

**ELECTRONIC COMMERCE IN BRAZIL**  
**MAIN FINDINGS OF THE 2021 ICT ENTERPRISES SURVEY CONDUCTED BY**  
**THE REGIONAL CENTER FOR STUDIES ON THE DEVELOPMENT OF THE**  
**INFORMATION SOCIETY (Cetic.br)**

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## **1 - ICT Enterprises Survey Methodology**

The primary objective of the ICT Enterprises Survey project is to measure the access to and use of information and communication technologies (ICT) in Brazilian enterprises with 10 or more employed persons. The project focus on measuring enterprises' presence and activities on the web and social media, e-commerce and e-government activities as well as digital capabilities and skills conferring a wide view of the digital economy in Brazil<sup>1</sup>.

The ICT Enterprises Survey is conducted regularly since 2005 by the Brazilian Internet Steering Committee (CGI.br), through the Regional Centre for Studies on the Development of the Information Society (Cetic.br), a department of the Brazilian Network Information Centre (NIC.br). In its 14th edition the survey comprises the following modules:

- Module A: General information on ICT systems;
- Module B: Internet use;
- Module D: Cybersecurity
- Module E: Electronic commerce;

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<sup>1</sup> For more information: <https://www.cetic.br/pt/pesquisa/empresas/>

- Module F: ICT skills;
- Module G: Software;
- Module H: New advanced technologies (robotics, 3D printing, big data analytics, cloud computing, artificial intelligence);
- Module X: Privacy and personal data protection

The survey's results highlight the progress and, especially, describe the main challenges that arise in the competitive realm as a result of digital transformation, focusing on the digital environment of organizations and reveal the extent to which Brazilian enterprises are tapping into the potential unleashed by ICT.

Through the data it is possible to conduct an in-depth analysis of the current situation of enterprises within the context of the digital economy, including:

- ICT access and use by small, medium and large enterprises and the availability of ICT infrastructure (broadband speed, type of broadband connections, networking facilities, usage of software and applications, etc);
- E-commerce readiness (means of selling online, payment methods, B2G, B2C and B2G transactions)
- Online presence and their digital environment (websites and social networking websites, engagement in e-commerce and e-government activities);
- Digital capabilities and skills, exploring the capabilities of enterprises to adopt software, cloud computing and other ICT-based applications in their processes;
- Enterprises using technologies related with the digital economy like big data analytics, robotics, 3D printing and artificial intelligence.

The target population of the survey was defined by using the National Classification of Economic Activities (Classificação Nacional das Atividades Econômicas - CNAE 2.0), which is the basic framework used to categorize registered Brazilian enterprises according to their economic activities and has been officially adopted by the National Statistical System and by

the federal agencies that manage administrative registries. The CNAE 2.0 is derived from the International Standard Industrial Classification of All Economic Activities (ISIC 4.0), which is administered by the United Nations Statistics Division (UNSD).

The CNAE 2.0 does not distinguish type of ownership, legal nature, size of business, mode of operation or legality of activity. Its hierarchical structure has the five following levels of detail: sections, divisions, groups, classes and sub-classes. For the ICT Enterprises survey, the section level was used to classify enterprises into their market segments. The surveyed enterprises operated in the following segments:

- C – Manufacturing;
- F – Construction;
- G – Wholesale and retail trade; repair of motor vehicles and motorcycles;
- H – Transportation and storage;
- I – Accommodation and food service activities;
- J – Information and communication;
- L – Real estate activities;
- M – Professional, scientific and technical activities;
- N – Administrative and support service activities;
- R – Arts, entertainment and recreation;
- S – Other service activities

## 2 - Main Findings – Electronic commerce

During the pandemic, electronic commerce emerged as an alternative for enterprises to maintain their activities in a time of restricted mobility. From the point of view of consumers, in 2018, 44% of Internet users 16 years old or older purchased goods and services online; in 2020, this proportion increased to 66% (CGI.br, 2020). In addition to the increase in people making transactions online, the data collected among Brazilians during the pandemic indicated a change

in consumption patterns, since food products were mentioned by 54% of users as the products most traded online - a proportion that was 22% in 2018 (CGI.br, 2020). Another feature of this pandemic-driven increase in electronic commerce was the form of contact with enterprises: 67% of Internet users 16 years old or older who purchased something online did so through the websites of stores, while 46% mentioned the use of instant messaging, proportions that were 60% and 26% in 2018, respectively (CGI.br, 2020)<sup>2</sup>. Therefore, from the customers' point of view, there was an increase in the proportion of people carrying out electronic commerce transactions, particularly directly with enterprises, reflecting the limitations arising from the situation of social distancing implemented at the peak of the pandemic.

