



## **E-GOVERNMENT IMPLEMENTATION IN BALKAN COUNTRIES – A BENCHMARK ANALYSIS**

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### **Abstract**

*In many developing countries, important reforms in the economic infrastructure sectors have been undertaken in the last two decades with the objectives to improve and increase the range and the quality of electronic services delivered by government institutions. The performance of public institutions is related to the definition of priorities in the allocation of public resources, public investment management, efficiency and integrity, and improving the quality of governance in service delivery. Through this paper, the authors aim to conduct a comparative analysis of the levels of use of electronic services in Albania in relation to the Balkan countries. The state, through public administration, serves the citizens by providing public services, national security, education, health, economic development, and everything that is vital to them. Good governance is valued by accountability, transparency, responsiveness, rule of law, effectiveness, and citizen participation in decision-making. In the Balkan area nowadays there*

*are trends in deploying e-services, especially in health, education, environment, and employment. Governments are seeking to prepare the resources required to implement e-government projects and provide efficient processes and better services. The growing need to expand and speed up the application and development of e-government projects needs to propose practical solutions to overcome the obstacles that impede the implementation of these projects. Referring to the data, for two main indicators, the E-Government Development Index and E-Participation Index, it results that Albania and Balkan countries have made enough steps during these two decades, which indicates an increase in the level of use of electronic services by citizens, provided by the government institutions.*

*Keywords: Electronic services, e-government, effectiveness, accountability, performance*

## **INTRODUCTION**

In the last three decades, the public sector in Albania has been subject to dramatic changes. Considering the transition from a centralized economy to a market-oriented one, this sector has faced structural adjustments regarding institutions, the extent of public services, and the level of public intervention. At the same time, its development has been met by increasing the demand and expectations of citizens for public services. The development of technology, and especially that of Information and Communications Technology (ICT), has affected not only the private sector, which has easily embraced and implemented new technologies, but also the public sector. The use of ICT has been not only an adaptation of business practices by the public sector but also an effort to reduce costs and improve the performance of public services. The era of e-government as a set of public policies and practices widely used by developed countries is currently becoming an important part of public sector activity in Albania.

The use of ICT that results in the provision of electronic services is not conditioned exclusively by the goals of the government, but also by the setting of preconditions for these services, which are related to the level of technology use in the country, the existence of integrated data systems and the trend of consumer demand. The trend towards the use of electronic services in Albania is equally conditioned by the efforts made to reduce corruption in public services, increase the performance of services, and reduce costs. This process has been challenging for the simple reason that from now on it would be required to transition from the Weberian bureaucracy concept of “office”, being a cell of the public organism and an opportunity to offer civil services, to an entirely new way of providing these services.

The public sector is facing new demands and expectations, fueled by the fast development of technologies. Using technologies is a key challenge for any government and it requires new

ways of organizing services delivery to the citizens. A public sector that functions well, provides high-quality public services, and promotes economic growth through fiscal resource management, is considered essential for reducing poverty and improving the welfare of citizens. It is now recognized that public administration needs to work efficiently and that its services need to be designed to meet the needs of citizens and businesses (Rinaldi et al., 2015).

Parallel with market development and technology, the Albanian economy after the 2000s, had a direct challenge to change the “office” and everything related to it in a completely new way. In many developing countries, important reforms in the economic infrastructure sectors have been undertaken in the last two decades, with the objective to improve the performance of service delivery by the public sector.

E-government is considered a powerful tool in the hands of the government to reduce costs, improve transparency and accountability, improve the quality of public service delivery, reduce corruption, and increase the satisfaction of citizens. In this regard, it is important to present indicators that affect the consideration of citizens in relation to electronic public services and increase awareness of the use of these services. Through receiving e-services, citizens can save time, can reduce expenses, increase their satisfaction and create easier access to communication at all levels of the government (Alshehri and Drew, 2011).

According to Heeks (2001), the effect of new information and communication technologies has a significant contribution to achieving the goals of good governance. It simplifies the management process by integrating different organizations' information systems and facilitates performance more effectively.

The purpose of this study is to evaluate e-government services, considering some main indicators in the Balkan countries.

To achieve this goal, the objectives are: 1) to evaluate and analyze the access of the use of e-services in Albania, 2) to make a benchmark analysis of the use of electronic services in the Balkan countries, 3) and to evaluate the impact and contribution of technology and information to better governance.

