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A Reference Model of GaaP Readiness Indexes Using Systematic Review and Meta-Synthesis Method

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ABSTRACT

In the traditional way of governance, people pay taxes and receive services but do not participate in government. The government creates capacity as a platform so that people can innovate in a partnership ecosystem, and the content produced is considered a national asset. This study presents a reference model for the Government as a Platform readiness index. This is a qualitative study and a systematic review of the literature in which the meta-synthesis method is used to analyze and analyze the data extracted from selected sources. Finally, and 58 out of 961 sources are selected and used for qualitative analysis and coding in the systematic review process. The articles and research studies reviewed were extracted from major scientific databases, including Google Scholar, Scopus, and Web of Science, and cover the period from 2011 to 2023 to ensure the inclusion of the most recent and relevant findings. According to code classification, there are 75 indexes, including three categories, seven themes, 32 main codes, and 33 subcodes formed into four layers and categorized into the following categories: 1- creating a change mindset and being prepared for the change, 2- being prepared for innovation, 3- being prepared for economic growth. The present research, which analyses data from more than 30 countries, indicates that there is no agreed model around the world for the government as a platform readiness index. However, each of the governments in the world, with its specific components, such as digital transformation, digital culture, budget and credits, digital privacy, and the community's digital talent, formulates a custom model to realize its Government as a Platform. Since the current model comes from the combination of the available information in this field, it can be helpful and applicable as a reference model in any country of the world world country to initiate action.

Keywords

Government as a platform, Digital transformation, Good governance, Systematic review, Meta-synthesis method.

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1. Introduction

Although some countries worldwide strive to realize and implement Government as a Platform (GaaP), a comprehensive reference model for this concept has not yet been developed. However, several studies have explored different definitions and conducted systematic reviews. For instance, (Cordella and Paletti, 2019) analyze the Italian GaaP initiative, emphasizing the importance of orchestrating GaaP characteristics to enhance coordination among public agencies and enable co-production of services with external actors, ultimately delivering more excellent public value. Similarly, (Styrin et al., 2022) highlight that GaaP has been advocated in several countries, with most research focusing on national-level collaboration. In the Russian Federation, the participation of regional and city authorities in the Gosuslugi.ru public service platform is prioritized to address regional disparities and improve efficiency. Furthermore, (Margetts and Naumann, 2017) examine the case of Estonia, where underlying data registries, information exchange systems, secure identification, and front-end portals form a robust platform for digital services, earning Estonia global recognition for digital government. Their study applies the seven principles of GaaP proposed by Tim O'Reilly—openness, simplicity, participation, learning from hackers, data mining, experimentation, and leading by example—to evaluate Estonia's success. Additionally, (Brown et al., 2017) The Platform Appraisal Framework (PAF) is proposed as an assessment tool to ensure consistency in GaaP initiatives. The authors apply this framework to the UK Government's platform initiatives over two distinct periods, 1999–2010 and 2010 onward, deriving practical insights into implementing platforms in the complex public sector environment.

One of the problems faced by countries, especially developing countries, is the failure of information technology projects in electronic government. This lack of success is due to the complexity, largeness, time consumption, and high cost of such projects (Mukhopadhyay et al., 2019). budget budget and capital has been spent and locked in such massive IT systems (Fujitsu, 2015). The reason for the emergence of this problem has been the existence of a silo view on the issue of transformation (Bracken, 2015). Being a silo of electronic government means that instead of creating a unique digital government in the country, modernization efforts have led to the creation of many silos within the government. Each of the silos has security flaws, inflated costs, and different user experiences. As a result, a labyrinth of databases and applications has been scattered at the level of government organizations, which are unable to or can hardly integrate and work together (Pope, 2019).

In the last decade, an idea and philosophy called Government as a Platform was proposed, which claims to be able to solve the mentioned issues. In this idea, instead of having unique and customized systems that cannot interact with each other, they can be replaced with small, suitable, and reorganizable parts (Copeland, 2016). The philosophy of Government as a Platform is based on the fact that the application of platform thinking can lead to a transformation in the government's approach to public services and, as a result, improve the quality of public services and, at the same time, reduce costs (Accenture, 2016). In line with the global efforts to realize the concept of Government as a Platform, examples of such initiatives can be observed in countries like India. For instance, India's Aadhaar authentication platform has successfully integrated services across government sectors for over one billion people. The Estonian government is devising new services for "life events", such as having children, that go beyond the boundaries of government agencies. They can do this because of the common intergovernmental data infrastructure they have built over the past decade. Common standard components in the UK, Italy, and Argentina solve public issues for the whole government (Pope, 2019).

Platform technologies can influence the services and relations of intergovernmental institutions (Styrin et al., 2022). Platforms build our digital infrastructure more than ever, and society increasingly relies on them (Srnicek, 2021). Government as a Platform provides a new path for greater citizen participation, which should be implemented from a governance perspective (Seo and Myeong, 2020). Government as a Platform allows citizens to benefit from user-friendly services while the government also benefits from increasing efficiency and reducing costs (Poliarus, 2022). In this case, instead of being the first initiator of a civil action, the government integrates people and empowers them (O'Reilly, 2011). This type of government presents a new paradigm, which is not the continuation of gradual improvement in the current government system (Pope, 2019). If governments want to be considered actors, they must first design a comprehensive platform approach centered on public values and collective goals (Van Dijck et al., 2018).

If each of the ministries covers the existing gap in the implementation of cooperation to optimize the processes, the Government as a Platform is achieved with more cooperation (Llanos Guillen, 2022), and the degree of its success depends on the desire of the government organizations to overcome the silos of their departments and this approach is a social and economic opportunity (Bharosa, 2022). To achieve this concept, all government officials should get used to applying Intelligent Information Technology (IIT) in their jobs (Seo and Myeong,

2022), and its implementation requires cooperation and coordination at the national level (Styrin et al., 2022).

In this research, the present study seeks to identify the readiness indexes and components of Government as a Platform. Existing research on platforms focuses on the modularity, openness, ecosystem leadership, and governance of the platforms, as well as on the impact of the platforms on government innovation, scale, and agility (Mukhopadhyay et al., 2019). The functions of implementing Government as a Platform include: improving the efficiency of public services, reducing silos, improving the evolution of public services, and facilitating coordination between government agencies (Cordella and Paletti, 2019). From another point of view, the elements required to implement this concept are an entrepreneurial culture, transformational leadership, open innovation, citizen participation, data transparency, and knowledge sharing (Kato, 2021). This government aims to develop efficient and user-friendly services by exploiting the platform principles, such as openness, modularization, and co-creation. However, success depends on the context and culture of a country (Kuhn, et al., 2022a).

Accordingly, by studying the experiences of more than 30 countries in the field of Government as a Platform, the current research attempts to provide a reference model of Government as a Platform readiness index. As a result, this research will seek to answer the question, “What are the Government as a Platform readiness indexes, and what is the Government as a Platform reference model?” In this article, the generality of the subject and the empirical literature are stated. Then, the research method, based on a systematic review, is described. Further, findings, model descriptions, and research results are presented.

In this research, the reference model for Government as a Platform readiness index is presented based on a systematic review and meta-synthesis research method. What distinguishes the current research is a meta-synthesis approach to the achievements of the leading countries in this field. Since there is no agreed model for the Government as a Platform readiness index worldwide, this model can be used as a basic model in different countries. Also, the findings of this research determined that each Government as a Platform readiness index has been extracted from the experiences of which country or countries.

