THE CONTEXT OF POSTAL LOGISTICS IN BRAZIL – SOME NUMBERS, TRANSFORMATIONS, CHALLENGES AND NECESSARY REFLECTIONS ON A PUBLIC SERVICE

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ABSTRACT
The term postal logistics refers to the business environment that involves a set of services coupled to the postal logistics platform in Brazil, operated by Correios brasileiros, a public company that has 362 years of operations in Brazil. The research questions are situated on two pillars: what transformations are plaguing the postal sector in the world and in Brazil and what are the challenges they represent for the Brazilian Post Office? The objective is to analyze the main structuring numbers made available by the Brazilian Post Office and, based on them, reflect on the current situation of the postal environment and the challenges that arise. The methodology has a descriptive nature and used the case study strategy. The main results found reflect a postal environment with many transformations in the world and in Brazil. The Brazilian Post Office with stagnant revenues and infrastructure maintained in physical units prior to the reflections of the transformations, which reflect numbers of messages and parcels at other levels, not changing with the change in profile characterized by the vertiginous drop in distributed messages and growth of a parcel market, pointing to a low operational efficiency, with few productivity gains and low level of competitiveness. Finally, the innovation that is signaled by many experts in the area still does not find an echo in the company's strategy, so that it becomes visible in its operations.

Keywords: Public Service. Postal sector. Post office. Transformations and challenges.

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INTRODUCTION

The term postal logistics refers to the business environment that involves a set of services coupled to the postal logistics platform that, in Brazil, is operated by Correios. The Work of Prado; Santos and Tosto (2024) sought to characterize postal services in Brazil as a logistics platform.

> A flexible environment capable of responding to the strategies of market channels. In this environment, logistics activities are carried out (storage, cargo transshipment, *cross-docking*, among others) and processes must be standardized and measured. The use of a logistics platform can serve as a source of competitive advantage, integrating activities within a specific supply chain scenario, being seen as a determining and successful factor for many companies (Prado; Santos and Tosto, 2024, p. 102).

This platform, operated by the Brazilian Post Office, configured as a public company, has 362 years of operations in Brazil. When portraying the environment that surrounds the Post Office in the world, authors such as Osborn and Sund (2010, 2011, 2012) and Sund (2013) state that over time the Post Office of the most varied countries has dealt with letters, small remittances of cash, parcels, exchanges of business pouches, remittances of small sums of value, telegrams and other services, defined by them, as traditional postal services.

The author Greene (2010) characterizes this platform as being composed of two central elements: a service platform (places of capture and provision of services and commercialization of products) - upstream - and the platform for physical and virtual treatment and distribution of objects and postal messages - downstream. For Osborn (2012), the moment is one of transition.

> Some of the reasons that the postal (old) world is struggling to cope with the new world are because it is part of an established order over the past few centuries. A well-loved and trusted public body that provides services to citizens, governments, and the community. But also, a body that was often very traditional in perspective, slow, bureaucratic, a non-customer/market-oriented monopoly. This is still a widely accepted perception and seen by many people who see these organizations stuck in this historical framework. From this trajectory comes the 'Post Office' and its relationship with the terminology of dinosaurs, often used in this relationship with postal services (Osborn, 2012, p. 12).

Osborn still:

> It is often said that the postal industry is at a crossroads and the future direction it will take is unclear. Of course, this is true and not just of the postal industry. Do all sectors need to decide what business they are in? Who are your main markets and, in short, what do they exist for? In fact, every company or organization needs to conduct this type of "strategic review" on a regular basis, especially in view of the rapidly changing environment in which we all live to operate. In general, this is a healthy and productive discussion to have because it offers the opportunity to refocus our thinking and (re)define our goals and priorities. (Osborn, 2012, p.5).

In view of the findings of these authors, it is evident the need to deepen the analysis of the transformations of the postal environment in the world and in Brazil, in order to understand and reflect on its numbers, its trajectory, its moment and challenges. This analysis was developed in the form of a brief reflection.

The research questions are based on two pillars: what transformations are plaguing the postal sector in the world and in Brazil and what are the challenges for the Brazilian Post Office? The objective is to analyze the main structuring numbers made available by the Brazilian Post Office and, based on them, reflect on the current situation of the postal environment and the challenges they represent.

In justifying this study, there is a central concern with a platform that seeks to integrate the country, employs more than 85 thousand direct workers, fulfills an important governmental and social role and has its presence in almost 100% of Brazilian municipalities. With these very explicit factors, it is assumed that the Brazilian postal service is within a process of global transformation, in a broader imperative wave, on which a more critical look at this context is necessary.

In this sense, it is judicious to go back in time and verify the first signs of these transformations. In a study conducted by *the International Post Corporation – IPC* (2014), the transformations of the postal sector were analyzed at the time, with the use of variables such as economic growth, degree of digitization (virtualization) of physical objects for electronic media, and growth of e-commerce. In the corporate or institutional area, the behavior of revenues and the degree of portfolio diversification were analyzed. In the area of posting volumes, the behavior of the volumes of letters and parcels was analyzed. In Chart 1, it is possible to see a general summary of the analysis made by IPC.