Several studies have pointed to an increase in electronic commerce during the pandemic, and these direct contact transactions between enterprises and individuals have been recorded in several countries (UNCTAD & NetComm Suisse e-Commerce Association, 2020)<sup>3</sup>. Although electronic commerce had already advanced by 2019, the pandemic made it possible to say that Internet transactions have become part of the strategy of most enterprises. The results of the ICT Enterprises 2021 survey follow this scenario of intensification of sales of goods and services online, mainly through direct contact between enterprises and individuals, which may indicate a trend that will influence the level of economic activity of countries.<sup>4</sup>

With more customers online, the possibility of better understanding of consumption habits, as well as of accessing data in real time, allows a more strategic use of the Internet in enterprises, helping to define more targeted actions. The increase in the number of people carrying out electronic commerce transactions also opens up the possibility for enterprises to expand their operations in the digital environment to segment the market, defining customer profiles and the

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<sup>2</sup> One of the results of this intensification of electronic commerce was an increase in requests for personal data by enterprises. The publication *Privacy and protection personal data: Perspectives of individuals, enterprises and public organizations in Brazil* (CGI.br, 2022a) indicated that 24% of Internet users sought out customer service channels to make requests, complaints, or file reports about their personal data. Among those who sought out these channels, the most mentioned were the enterprises or government organizations that control data (80%), and consumer protection agencies, such as Procon (48%).

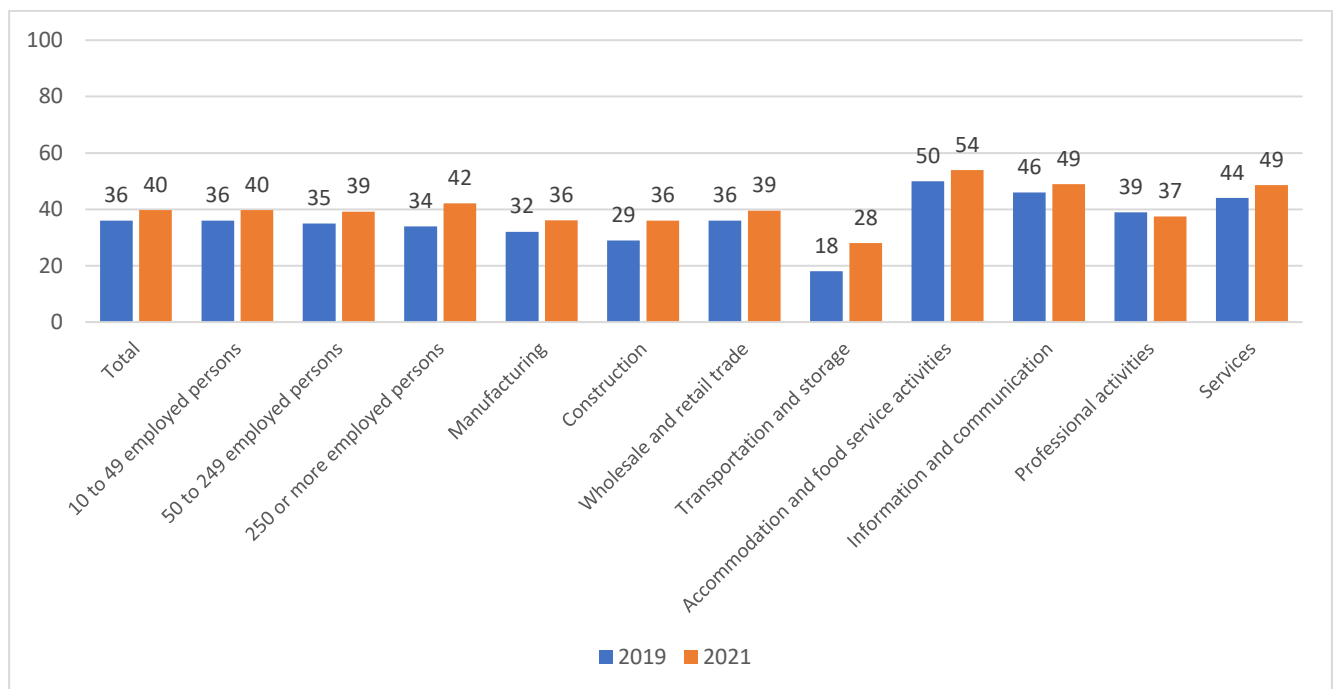
<sup>3</sup> According to data from Neotrust, which gathers information from the main platforms operating in Brazil, in 2021 Brazilian electronic commerce generated revenue of BRL 161 billion, a growth of 26.9% compared to 2020. According to the company, the average purchase amount was BRL 455, and most of the sales consisted of online retail, following the trend pointed out by the ICT COVID-19 Panel. More information at <https://www.neotrust.com.br/2022/04/08/com-pandemia-vendas-pela-internet-crescem-27-e-atingem-r-161-bi-em-2021/>