The article reviews the literature about the role of government in providing electronic services to citizens, then the study methodology is described. In addition, the results of the study and discussion about the level of use of e-services in Albania and in the Balkan countries are presented as well as conclusions and recommendations in the last sections.

## LITERATURE REVIEW

In many developing countries, important reforms in the economic infrastructure sectors have been undertaken in the last two decades, with the objective to improve the performance of

service delivery by the government. E-government is defined as the use of new information and communication technologies to facilitate government and public administration processes, to interact with citizens, and provide e-services. E-government is the application and utilization of ICTs in the public sector for its effective delivery of operations and services (Alzahrani et al., 2017).

According to Karokola et al., (2013), e-government refers to “government-owned or operated systems of information and communication technologies that transform relations with citizens, the private sector, and other government agencies so as to promote citizen empowerment, improve government efficiency and service delivery, strengthen accountability and increase transparency”.

Kumar et al., (2007) defined e-government as the provision of improved services to citizens, businesses, and other members of society through the drastic change in the way governments manage information and provide services. The state, through public administration, serves citizens by offering public services, national security, national education, health, and economic development. Measurement and evaluation of public sector performance in terms of service delivery is an instrumental and important element for governments and public policymakers (Tomorri et al., 2020).

The quality and effectiveness of public administration services are influenced by many factors such as organizational structure, responsibilities, and available intellectual capital (Wiig, 2002). The meaning of public service, public service-oriented organizations, and new public service imply a change in the role of governing in society that serves the fulfillment of citizens’ needs (Manzoor, 2014). The delivery of electronic services to the citizens is a continuing process that requires the development of new strategies in order to measure and evaluate the present status of public administration in providing e-services to the citizens. However, the real benefit of providing e-services to citizens depends not only on the direct use of technology but also on its application to move ahead with the renovation of public administration.

According to Heeks (2001), e-government has three main contributions; improving government activities (e-administration), connecting with citizens (e-services) and building interactions with external actors (e-society). Most of the citizens are conscious of the advantages of e-services as it moves the government from manual supply of information to an online and complex transmission on one hand and improves the benefit and product developments on the other hand. Effective public e-services can only be developed if governments offer citizen-centred services that deliver measurable public value. The idea of

creating e-government is an integral part of the ongoing efforts of implementing ICT in many countries to modernize the public sector (Karlsson et al., 2012).

E-services can be considered key elements for economic development, therefore citizens and businesses expect to access a lot of data and information in a flexible manner. In this regard, the provision of e-services is linked with the level of management, sustainable economic development, governance accountability, transparency, cost control, and decision-making. Citizens as users can provide useful information on the quality and adequacy of services and the problems they face with the service providers.

Governments need to know what citizens want from e-government in order to develop citizen-centred e-government services (Bertot and Jaeger, 2008). Citizens and businesses are faced every day with new innovative e-business and e-commerce models, implemented by the private sector and made possible by ICT tools and applications, and they are requiring the same from governmental organizations. Considering the perception of citizens and their attitude in relation to e-services is an important indicator for all organizations that will serve the government in further communication platforms that can influence citizens' attitudes and behaviours. E-government is the use of information and communication technologies by the government to improve the effectiveness, efficiency, and quality of service delivery to citizens.

E-governance is the public sector's use of the most innovative information and communication technologies, like the internet, to deliver to all citizens improved services, reliable information, and greater knowledge in order to facilitate access to the governing process and encourage deeper citizen participation.

E-government is considered to be particularly important as it can bring higher levels of public sector transparency and accountability, reduce corruption, increase, and provide more effective systems and services. Scott et al., (2016) argue that the success of e-government systems depends on how citizens perceive the value realized from using those systems. It provides further benefits for citizens and businesses to save time and money, thereby avoiding physically visiting offices, reducing paperwork and its related expenses, and enhancing the accuracy of information transactions (Alomari et al., 2014).

The delivery of e-services by the use of ICT enables the implementation of new techniques and manners for the delivery of more qualitative and quantitative e-services. E-government and providing of electronic services improve the efficiency of actual systems, enable easier and better communication between government, citizens and businesses to distribute and receive information quickly, and improve the quality of public services by increasing the level of citizen satisfaction.

## MATERIALS AND METHODS

E-government in developing countries offers great potential and opportunity for improving their governance and citizen satisfaction level. According to Alshehri and Drew (2011), the benefits of e-government in developing countries are: easier and cheaper information delivery to citizens, cost reductions, promote interactions of government with citizens, improve service delivery and satisfaction of citizens as well as businesses, improve transparency and accountability, reduce corruption, improve government management and the quality of decision making, improved quality of life and increase trust between governments and citizens. E-government is essentially related to the development of computer technology, computer networking, and communication systems.