2. Research literature

2.1. Theoretical background

In 2011, Tim O'Reilly proposed the concept of Government as a Platform for the first time. He referred to successful companies like Wikipedia, Amazon, and Google to explain how platform-

based organizations improve their services through customer behavior and feedback data. He believes this is also possible for the government and criticizes the old model of the government in which people pay taxes and receive services, but they do not contribute. Moreover, he believes that the government should create a capacity for the people to innovate in an ecosystem of participation. In this regard, the information produced by citizens or on their behalf is like blood for the economy and the country, and the government is responsible for treating it like a national asset (Brown et al., 2017). Government as a Platform seeks to answer two key questions: first, how to turn the government into an open platform so that people inside and outside the government can innovate, and second, how to design a system where the results (solutions) are not predetermined but formed in the interaction between the government and people (Brown et al., 2017).

As mentioned in the introduction, in recent years, some countries have gained experience from implementing Government as a Platform and obtained the components and requirements for its implementation.

Shami Zanjani (ShamiZanjani, 2022) says that governance means managing all management, that is, phenomena at the highest possible level. Digital governance is the highest level of decision-making about digital issues in the organization. Hassani (Hassani, 2023) considers platform governance as a concept that relates to the layers of governance relationships that structure the interactions between key parties in the current platform society. Digital transformation's role in realizing Government as a Platform is crucial. In this regard, Kane believes that companies must address three business issues if they are going to manage digital transformation effectively. These issues include navigating digital disruption, rethinking leadership and talent, and becoming a digital organization (Kane, 2019). In this regard, Venkatraman believes that for the Government as a Platform, the country country's ecosystems should be harmonized, and the government should be agile (Venkatraman, 2017). Al-Ani considers open governance to be one of the components and indexes of Government as a Platform (Al-Ani, 2017).

Government as a Platform allows coordination of various institutions to achieve a common goal (Bender and Heine, 2021). The overall concept of this government model focuses on using digital technologies to integrate different services. It is worth mentioning that a single platform coordinates the portfolio of public services. By that, the government provides a platform with powerful components to provide various services (Bender and Heine, 2022). This approach sees the government as an open platform where people inside and outside the government can

innovate and create better public services (Kuhn,et al., 2022b). The development of an intersectional electronic interaction system should be considered one of the introduction mechanisms of this concept (Olegovna, 2022).

When government processes become as transparent, responsive, flexible, user-friendly, and innovative as a platform that has good management and design, a great gift is offered to the country (Parker et al., 2017). In the government model of Government as a Platform, its role is brought to an irreducible core of essential and important infrastructure, allowing public and private developers to innovate based on it (Peña-López, 2020). According to Tim O'Reilly, just as companies like Google, Facebook, Apple, Amazon, and Microsoft establish rules and regulations to manage their platforms, appropriate laws should be established for the Government as a Platform, which is implemented to ensure the success of our society (Van Dijck et al., 2018).

Through Government as a Platform, the public sector realizes the well-known advantages of the platform economy (Bender and Heine, 2021). Additionally, for the implementation of Government as a Platform, the approaches of the private sector need to be transferred to the public sector, and the processes need to be continuously improved (Brown et al., 2017).

Web 3.0 is one of the requirements for the realization of Government as a Platform. Participation based on Web 3.0 technology, which encourages participation and has a participatory feature, is the basis of the design of Government as a Platform, and this idea is based on civil participation (Neverov, 2020). Accordingly, governments should actively mine new open data that can create added value for innovation. Governments must create an environment of easy collaboration with other stakeholders, especially non-governmental participants (Seo and Myeong, 2021).

2.2. Experimental background

In this research worldwide was reviewed based on meta-synthesis research.

As a result of the search for the two terms Government as a Platform and "Case Study" in Web of Science, Scopus, Elsevier (Science Direct), and Google Scholar databases found related studies from more than 30 countries. Among these studies, those related to Slovenia, Germany, America, England, Italy, Peru, Russia, Japan, Singapore, France, Finland, South Korea, Norway, India, Spain, Austria, Belgium, Ecuador, China, and South American countries (Argentina, Brazil, Bolivia, and Uruguay), which have described the experiences of Government as a Platform preparation in more detail, were selected.

Gil-Garcia et al., (2019) refer to the existence of different conceptualizations regarding Government as a Platform by researchers and executives and mention that this model of government can be the next stage in the digital government. They extract several features of Government as a Platform, including state-wide architecture, modularity, citizen-centered design, open participation, cooperation network, flexible cooperation model, programmability, open standards, and encouragement to experiment. Considering the limitations of their research, they examined the first three characteristics in England, America, and Australia. Mukhopadhyay et al., (2019) seeks to find the role of government platforms in solving the problem of efficiency in providing government services to the poor, especially the need to scale services given to a large population of these recipients in India, by introducing some features "through a case study", and investigated the role of the government platform in increasing the scalability of electronic services in the "Aadhar" authentication platform. Their findings show successful practical experiences. Mukherjee, (2013) compares technological platforms to the railway system: "Look, it's just like a railway platform. Various trains stop on the same railway platform. Each has different destinations, and people get on and off depending on where they go. Similarly, the state technology platform is a central place where various state governments, institutions, and citizens can unite. All government services are provided on this platform, and citizens can apply for all services provided on it".

The UK is a leader in implementing and realizing this concept. The UK government's Digital Services Centre explains: "It is thought that there is a simpler and easier way. The same public service but with a different design and presentation, an idea called Government as a Platform. This idea divides everything into smaller pieces, such as building blocks. Each block is responsible for an activity. Blocks can be easily connected, and the scale can be increased in case of increased demand. If part of the service delivery system breaks down, it can be easily repaired or upgraded. Also, platforms can be open so that the use of government data for third-party services is allowed" (Pope, 2019).

The Organization for Economic Co-operation and Development[1] (Peña-López, 2020) has outlined models of Government as a Platform in several countries of the world according to Table 1, identifying several important issues that can be explored through Government as a Platform thinking. This shows that an ecosystem of service teams to meet needs (Model 1)

[1] OECD

provides the foundations that can facilitate the creation of a market for public services (Model 2) and a way to rethink the relationship between citizens and state (Model 3).

Table 1. Examples of elements in a government as a platform ecosystem

Problem solved by a government as a platform ecosystem	**Government as a platform model**	**Country example**
Transforming procurement to improve supplier relations	1	Digital Outcomes and Specialists Framework, United Kingdom
Training and equipping of in-house capability	1	Canada School of Public Service Digital Academy, Canada; Academia Digital, Chile; Digital Academy,-United Kingdom
Internal tools for civil servant users such as authentication	1	GOV.UK Signon, United Kingdom
Standards and controls for spending	1	Spend controls model: Denmark, Norway, Portugal,-United Kingdom
Guidance on "what good looks like"	1, 2	Arquitectura TI, Colombia; Service Manual, United Kingdom
Reusable common components that respond to common user needs	1, 2	Digital Identity: Austria, Canada, Denmark, Estonia, Italy, Korea, Norway, Portugal, Spain, United Kingdom,-Uruguay Digital Mailbox and notifications: Australia, Canada, Denmark, Norway, United Kingdom Hosting: United Kingdom, United States Payments, Italy, United Kingdom
Reusable designs and patterns that respond to common needs	1, 2	Design systems: Argentina, Australia, Brazil, Canada, Singapore, United Kingdom, United States
Standards and controls for spending	1, 2	Spend controls model: Denmark, Norway, Portugal,-United Kingdom
Standards for ensuring the design of services	1, 2	Service standards: Australia, Canada, Germany, New Zealand, Singapore, United Kingdom
Standards for technology	1, 2	Secure Cloud Strategy, Australia; Open Source Contribution Policy, France; IT Architecture Principles,-Norway; Technology Code of Practice, United Kingdom
Canonical, discoverable data	1, 2	Public registers: Denmark, Italy, Norway,-Sweden
Standards for publishing and handling data	1, 2	Standards on APIs, Canada; Common Public Digital- Architecture, Denmark
Cross-governmental networks for delivering services that avoid silos of delivery	1, 2, 3	Service communities, United Kingdom
Interoperability of data	1, 2, 3	X-road, Estonia; TRAY, Slovenia
Transparency of access to personal data and effective models of citizen consent for their reuse	1, 2, 3	NemID, Denmark; Carpeta Ciudadana, Spain

Very few countries have proposed that governments could create centralized add-ons to implement sector-specific infrastructure or platforms. Estonia is often highlighted as a leading example of a government prepared to establish its platform community Margetts and Naumann, 2017). A literature review reveals that while numerous studies have explored the characteristics and requirements of Government as a Platform (Yakhchali et al., 2020), there is still a lack of a

comprehensive reference model specifically aimed at evaluating governments' readiness to adopt this concept. This study aims to fill this gap by proposing a conceptual framework to assist governments in assessing their readiness.

