

The Evolution Of Self-Service For Tax Declarations On E-Gov Platforms: A Comparative Analysis Between 2019 And 2023

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Abstract:

Background: Aiming to foster a discussion on the provision of public self-services to citizens through e-gov platforms, this study seeks to: gain an overview of the self-service for individual income tax declarations in 2019 and 2023, comparing the e-gov platforms of countries ranked with the highest UN e-participation indices.

Materials and Methods: This research adopts qualitative, quantitative, exploratory, and retrospective approaches. The analysis was conducted in 2019 and repeated in 2023, rigorously investigating the e-gov portals of 54 countries ranked with the highest e-participation indices by the UN in 2016. Scientific articles from Google Scholar and secondary data from the UN's E-Government Knowledge Base related for the years 2014, 2016, 2018, 2020, and 2022 were analyzed. The number of e-gov services, types of services, countries, and continents were quantified.

Results: Brazil moved up from the 37th to the 11th position in the UN's e-participation ranking, according to analyses from 2019 and 2023. A 17% increase was observed in the number of countries offering the individual income tax declaration service in fully transactional (online self-service) form. Conversely, a 13% reduction was noted among countries providing a mixed service (online and in-person), with 2% of this group adopting a fully online process. The number of countries that do not reference individual tax self-service on their platforms remained at 9% in both 2019 and 2022.

Conclusion: This study compares the individual income tax declaration service in fully transactional self-service in 2019 and 2023 among countries with the highest UN e-participation indices, highlighting that the transition to electronic tax self-services is progressing slowly, with many countries still not utilizing e-gov platforms for this purpose. Brazil improved its e-participation ranking and expanded services on digital platforms. This underscores the potential shift to electronic self-services, promoting discussions on the topic and suggesting improvements in public service delivery and potential access policies.

Key Word: individual tax self-service; e-gov platforms; citizen e-participation; e-gov.

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I. Introduction

The term “electronic government” or “e-gov” primarily refers to Internet platforms and portals that enable citizens to access a range of public self-services, such as tax payments, courses and training, public complaints, notification of public resource wastage, and health service scheduling, among others ².

To perform these self-services mediated by e-gov platforms, citizens must possess certain digital skills and technical and cognitive competencies to use the resources and adequately understand the proposed service ².

In this context, the willingness to carry out a task is not limited to the ability to operate hardware and software systems ³; thus, citizens utilizing e-gov self-services require specific competencies to effectively contribute to delivering services provided by public bodies on electronic platforms.

A relevant piece of data for understanding this study lies in the biannual analyses conducted by the United Nations Department of Economic and Social Affairs, titled the "UN E-Government Knowledgebase," which refers to research related to the e-gov platforms of the member countries of the organization. From 2001 to 2022, twelve reports were published ranking countries based on the quality of their e-gov services. According to these reports, Brazil advanced from 37th place in 2016 to 11th place in 2022. In 2019, the Brazilian government launched the Digital Government program to consolidate e-gov self-services through the "gov.br" platform (available at <https://www.gov.br/>). In 2020 alone, over 300 self-services were implemented on the

"gov.br" platform, primarily to meet post-Covid-19 pandemic demands, reaching more than 3,900 public self-services by 2022¹.

One of the main self-services available on the "gov.br" platform is the Individual Income Tax Return (IITR), a transactional self-service "mandatory for all citizens residing in Brazil who meet the criteria outlined in Normative Instruction RFB No. 1,924, of 19 February 2020"¹⁰.

It is clear that individual income tax collection is not unique to Brazil, and offering this service through e-government platforms serves the public interest. Therefore, considering the IITR self-service offered by the Brazilian government's e-gov platform and to foster discussion about the provision of public self-services to citizens through e-gov platforms, the following question arises: Considering analyses between 2019 and 2023, how have transactional services for the IITR been offered on e-gov platforms in countries ranked with the highest citizen participation indices, according to the UN E-Government Knowledge Base?

In view of the above, and aiming to foster discussion about the delivery of public self-services to citizens through e-gov platforms, this study seeks to obtain an overview of IITR self-service, comparing the e-gov platforms of countries ranked with the highest citizen e-participation indices, according to the UN E-Government Knowledge Base in 2019 and 2023.