Table 1. The phases of e-government and their description

Phase	Description
Information	At this phase, quality, usability, and content determine the value of e-government services.
Interaction	At this phase, e-government provides a degree of online interaction, and citizens can apply for various online services.
Transaction	At this phase, the government ensures secure transactions with a high level of authorization through online services.
Transformation	At this phase, public services provided by the government are available online to citizens at any time.

E-governance has the potential to ensure that citizens are no longer passive consumers of services offered to them by allowing them to play a more proactive role in deciding the kind of services they want and the structure which could best provide them.

There are considered two main indicators of the use of electronic services as the E-Government Development Index and E-Participation Index in Balkan countries as well as the number of users of government gateway. The E-Government Development Index articulates the following key points:

- E-government can consistently improve the quality of life for citizens and can create a sharp reduction of costs and time.
- E-government will eventually transform the processes and structures of government to create a public administration less hierarchical, empowering civil servants to serve citizens better and to be more responsive to their needs.

- E-government must be given serious consideration also in developing countries not only for its potential for stronger institutional capacity building, for better service delivery to citizens and businesses (thus increasing local social and economic development), for reducing corruption by increasing transparency and social control, but also for “showing the way” to the civil society and business community, (E-Government Survey, 2020).

The E-Government Survey is one of the main global reports that assesses the e-government development status of all United Nations Member States. The assessment measures the e-government performance of countries relative to one another. The Survey is intended mainly for policymakers, government officials, academia, civil society, the private sector, and experts in the areas of sustainable development, public administration, digital government, and ICTs for development. The E-Government Survey tracks the progress of e-government development via the E-Government Development Index (EGDI), which assesses e-government development at the national level, and measures e-government effectiveness in the delivery of public services. The Survey aims to give an indicative assessment of the diffusion of e-government through the performance rating of national governments relative to one another.

EGDI, as a composite indicator, is used to measure the readiness and capacity of national institutions to use ICTs to deliver public services. EGDI describes and analyzes global trends in electronic and mobile service delivery and sheds light on the distribution of online services based on country income levels and on the provision of services in specific sectors that are particularly important for sustainable development.

The analysis also presents major drivers of EGDI such as progress in online transactional services delivery, trends in open government data and mobile services, and public engagement in the delivery of innovative public services. EGDI is a weighted average of normalized scores on the three most important dimensions of e-government: 1) the scope and quality of online services as indicated by the Online Service Index (OSI), 2) the status of the development of telecommunication infrastructure rated through the Telecommunication Infrastructure Index (TII) and 3) the inherent human capital scored through the Human Capital Index (HCI). The composite value of each component index is then normalized to fall between the range of 0 to 1 and the overall EGDI is derived by taking the arithmetic average of the three component indices.

In determining what defines an enabling environment, this report analyses the above issues by benchmarking the core areas endemic to national e-government programs. It incorporates a country's official online presence, evaluates its telecommunications infrastructure, and assesses its human development capacity. The results of the EGDI tend to reflect a country's economic, social and democratic level of development.



## RESULTS AND DISCUSSIONS

E-government is characterized by inter-organizational relationships including policy coordination and policy implementation and by the delivery of services online or through other electronic means to citizens. E-government can offer numerous possibilities for improving how the public sector responds to the basic needs of its citizens. E-government has the potential to greatly improve how the government operates internally and how it serves its customers. E-Government is not primarily about the automation of existing procedures, but about changing the way in which the government delivers services.

According to the E-Government Survey (2020), the complexity of e-government in promoting accountable, effective, inclusive, transparent, and trustworthy public services that deliver people-centric outcomes is growing. Currently, there are trends in deploying e-services, especially in health, education, the environment, and decent employment, while the reach to the most vulnerable is expanding. According to the Survey, the three most commonly used online services in 2020 are utility payment, submission of income taxes, and registration of new businesses.

In the last two decades, the public sector in Albania has been subject to dramatic changes. At the same time, its development has been met by increasing the demand and expectations of citizens for public services. The development of ICT has affected not only the private sector, which has easily embraced and implemented new technologies, but also the public sector. Electronic services provided by the public sector in Albania have been increasing and improving from year to year. Electronic service delivery has a significant impact on reducing the queues and other bureaucratic actions at the counters of public institutions, saving time and money for citizens and businesses.