Chart 1 – Regional Systemic Analysis of the Postal Sector in the World

VARIABLES	MARKET			CORPORATE		VOLUMES	
REGION	ECONOMIC Real GDP 2012/2013	DIGITISATION Internet users 2013	E-COMMERCE Online retail change 2012/2013	RECIPES 2012/2013	DIVERSIFICATION Share % of non-matching revenues in total revenues 2013	VOLUME LETTERS Variation 2012/2013	VOLUME ORDERS Variation 2012/2013
EUROPE	0,4%	77,8%	16,7%	1,7%	41,7%	- 5,6%	6,3%
ASIA AND THE PACIFIC	3,5%	64,8%	14,3%	6,0%	59,7%	2,0%	1,6%
NORTH AMERICA	1,9%	85,0%	15,7%	1,8%	31,5%	-2,0%	2,8%
BRICS + MEXICO	3,1%	44,4%	30,2%	9,3%	58,3%	- 2,0%	13,7%

Source: Adapted from the IPC Report (2014).

Regarding the postal market area, it can be observed that there is economic growth (real GDP) seen in all regions, especially in the countries of Asia and the Pacific, with the highest growth, followed by the BRICS/Mexico and North America. In this scenario, Europe has the lowest economic growth. The market factor has a direct influence on the revenues obtained by organizations. In this sense, it can be observed that the growth of postal revenues has been stronger in the countries of Asia and Pacific and BRICS/Mexico, being lower in North America and Europe.

It is also possible to observe that the number of internet users that directly affects the use of physical communications is strongest in Europe and North America. In these regions, technological advances have been more intense and, because they have started the process of virtualization and digital inclusion earlier, it is possible to say that, in these markets, this factor is already more consolidated, while in the more peripheral or emerging countries, these transformations have not yet been consolidated or matured.

Also, it can be seen that the drop in the volumes of letter posts has intensified in almost all the groups studied, except in Asia and the Pacific, which are still positive. However, the biggest decline is in Europe. This phenomenon is called e-substitution. These regions have much more structured electronic communication platforms.

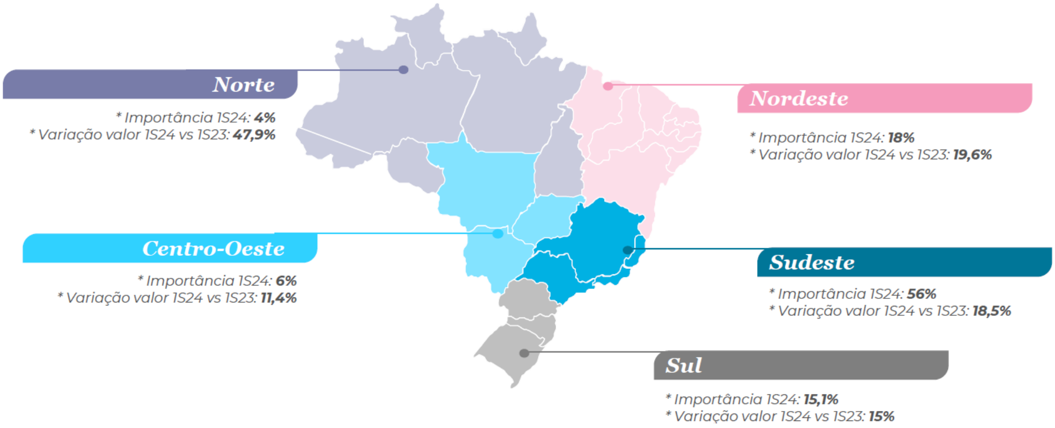
Revenue diversification is more pronounced in the BRICS/Mexico and Asia and Pacific, although it has shown growth in all regions. In markets such as Europe and North America, this process has already occurred with greater intensity, previously, in the 90s. A factor that now tends to become more visible in developing countries, which still have many services outside the postal sphere, taking advantage of their service networks.

Another important variable is e-commerce. Its growth happens in all regions. However, it is more visible in the BRICS/Mexico. It can be seen that the volume of orders has a more accentuated growth in the BRICS/Mexico, although its growth is positive in all the regions analyzed. This phenomenon is representative for the expansion of postal logistics.

Thus, it is observed that in a broad analysis carried out in 2014, specific to the postal sector, it already signaled with the digitization process and e-commerce as a strong factor in changing the postal business environment. Although Asia, South America and Mexico still contained a good base of other businesses (diversification of services), it was already pointing to a trend seen in other countries, of an increase in the parcel sector and a significant reduction in other services.

It is important to note that 10 years after this IPC analysis, the digitization and e-commerce bill arrives in Brazil, as shown in Figure 1. This representation portrays a reality that has been signaled in recent years in the world and in Brazil. The growth of e-commerce is already visible in all regions, especially in the North, Northeast and Southeast regions.

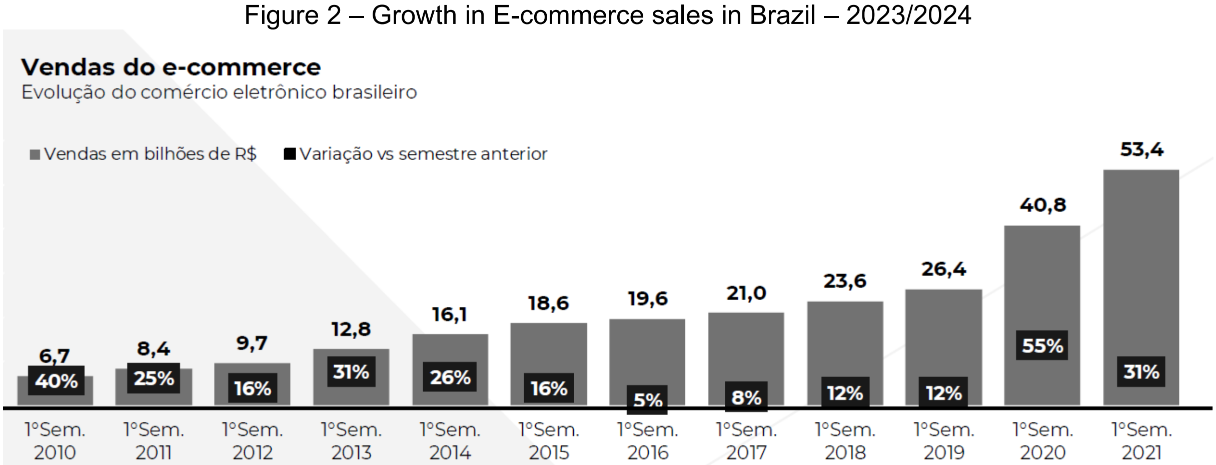
Figure 1 – Growth in E-commerce sales in Brazil – 2023/2024