II. Procedure Methodology

The research employs a mixed-methods approach, both qualitative and quantitative, with an exploratory nature and a retrospective analysis, following these aspects: (1) Qualitative approach: (a) a documentary analysis of scientific articles available in the Google Scholar database containing the terms "e-gov", "e-government", "electronic government", "tax agency", "submit income tax", and "individual income tax return"; and (b) guided by documentary research of secondary data from the United Nations E-Government Knowledgebase, specifically from the e-government research reports for the years 2014, 2016, 2018, 2020, and 2022; (2) Quantitative approach: 54 countries (out of a total of 193) were selected, classified up to the 50th position in the ranking of best citizen e-participation, presented in the report published by the UN E-Government Knowledgebase in 2016, which were individually researched regarding the provision of the individual income tax return (IITR) service on their e-government platforms. The quantitative variables are described as follows: "number of offers via e-gov," number of declarations of the types "online," "paper," "online/paper," and governments that "do not offer the service" on e-government platforms, as well as the percentage of IITR services by continent, comparatively between 2019 and 2023. (3) The research is exploratory as it seeks to discover phenomena or new explanations through analyses and reflections regarding the provision of the IITR self-service in a group of countries considered leaders in aspects of citizen e-participation; and (4) it is a retrospective analysis comparing IITR services offered specifically in the years 2019 and 2023.

III. Result

The UN maintains an online service called the "UN E-Government Knowledgebase," which provides a ranking of countries based on the United Nations E-Government Development Index (EGDI), with data covering 193 member countries of the organization. Between 2001 and 2022, 12 reports were published containing various approaches to e-government; however, each edition includes a classification ranking of the best e-government services among these countries. Considering the results of these reports for evaluating citizen e-participation, Brazil rose from 37th place in 2016 to 11th place in 2022.

In 2020, the Brazilian government introduced 300 new services on the "gov.br" platform (available at <https://www.gov.br/>), to address increased self-service demands in response to the post-Covid-19 pandemic context. These provisions amounted to an average of 3,904 services distributed across 186 federal government agencies in that same year. The government's objective was to centralize all services offered by public administration at the municipal, state, and federal levels on the "gov.br" platform by the end of 2022¹.

In the 2019 research, based on the ranking of the 50 countries with the highest scores in citizen e-participation, according to the UN E-Government Survey 2016 ("E-government in Support of Sustainable Development"), Brazil ranked 37th. The other ranked countries are listed up to the 50th position in a ranking of 54, from a total of 193 participating countries, namely: United Kingdom, Japan, Australia, South Korea, Aruba, New Zealand, Spain, Singapore, Canada, Italy, Finland, France, United States, Austria, Mexico, Poland, Israel, Morocco, Lithuania, Montenegro, Serbia, Estonia, China, Denmark, Malta, Croatia, Colombia, Germany, Norway, India, Sweden, Chile, United Arab Emirates, Bahrain, Ukraine, Russia, Brazil, Slovenia, Uruguay, Mongolia, Ireland, Saudi Arabia, Tunisia, Luxembourg, Vietnam, Bulgaria, Malaysia, Uzbekistan, Azerbaijan, Portugal, Sri Lanka, Moldova, Mauritius, and Iceland.

To maintain alignment with the research, the platforms of these countries were revisited, allowing for the observation that the development of individual income tax return (IITR) services was not as significant as expected. According to the compilation of reports from the "UN E-Government Knowledgebase," income tax return services through transactional e-government platforms followed the pattern described in Table 1.

Table 1: Number of DIRPF services via e-government platforms

Number of offers in e-gov	73	114	139	143	151
Year of selection	2014	2016	2018	2020	2022

It can be observed that the number of individual income tax declaration services increased by 107% over eight years. In Brazil, this service is called the Individual Income Tax Declaration (IITR), commonly referred to as individual or personal taxes in other countries included in this study. However, this paper standardizes the use of the term "IITR" for all countries analyzed. Table 2 presents the countries offering the IITR service via e-gov in 2019 compared to 2023.

