonstrates that—without top management support and the overcoming of the "perceived simplicity" barrier—standardization remains merely an intellectual concept, unattainable in actual logistics operations.

These results indicate that standardizing logistics procedures within the Amazon-based organization is a widely recognized strategic goal. Yet, it is systematically hindered by cultural, managerial, and structural barriers that favor the persistence of informality. The analysis revealed that the lack of formalization stems not only from technical limitations but also from management's misconception regarding the simplicity of processes, resulting in a chronic lack of priority and investment in training and technology. The consequences of this gap are evident: increased rework, inconsistent inventory levels, staff overload, and an over-reliance on tacit knowledge—all of which undermine the company's operational resilience in the face of change or personnel turnover. To reverse this situation, top management must take a leading role in implementing formal standards, viewing standardization not as a bureaucratic burden but as a fundamental asset for efficiency and competitiveness. Only by integrating organizational theory with a shift in managerial culture will it be possible to transform logistics routines into a cohesive, predictable system driven by continuous improvement, thereby ensuring the organization's long-term sustainability and growth.

This finding expands theoretical understanding of standardization by demonstrating that cultural and managerial barriers can be more decisive than technical limitations. It contributes to the logistics management literature by highlighting how the "perceived simplicity" of processes can act as an obstacle to formalization, and it reinforces the need to incorporate behavioral and cognitive variables into explanatory models of the adoption of standardization practices. It offers empirical evidence that a lack of managerial priority should be treated as an analytical category in organizational research. Managerial culture must be considered a central factor in explaining the absence of formal standards to

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understand how interventions aimed at shifting mindsets can enhance the impact of investments in technology and training.

5. Conclusion

This study described the formalization challenges faced by an organization in the Amazon region regarding the standardization of its logistics procedures. The results showed that the lack of formalization stems not only from technical limitations but also from a management misconception regarding the simplicity of the processes, resulting in a chronic lack of priority and investment in training and technology. Above all, this reflects a management misperception that views the processes as overly simple and, therefore, not requiring standardization. This distorted view leads to a chronic lack of priority regarding the organization, documentation, and control of workflows. Consequently, the company maintains informal, improvised practices that compromise the efficiency and reliability of logistics operations; this mindset results in low investment in training and specific skill development, while the absence of technological resources reinforces the persistence of non-standardized processes that rely on employees' tacit knowledge. Thus, the problem lies not merely in the available infrastructure but, primarily, in the managerial culture and administrative choices made by leadership. The lack of standardization emerges from internal decisions and perceptions rather than solely from operational or technical obstacles, causing the organization to lose efficiency, reduce control over its activities, and struggle to implement continuous improvements. This situation leads to practical consequences—such as backlogs, bottlenecks, wasted time, and inventory disorganization—indicating that changing this scenario requires a shift in management mindset, coupled with investments in people and technology, to transform logistics routines into a cohesive, predictable system oriented towards continuous improvement.

The study's main contribution to the field is demonstrating that the lack of standardization is not merely a technical issue but also a managerial and cultural phenomenon. This expands theoretical management models by incorporating the

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misconception that process simplicity acts as a key barrier to formalization; Regarding organizational management practice, the study reveals that a lack of prioritization by leadership is a decisive factor in maintaining informality; furthermore, in the realm of internal logistics, the findings show that investments in technology and training will only be effective if accompanied by a shift in management mindset. Thus, the research offers a more realistic diagnosis of the causes of non-standardization—moving beyond explanations based solely on resources or infrastructure—by providing insights that encourage managers to rethink formalization as an efficiency strategy rather than as unnecessary bureaucracy. For the academic community, the study stimulates further research into how managerial beliefs and values influence the adoption of standardization practices; for practitioners, it indicates that the solution requires strategic prioritization, investment in people, and the integrated use of technology. The contribution is both conceptual—refining theories—and applied—guiding concrete actions to improve logistics processes, thereby helping to transform standardization from an abstract ideal into a viable practice that is relevant to organizational competitiveness.

Despite its scientific rigor, the study presents certain limitations. The first is its focus on a single organization in the Amazon region, which limits the generalizability of the results to other contexts. The second concerns the use of semi-structured interviews with only three respondents, which may reduce the diversity of perspectives captured. The cross-sectional nature of the research means it portrays the phenomenon at a specific point in time rather than tracking it over time. These limitations do not compromise the validity of the results, as the study aimed to describe difficulties within a specific context rather than to generalize findings. Furthermore, the consistency of responses among managers reinforces the robustness of the findings within the investigated scenario. To advance knowledge regarding the impact of managerial mindset on standardization efforts, the following future studies are recommended: a) a comparative study involving multiple organizations of varying sizes and sectors to determine whether the “perceived simplicity” of processes also acts as a key barrier to standardization in

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other contexts; b) a longitudinal study tracking organizations before and after interventions aimed at shifting managerial mindset, assessing how this affects the formalization of logistics procedures over time; and c) an experimental or quasi-experimental study testing the combined impact of training, technology, and managerial prioritization on the level of standardization, thereby identifying which factors play the most significant role in fostering formalization.

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