<sup>4</sup> A 2020 OECD report indicated the trend of changes to electronic commerce patterns, accelerating the creation of enterprises and the arrival of new customers and product types (OECD, 2020).

extent of their activities. According to the ICT Enterprises 2021 survey data, 40% of enterprises paid for Internet ads, a proportion that was 36% in 2019. In terms of size, payment for online ads is well distributed, there is a large concentration of this practice in enterprises in the accommodation and food services and information and communication segments, possibly because those segments show more apparent performance among individual customers.

**Chart 1 – Enterprises that paid for online advertising by size and market segment (2019 – 2021)**

**Total number of enterprises with Internet access (%)**

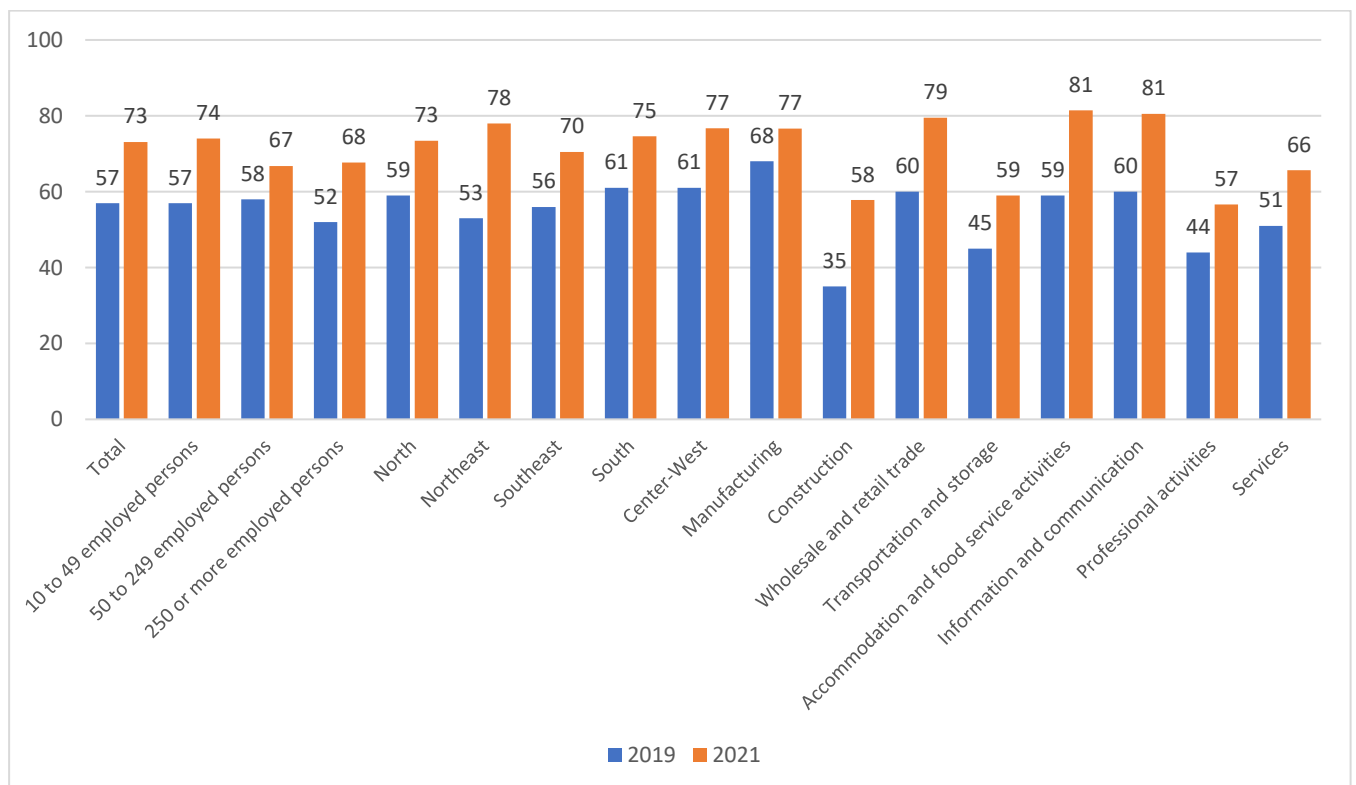


In terms of selling goods and services online, the ICT Enterprises 2021 survey showed that Brazil followed the trend of increasing online transactions observed in other countries (OECD, 2020). In 2019, 56% of Brazilian enterprises sold goods or services on the Internet, a proportion that rose to 73% in 2021, largely influenced by the growth of small enterprises: In 2019, 57% of them said they sold online, going to 74% in 2021. Market segments in which online sales were not very widespread showed growth in this version of the survey: In 2019, 35% of enterprises in the construction segment carried out electronic commerce, a proportion that rose to 58% in 2021; in the transportation segment, the change was from 45% to 59%; finally, in the segment including professional activities, the change was from 44% to 57%. From a regional

perspective, growth of Internet sales was observed throughout Brazil, reflecting the need for businesses to adapt to the context of the pandemic in the country.