The government through the e-Albania platform offers a significant number of electronic services for citizens and businesses. The number of users registered on the e-Albania platform, for 2020 is 758,735, according to the National Information Society Agency (NISA, 2022). The portal e-Albania for 2020 offers a total of 1021 services. To facilitate the access and use of electronic services by citizens and businesses, the e-Albania platform has been completely redesigned, in order to improve its functionality, increasing the performance in the service of citizens and businesses.



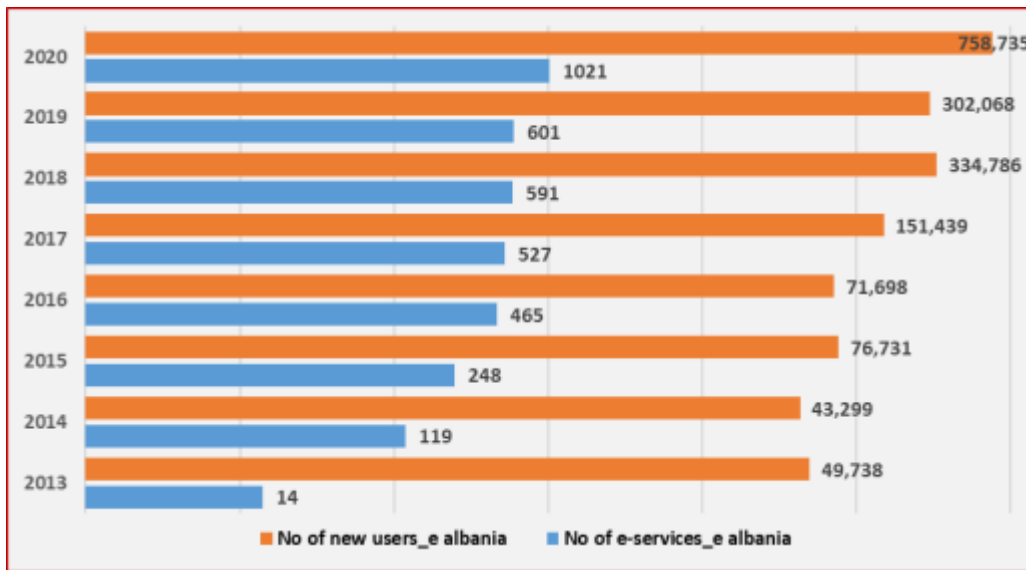


Figure 1. Number of new users and e-services according to years in Albania

Source: National Information Society Agency (NISA), 2022

Table 2. The 10 most used electronic services for 2020 by citizens on the e-Albania platform

No	Type of electronic services
1	Family certificate
2	Personal certificate
3	Application for passport and identity card
4	Health Card
5	Electricity bills
6	Declaration and payment of contributions by employers
7	Traffic control fines
8	Confirmation of vehicle condition
9	Certificate of payment of contributions
10	Road fines

Source: National Information Society Agency (NISA), 2022

E-government has been growing rapidly over the past 19 years since the first attempt of the United Nations to benchmark the state of e-government in 2001. The 2020 Survey highlights a persistent positive global trend toward higher levels of e-government development. Denmark has the highest EGDI value globally for the second consecutive Survey and is one of seven countries in Northern Europe and one of five countries in the European Union that are part of the highest (VH) rating class. Estonia recorded the most significant EGDI increase.