Table 2: Comparing the IITR service offering via e-gov in 2019 and 2023

Operation	Ano 2019	Ano 2023
IITR carried out in full on e-gov	Saudi Arabia, Austria, Brazil, Chile, China, Colombia, Denmark, United Arab Emirates, Slovenia, United States, Estonia, Finland, France, India, Israel, Italy, Malaysia, Malta, Morocco, Mauritius, Mexico, Mongolia, New Zealand, Portugal, United Kingdom, Singapore and Sri Lanka.	Germany, Saudi Arabia, Australia, Austria, Brazil, Canada, Chile, China, Colombia, Denmark, Estonia, Finland, France, India, Ireland, Iceland, Israel, Italy, Luxembourg, Malaysia, Malta, Mexico, Moldova, Mongolia, New Zealand, Poland, Portugal, Serbia, Singapore, Slovenia, Sri Lanka, United Arab Emirates, United Kingdom and United States.
IITR carried out partially on e-gov	Germany, Australia, Azerbaijan, Bulgaria, Canada, Spain, Iceland, Luxembourg, Moldova, Norway, Poland, Sweden, Tunisia, Ukraine and Vietnam.	Azerbaijan, Bulgaria, Spain, Norway, Sweden, Tunisia, Ukraine and Vietnam.
e-gov merely for information purposes for IITR purposes	Aruba, South Korea, Croatia, Ireland, Japan, Lithuania and Serbia	Aruba, South Korea, Croatia, Japan and Lithuania
e-gov without information or services for IITR purposes	Uruguay, Bahrain, Uzbekistan, Russia and Montenegro	Uruguay, Bahrain, Uzbekistan, Russia and Montenegro

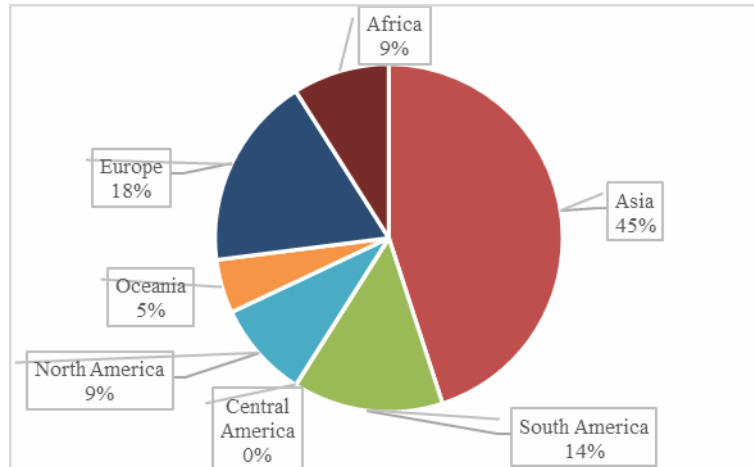
When comparing the modes of IITR service offered on e-gov platforms in 2019 and 2023, it was observed that most countries in the analysis sample provide self-service options to citizens on their platforms. This is true regardless of whether the service is offered partially or fully. In 2019, 78% (42) of IITR e-gov services were available, increasing to 81% (44) in 2023. Although this growth appears modest, in terms of service improvement, 17% (9) of the sample shifted to fully transactional service provision.

In line with this result, it was noted that in 2019, 50% (27) of e-gov platforms allowed the IITR process to be completed entirely online, compared to 67% (36) in 2023. Conversely, the partial IITR process, which required both online and physical elements (e.g., paper forms or electronic media), dropped from 28% (15) in 2019 to 15% (8) in 2023. This trend reflects a shift towards the complete integration of e-gov platforms and a corresponding decrease in partial processes.

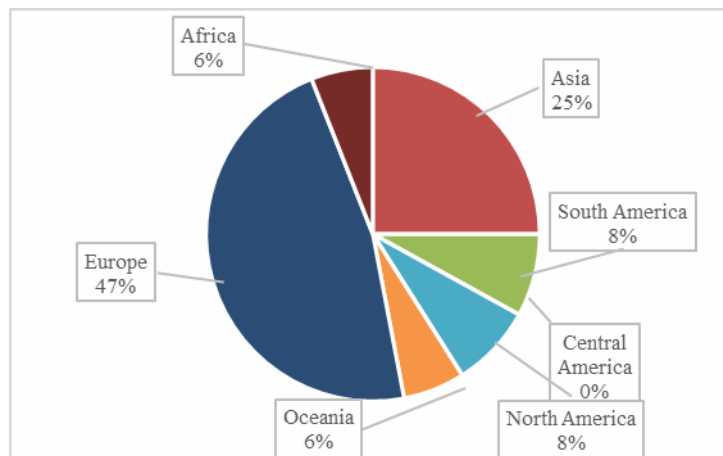
Regarding the other countries in the sample, 22% (12) in 2019 and 18% (10) in 2023 did not use e-gov platforms for IITR purposes, instead relying on traditional methods and printed forms at government agency locations. Among this group, it was found that in 2019, 13% (7) used e-gov platforms solely for informational purposes, without enabling any actions to be carried out via the platform, compared to 9% (5) in 2023.