A reference model for Government as a Platform readiness indexes index is provided hereinafter using the meta-synthesis research method.

3. Research method

This research is a fundamental study using a qualitative method based on a systematic review of the literature using a meta-synthesis approach. Library and documentary study methods were used to gather information, and appropriate resources were refined and selected through a systematic review of the literature. Finally, by analyzing data using the meta-synthesis and coding method, a reference model was obtained and formulated.

Meta-synthesis is a type of qualitative study that examines information and findings extracted from other qualitative studies related to the subject and provides a systematic approach for researchers to explore new topics. Therefore, meta-synthesis is an exploratory research method for creating and extracting a common reference framework for previous studies' results that combines separate qualitative research projects by translation and synthesis processes at an abstract level. In other words, meta-synthesis is the process of searching, evaluating, combining, and interpreting qualitative studies in specific contexts (Ludvigsen et al., 2016). The most common method of meta-synthesis is the seven-stage model of Sandelowski and Barroso (Sandelowski et al., 2007), which is used in this research (Fig. 1). The research findings are presented here based on the steps of the meta-synthesis method.

Figure 1. Successive steps of the meta-synthesis method (Ludvigsen et al., 2016)

Step one – Setting the research question: The parameters of what, who, or the studied community and the timeframe were used to set the research question according to Table 2. The timescale was chosen from 2011 to 2023 because research on Government as a Platform began in 2011.

Table 2. *Setting the research question*

Components of the Question	Answer to Question
Studied Community	All fields, branches, and research and scientific fields in the Web of Science, Scopus, Elsevier (Science Direct), and Google Scholar databases on GaaP related to more than 30 countries around the world, as well as related theses and book chapters.
Timeframe	From 2011 To 2023

Step two—Systematic background review: In this step, the authors systematically searched articles and books that included related keywords.

Systematic review research is mainly used to combine initial research and create an image of the existing knowledge on a specific topic, as well as to find differences and variations in the results of various studies and explain the reasons for these differences. A critical issue in a systematic review is comprehensiveness and ensuring proper resource coverage. To analyze and summarize the research results for the combination of qualitative data, meta-synthesis can be used.

This study, based on the problem and the objective set, seeks to answer the following questions:

1. What are the Government as a Platform readiness index?
2. What is the Government as a Platform readiness reference model?

Step three - Searching and selecting appropriate articles: in the identification stage, to realize search comprehensiveness regarding Government as a Platform readiness indexes, efforts are made to consider a broader scope of the search resources (databases) so that most digital libraries and online databases are used. Thus, Scopus, Web of Science, and EBSCO indexing databases and JSTOR, Elsevier, Wiley, Sage, Springer, and Proquest databases were searched. Moreover, articles and books published in the last two years were identified and collected using manual Google Search and automatic Researchgate and Google Scholar notifications by searching “Government as a Platform”. Then, the researcher saved and categorized the results as an Endnote library.

Since the concept of Government as a Platform was first proposed in 2011, the results of searches related to the period from 2011 to 2023 were examined. It should be noted that most of the articles that focused on the Government as a Platform as a case study in one or more countries were published in 2020, 2021, and 2022. In this step, 961 sources were identified and recorded.

The process of evaluating and selecting from the resources collected in Endnote software and the resources obtained from searching databases were screened in several stages. In the screening stage, duplicated search results in each database were removed from Endnote library

and the results of previously searched databases. Resources that could not be evaluated and used in later stages due to the lack of access to their full text were also removed. In addition to English articles in Korean, Chinese, Portuguese, German, Russian, and Italian were also used. The identified sources were reduced to 306 after the screening stage, shown in Fig. 2 inspired by (Moher et al., 2009).

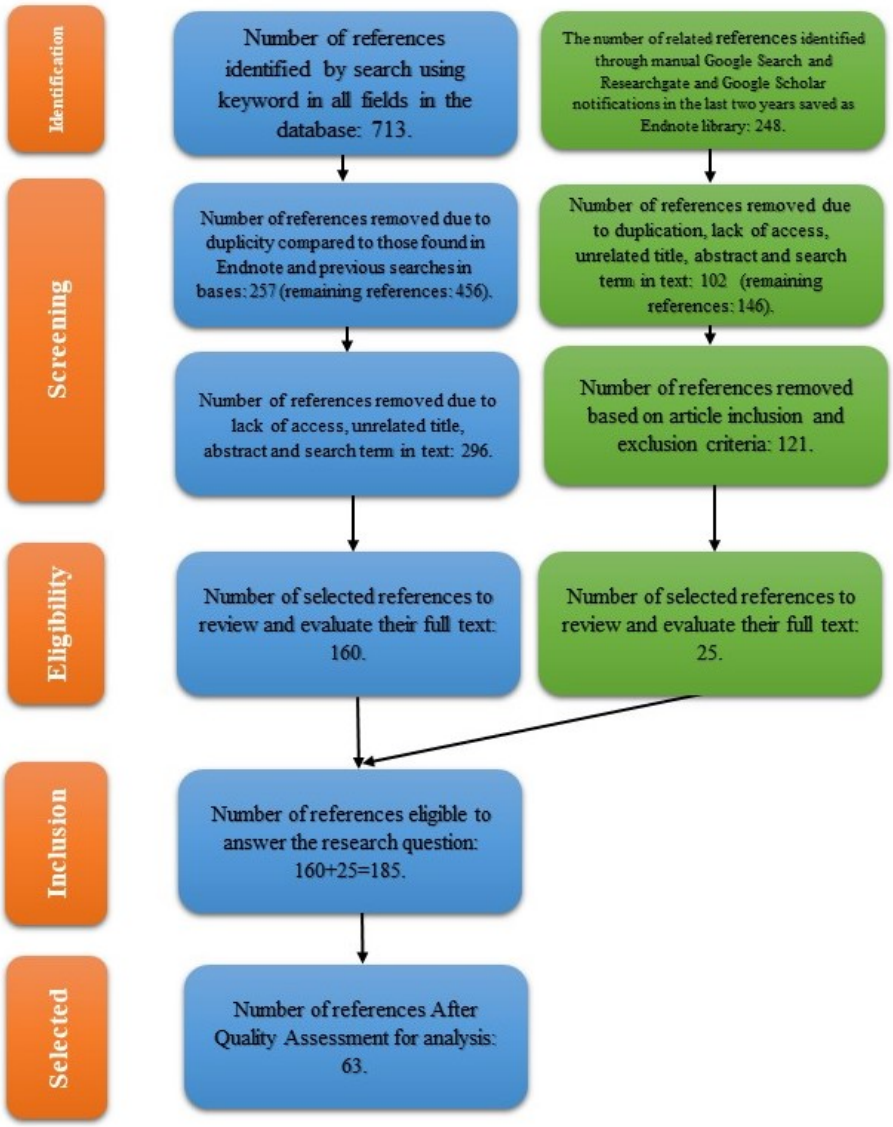

Figure 2. Information flow of the systematic review process

In the eligibility (inclusion) stage, the full text of the sources selected in the screening stage was reviewed, and several sources, especially those unrelated to the research question, were removed due to non-compliance with the inclusion criteria. At this point, the number of resources was reduced to 185.