**Chart 2 – Enterprises that sold goods and services on the Internet by size, region and market segment (2019 – 2021)**

**Total number of enterprises that sold on the Internet (%)**

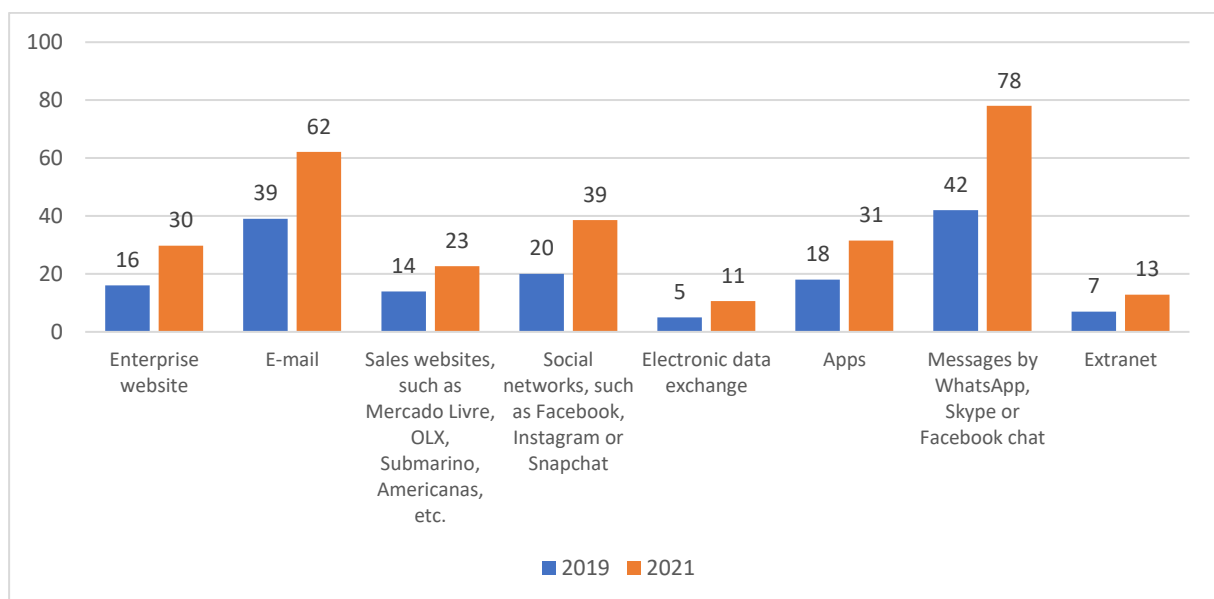


A particular aspect of electronic commerce during the pandemic was increased demand for direct contact between enterprises and customers, because mobility restriction policies were implemented to reduce the circulation of the virus. In this context, there was an increase in the use of instant messaging applications by Internet users to be able to purchase goods and services and a similar movement was strengthened among enterprises. Among those that sold on the Internet, in 2019, 42% sold goods or services using WhatsApp, Skype or Facebook chat

messages, a proportion that was 78% in 2021 - which shows an effort by enterprises to contact customers during the pandemic and a consolidation of these channels as the most used means to carry out electronic commerce transactions in the country. On the other hand, more traditional means for sales, such as their own websites and presence on sales websites, were cited by enterprises less often.

