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ICT Enterprises Survey 2024

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Executive Summary

ICT Enterprises 2024

In its 16th edition, the ICT Enterprises 2024 survey provides an overview of the use of information and communication technologies (ICT) among Brazilian enterprises. The survey was carried out between March 2024 and November 2024, with data collected among Brazilian enterprises with more than ten employed persons. The recent version of the survey deepens the investigation into the state of the digital economy in Brazil, exploring aspects of enterprises' connectivity, their online operations, and electronic commerce. In addition, the survey provides indicators of the use of advanced technologies, such as the Internet of Things (IoT) and Artificial Intelligence (AI).

Connectivity

In 2024, the use of fiber optics among Brazilian enterprises continues to surpass other forms of connection, a trend observed since 2019. In 2024, 92% of enterprises were connected to the Internet via fiber optics, a proportion that was 87% in 2021, indicating a greater supply of this technology, and the capability of enterprises of all sizes to improve their connections over time. When looking at the download speeds available in enterprises, there was a decrease in the proportion of those that contracted speeds of up to 300 MBps, going from 54% to 43%, a trend identified in all sizes. On the other hand, there was a move toward higher speeds, with 28% of enterprises contracting speeds above 500 Mbps, a proportion that was 21% in 2023 (Chart 1).

IN 2024, 28%
OF ENTERPRISES
CONTRACTED
CONNECTION SPEEDS
ABOVE 500 MBPS

Electronic commerce

The means used by Brazilian enterprises to sell online continued to follow the pattern observed in past editions of the survey. Most enterprises reported that they sold goods and services online via WhatsApp or Skype messages or Facebook chat, while more automated forms of electronic commerce, such as Extranet, electronic data exchange, and the enterprises' websites, showed smaller proportions, with the first form being more prevalent among small enterprises and the second among large enterprises. However, there

was a drop in the use of e-mail, with 40% of them using this sales channel in 2023, down to 34% in 2024. Another decrease was in the use of WhatsApp or Skype messages or Facebook chat, which was 55% in 2023, falling to 49% in 2024 (Chart 2).

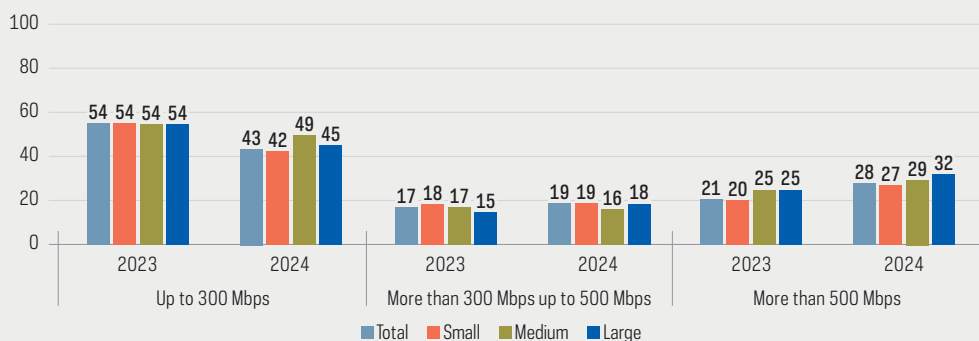
New technologies

In 2024, the ICT Enterprises survey points to the stability of AI use in Brazilian enterprises: 13% said they used AI applications, the same proportion as in 2023. The distribution by size and market segment also remained the same between 2023 and 2024: AI was more concentrated in large enterprises and in the Information and communication market segment. Following the observed trend of maintaining the characteristics of the previous edition, in 2023 the type of application most used by enterprises was related to workflow automation (Chart 3).