In the final stage of the systematic review, the following quality assessment indexes were considered:

- Database validity (indexed in authoritative databases),
- Credibility of the publisher's journal (CS and IF) and number of references (citation) to articles,
- Author and publisher credit for the book,
- The credibility of the international institution or organization about official and international reports,
- The university's credibility about theses, and
- Clarification or assignment of the subject to a case study of the Government as a Platform.

The information required for quality assessment in data mining tables in Excel was individually entered and recorded for each resource and scored at three levels[2]: good, average, and poor. Consequently, among 185 sources that were deemed eligible based on inclusion criteria, 58 were finally selected and used for qualitative analysis and coding.

The selected sources[3] include 32 journal articles with high citations published in prestigious international journals with high impact factor, nine books by leading researchers in this field, six theses from prestigious universities, seven papers published in prestigious conferences in the field of e-government, and four official and international reports including reports from the Organization for Economic Co-operation and Development (OECD), international companies, such as Fujitsu and Accenture, and reports from national institutions of the United Kingdom (the list of references is given in the bibliography).

Step four - Extracting the results: Following the transcription methodology, selected articles were studied to achieve relevant content. Due to the focus of the research question on "identifying Government as a Platform readiness index", the mentioned features were extracted from the text of the articles. Open coding means assigning code to sentences, creating concepts

[2] The sources were selected based on the following criteria:
1. Relevance to the research topic: Sources that are directly related to the concept of Government as a Platform and governments' readiness in this domain.
2. Scientific quality and credibility: Sources that were scientifically reliable and published in reputable journals and specialized conferences, offering comprehensive and thorough content for analysis and coding.
3. Methodological rigor: Sources that employ valid research methodologies for data collection and analysis.

After evaluating these criteria, 58 out of 185 eligible references were selected for analysis and coding.

[3] The selected references were taken from the following databases:
- ScienceDirect: For scientific articles published in reputable journals.
- SpringerLink: Including articles and books published by reputable publishers.
- Wiley Online Library: For credible articles across various scientific disciplines.
- Google Scholar: To identify and evaluate highly cited and credible articles.
- JSTOR: For access to scholarly articles and reputable journals.
- IEEE Xplore: For articles and proceedings from international conferences in the fields of technology and e-government.

from the combination of codes, and forming categories and themes from the combination of concepts to obtain a general and macro image of the concept under study. This study transferred selected sources (58) to MaxQDA Analytics Pro 2020 to extract, analyze, and combine content data. First, each source's sentences and phrases related to the research question were selected, and each was encoded. These codes were gradually modified and optimized after being categorized and combined over several stages, and the research concepts were formed. Typically, research groups conduct systematic review research, and resource assessment and data extraction are performed in the interaction between research team members. The results are compared, and disagreements are resolved through discussion.Therefore, in this research, the research team members discussed and reviewed all stages, from resource review and screening to code extraction and analysis of the findings. They agreed on them and approved the processes that were undertaken. In the coding process, hundreds of codes were extracted, and during the analysis process, several codes were deleted, combined, or separated, and eventually, 670 extracted codes were verified. After classifying and aggregating the codes, 75 concepts were formed. The reference model of the Government as a Platform readiness index was further classified by gender index was further classified by gender, as shown in Fig. 3. This model was derived from MaxQDA Analytics Pro 2020.

Step five - Analysis and integration of research findings: In meta-synthesis methodology, topics that have emerged in studies on meta-synthesis are searched. To do this, the themes or topics are first identified, and then a thematic classification is formed, and then similar themes are placed under the topic or category that describes it in the best possible way (Ludvigsen et al., 2016).

Step six - Quality control: Validation of meta-synthesis qualitative studies can be done in two ways: first, using the opinion of experts to correct and confirm the findings, and second, presenting the final results of studying the theoretical foundation (Campbell et al., 2012). This study used the first method to confirm the research achievements. To assess the foundations of the research, Cohen's kappa coefficient (Ludvigsen et al., 2016) was calculated (0.72), and the above agreement between the two coders and the acceptable reliability was confirmed. After obtaining the validation results, interviews were conducted with 15 experts in digital transformation and e-government fields. The basis for the selection was the availability of the experts in question, the ability to write authoritative articles in the field of research for university professors, and the availability of suitable management backgrounds for managers.

Step seven—Presentation of findings: Based on concepts, similar codes were categorized into a single concept (research themes), and finally, by combining the themes, categories were extracted (Table 3).

Table 3. GaaP readiness indexes according to the countries under study

No	GaaP Readiness Index	References
1	Good Governance	Margetts and Naumann (2017), Peters and Billert (2021), Mukhopadhyay et al. (2019), Cordella and Paletti (2019), Neverov (2020), Smorgunov (2021), Olegovna (2022)
2	Citizenship Rights	Peña-López (2020), Gil-Garcia et al. (2019), Brown et al. (2017), Margetts and Naumann (2017), Poliarus (2022), Cordella and Paletti, 2019., Peters and Billert (2021), Kuhn et al. (2022a), Styrin et al. (2022), Neverov (2021), Kato (2021), D'Silva and Norway (2018), Chung (2017), Seo and Myeong (2021) , Linders (2012), Mergel et al. (2018)
3	Political Stability	Neverov (2021), Geliskhanov Islam et al. (2018), Mergel et al. (2018)
4	Responsible Government	Styrin et al. (2022)
5	Rise of Public Value	Cordella and Paletti (2019), Neverov (2020), Smorgunov (2021)
6	Justice in Distribution	Neverov (2020), Geliskhanov Islam et al. (2018), Styrin et al. (2022)
7	Rule of Law	Margetts and Naumann (2017), Neverov (2020), D'Silva and Norway (2018), Llanos Guillen (2022), Styrin et al. (2022), Bharosa (2022), Seo and Myeong (2022), Mergel et al. (2018), Peters and Billert (2021)
8	Citizens' Interaction with the Government	Peña-López (2020), Neverov (2021), Kato (2021), Kuhn et al. (2022b), D'Silva and Norway (2018), Styrin et al. (2022), Seo and Myeong (2021) , Seo and Myeong (2020) , Linders (2012), Gil-Garcia et al. (2019)
9	Explanation of Procedures and Rules	Bender and Heine (2021), Cordella and Paletti (2019), Neverov (2020), D'Silva and Norway (2018), Bharosa (2022), Seo and Myeong (2021), Gil-Garcia et al. (2019)
10	Identifying the Needs of Citizens	Peña-López (2020), Kuhn et al. (2022b), Cordella and Paletti (2019), Neverov (2020), Llanos Guillen (2022), Geliskhanov Islam et al. (2018), Styrin et al. (2022), Gil-Garcia et al. (2019), Seo and Myeong (2021)
11	Citizen-Centric Design	Gil-Garcia et al. (2019), Al-Ani (2017), Kuhn et al. (2022b), D'Silva and Norway (2018), Llanos Guillen (2022), Linders (2012), Peña-López (2020)
12	Predicting People's Expectations	Gil-Garcia et al. (2019)
13	Digital Literacy	Margetts and Naumann (2017), Kuhn et al. (2022b), D'Silva and Norway (2018)
14	Sharing Successes	Peters and Billert (2021), Cordella and Paletti (2019), Neverov (2020), Seo and Myeong (2020), Bender and Heine (2021)
15	Portal Content Creation	Margetts and Naumann (2017), Peña-López (2020), Boschetti (2022)
16	The Government Shifting Paradigm from Service Provider to Ecosystem Leadership	Boschetti (2022), Brown et al. (2017), Reponen (2017), Mukhopadhyay et al. (2019), Cordella and Paletti (2019), Kato (2021)
17	The Pervasiveness of New Technologies	Peña-López (2020), Al-Ani (2017), D'Silva and Norway (2018), Llanos Guillen (2022), Seo and Myeong (2020), Neverov (2021)
18	Minimal Government Management	Neverov (2020)
19	Platform Ecosystem	Peña-López (2020), Bender and Heine (2021), Neverov (2020), Cordella and Paletti (2019), Mukhopadhyay et al. (2019), Kuhn et al. (2022b), Reponen (2017), D'Silva and Norway (2018), Styrin et al. (2022), Bharosa (2022), Seo and Myeong (2021), Seo and Myeong (2020), Margetts and Naumann (2017)
20	Existing Comprehensive Approach to the Concept of GaaP in Government	Peña-López (2020), Gil-Garcia et al. (2019), Chaobing and Tian (2022), Margetts and Naumann (2017) , Kuhn et al. (2022b), Mukhopadhyay et al. (2019), Cordella and Paletti (2019), D'Silva and Norway (2018), Chung (2017), Trček (2022), Mergel et al. (2018), Bender and Heine (2022), Bender and Heine (2021)
21	Architectural Principles of Information Technology	Gil-Garcia et al. (2019), Kollara (2017), Mergel et al. (2018), Peña-López (2020)
22	Compatibility of Government Platforms	Styrin et al. (2022)
23	Modular Government (Modular Architecture)	Cordella and Paletti (2019), D'Silva and Norway (2018), Mukhopadhyay et al. (2019), Styrin et al. (2022), Mergel et al. (2018), Chaobing and Tian (2022)
24	Single Platform for the Provision of Services	Gil-Garcia et al. (2019), Boschetti (2022), Cordella and Paletti (2019), Kollara (2017), Styrin et al. (2022), Seo (2021), Chung (2017), Trček (2022), Bender and Heine (2021)
25	Decentralized Governance	Neverov (2020), D'Silva and Norway (2018), Bender and Heine (2021), Seo (2021), Bharosa (2022), Styrin et al. (2022)