Source: Webshoppers (2024).

Figure 2 represents the evolution of e-commerce, between the years 2010 and 2021, reaching the highest historical level of sales, totaling more than 53 BI, representing a growth of 31% versus the previous semester.

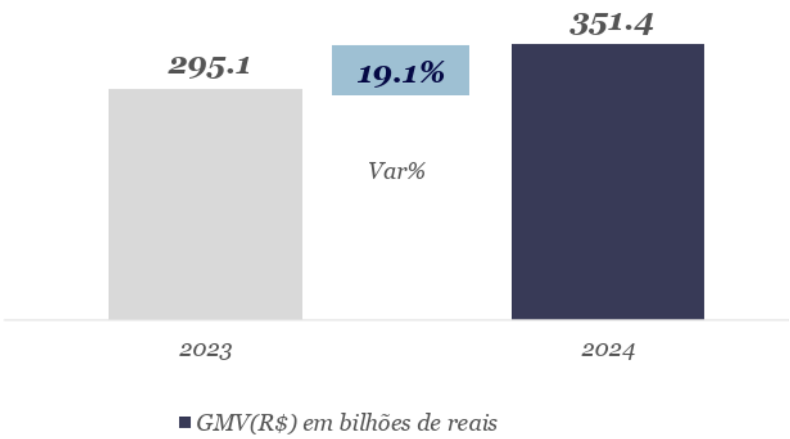
Figure 2 – Growth in E-commerce sales in Brazil – 2023/2024



Source: Webshoppers (2021).

Figure 3 offers a new standard for measuring gross sales in GMV (R$). The evolution of sales in GMV (R$) indicates the growth or decrease of a company's gross sales revenue, in a specific period, without discounting costs such as discounts, returns or cancellations. Within this pattern in the years compared, there was a growth of 19.1%.

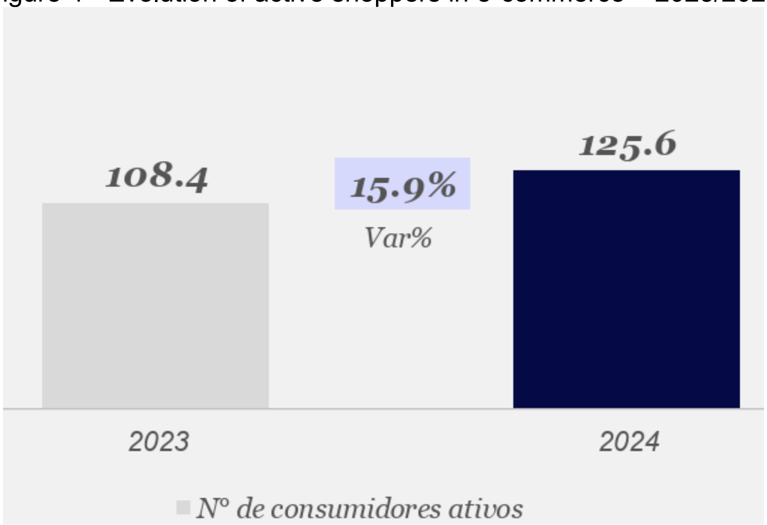
Figure 3 – Evolution of sales in GMV (R$) – 2023/2024



Source: Webshoppers (2024).

Figure 4 shows the growth of active consumers by 15.9% between 2023 and 2024. Figures (1, 2, 3 and 4) show an *e-commerce* market in clear expansion, both in gross sales and in sales by companies and in number of consumers.

Figure 4 - Evolution of active shoppers in e-commerce – 2023/2024



Source: Webshoppers (2024).

Given this present reality, it is necessary to observe some companies that operate in the *e-commerce* sector, to verify their position in the face of these transformations. Here the company Mercado Livre was chosen, for all the frenzy that this company has caused in its trajectory. Currently, Mercado Libre, for some experts, is the second most valuable company in Latin America, which recently, on April 24, 2025, received a visit from President Luiz Inácio da Silva (Lula), to announce 34 billion in investments.

According to the E-commerce Brasil portal (2023), in 2022, Mercado Libre's total net revenue reached US$ 10.5 billion, a growth of 49.0% in dollars, in the same annual comparison.

For Exame Magazine (2024), when the retail operations and its fintech (Mercado Pago) are integrated, Mercado Libre's revenue grew 37% in 2023, to US$ 14.billion, especially driven by the fourth quarter, when the company made the best Black Friday result in its history. In the Brazilian and Mexican markets, exclusive e-commerce revenue grew 41.2% in the year, reaching US$ 8.2 billion per year. Gross sales (GMV) grew 30% to $44.8 billion.