CHART 1

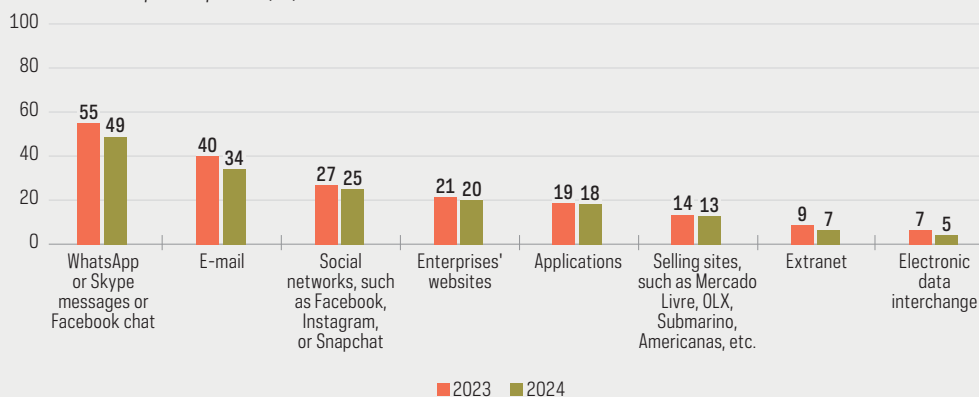
Enterprises with Internet access, by range of maximum download speed contractually offered by the Internet provider in the last 12 months and size (2023–2024)

Total number of enterprises with Internet access (%)

**CHART 2**

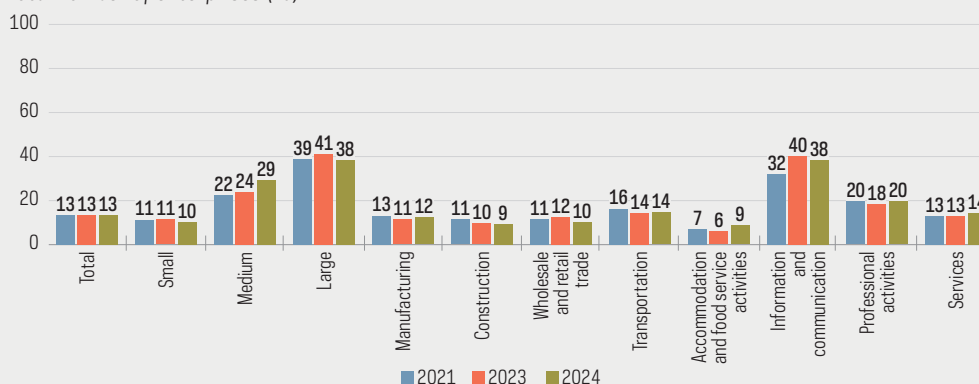
Enterprises that sold on the Internet in the past 12 months, by type of online channel used for transactions (2023–2024)

Total number of enterprises (%)

**CHART 3**

Enterprises that used AI technologies, by size and market segment (2021–2024)

Total number of enterprises (%)



In the 2024 edition, new indicators were collected on how Brazilian enterprises acquire or develop AI software and systems. Among enterprises using AI, 76% chose to acquire ready-to-use solutions, reflecting the adoption of technologies aimed at workflow automation. Regarding development, 56% of enterprises hired external suppliers to develop or modify AI software or systems, suggesting that in-house development by enterprises still occurs in a limited manner in the Brazilian market. This pattern was observed uniformly across different sizes and economic sectors (Chart 4).

Following the same trend observed in the way the enterprises acquired or developed their AI software or systems, the ICT Enterprises 2024 survey sought to understand whether there had been any kinds of partnerships for the development of AI. Among those that used AI, 50% said they bought the AI software or systems from other enterprises, following the pattern discussed earlier, with no major differences by size and economic sector. This indicator helps us understand that the ecosystem for using AI in Brazil is still in its early stages, as there is little interaction between enterprises and universities, non-profit organizations, and government agencies. However, it is worth noting that 26% of enterprises used open AI systems and 20% developed AI internally, indicating an incipient creation of internal capacity, which was more present in the information and communication and services sectors, which are those in which applications can emerge for use by other enterprises (Chart 5).