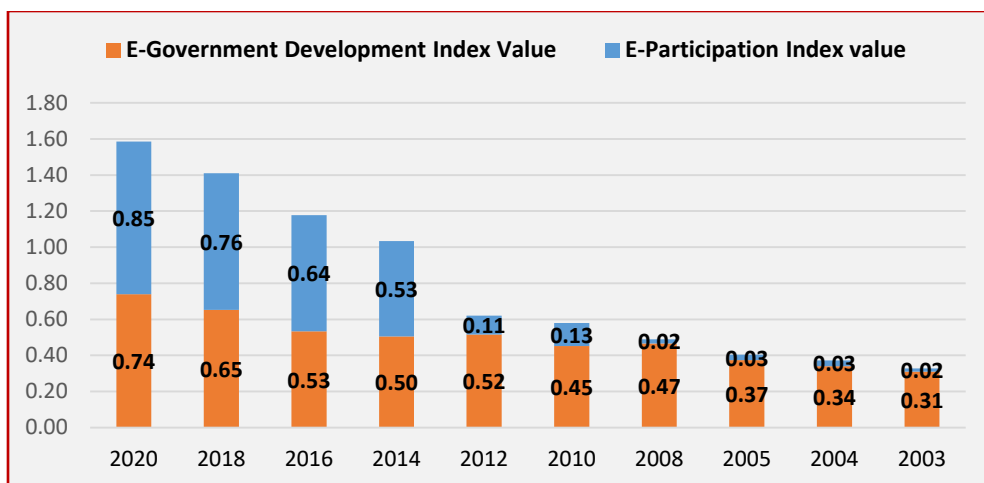


Figure 2. E-Government Development & E-Participation Index\_Albania  
 Source: United Nations, e-Government Survey, 2020

Referring to data for the E-Government Development Index, Albania has made enough steps towards, from 114th place, ranked in 2003, to 59th place in 2020. In terms of the E-Participation Index, from 123rd place, ranked in 2003, to 36th place in 2020, (United Nations, E-Government, Survey, 2020).

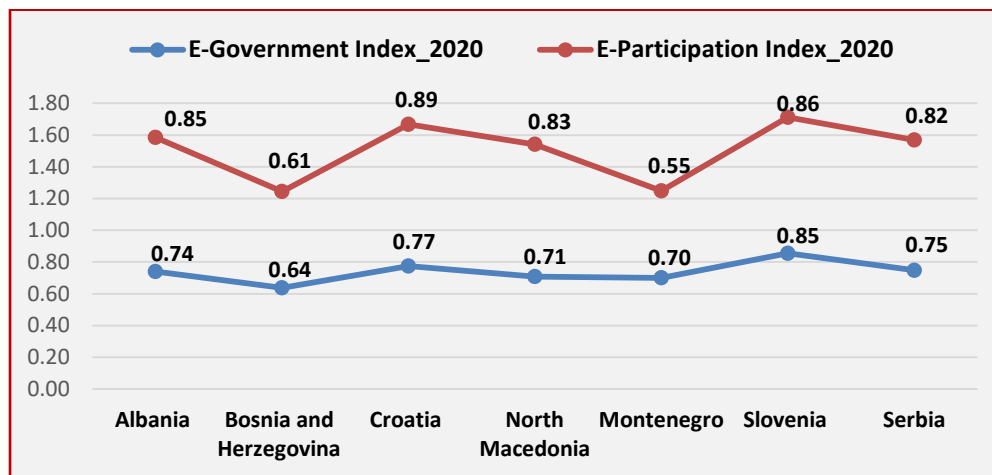


Figure 3. E-Government Development & E-Participation Index 2020\_Balkan Countries  
 Source: United Nations, e-Government Survey, 2020

According to data for the Balkan countries, for the E-Government Development Index 2020 the highest value results for Slovenia, Croatia, Serbia, and Albania. In terms of the E-Participation Index, the highest value results for Croatia, Slovenia, Albania, and Northern Macedonia.

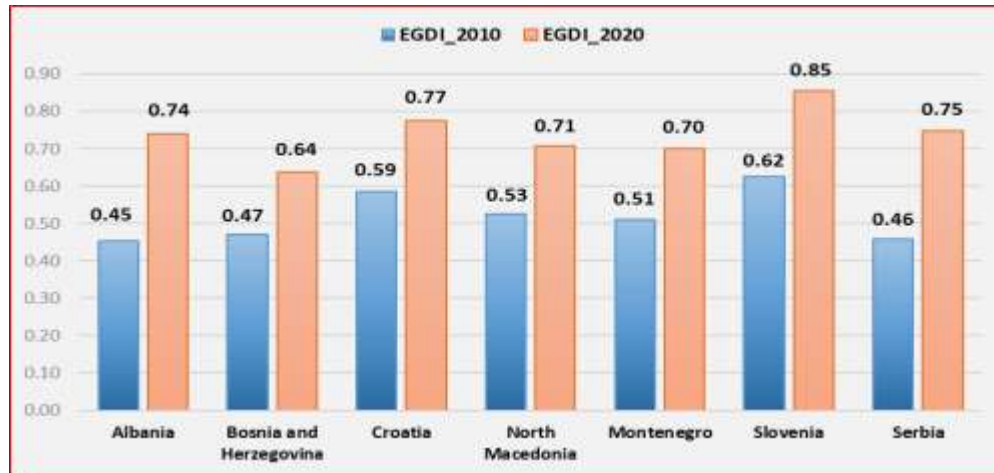


Figure 4. E-Government Development Index\_2010 & 2020\_Balkan Countries

Source: United Nations, e-Government Survey, 2020

Relating to the above data, for the E-Government Development Index, all Balkan countries have made enough steps, related to the delivery of e-services for citizens and businesses. The e-government system is one of the fundamental policies that could transform the quality of public service from conventional to modern. Its implementation relates to the policy of public administration reform.