According to Mundo Logística Magazine (2025), for some companies in the logistics sector, technological innovation has gained prominence, with projects that combine artificial intelligence, automation, and focus on user experience to increase the efficiency and competitiveness of operations. In the "The 100+ Innovative in the Use of IT" award, promoted by the IT Forum, three *players* in the sector stood out for solutions that transform the logistics value chain in Brazil: Multilog (11th ranking) with the project "Billing via WhatsApp (Borders)"; Total Express (24th in the ranking) with the *Put-to-Light* project of intelligent light signaling to optimize order picking and; Porto Itapoá (30th in the ranking) with the project that uses data science, machine learning and artificial intelligence to reduce unproductive movements in the yard.

Thus, it is in this environment and with this trajectory that postal services are face to face with a reality arising from the transformations already signaled by IPC (2014). In its analysis, IPC (2014) observed that global postal environments signaled the emergence of *e-commerce* as an important variable to be considered, especially in Asian and Latin American countries, and already sounded like a warning to companies in the sector and to the Brazilian Post Office. It is in this context that the reflection was carried out.

This article is divided into five sections. In addition to this introduction that contextualizes the bases on which the reflections are, in section 2 the postal sector and the Brazilian Post Office in some numbers, in section 3 the methodological procedures; in section 4 the analyses and discussions; in section 5 the final considerations and then the references.

THE BRAZILIAN POSTAL SECTOR – THE POST OFFICE AND SOME NUMBERS

It is interesting when starting this topic to have an understanding of who the Brazilian Post Office is. According to the Correios Integrated Report – RIC (2023), Correios is a public company linked to the Ministry of Communications, with a capital stock of R$ 3,403 million, fully constituted by the Federal Government, governed by its Bylaws and applicable rules (Decree-Law No. 509/1969, Laws No. 6,404/1976, 6,538/1978, 12,490/2011, 13,303/2016 and Decree No. 8,945/2016).

The postal service had its origin in Brazil on January 25, 1663, with the installation of the Correio-mor in the then Portuguese colony. Since the creation of the company, in 1969, to provide postal service by the Brazilian State, the state-owned company has been modernizing itself by creating and providing quality services that are adequate to the needs of its customers and society itself, in an increasingly competitive market.

According to RIC (2023), with a vast network of service channels, the company benefits the entire Brazilian population, connecting people and organizations wherever they are, in 5,552 municipalities in the country, by providing services ranging from sending and receiving letters and parcels to integrated logistics, financial and convenience services, also acting in the incorporation of innovative and challenging trends in the international and domestic markets, which are marking the evolution of postal services underway worldwide.

Also, according to the same report, Correios is responsible for the operation in Brazil of the postal service under a privileged regime of exclusive exploitation, which strengthens its social function as an agent of national integration by guaranteeing the population access to citizenship and various government services. In addition, following the growth of the parcel market, the company has a prominent performance in the competitive area, offering a portfolio of modern and innovative solutions in the parcel and logistics market, especially designed for shopkeepers, entrepreneurs and e-commerce customers, with other services expanded to better adapt to the digital environment.

This is a story told from a technical report produced by the company's technicians. Within this report there are some numbers that will be presented and involve the Brazilian postal sector, which served as a basis for reflections (See Chart 2). These numbers are at least interesting to verify the company's trajectory, after the alert of the IPC report (2014).

Table 2 – Brazilian Post Office in Numbers – Years 2018 to 2023

ITEM	YEAR					
	2018	2019	2020	2021	2022	2023
CDD	937		979	934	923	956
EEC	111		99	85	81	89
CLI	50		49	53	50	97
CTO	41		46	46	46	47
CTCE	43		37	51	53	54
Own Agencies	6301	6.298	6044	6027	6027	6023
EMPLOYEES	105.335	99.443	98.092	89.709	87.571	85.882
TRANSPORTED CARGO	N	309	246,6	300	309	310
MESSAGES /DAY	N	18,5	14,5	11,8	9,5	6,9
ORDERS/DAY	N	1,3	1,5	2,3	2,2	2,1
MUNICIPALITIES SERVED	5.570	5.556	5.558	5.554	5.553	5.558

Useful Definitions:
Messages and orders/day in millions
Cargo transported in tonne day
Employees in thousands
CDD - Home Distribution Center
CEE - Parcel Distribution Center
CLI - Within Integrated Logistics
CTO - Operational Transportation Center
CTCE - Letter and parcel processing centre

Source: RIC (2018; 2019; 2020; 2021; 2022; 2023).

By looking at the data contained in Chart 2, one can start with the existing infrastructure, especially the CDD, CEE and CTCE. These structures are directly linked to the operations of handling and physical distribution of messages and parcels in the last mile. When contextualizing the numerical variations between the years analyzed, they can be considered quite small. Between 2018 and 2023, the variation in CTCE showed a growth of 11 units (approximately 25%). The CEEs with a reduction of 22 units (19%) and the CDDs with a growth of 19 units (2%). Service structures, on the other hand, decreased by just under 300 units (2%).

In this sense, it is understood that the basic structures of operations were maintained and some others expanded, such as the CTCE and CDD with 25% and 2%, respectively, of expansion and a reduction in CEE of approximately 19%. The transport structure – CTO, grew 6 units in the period and the CLI had a significant expansion, almost doubling its quantity. Despite a turbulent environment and with clear signs of profound changes brought about by IPC (2014), nothing disruptive happened with the operational infrastructure of the Brazilian Post Office.