It is worth noting that some countries in the sample do not use e-gov platforms for IITR purposes, despite being ranked among the top countries for citizen e-participation in the 2016 report (the basis for this study). The e-gov platforms of these countries were revisited in 2023, revealing no transactional or informational services for IITR purposes.

To aid comprehension, Figure 1 shows the distribution of countries by continent that completed the IITR process entirely on their e-gov platforms in 2019, comprising a total of 27 countries. Of these, 37% (10) are located in Asia, followed by 33% (9) in Europe.



In contrast, Figure 2 portrays the scenario in 2023, with 36 countries completing the IITR process entirely on e-gov platforms. In this period, Europe offered the highest share of this service type among the countries in the sample, with 47% (17), while Asia accounted for 25% (9).



Thus, it appears that countries are striving to increase citizen uptake of e-gov platforms to improve communication speed between public administrations and enhance access to population data and information. The results show that European countries invested in this initiative between 2019 and 2023, driving growth, while South American countries, including Brazil, showed a reduction in these actions, as did countries in Asia and North America. Hence, this study demonstrates that although there has been an increase in full platform use and Brazil's global ranking for e-gov platform use has improved, the most notable results still stem from the European continent.

IV. Conclusion

This study offers an overview of IITR self-service in 2019 and 2023 by comparing the e-gov platforms of countries ranked highest in the UN e-participation indices. Accordingly, it analyzed the provision of public self-services to citizens through electronic government platforms.

The investigation found that while the collection of individual income tax is mandatory in most countries, the shift to a fully transactional self-service model for this purpose is progressing slowly. It was noted that some countries still use e-gov platforms solely to provide guidance on DIRPF services, while others do not use them for this purpose at all.

This study offers an overview of self-service in Individual Income Tax Returns (IITR) for the years 2019 and 2023 by comparing the e-government platforms of countries ranked highest in the UN e-participation indices. It analyzes the delivery of public self-services to citizens through electronic government platforms.

The investigation found that, while the collection of individual income tax is mandatory in most countries, the transition to a fully transactional self-service model for this purpose is progressing slowly. Some countries continue to use e-gov platforms solely to provide information on the Declaration of Individual Income Tax Returns (DIRPF), while others do not utilize these platforms for this purpose at all.

Additionally, Brazil improved its ranking from 37th to 11th place in digital e-participation among 193 other countries. This advancement is supported by Brazil's investment in the Digital Government program, which aims to expand self-service offerings through its e-gov platform, adding over 300 new services in 2020 alone.

The main contributions of this study include fostering the expansion of discussions on the potential shift from in-person services to self-service modes through e-gov, particularly concerning IITR. This study may also contribute to enhancing research on the provision of other services through e-gov platforms, as well as promoting public policies aimed at facilitating citizens' access to government services. In this sense, further studies on the delivery of fundamental public services via e-gov platforms, in a comparative context across countries, could promote a better understanding of citizen e-participation.

References

- [1]. Dias, Gilmara Aparecida De Freitas; Farias, Josivania Silva. A Pandemia Da Covid-19 No Brasil E Seus Reflexos No Uso De Plataformas Gov.Br Para Oferta De Serviços Públicos: Houve Migração Natural Do Atendimento Presencial Para O Autosserviço Digital?. In: Napoleão Dos Santos Queiroz. (Org.). Políticas Públicas Em Tempos De Pandemia. São Cristóvão, Se: Editora Ufs, 2022. P. 595- 619.
- [2]. Dias, Gilmara Aparecida De Freitas. O Domínio De Competências Técnicas E Cognitivas Demonstradas Pelo Cidadão No Preenchimento E Envio Da Dirpf Da Receita Federal Do Brasil E As Características Técnicas Relativas À Aceitação E O Uso Das Tic. 2020. 150 F., Il. Tese (Doutorado Em Administração)—Universidade De Brasília, Brasília, 2020. Disponível Em: [Http://Www.Realp.Unb.Br/Jspui/Bitstream/10482/39816/1/2020_Gilmaraparecidadefreitasdias.Pdf](http://www.realp.unb.br/jspui/bitstream/10482/39816/1/2020_Gilmaraparecidadefreitasdias.pdf). Acesso Em: 12 Set. 2023.
- [3]. Gallouj, Faiz; Zanfei, Antonello. Innovation In Public Services: Filling A Gap In The Literature. Structural Change And Economic Dynamics, V. 27, P. 89-97, 2013.