Digital Government Strategies for Sustainable Development: A Case Study of Developing Country

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Abstract: The research study investigates the digital government strategies of various countries and compares them with the Digital Pakistan Policy 2018. Each country prioritizes different factors based on their specific needs and the requirements of their citizens. Therefore, there is a need for research that analyzes and compares these diverse digital government strategies and their underlying themes. Secondary data on eGovernment strategies from different governments have been reviewed to identify best practices implemented in other countries. The qualitative data analysis software NVivo was utilized to conduct a code-based analysis of these various digital government strategies. The findings and recommendations from this study can be effectively utilized to enhance digital government strategies and align them with the Sustainable Development Goals (SDGs) for 2030.

Keywords: Citizens; Digital; Development; eGovernment; Strategy; Sustainable

1. Introduction

A digital government strategy is essential for modernizing the public sector by establishing and refining organizational structures, improving interactions with citizens and businesses, and streamlining business processes to reduce costs and complexity [1]. Many governments undertake digital government projects either without a proper strategy or with strategies that do not address their specific challenges, resulting in significant financial losses due to project failures, which has become a pressing issue. Previous work has compared digital government policies in two countries, namely South Korea and the USA [2]. However, Chung & Kim's [2] primary focus was to assess the long- term impact of the e-government act on digital government policies in these countries. The study findings revealed significant differences between the two countries' e-government laws; for instance, the Office of Management and Budget oversees the implementation of the e-government law in the USA under federal regulation. In contrast, South Korea's e-government law promotes electronic document processing but lacks a comprehensive framework for navigating e-government strategies.

Furthermore, all changes described in these studies involved comprehensive change management strategies overseen by e-government leaders equipped with the necessary skills to manage them. Löfgren [3] emphasized that while information technology can be leveraged to reform public administration, it can also perpetuate existing institutional structures. The Swedish government employs a "dualist model" to enhance e-governance.

This study examines the e-government strategies of various countries and evaluates their alignment with Sustainable Development Goals (SDGs). Additionally, it analyzes the IT Policy, e-government strategy, and Digital Pakistan Policy of the Government of Pakistan.

1.2 Research Question
The research question is:
What are the practices prevailing in eGovernment strategy for achieving SDGs in Pakistan at federal and district levels?

2. Literature Review

Understanding eGovernment and eGovernance represents two distinct approaches. eGovernment involves establishing systems and government bodies in a mutually beneficial manner, while eGovernance necessitates a comprehensive transformation in how government services are conceptualized for citizens within a seamless digital framework. To ensure effective coordination of social and administrative services, a symbiotic model must be meticulously designed to prevent further mismanagement [4]. Under a digital government strategy, government agencies can transition from traditional to digital governance and reform their organizational structures. Today, digital government encompasses all information and communication technologies (ICT) that support inter- government operations, prioritize citizen engagement, and facilitate public service delivery across communities. A holistic approach is adopted to develop a digital government ecosystem, encompassing themes such as e-court, e-banking, e-participation, e-procurement, e-services, e-transformation, e-waste management, e-learning, e-health, and smart cities, among others.

According to Lowery [5], successful implementation of eGovernance and the establishment of efficient eGovernment mechanisms require states to grasp the role played by information technology and integrated systems in shaping these initiatives. Martin and Goggin [6] suggest that e-governance can serve as a mediator to address gender-based disparities within traditional government structures, promoting better gender balance for societal stability.

This research examines the digital strategy of Pakistan and identifies the thematic components included in other countries' Digital Government Strategies (see Table 1).

Table 1. Digital Government Themes

Themes	Description	Countries
e-Court	Court using e-files and e-orders. ICT for administration of Justice to reduce delay, provide efficient case management and equitable access to obtain court orders.	Central African Republic, Croatia, Ethiopia, India, Korea, Liberia, Malaysia and Portugal
e-Energy	Use of wireless smart metering system for billing.	Estonia and Pakistan
e-Banking	Banking through the Internet, all transaction and bill payments perform through banks websites	Albania, Armenia, Australia, Bahrain, Bangladesh, Bhutan, Cambodia, Cape Verde, Chile, China, Congo, Denmark……
e-Participation	Online consultation/ dialogue/ Deliberation of the decision-making and policy formulation process. Redress grievances at grassroots level.	Albania, Bahrain, Bangladesh, Barbados, Belarus, Belgium, BiH, Brazil, Cambodia, Cameroon, Canada……
e-Procurement	Purchasing of goods and services through internet.	Albania, Argentina, Armenia, Austria, Bangladesh, Belgium, Bhutan, BiH, Cambodia, Cameroon, Cape Verde……
e-Services	Public Service Delivery through the use of ICT to all segments	Albania, Argentina, Austria, Bahrain, Bangladesh, Barbados, Belarus, Belgium…
e-Transformation	Process of transforming into an innovative and effective IT-enabled service provider	Albania, Armenia, Australia, Austria, Bahrain, Bangladesh..
e-Waste	Digital hardware uses large amounts of raw materials in its manufacture, can contain toxic substances, tends to have a short lifespan and is often not recyclable. This has created an international e-waste problem.	Bhutan and New Zealand
e-Learning/ Education e	Using ICT to provide education at students' doorsteps	Albania, Argentina, Austria, Bahrain, Bangladesh…
e-Health	Combine use of health resources and ICT for health care and other services related to health. Monitors patients in their own homes. Provides Electronic Health Records.	Albania, Argentina, Armenia, Australia, Austria, Bangladesh, Belarus, Belgium, BiH, Botswana, Bulgaria, Cambodia…
e-Passport	Smart card preservers the features of the current passport in the identification of its holder in contactless chip.	Botswana, Brunei, Cape Verde, Chile, Costa Rica, Croatia, Estonia, Ethiopia, France, Gabon, India, Iraq, Ireland, Lesotho, Liberia, Lithuania, Luxembourg, Malawi
e-Payment	Citizens make many different kinds of payment through the internet to thegovernment.	Bahrain, Bhutan, BiH, Croatia, Dominican Republic, Georgia, Egypt, Ethiopia, Germany, Grenada, Hungary..
e-Leadership	Local e-Leaders who drives eGovernment initiatives and support eGovernment diffusion.	Brunei, Colombia, Cyprus, Czech Republic, Egypt, Estonia, Ethiopiia, Ghana, Greece, Hungary, India, Indonesia, Iran, Jordan, Korea,