THE ESTIMATED
TOTAL NUMBER
OF ENTERPRISES
THAT USED AI
APPLICATIONS IN
BRAZIL IS 65,529

Survey methodology and access to data

The ICT Enterprises 2024 survey mapped the incorporation of ICT, especially new technologies such as AI, among Brazilian enterprises with more than ten employed persons. The survey also investigates practices related to electronic commerce, digital security, and aspects of connectivity and online presence, looking at the reality of Brazilian enterprises and comparing them to international indicators. Data collection for the 2024 edition, conducted by telephone, took place between March and November 2024. A total of 4,453 enterprises was interviewed, providing results

by size, geographic region, and economic sector. The results of the ICT Enterprises survey, including tables of proportions, total values, and margins of error, are available on the website of the Regional Center for Studies on the Development of the Information Society (Cetic.br): <https://www.cetic.br>. The “Methodological Report” and the “Data Collection Report” can be accessed in both the printed publication and on Cetic.br|NIC.br’s website.

Approximately
70,546
enterprises are estimated to have
used smart or IoT devices in Brazil

Of the enterprises with IT departments or IT
specialists that did not use AI,
19%
said it was due to incompatibility
with existing equipment

Of the enterprises that used smart or IoT devices,
84%
said that the use was
related to facility security

18%
of enterprises collected data internally
from processes and staff and
16%
from customers and users

BOX 1

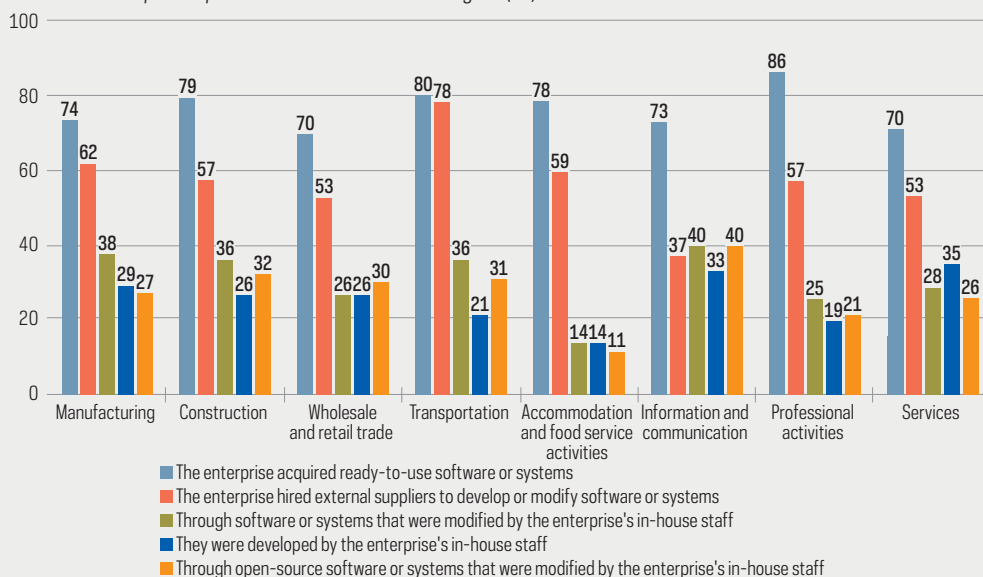
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ONLINE PRESENCE

In 2024, Brazilian enterprises, especially small ones, followed a trend of focusing their digital communication on social networks, while maintaining a smaller presence of their own websites to interact with customers and users. In 2024, 53% of Brazilian enterprises had websites, a proportion that was 54% in 2019. It is important to mention that the boost caused by the pandemic, in terms of access to technologies by enterprises, has not necessarily been reflected in a greater online presence, with stability in the proportion of website ownership across all sizes. Social networks, therefore, are the main form of online presence among Brazilian enterprises. Throughout the survey's historical series, there has been a shift in emphasis toward different social networks. WhatsApp or Telegram, for example, were not adopted by even half of enterprises in 2017 (42%), but by 2024 they had been consolidated as the main platforms used, reaching 74%. The same movement occurred with Instagram, Snapchat, TikTok, and Flickr: from 22% in 2017 to 74% in 2024.