In terms of cargo transported, the numbers remained with very little variation in tons/day. When referring to municipalities served, in 2023, they were 99.68% of the 5570 municipalities in Brazil. In this context, Correios has a strong presence in the most elementary sphere of Brazil's political division – the municipalities. Thus, it can be seen that there was no significant variation in the volume of cargo transported. Also, that there is a strategy of the company and the government of the presence of Correios to be strong at the base of Brazilian society, the municipalities.

When dealing with Correios as an employer, in this space of 6 years, there was a reduction of 20 thousand employees, due to plans for incentivized dismissal, retirement, etc. In this specific aspect, in the RIC (2019) the company had 53.5 thousand postmen and according to the RIC (2023) the total number of postmen was 45,987. In this sense, a variation to less than 7,522, that is, just over 14%. But this specific aspect deserves a deeper study, because here the apparent reduction of employees may have been a trap for the company. In the name of reduction, there may have been a loss of important intellectual capital. Well, as pointed out, this is not the result of this study.

When the numbers worked by Correios regarding its core activity, delivery of messages and parcels are observed, these are really frightening and bring very worrying points of reflection. The reduction of messages from 18.5 million/day on average in 2019 to 6.9 million/day on average in 2023, there is a reduction of more than 60% in the amount distributed.

On the other hand, when looking at the number of orders distributed, this number has evolved between 2014 and 2019, signaling a small increase in 2021, going back to the level of 2019 in 2022 and 2023, as shown in Table 3.

Table 3 – Post Office – Gross Sales Revenue

YEAR	SALES REVENUE (GROSS) IN BILLIONS
2014	16.648
2015	17.765
2016	18.886
2017	18.310
2018	18.908
2019	19.105
2020	17.964
2021	22.091
2022	20.504
2023	19.908

Source: RIC (2018; 2019; 2020; 2021; 2022; 2023) and RA (2015; 2016; 2017).

When you look at gross sales revenues, there is stability in your trajectory. Part of a turnover of just over 16 billion reais in 2014, shows small increases in the following years, decreases in 2020 (probably the result of the syndemic process caused by the COVID 19 pandemic), resumes growth in 2021 and regresses again to the level of 2019 in 2022 and 2023. These numbers presented are analyzed in section 4, aiming to understand the transformations and challenges imposed by the business environment on Correios.

METHODOLOGICAL PROCEDURES

This section includes the methodological procedures that supported the research. The study has a descriptive nature, according to Pádua (2016) and Estrela (2018). For these authors, this orientation seeks to clarify phenomena with vague, dispersed or still little known conceptual information or that, due to the degree of complexity and interconnections, are not yet very clear.

The methodological strategy used was the case study, which, according to Yin (2015) and Pereira et al. (2018), is a description and analysis, as detailed as possible, of phenomena that present some particularity that makes them special. These authors also indicate that, under the title of case study, many studies can be included, which form a range of varieties. Normally, a case, to be considered as such, must be a phenomenon that has some special or differential characteristic, which takes it out of the "commonplace". These characteristics addressed by these authors fall on a reflexive analysis of the world and Brazilian postal sector, its transformations and challenges from the Brazilian Post Office.

It should be noted that the construction of the research was predominantly based on the qualitative method. According to Pereira et al. (2018, p. 67), "this method is a way to accomplish something and when you have the path, it becomes easier to make trips knowing where you are and how far you want to go and how to do it". Qualitative methods are those in which it is important for the researcher to interpret his or her opinions about the phenomenon under study. In the case analyzed, it is understood that the qualitative analysis is adequate to describe and understand the nuances and specificities of the postal sector and the challenges for the Brazilian Post Office, with its operationalization reflected in Chart 4.

Chart 4 – Stages of operationalization of the study

STAGE	OPERATIONALIZATION
1	Conceptual and Documentary Analysis - Construction of a conceptual basis through consultation of the specialized literature on the subject. Consultation of public reports containing data and information on the subject.
2	Construction of Reference Frameworks – Based on reports issued by IPC (2014) and the Correios Integrated Report – RIC (2018; 2019; 2020; 2021; 2022 and 2023), Reference Frameworks were built; Tables 1; 2 and 3.
3	Analysis and Discussions – From the Tables built in Stage 2, the intended analyses were carried out and summarized in Chart 5.
4	Final considerations - From the analyses, final considerations, limitations and future studies were elaborated.

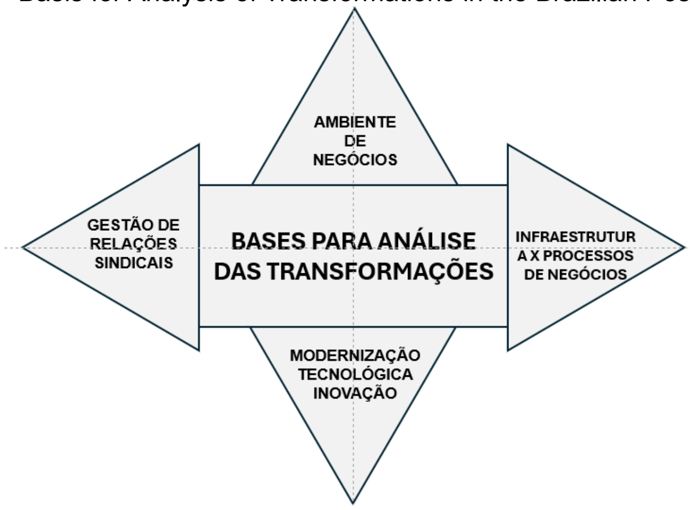
Source: Created by the authors (2025).