No	GaaP Readiness Index	References
26	The Approach of Federal Governments	Styrin et al. (2022), Bender and Heine (2021)
27	Top-Down Platform Model	Brown et al. (2017), Styrin et al. (2022), Neverov (2020)
28	Nurturing th Entrepreneurial and Startup Community	Peña-López (2020), Al-Ani (2017), Peters and Billert (2021), Kuhn et al. (2022b), Reponen (2017), Seo and Myeong (2021), Seo and Myeong (2020), Cordella and Paletti (2019), Kollara (2017)
29	Digital Talent	Kollara (2017), Kuhn et al. (2022b)
30	Elite and Expert Human Resources	Peña-López (2020), Kollara (2017), Kuhn et al. (2022b), Brown et al. (2017)
31	Education of Citizens	Peña-López (2020), Kollara (2017), Seo and Myeong (2020), D'Silva and Norway (2018), Al-Ani (2017)
32	Transformative Leaders in Organizations	Kato (2021)
33	Integrating the Information Systems of Organizations	Jeannot (2020), Peña-López (2020), Neverov (2020), Mergel et al. (2018), Bender and Heine (2021), Seo and Myeong (2021), Seo and Myeong (2020), Cordella and Paletti (2019)
34	Government Sponsorship	D'Silva and Norway (2018), Kollara (2017)
35	Budget and Investment	Cordella and Paletti (2019), Neverov (2020), Bharosa (2022), Gil-Garcia et al. (2019), Peña-López (2020), D'Silva and Norway (2018)
36	Knowledge Management	Bender and Heine (2021), McBride (2017), Reponen (2017), Margetts and Naumann (2017), Kuhn et al. (2022b), Kato (2021), Neverov (2020), Peña-López (2020), D'Silva and Norway (2018), Seo (2021), Styrin et al. (2022), Seo and Myeong (2021), Bender and Heine (2021), Gil-Garcia et al. (2019) , Mergel et al. (2018), Brown et al. (2017)
37	Modeling of Private Sector Platforms	Bender and Heine (2021), McBride (2017), Reponen (2017), Seo and Myeong (2020), Neverov (2020), Bender and Heine (2022), Mergel et al. (2018), Gil-Garcia et al. (2019),
38	Stakeholder Experiences	Seo and Myeong (2021), Seo (2021)
39	Digital Trust	Peña-López (2020), Bharosa (2022) D'Silva and Norway (2018), Mukhopadhyay et al. (2019), Kollara (2017)
40	Development of Digital Government Infrastructure	Peña-López (2020), Boschetti (2022), Peters and Billert (2021), D'Silva and Norway (2018), Llanos Guillen (2022), Geliskhanov Islam et al. (2018), Bharosa (2022), Seo and Myeong (2021), Styrin et al. (2022), Kollara (2017)
41	Cyber Security	Peña-López (2020), D'Silva and Norway (2018) , Kollara (2017)
42	Web 3.0 Technologies	Neverov (2021)
43	Security of Information	Peña-López (2020), Mukhopadhyay et al. (2019) , D'Silva and Norway (2018)
44	Digital Privacy	Mukhopadhyay et al. (2019), Peña-López (2020), D'Silva and Norway (2018)
45	Blockchain	Viano et al. (2022), Geliskhanov Islam et al. (2018)
46	Electronic Authentication	Kollara (2017), Peña-López (2020), Mukhopadhyay et al. (2019) , Gil-Garcia et al. (2019)
47	Providing Growth and Development in the Community	Bender and Heine (2021), Bharosa (2022) , Bender and Heine (2022), Trček (2022), Smorgunov (2021), Neverov (2020) , Geliskhanov Islam et al. (2018), Al-Ani (2017)
48	Inter-Organizational Networks	Peña-López (2020), Jeannot (2020), Cordella and Paletti (2019), Llanos Guillen (2022), Styrin et al. (2022), D'Silva and Norway (2018), Kollara (2017), Bharosa (2022), Bender and Heine (2022), Mergel et al. (2018), Reponen (2017)
49	Data-Driven Governance	Peña-López (2020), Seo and Myeong (2020)
50	Data Collaboration and Interaction	Mergel et al. (2018), Peña-López (2020)
51	Participation of all Ministries at the National Level	Cordella and Paletti (2019), Reponen (2017), Peña-López (2020), D'Silva and Norway (2018), Llanos Guillen (2022), Styrin et al. (2022), Bender and Heine (2022, 2021)
52	The Existence of Development Thinking in the Government	Reponen (2017), Cordella and Paletti (2019), Neverov (2020), D'Silva and Norway (2018), Styrin et al. (2022), Mergel et al. (2018), Peña-López (2020)
53	Model of Continuous Improvement in Governance	Gil-Garcia et al. (2019)
54	Cooperation with International Organizations	Peña-López (2020)
55	Digital Transformation	Brown et al. (2017), Reponen (2017), Kuhn et al. (2022b), Kuhn et al. (2022a), Peters and Billert (2021), Mukhopadhyay et al. (2019), Llanos Guillen (2022), Cordella and Paletti (2019), Kato (2021), Neverov (2020), Geliskhanov Islam et al. (2018), Bharosa (2022), Mergel et al. (2018), Peña-López (2020)
56	Moving from e-Government to Platform Government	Smorgunov (2021), Chung (2017)
57	Agile Organizations	Mukhopadhyay et al. (2019), D'Silva and Norway (2018), Styrin et al. (2022), Seo and Myeong (2020), Mergel et al. (2018), Cordella and Paletti (2019)
58	Open Data	Kato (2021), Seo and Myeong (2021), Seo and Myeong (2020), Mergel et al. (2018), Neverov (2020)