CHART 4

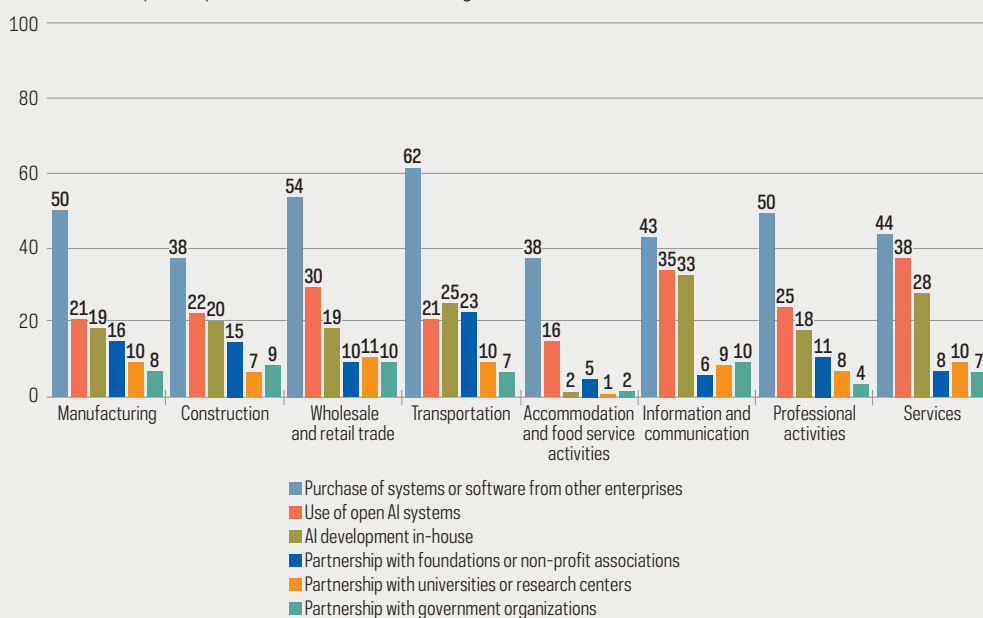
Enterprises that used AI technologies, by how they acquired or developed the AI software or systems they used and market segment (2024)

Total number of enterprises that used AI technologies (%)

**CHART 5**

Enterprises that used AI technologies, by types of partnerships or actions for the development of AI and market segment (2024)

Total number of enterprises that used AI technologies (%)



Access the full survey data!

In addition to the results presented in this publication, tables of indicators, questionnaires, information on how to access the microdata, and the presentation of the results of the launch event are available on the Cetic.br|NIC.br website, as well as other publications on the topic of the survey.

The tables of results (<https://cetic.br/en/pesquisa/empresas/indicadores/>), available for download in Portuguese, English, and Spanish, present the statistics produced, including information on the data collected and cross-referencing for the variables investigated in the study. The information available in the tables follows the example below:

Code and indicator name

B3 - ENTERPRISES WITH INTERNET ACCESS BY TYPE OF CONNECTION

Total number of enterprises with Internet access

Population to which the results refer

PERCENTAGE (%)		DIAL-UP CONNECTION	CONNECTION VIA TELEPHONE LINE (DSL)	FIBER OPTIC CONNECTION	CABLE CONNECTION	RADIO CONNECTION
TOTAL		9	36	91	54	8
SIZE	10 to 49 employed persons	9	36	90	54	6
	50 to 249 employed persons	8	32	96	51	16
REGION	North	14	31	93	49	9
	Northeast	9	32	95	53	11
	Southeast	9	36	89	55	7
	South	8	35	93	50	6
	Center-West	10	43	91	59	12
MARKET SEGMENT	Manufacturing	9	34	91	51	9
	Construction	8	37	91	50	7
	Transportation and storage	8	31	93	50	11

Indicator responses

Results tabulation cut-outs: total (population as a whole) and characteristics of analysis (region, age group, etc.), different in each survey

Results: can be in % or totals

Source: Brazilian Network Information Center. (2024). Survey on the use of information and communication technologies in Brazilian enterprises: ICT Enterprises 2023 [Tables].

How to reference the tables of indicators



This publication is also available in Portuguese on the Cetic.br|NIC.br website.