Thus, after the construction of the methodological basis, it is time to analyze the work, integrating the transformations, challenges and reflections on the postal sector in the world and in Brazil.

THE CONTEXT OF POSTAL LOGISTICS AND THE POST OFFICE – TRANSFORMATIONS, INFRASTRUCTURE, CHALLENGES AND NECESSARY REFLECTIONS

Based on the introductory context and section 2, and based on the methodological procedures of section 3, it was decided to develop this section on 4 main bases to establish the transformations and challenges imposed by the environment on the Brazilian postal sector: business environment; infrastructure x business processes; innovation strategy and technological modernization (open innovation) and union relations management (See Figure 5).

Figure 5 – Basis for Analysis of Transformations in the Brazilian Postal Sector



Source: Elaborated by the Authors (2025)

This last item, even if it was not contemplated in the basic sections (previous), is understood to be important for reflection. It should also be noted that although these topics are separated for methodological purposes, they are fully integrated when analyzing, and it is difficult or impossible to differentiate each of them in isolation.

The first analysis falls on the postal business environment. When Chart 1 is checked, there is an interesting alert from the IPC, still in its publication in 2014, about the transformations of the postal world. The arrival of a scenario in which developed countries were already feeling the digitalization process, causing the exhaustion of the messaging segment and business migration to the parcel segment driven by the advent of *e-commerce*, which was not yet felt on a large scale by the countries of Asia, Latin America and Mexico, but was totally predictable as a consequence of the events of digitalization and *e-commerce*. It was known that this would inevitably occur, but the speed and impacts of this arrival were not known.

Thus, in general terms, the postal environment was one of turbulence and structural changes. The signage in Chart 1 contained in its set of information the variables that allowed us to know that the trajectory of transformations was inevitable and that the preparation of postal operators should be urgent. Here, it is also worth mentioning that it is possible to verify numerous publications about the preparation of other operators located in the most diverse countries, for the arrival of this moment. Therefore, it is an environment recognized by experts, whose warnings were quite clear.

When the analysis refers to the gross sales revenues obtained by the Brazilian Post Office since 2014 (Chart 3), there is an increase of 32% in reference to the best year of revenues obtained, which was the year 2021. It can thus be said that the evolution is not consistent with the *e-commerce* indicators in Brazil and much less is it at growth levels of competing companies. So, it can be said that there is a gigantic challenge in terms of business. But this is not the only one.

In this turbulent environment of postal business, indicated by Tables 1 and 3, it is also sought to analyze the impacts of these environmental transformations on the infrastructure and processes of the Brazilian Post Office. In Chart 2, it is possible to see that the decline in the message segment becomes visible when comparing the years 2018 to 2023. In the same period, there was also an initial growth and in the following years a stabilization in the number of orders distributed. Thus, in contrast to this reality that is presented, the infrastructure for the treatment and distribution of messages and parcels (CTCE; CDD; EEC), thought in years prior to the transformations, remained almost unchanged in their large numbers.

This warning about postal infrastructure had already been observed, for example, by the CEO of the Canadian Post Office, when she was faced with the need for changes in the postal sector in that country.

> To varying degrees, our businesses are transforming. However, postal services are not just any kind of enterprise. Unlike its competitors in the private sector, Correios has the mandate to serve the entire population of its countries. We are proud to serve all citizens in our countries. The obligation of universal postal service imposes, however, a high cost of structure and shapes the expectations of the public and governments. For the Canada Post, this national coverage became the basis for new strategic alliances with the private sector (Greene, 2010, p. 3).

And the author continues:

> A lot of our process was manual. Some of our largest and busiest mail plants were decades old and located in the centers of major cities in inefficient, multi-story buildings – a legacy of an era in which mail was transported by train rather than plane. Our technology – both sorting machines and information technology – fell well short of the best in the industry (Greene, 2010, p. 4).

Following the reasoning brought by Greene (2010), the numbers taken from the Integrated Reports of Correios - RIC, represent a way of thinking about the organization about its infrastructure strategy and processes of the Brazilian Correios. Corroborating this author, Prado; Santos and Tosto (2024) had already signaled the urgent need to reduce costs with postal operations.

> At this point, it should be noted that the maintenance of a structure for compliance with this legislation leads the postal platform to a singularity (nuance, specificity) in its performance. It is necessary to plan the network, resources, people, processes and technologies to comply with this State policy. Thus, the network design that can be defined in a traditional operation or in companies with logistics operations, taking into account factors such as cost and level of profitable services, needs to be thought of from the point of view not only of competitiveness, but also of meeting universal services (Prado; Santos and Tosto, 2024, p. 108 - 109)

In this sense, the role of the Post Office signaled in the RIC (2018; 2019; 2020; 2021; 2022 and 2023), marked by Greene (2010) and alerted by Prado; Santos and Tosto (2024), as a universal service provider, national integrator, government operator, and with a presence throughout the national territory, would need to go through a painful but necessary process to improve its operational efficiency. Without this, the company's strategy would be compromised in terms of productivity and competitiveness.