No	GaaP Readiness Index	References
59	Optimizing the Processes of Government	Kollara (2017), Boschetti (2022), Peters and Billert (2021) , Kuhn et al. (2022b), D'Silva and Norway (2018), Neverov (2020), Llanos Guillen (2022), Styrin et al. (2022), Peña-López (2020), Seo and Myeong (2020), Reponen (2017)
60	Digital Culture	Eom and Lee (2022), Mergel et al. (2018), Seo and Myeong (2020)
61	Human-Technology Interaction	Neverov (2020), Geliskhanov Islam et al. (2018)
62	Open Government and the Smashing of Silos	Peña-López (2020), Al-Ani (2017), Kollara (2017), Reponen (2017), McBride (2017), Jeannot (2020), Peters and Billert (2021), Cordella and Paletti (2019), D'Silva and Norway (2018), Kato (2021), Bharosa (2022), Trček (2022), Seo (2021), Seo and Myeong (2020), Seo and Myeong (2021), Mergel et al. (2018), Chaobing and Tian (2022)
63	Preferring Audacity Over Caution	Mergel et al. (2018)
64	Inter-Organizational Collaborations	Zeng et al (2023), Reponen (2017), Kuhn et al. (2022b) , Jeannot (2020), Cordella and Paletti (2019), D'Silva and Norway (2018), Llanos Guillen (2022), Bender and Heine (2022), Eom and Lee (2022), Mergel et al. (2018), McBride (2017)
65	Big Data Management	Peña-López (2020), Margetts and Naumann (2017), McBride (2017), Peters and Billert (2021) , Geliskhanov Islam et al. (2018), Trček (2022), Chaobing and Tian (2022)
66	Creating an Open Mindset of Change and Innovation	Zeng et al (2023), Kuhn et al. (2022b), Peters and Billert (2021), Jeannot (2020), Mukhopadhyay et al. (2019), Cordella and Paletti (2019), Kato (2021), Seo and Myeong (2020) , Margetts and Naumann (2017)
67	Participatory Governance	Zeng et al (2023), D'Silva and Norway (2018), Styrin et al. (2022), Bharosa (2022), Trček (2022), Seo (2021), Seo and Myeong (2020), Seo and Myeong (2021), Eom and Lee (2022), Gil-Garcia et al. (2019), Mergel et al. (2018), Linders (2012), Neverov (2020)
68	Public-Private Cooperation	Reponen (2017), Mukhopadhyay et al. (2019), Cordella and Paletti (2019), Kuhn et al. (2022b), Neverov (2020), Kuhn et al. (2022a), Seo and Myeong (2021), Gil-Garcia et al. (2019), Mergel et al. (2018), Seo and Myeong (2020), Peters and Billert (2021)
69	Governing Together and Making Joint Decisions in the Government	Bender and Heine (2021) , McBride (2017), Cordella and Paletti, 2019, Neverov (2020), D'Silva and Norway (2018), Styrin et al. (2022), Bender and Heine (2022), Linders (2012),
70	Entrepreneurial Development	Kato (2021), Mergel et al. (2018)
71	Data Transparency	Peña-López (2020), D'Silva and Norway (2018), Mergel et al. (2018), Kato (2021)
72	Development in APIs	Trček (2022), Peña-López (2020), Mergel et al. (2018)

4. Research findings

The results of the experiences of countries around the world and the analysis and composition of data in this study, including subcodes, main codes, themes, and categories, led us to a comprehensive understanding of the concepts necessary for implementing the Government as a Platform. This leads to a new and more comprehensive description, image, and formulation of the basic concepts, readiness indexes, and background necessary for implementing the Government as a Platform. According to the reference model of Government as a Platform in Fig. 3, by classifying the obtained codes, 75 indexes, including three categories, seven themes, 32 principal codes, and 33 subcodes, were formed and classified into four layers. The topics were categorized into three categories: 1- creating the mindset of change and preparing for change; 2- preparing for innovation; and 3- preparing for economic growth.

Table 3 shows indexes, including subcodes, main codes, and contents, as well as the identified sources and the country discussed in the source. It should be noted that a code may be mentioned in several places in an article.

Also, Table 3 and Fig. 3 present Government as a Platform readiness indexes based on codes, categories, and themes.

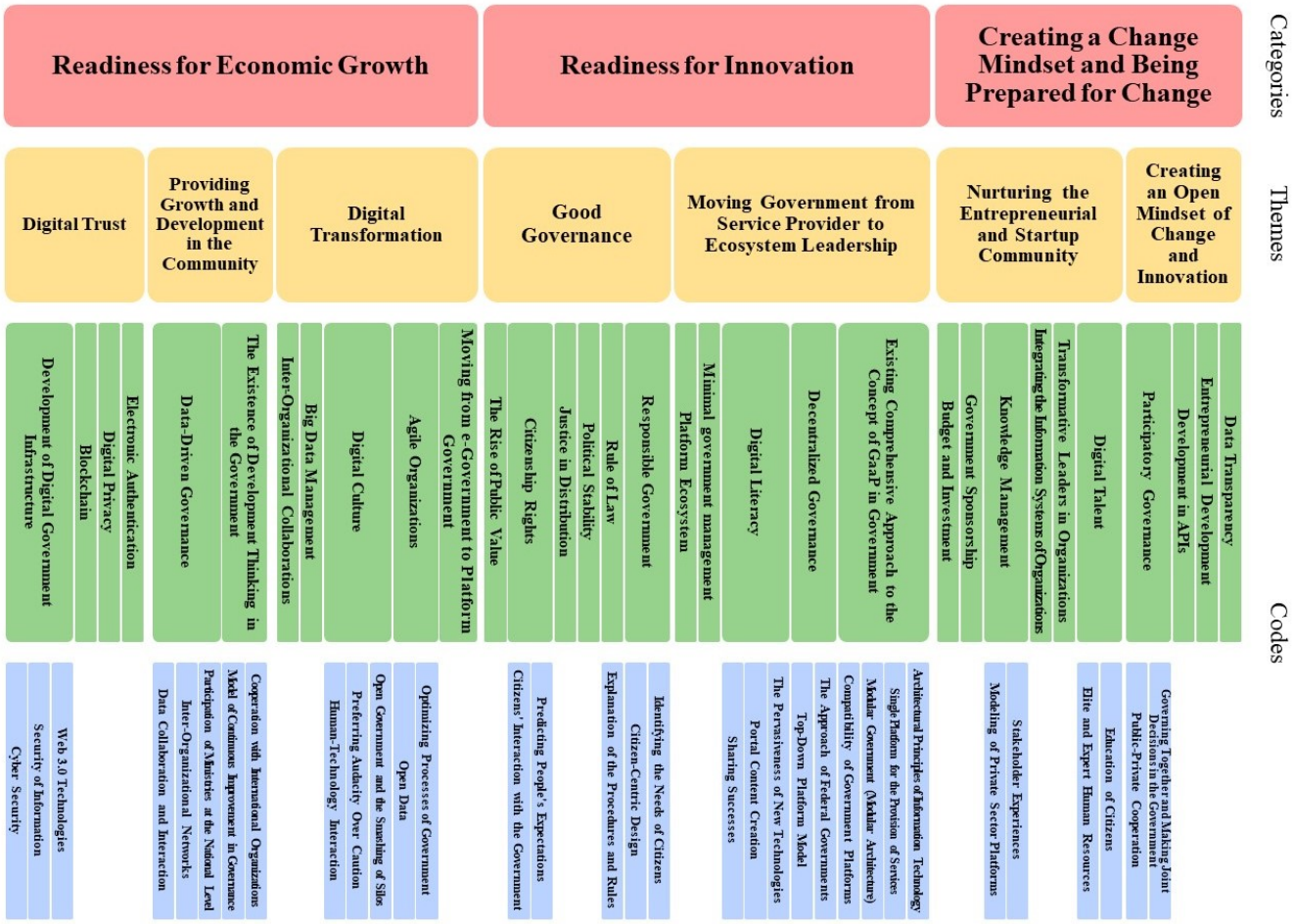

Figure 3. Infographic reference model of GaaP readiness indexes

The following are broader descriptions of the categories.