E-government is used to improve the efficiency of government services delivery to citizens, employees, businesses, and agencies. It enhances communication between government agencies and their constituents by providing access to information and services online at a relatively low cost, and provides public services through websites, enabling citizens to play a better role in government running.

The implementation of e-services is required because it assists to control and enhance public organizations' performance. The use of e-government as a service delivery enabler will definitely support the government's service improvement, thus putting people first. E-government should be understood as its impact of it with respect to government operations, actions, policies, and services for citizens. Another important outcome of this research is a set of guidelines, which can be used as a way to measure whether ICT implementations for service delivery conform to the required standards.

The use of e-government is an effort to support the enhancement of public service quality. The government should not only be transparent and accountable but also must provide maximum benefits and services to the citizens more effectively. To reform it, there must be a shift from e-government to e-public services.

The implementation of information technology plays an important role in economic development in developing countries. There are many benefits to the citizens of the use of electronic services.

Governments are seeking to prepare the resources required to implement e-government projects and provide efficient processes and better services. The growing need to expand and speed up the application and development of e-government projects needs to propose practical solutions to overcome the obstacles that impede the implementation of these projects.

To ensure the access of citizens to use e-government services, the government website portal has to incorporate the use of computerized technologies, which will provide new software tools to support the delivery of e-services to the citizens, based on geographical location. Further work of public organizations and agencies can focus on factors that influence citizens' intention to use e-government services.

Implementation of e-government in the Balkan countries, based on these challenges, is necessary to recommend solutions to achieve a successful implementation of e-government in providing public services.

The findings in this paper indicate that it is important to conduct deep research into obstacles facing e-government implementation and understand the relationship between these barriers in order to offer some solutions to overcome these challenges.

## CONCLUSIONS

E-government in developing countries offers great potential and opportunity for improving their governance and citizen satisfaction level. E-government and providing of electronic services improve the efficiency and effectiveness of actual systems, enable easier and better communication between government, citizens, and businesses, the delivery and obtaining of information faster reduces costs and bureaucracy through fast and convenient transactions, improve transparency and accountability, reduce corruption, improves the quality of public services, increases citizens' trust in the government.

Referring to the data, for the E-Government Development Index and E-Participation Index, Albania and Balkan countries have made enough steps towards this during two decades, which indicates an increase in the level of use of electronic services by citizens, provided by government institutions.

The examination of government performance should be conducted at all levels, in order to have comprehensive feedback in relation to satisfaction of citizens with e-services, further needs of business users, and challenges and obstacles that citizens face in daily activities. The

results of the study show the factors that affect good governance in developing countries are; transparency, participation, accountability, rule of law, and effectiveness.

Referring to the citizens' expectations it is estimated that, improving the quality of public infrastructure, increasing performance in the providing of public services, and modernization of public administration, are some of the issues and challenges that will be addressed in the future regarding the performance of governance and public institutions.

A challenge for e-government is promoting digital inclusion and ensuring that all citizens, including vulnerable groups, can access new technologies and e-government services to improve their well-being.

Addressing human capital development issues, knowledge and skills management initiatives are required to focus on staff training in order to create basic skills for e-government. It is important to encourage the employee's efforts to move towards the implementation of new technologies, in order to enhance performance in the providing of electronic services in accordance with citizens' expectations.

Implementation of strategies and policies to ensure a comprehensive approach, with a clear vision and strategy to overcome the obstacles and challenges, in terms of providing electronic services to citizens and businesses.

## **LIMITATIONS AND FUTURE STUDIES**

The study has its limitations, but the results aim to help government and public institutions to improve electronic services to citizens. Future studies should aim at a more in-depth analysis for the examination of indicators regarding the importance, needs, and quality of electronic services provided by government institutions, in accordance with citizens' expectations.

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## **CONFLICT OF INTEREST**

The authors declare that they do not have any conflict of interest.

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