**Chart 3 – Enterprises that sold on the Internet by online media used for transactions (2019 – 2021)**

**Total number of enterprises that sold on the Internet (%)**

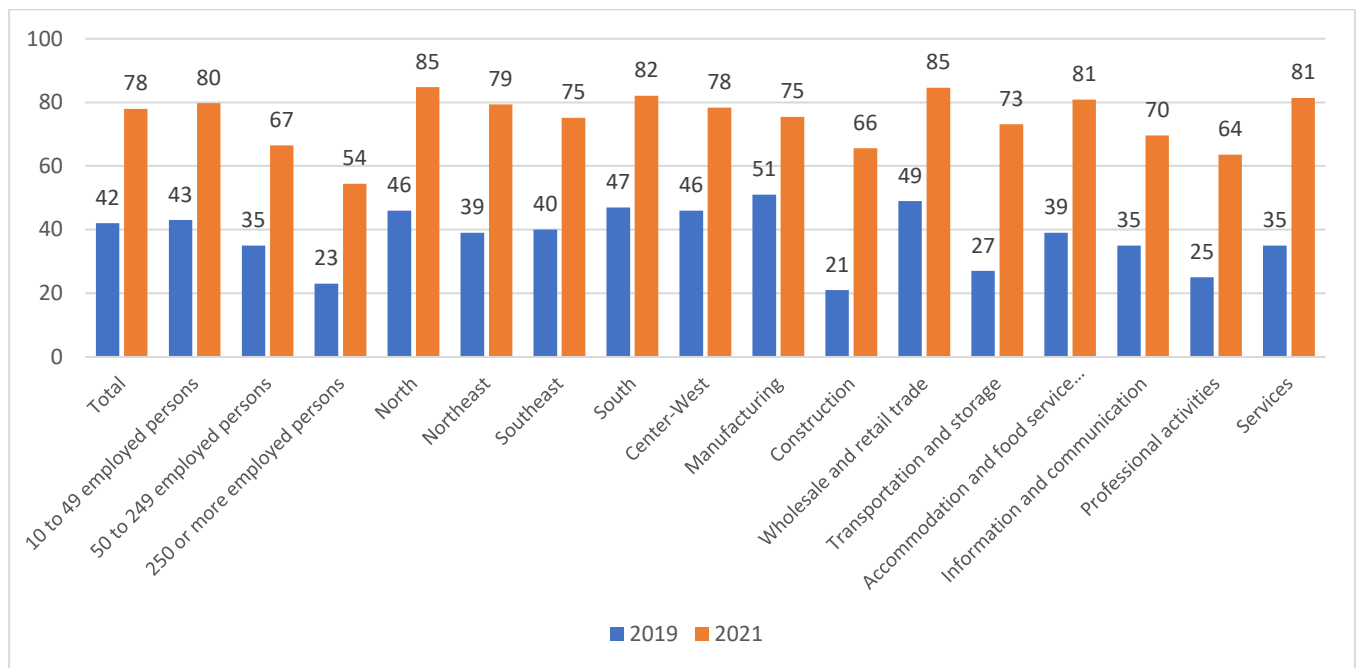


As noted earlier, the growth of electronic commerce through messaging applications was more intense among small enterprises. Among enterprises that sold on the Internet in 2019, 43% of small enterprises said they did so via WhatsApp, Skype, or Facebook chat, a proportion that was 80% in 2021. In almost all sectors of the economy, in 2019, the use of messaging applications for sales did not reach half of the enterprises, a scenario that changed intensely in 2021. The more intense use of messaging applications indicates not only a way to be in direct contact with customers, but may also represent a form of emergency digital presence, especially in small enterprises, and a possible answer to the obstacles presented by the pandemic<sup>5</sup>.

<sup>5</sup> According to the ICT Electronic Government 2021 survey, there was growth in the use of WhatsApp or Telegram among local governments for contact with citizens: In 2019, 28% of local governments offered public services via

**Chart 4 – Enterprises that sold on the Internet via WhatsApp, Skype or Facebook chat (2019 – 2021)**

**Total number of enterprises that sold on the Internet (%)**



### 3 - Concluding remarks

The data from the ICT Enterprises 2021 survey showed that Internet use increased among enterprises during the pandemic, with improvements in access infrastructure and greater concern with online presence. Although some aspects of this increased use of the Internet suggest the introduction of palliative measures in the time of the pandemic, in which social distancing led to changes in the routines of enterprises and people's consumption habits, some trends observed can be characterized as the beginning of greater strategic appropriation of the Internet by enterprises.

WhatsApp or Telegram, a proportion that was 48% in 2021, showing a trend of direct contact with citizens correlated to the enterprises' use of messaging applications (CGL.br, 2022b).