Table 4. *Mining GaaP readiness indexes based on codes, themes, and categories (Classification of extracted categories and themes)*

Categories	Themes	Codes	
Creating a Change Mindset and Being Prepared for Change	Creating an Open Mindset of Change and Innovation	Data Transparency	
		Entrepreneurial Development	
		Development in APIs	
		Participatory Governance	Governing Together and Making Joint Decisions in the Government
			Public-Private Cooperation
	Nurturing the Entrepreneurial and Startup Community	Digital Talent	Education of Citizens
			Elite and Expert Human Resources
		Transformative Leaders in Organizations	
		Integrating the Information Systems of Organizations	
		Knowledge Management	Stakeholder Experiences
			Modeling of Private Sector Platforms
		Government Sponsorship	
		Budget and Investment	

Readiness for Innovation	Moving Government from Service Provider to Ecosystem Leadership	Existing Comprehensive Approach to the Concept of GaaP in Government	Architectural Principles of Information Technology
			Single Platform for the Provision of Services
			Modular Government (Modular Architecture)
			Compatibility of Government Platforms
		Decentralized Governance	The Approach of Federal Governments
			Top-Down Platform Model
		Digital Literacy	The Pervasiveness of New Technologies
			Portal Content Creation
			Sharing Successes
		Minimal Government Management	
		Platform Ecosystem	
	Good Governance	Responsible Government	Identifying the Needs of Citizens
			Citizen-Centric Design
		Rule of Law	Explanation of the Procedures and Rules
		Political Stability	
		Justice in Distribution	
		Citizenship Rights	Predicting People's Expectations
			Citizens' Interaction with the Government
		The Rise of Public Value	
Readiness for Economic Growth	Digital Transformation	Moving from e-Government to Platform Government	
		Agile Organizations	Optimizing Processes of Government
			Open Data
		Digital Culture	Open Government and the Smashing of Silos
			Preferring Audacity Over Caution
			Human-Technology Interaction
		Big Data Management	
		Inter-Organizational Collaborations	
	Providing Growth and Development in the Community	The Existence of Development Thinking in the Government	Cooperation with International Organizations
			Model of Continuous Improvement in Governance
		Data-Driven Governance	Participation of Ministries at the National Level
			Inter-Organizational Networks
			Data Collaboration and Interaction
	Digital Trust	Digital Privacy	
		Electronic Authentication	
		Blockchain	
		Development of Digital Government Infrastructure	Web 3.0 Technologies
			Security of Information
			Cyber Security

4.1. Category 1- Creating a change mindset and preparing for change

If the results are to be changed to prepare for the Government as a Platform, there is no choice but to change the mindset. According to the artistic definition of Henry Chesbrough, open innovation is the "targeted use of external and internal knowledge flows to accelerate internal innovation, and market development for external use of innovation". This definition refers to the use of knowledge resources by companies. Any organization that relies solely on its internal knowledge resources for innovation uses closed innovation, which generally has its characteristics and limitations, and any company that uses internal and external knowledge resources has an open innovation approach. The prerequisites for popularizing governance as the basis for Government as a Platform are: empowering people, data transparency, analytical dashboards, mass platforms, and maintaining security and privacy through digital and intelligent systems and platforms. Researchers believe there must be a lot of change in sharing practices to ensure data transparency. Scientists contend that information should be made public while no one's security and privacy are threatened. Data transparency as an important Government Platform index can lead to the reproduction of science and be the basis for improving decision-making at micro and macro levels. Transformative leadership style increases team morale and leads to innovation, improved conflict resolution, reduced costs, and an increased sense of team members' ownership. Entrepreneurial development is an important index that governments take steps towards by designing and implementing programs and policies. Although in each country, according to its requirements, certain goals are considered in the interests of that country in the development of entrepreneurship, governments pursue similar goals overall. The most important of these goals are to increase employment and economic development, increase competition in the economy and develop market efficiency, increase innovation and development of technology dissemination, help increase exports, achieve regional development, reduce the monopoly of large companies, and decentralization, and increase private sector participation in the economy (which is one of the important goals of the Government as a Platform). The development of APIs (Application Program Interfaces) has become an important element in Government as a Platform, as it allows developers to build new applications faster and with fewer development resources. The Government, as a Platform, uses APIs to make its data available to independent software developers. This allows them to communicate with other systems and create new applications that perform better than previously available ones. Implementing Government as a Platform is the prerequisite to implementing participatory governance. The implementation of participatory governance

includes: 1- Strengthening the participatory process through innovative solutions and models and improving the common cognition of problems and outcomes of society. 2- Strengthening the interaction between policy and policy making and service delivery. 3- Integration of public services with an organizational and inter-organic attitude. By modeling private sector approaches in the field of platform strategy, Government as a Platform transfers the experiences of the private sector to the public sector. As competition is increasing internationally, many organizations invest huge amounts of their funds and resources in information and communication technology to gain a competitive advantage. Knowledge management, information systems integration, and the way of managing digital talent so that they become long-lasting play an effective role in the readiness of Government as a Platform. Organizations that manage digital talent need to replace a business with the usual mindset and outdated talent management practices with customized strategies to attract and develop talent way that persuades the talent to stay. Also, integrating information systems as a vital index offers a high capacity for disseminating information across the organization's borders and helps to make better decisions. Increasing productivity, making better decisions, reducing costs, increasing revenue, and providing integrated services are among the benefits of integrating information systems. Knowledge management is the use of individual and collective experience and knowledge through the process of knowledge production, sharing knowledge, and applying it with the help of technology to achieve the goals of the organization and, consequently, the government. Knowledge management is one of the infrastructures of Government as a Platform readiness, i.e., the creative and efficient use of all knowledge and information available to the organization for the benefit of the customer and, therefore, for the benefit of the organization's benefit.

4.2. Category 2- Readiness for innovation

One of the main foundations of the Government as a Platform is exploiting private sector experiences. Today, the most critical issue in many countries is the economy, and economic conditions can be improved through interaction and cooperation between the public and private sectors. Public-private sector interaction is essential for boosting production in the economy. The central role of government in fostering innovation is an important topic analyzed in this article, based on evidence from other countries regarding Government as a Platform. The government is a crucial element of the Government as a Platform ecosystem. The government's support, policy, and leadership in this ecosystem can empower small- and medium-sized

enterprises to enter international markets successfully. Through legal incentives, tax concessions, amnesty, financial support, and the reduction of customs barriers, the Government as a Platform can increase incentives for small- and medium-sized enterprises to enter international markets. Good governance represents a paradigm shift in the role of government by enabling equal participation of all citizens in the decision-making process and reflecting the reality that governance belongs to the people and is shaped by them.