		Kyrgyzstan, Libya, Luxembourg, Malawi
e-Tourism	Establishment of the tourism portal and provide free internet at tourist areas.	Albania, Cambodia, Chile, Cyprus, Georgia, Egypt, Ethiopia, Ghana, Hungary, India, Jamaica, Jordan, Lebanon, Malawi, Namibia, Oman and Slovak Republic
e-PO Box	Government portal provides private account to the citizens and businesses for their pension record, social security and a wide range of other services.	Japan
e-Pension	Improvement of the level of service quality, mainly achieved through greater flexibility (24/7 service availability, multi-channel service delivery etc.), customization and transparency.	Croatia, India, Italy and Kenya
e-Strategy	Develop the ICT integration in a country	Bhutan, Cape Verde, Central Africa, Chile….
e-Readiness	Readiness in human capacities, political leadership, institutional frameworks, supportive policies, complimentary regulations, business environment, investment opportunities, and public private partnerships in technologies.	Bahrain, Bangladesh, Barbados, Belarus, Bhutan, Botswana, Bulgaria, Cambodia, Cameroon, Cape Verde, Chile, Congo, Costa Rica, Croatia, Cyprus…..
e-Employment	Covers e-recruitment procedures for the public service.	Albania, Cameroon, Cape Verde, Costa Rica, Croatia, Egypt, Ethiopia, Fiji, Latvia, Lithuania
e-Agriculture	Use of mobile and internet by farmers to obtain information on the latest prices of their produce.	Bulgaria, Cameroon, Central Africa, Costa Rica, Egypt, Ethiopia, Fiji, Finland, Ghana, India, Jamaica, Kenya, Latvia, Liberia, Lithuania, Madagascar, Mauritius, Namibia, Pakistan
e-Culture	ICT is used in cultural and natural resources preservation	Bulgaria, Cameroon, Costa Rica, Cyprus, Georgia, Egypt, Hungary, Kazakhstan, Lithuania, Nepal, Slovak Republic, Trinidad
e-Work	Work from the home to using ICT connected with the employers´ network, multi-locational working and to relocate work to remote offices	Costa Rica, Egypt, Japan, Korea and Mauritius
e-Shopping	Purchasing products and services online, also known as online shopping	Ghana, Japan and South Korea
e-Society	People, community and civil society are getting training on digital literacy.	Argentina, Belgium, Bhutan, Cambodia, Cameroon, Congo, Cyprus, Dominican Republic..
e-Democracy	Use of ICT in order to improve democratic process and political representation.	Argentina, Austria, BiH, Brazil, Bulgaria, Cameroon…
e-Governance	Enabler towards achieving good governance while increasing the ability of citizens to access public service via internet	Afghanistan, Brunei, Jordan, Pakistan and Portugal.
e-Entertainment	Entertainment that someone is able to see or hear using the internet.	Croatia, Egypt and Fiji
e-Science	Use ICT for research in scientific discovery and learning. Computer simulations of experiment or observations.	Central Africa, Costa Rica, Egypt, El Salvador, Ethiopia, Greece, Hungary, Latvia, Lithuania.
e-Transport	Use of ICT into traditional logistics processes dealing with efficient transport, shipment and distribution products.	Cameroon, Georgia and Jordan