The advance of electronic commerce in the period is a good example of adaptation to the pandemic. The ICT Enterprises 2021 survey showed how enterprises resorted to messaging applications as an emergency measure to sell their goods or services, establishing direct and personal contact with customers. In response to the pandemic, enterprises, especially small ones, used the online tools that were available to try to keep their operations running, generating a form of activity that should become more permanent.

The results of the ICT Enterprises survey show that Brazilian companies intensified e-commerce between 2019 and 2021. However, the way most companies carried out their online transactions reflects the need for adaptive responses to the pandemic, which can be improved for more complex actions, as well as continue being used in an amateur way. In any case, electronic commerce has entered the strategy of Brazilian companies once and for all, and it is important to keep monitoring to capture new trends in the digital strategies and changes in patterns of online consumption.

#### 4 - Resources

Reports: <https://www.cetic.br/pt/pesquisa/empresas/publicacoes/>

Table of results: <https://www.cetic.br/pt/pesquisa/empresas/indicadores/>

Data visualization portal: <https://data.cetic.br/>

## 5 - References

Brazilian Internet Steering Committee. (2020). *Painel TIC COVID-19: Pesquisa sobre o uso da Internet no Brasil durante a pandemia do novo coronavírus*. 1ª edição: Atividades na Internet, Cultura e Comércio Eletrônico. <https://www.cetic.br/pt/publicacao/painel-tic-covid-19-pesquisa-sobre-o-uso-da-internet-no-brasil-durante-a-pandemia-do-novo-coronavirus-1-edicao/>

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United Nations Conference on Trade and Development & NetComm Suisse e-Commerce Association. (2020). *COVID-19 and e-commerce: Findings from a survey of online consumers in 9 countries*. [https://unctad.org/system/files/official-document/dtlstictinf2020d1\\_en.pdf](https://unctad.org/system/files/official-document/dtlstictinf2020d1_en.pdf)