Additionally, the Government as a Platform can effectively reduce waiting times and improve the delivery of public services, as well as enhance effectiveness, productivity, transparency, accountability, and the government's ability to carry out key activities. It is important to note that the transparency and accountability of the government in providing services are crucial outcomes of establishing a Government as a Platform for governance. Regarding the relationship between the Government as a Platform readiness index and the rule of law, it is important to note that without order, law, and societal regulations, force and fraud dominate interpersonal relations, leading to chaos and disorder. Centralized control over processes (both governmental and non-governmental), the acceleration of overall societal activities, and increased citizens' satisfaction with governance are examples of the benefits governments can gain from realizing Government as a Platform. Category 3- Preparation for economic growth Digital transformation as the foundation of Government as a Platform is one factor contributing to the increase in economic growth of governments. Also, digitization increases entrepreneurship and creates new businesses. This, in turn, increases economic growth due to increased profits and reduced business costs. In the digital age, two elements of transparency and building trust in citizens are important, with the focus on Government as a Platform. Trust is a prerequisite for the digital economy. Cybersecurity should be such that it can cover different layers. Data are the assets of the public and private sectors, so the optimal use of these valuable assets is important. Many countries have also adopted various institutions and laws on data control and storage, all of which reflect changes in data governance in the age of cyberspace. There are major issues around the important index of "data-driven governance" and ignoring them slows down the development of the "digital economy" in governments. Topics such as data ownership, data exchange, aggregation, data quality, data dissemination, and data security are among the root issues of data governance. The World Values survey indicates that high-income countries show the highest trust in people. Low-income countries have the lowest level of trust in people, indicating a possible link between digital trust and the digital economy. The digital trust index is a factor that measures the value of digital trust, quantifies the opportunity

cost of digital trust loss, and shows that the global economy can be dramatically improved by increasing digital trust. Many economists have accepted that cultural institutions are important in economic outcomes. Today, works by Nobel laureates such as Douglas North and Gary Becker emphasize the role of cultural and institutional factors in building a more comprehensive and realistic theory of economic behavior. Several studies by management consulting firms show that digital culture and skills are the most important obstacles to the success of "digital transformation" and, consequently, Government as a Platform. As an important index, digital culture grants a sense of identity to members of the organization. Digital culture in the Government as a Platform creates commitments in people beyond personal interests. In this regard, to prepare the Government as a Platform for developing digital government infrastructure, including Web 3.0, is necessary. Web 3.0 is the current generation of the Internet and a paradigm shift towards a democratic and decentralized Internet. Web 3.0 is concerned with building people's Internet, which means that people own the Internet, and all its tools are designed to serve the people. The necessary condition for communicating services with real people on the topic of Government as a Platform readiness is creating a common language and, in other words, a "virtual cornerstone" called "digital identity". The formation of the data and information cooperation ecosystem in the Government as a Platform seems to result from the "digital identity" concept. Transformation requires eradicating obsolete systems and practices and replacing them with new models of government, such as Government as a Platform. In order to create new forms of government, the need for adaptive and timely changes is strongly felt by governments. In a world of constant change, governments need to be more intuitive to immediately feel and respond to new technology opportunities, social challenges, and needs of citizens. Moreover, to serve citizens, governments need to act more integrated. Breaking down silos, integrating connections, and streamlining data and process flow are essential to finding new solutions, strengthening security, and creating personal and interesting experiences for citizens. Open government data is one of the important pillars of the readiness of Government as a Platform. Developers build smartphone applications based on the data that are available to the public sector, and activists in this field have realized the value of open government data. Implementing continuous improvement methods in organizations is one of the Government as a Platform readiness indexes. When employees of an organization engage in a single goal, they feel more belonging in their work. This increases their participation and ultimately increases productivity. The fact is that everything is progressing and changing day by day. Organizations and institutions should adapt to positive change to remain competitive. In this regard,

optimizing government processes Government as a Platform readiness index means systematic methods and strategies to create coordination and order and, in general, improve specific processes within a specific set of parameters. In Government as a Platform, by improving the work process, costs can be minimized, and maximum efficiency can be achieved in the government. As an agile government, Government as a Platform can respond to environmental challenges and adapt to the new business world by offering a new approach to serving the people. Agility is linked to the ability of organizations to overcome unexpected changes, address unprecedented threats to the workplace, and use change as an opportunity. Therefore, survival in such an environment is only possible by changing and adapting to dynamics such as Government as a Platform.

5. Conclusion

The Government as a Platform (GaaP) concept represents an emerging paradigm in e-government and digital transformation, emphasizing the role of governments in delivering services through platforms and fostering open, participatory ecosystems. While the literature has explored various aspects of GaaP, it remains fragmented. It lacks a comprehensive framework that integrates the diverse dimensions necessary for evaluating governments' readiness to adopt this paradigm. This gap constitutes the central theoretical issue addressed by this study. This research identifies and addresses the critical absence of a consolidated reference model for GaaP readiness. Most existing studies focus on isolated dimensions, such as technological or policy-related factors, while overlooking the holistic interplay of other essential dimensions, including organizational, socio-economic, and political readiness. By synthesizing these fragmented insights, this study introduces a comprehensive and integrative framework that is robust for assessing governments' readiness to embrace the GaaP model.

The platform approach in government enables the effective implementation of public functions and services (Smorgunov, 2021), and the link between government databases increases the speed of realizing the platform approach (Jeannot, 2020). The main goal of the Government as a Platform is to provide the ground for civilian institutions to communicate with the government or participate in country's administration through cooperation (Chung, 2017). The realization of Government as a Platform requires mutual trust between people and government, legislation, and transparency (D'silva & Norway, 2018). To implement this concept, the rapid growth of the platform economy must be realized (Geliskhanov Islam et al., 2018).

To achieve Government as a Platform, citizens' interaction with the government is more important than the architecture of infrastructure (Gil-Garcia et al., 2019). Every information system in the public sector is connected to an integrated platform to implement this concept, so the quantity and quality of open data should be increased (Seo, 2021). This study concluded that digital transformation is the cornerstone for realizing Government as a Platform. Digital transformation in the public sector not only involves processes and technology but also requires the creation of a digital society with the skills and culture necessary to embrace this change (Albanese and Bettoni, 2020). It was found that open data initiatives are necessary for the realization of Government as a Platform. The idea emerged as an industry, leading to the notion that data needs to be published openly by the government. If the data is published, citizens use it immediately (Bender and Heine, 2021). Open government, participatory government, automated decision-making, and data-driven policy-making lead to many advances in integrating new technologies in the future (Trček, 2022). In this regard, governments should actively extract new open data that can add value to innovation. Therefore, governments must create an easy collaborative environment with other stakeholders, especially non-governmental participants (Seo and Myeong, 2021).

As mentioned in the research background, despite the steps taken in several countries wordwide for the Government as a Platform readiness indexes, no reference model for the government's readiness to implement Government as a Platform has yet been provided. The lack of such a model has caused a conceptual disintegration, a lack of a single attitude, and, most importantly, a delay in fully implementing this concept. In order to eliminate this research gap, the present article attempts to provide a reference model of Government as a Platform readiness index using the experiences of more than 30 countries worldwide in implementing the concept of Government as a Platform. This is a qualitative study that analyzes the data extracted from selected sources using the meta-synthesis method. In the systematic review process, 58 out of 961 sources were selected and used for qualitative analysis and coding. By classifying the obtained codes, 75 indexes were formed and classified into three layers: 1—create a change mindset and prepare for change; 2—prepare for innovation; and 3—prepare for economic growth. In conclusion, it should be noted that these three categories have priority and posteriority, so the category of "being ready for innovation" does not occur before the category of "creating a change mindset and being ready for change", and the category "readiness for economic growth" is not completed before the completeness of the category "readiness for Innovation".

The present work was a qualitative fundamental study, and it is suggested that researchers interested in Government as a Platform, digital transformation, and e-government examine the functions, consequences, and obstacles of realizing Government as a Platform. It is also suggested that the subjects of this study be categorized for each country of the world on a regional basis and following the culture of different nations so that new categories can be obtained and introduced.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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