The look at the logistical efficiency of the Brazilian Post Office refers to the third point of analysis. How has the strategy of innovation and technological, process and technology transfer modernization evolved in the last 10 years? In 2010, in a specialized publication on technological transformations in the postal environment, there was already this warning from specialists:

> The Post Office may also consider the obligations of the universal postal service, which grants it the opportunity to "reach" or "be in contact with" each household on a daily basis, as a potential strategic or differential advantage. Newer technologies such as PDA (*personal digital assistant*), RFID, barcode and GPS pave the way for value-added, more innovative services to be distributed at the convenience of recipients. The real challenge is to be able to distribute safely to the right person, at the right time and in the right place. The rapid growth of e-commerce opens up real opportunities to provide exceptional distribution services, which can give positive visibility to the best operators. Solutions don't have a format that fits everyone and each company will need to figure out what the customers' needs are and where their problems are, so that they can dedicate their efforts to the right areas and adjust the parts that need to be adjusted (Osborn and Sund, 2010, p. 9-10).

Mundo Logística Magazine (2025) indicates that many private logistics operators accelerate their innovation and shipping and technology transfer processes. In this context, Correios' business with the distribution of messages falls precipitously and starts to require a look at the logistics of parcel distribution. In this competitive field, the competition is on another level and, therefore, will require other management tools on the part of Correios.

Thus, it is in this context of innovation that some observations are appropriate. Open innovation in the Brazilian Post Office is still incipient. There is no existence of specialized research centers or an organization linked to the company's strategy that thinks about a Post Office that does not yet exist - "The Post Office of the future". All initiatives are still incipient, and not strategic. Some of them boil down to the creation of a department in 2021, linked to the company's operations, without a significant budget and autonomy. Another initiative is linked to a working group recently created (in 2024) to develop a digital transformation program, called Correios do Futuro. In the rest, fragmented initiatives are much more focused on solving specific problems than on a centralized and systemic strategy. Some authors point out this weakness in some postal operators:

> Perhaps this is best evidenced in the area of the strategy of the postal organization. In 2006, our research highlighted that strategy choice did not seem to be a major factor in determining success: strategic clarity was enough. In 2009, we found that strategic choice became more important and four strategic categories emerged in the postal industry. In 2010, we found that the choice of strategy was absolutely vital to success and reflected a key priority of the postal operators in our table who achieved high performance (Barton, 2010, p. 26).

Barton (2010) pointed out which strategic focuses would need to be incorporated into the strategy of postal operators: focus on customers; focus on costs; care with digitalization and; focus on sustainability. It is interesting to note that already in 2010, there was an alert for the strategy of postal operators.

Regarding digitalization, Friedli (2010) states that the most advanced postal operators and many emerging operators could reinvent themselves in the virtual world with new business models, working on key success factors and exceptional core competencies, such as proximity, brand *awareness*, the ability to manage complexity and mass volumes. Last but certainly not least, postal operators generally have a very high perception of the level of trust, at least theoretically. In fact, many fail for a few reasons:

Regarding innovation in the postal sector, Palder (2010) points out that the numerous transformations bring bad news, but together they carry opportunities and warnings.

> The good news is that today the postal market can boast of numerous disruptive innovations. However, only a few operators have been fearless enough to establish a strong governance model conducive to innovation. The challenge for operators is

> to grow revenues and volumes without getting into a service price war. Innovation management is the solution (Palder, 2010, p. 124).

After the issue of innovation strategies, finally, the fourth topic of the analysis falls on union relations. In a survey carried out by DIESE (Inter-Union Department of Statistics and Socioeconomic Studies) at the request of the Poder 360 portal – published by Pimentel and Barbosa (2020), in the last 10 years the Brazilian Post Office has carried out 12 national strikes. The sum of days paralyzed exceeds 7 months (211 days). In 2014, employees crossed their arms for 45 days – the longest amount of time in the period analyzed. In 2016, they staged a 24-hour stoppage. And in 2020, there were 35 days in which services were depleted. After the period analyzed by the publication, the last strike was in 2024, which lasted from August 8 to 22 (14 days), with the main reason being the negotiation of wages and working conditions.

Thus, for a company that is located within a competitive environment, with growing numbers of *e-commerce* in Brazil and with companies in the sector in rapid growth, this factor is devastating to the strategy of those who operate in the sector and brings weaknesses to the belief of users, especially the business sector, which places its business strategy on logistics companies.

It can be said that it is impossible for a company that has its platform at the service of society, government and companies, whose mission is "To promote national integration, contributing to the socioeconomic development of the country, connecting people, institutions and businesses", living competitively in a business field, with so many strike movements and so many days of stoppage. Which entrepreneur will put his business strategy in a company that is not reliable in his operations? Some point in this relationship is sick.

This issue is so delicate that union power can interrupt processes that can improve operational efficiency, block the movement of employees and, at the same time, demand labor rights (which may even be legitimate) in times of extreme fragility of the company. This is a basic issue that needs to be treated with the necessary serenity.

Finally, after analyzing the basic topics used, it is found that none of them brought here have been exhausted here. In fact, they are part of the reflection, they are part of the necessary transformations and challenges, and they are totally interdependent.

It is necessary to think of policies that promote the updating and insertion of Correios professionals, directly in the environment of transformations pointed out by IPC (2014) and experienced by the company since then, until the current numbers. The absence or low level of open innovation and technology transfer for integrated solutions at Correios are visible.

When Chart 2 is observed, the decline in numbers (messages) and stability (orders) and the change in the profile of cargo were not related in greater depth with the available infrastructure and resources. Do the current structures make the company competitive? What barriers need to be broken down to rethink structures and processes? For experts, the way to solve these challenges is centered on open innovation and technology transfer (Greene (2020), Palder (2010), Osborn and Sund (2010), Barton (2010) and Friedler (2010).

Still in this same line of analysis, other costs such as transportation, vehicles for distribution, deadlines, etc. were not analyzed. This means many other points that are outside this reflection.

In view of what has been presented, it is hoped that the reflection will be useful to look at postal transformations and think about a Post Office that needs changes. An important variable, which is political interference, was not brought up. This is harmful to the organization. Parties that appoint leaders, leaders who arrive and leave the company's staff without connection with the company's strategy and values, bringing huge gaps with discontinuity.

The political factor is a very perverse and destabilizing institutional variable of a company that needs to operate in a highly competitive sector. A separate chapter is appropriate here to describe this force that exists, and is very strong. Thus, after following this trajectory of analysis, Chart 5 sought a synthesis of the themes addressed in this section.

Chart 5 – A Synthesis of Sources, Transformations and Challenges

SOURCE	TRANSFORMATIONS	CHALLENGES
CPI (2014) Table 1	Digitisation; E-commerce; Diversification	Prognosis: Drop in message distribution and increase in parcel distribution; Need to adapt structures, technology and process.
Tables 2 Greene (2010) Meadow; Santos and Tosto (2022) Osborn and Sund (2010; 2011; 2012) Sund (2013) Other authors	Infrastructure; Processes and Resources	Finding: Drastic drop in the number of messages and increase in the number of orders. Prognosis: review of the infrastructure used; improvement of operational efficiency; open innovation; Technology transfer
Tables 2 Figures 1, 2, 3 and 4 Portal e-commercebrasil (2022) Portal Poder 360 (2024)	Market growth and e-commerce revenue	Gross sales revenue stabilized in the face of market growth and competition

Portal Poder 360 (2024)	Union relations and strikes; issues of political interference; HR management	Create more stable union relations; improve the training of the employee body for a new business environment; reduce strategic fragmentation by removing or limiting political interference.
Factors not analyzed and pointed out		Political issues, transport network, fleet management, etc.

Source: Adapted by the authors (2025).

In view of this, we move on to the final considerations, which intend to bring some approximations between transformations and reflections and challenges.

FINAL CONSIDERATIONS

Starting from the research questions situated on two pillars: what transformations are plaguing the postal sector in the world and in Brazil and what are the challenges for the Brazilian Post Office and the objective of analyzing the main structuring numbers made available by the Brazilian Post Office and, from them, reflecting on the current situation of the postal environment and the challenges they represent, it is understood that this has been achieved.

The research questions were explicit and became clearer to the objective signaled, the transformations and challenges pointed out and the threats they represent, with a critical dose of signals in some points, which are identified below.

The transformations in the postal sector that have been present since 2014 and are signaled by the IPC, are beginning to take a very concrete shape for the Brazilian Post Office. With the advent of digitalization and the rise of e-commerce, the profile of the cargo transported has changed, with a drastic drop in the number of messages distributed and an increase in the number of orders.

This is the central phenomenon of reflection. In the case of the Brazilian Post Office, it is essential to rethink its structures (more specifically its treatment and distribution centers) in quantity and embedded technology. A transition from messages to orders requires tinkering with the physical infrastructure of manufacturing plants. It requires the embarkation of new technologies to deal with the new profile. Process and information technologies that make a process more efficient.

At the same time that this is one of the challenges arising from the basic transformation, when efficiency falls, competitiveness falls with it. This is already notorious by the numbers seen. Stable revenues, stabilized number of orders, while *e-commerce* grows in Brazil, competitors grow commercially and invest in infrastructure and process technologies.

In this sense, Correios is left with the discourse of presence, which can, at the same time, be a competitive advantage and a trap. Its presence as a competitive advantage allows it to act in the capture and distribution in more than 99% of Brazilian municipalities, which no company can do in Brazil, yet. On the other hand, this structure, which was not reviewed when the profile changed, has become a real burden on the efficiency and, consequently, on the company's competitiveness. The operating cost of operating throughout the national territory has asphyxiated the company's finances, even because gross sales revenues are stagnant.

Thus, in this scenario, the company has been left with the peripheral sectors of the markets, government niches and a huge effort to operate the logistics of medium, small and micro companies. This last segment has also come up against the issue of sensitive cargo such as products from wineries and family agribusiness.

Experts point out that some of the solutions already experienced by operators from other countries are in innovation and technology transfer. Process technology, information technology, revision of the infrastructure of treatment and distribution sites with improved efficiency, revision of commercial actions, materials science for new forms of transporting sensitive cargo, etc. The path pointed out by them is that of open innovation.

Open innovation is the possibility of partnerships with companies and specialized centers, which will safely allow the erosion of the company's boundaries of action, for the entry of new technologies and knowledge, new or already existing, that can modernize the company and prepare it for challenges. This is a process that can have brief punctual returns, but the transformation needs to be strategic and very well conducted. It involves the creation of a center for specialized studies and research with partnerships with excellent companies in these fields.

Also, but not least, to reestablish labor relations between companies, federations, unions and workers. A company that seeks to act competitively in the logistics sector cannot afford to have around 8 months in days stopped by strikes, in a period of 14 years. In this competitive environment, there is no forgiveness for this occurrence. Entrepreneurs and buyers will look for alternatives that are more reliable to them.

As future works, there is the idea that this subject, seen in a more general way, needs to be deepened at each point of the transformations pointed out and challenges established. Therefore, it is characterized in this text, only by way of reflections.

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