Many concepts/themes are used in digital government documents such as e-architecture, e-channel, e-concessions, e-book, e-Deliberation, e-petitions, e-initiative, e- Post, e-facility, e-policy, e-session, e-solutions, e-decision, e-consultation, e-licenses, e-registration, e-skills, e-transparency, e-forum, e-courses, e-usage, e-journal, e-gate, e-immigration, e-Mincom (e-Ministry of Communication), e- documentation, e-Submission, e-civil service, e-ASEAN Task Force, e-ASEAN Framework Agreement, e-trade, e-orientation, e-inclusion, e-voting, e-accounting, e-catalog, e- communication center, e-complaints, e-building, e-police, e-gates, e-return, e-transactions, e-newsletters, e-laws, e-processes, e-medicine, e-literacy, e-record, e-censorship, e-championship, e-schools, e-schooling, e-retail, e-visas, e-network, e-regulations, e-safety, e-development, e-innovation, e-challenges, e-Barometer, e-Knowledge, e-auditing, e-monitoring, e-debt, e-budget, e-human, e-archive, e- people, e-opinion, e-information, e-resilience, e-form, e-notification, e application, e- environment, e-index, e-bay, e-enabled, e-portal, e-certificate, e-training, e-manifest, e- Sustainability, e-permitting, e-Statistics, e-literate, e-community, e-vision, e-Sign, e-Minister, e-Champions, e-objectives, e-cities, e-local, e-Mentorship, e-land, e-tools, e- survey, e-logistic, e-discussions, e-digital. ICT was introduced in Bangladesh by NGOs and government organizations with the aim of reaching women in rural areas to enhance their knowledge and address issues of discrimination and limited access to education. NGOs conducted experiments that demonstrated positive outcomes of ICT adoption. Villages that embraced ICT witnessed a positive shift in women's perceptions compared to villages without ICT usage.

Research by Ahmed, Islam, Hassan & Rahman [17] highlights that women's engagement with ICT in industries, government organizations, and NGOs leads to lifestyle changes that impact society. Laizu, Armarego & Sudweeks [16] indicate that active involvement of women in ICT learning and education empowers them, which is crucial for societal development and poverty alleviation. Rural women in Bangladesh lack access to knowledge and education, facing information gaps. Effective change management is essential to align information system modifications with government goals of empowering Bangladeshi women. In Bangladesh, the Ministry of Commerce has implemented an online price monitoring system for farmers, providing daily price updates on its website. However, the utilization of this information remains limited. In Barbados, educating government officials about internet security risks is crucial for enhancing government culture and security awareness.

Pakistan's digital policy focuses on ICT education, e-learning across educational and strategic sectors, and lifelong learning aligned with the United Nations' Sustainable Development Goals (SDGs). Dubai's eGovernment program emphasizes comprehensive e-transformation strategies for modernization and development through integrated e- services driven by technology.

The Federal Ministry of IT, Government of Pakistan, initiated its first IT Policy and Action Plan in 2000 and established the Electronic Government Directorate (EGD) in 2002 to launch eGovernment projects. A 5-year eGovernment Strategy and plan for the federal government were developed in 2005, followed by an abridged eGovernment Strategy in 2012. Recently, the Ministry of IT drafted the Digital Pakistan Policy 2017, available on the ministry's website: http://moit.gov.pk (see Figure 1).

Figure 1. Website of the Ministry of IT having Draft Digital Pakistan Policy 2017

Still, there is a dire need to conduct more focused research on eGovernment practices and problems embedded in the execution of eGovernment strategy in Pakistan. The purpose of this research is to see that how can current eGovernment practice be interpreted from a development perspective in Pakistan at national and municipal level. Developed countries have resources to implement their eGovernment strategy whereas developing country like Pakistan is facing many hurdles in eGovernment strategy execution because of lack of resources, electricity shortfall, and other issues.

E-tourism and its relationship with e-payment for tourism businesses, the Internet offers the potential to make information and booking facilities available to large numbers of tourists at relatively low costs [18]. It also provides a tool for communication between tourism suppliers, intermediaries, as well as end-consumers. E-Tourism is used to refer to e-business in the field of travel and tourism, the use of ICT to enable tourism providers destinations to operate more efficiently, and to reach and serve consumers more effectively with facilities to search, compare and book tourism products.

In purchase/sale of tourism services and products; e-payment is also involved [19]. Shoppers conduct online research before they make a purchase by using a search engine, as well as by reading product reviews to reduce the risk of buying. The growth of safety sources to e-pay, such as PayPal, has helped in transforming the way that consumers could make payments and shop online, while offered trust, security, and privacy. People pay electronically via different sources including bank transfers, cards, digital wallets, mobile pay and more. This makes the concept of electronic system more vital.

The digital government got recognition as one of the key forces for promoting better governance as it merges the internal components of rationalization and modernization for the interrelationship with an external component between citizens and government [23;24].

3. Research Design
The main objective in this study is to discover the similarities of eGovernment strategies of different countries. Few relevant available reports are selected based on convenience sampling. Then, coding process and content analysis approach will be utilized in text via NVivo software. The empirical part of this study comprises of an inductive, secondary data case study, which is suitable for the purpose of achieving a deepened understanding of eGovernment strategy for sustainable development. eGovernment studies of other countries were chosen as the main method for data collection in the case study are heterogeneous, hence flexibility and scoping will be needed. This study will provide the code-based analysis and content analysis of eGovernment strategies, three level policy analysis and emerging trends in eGovernment Strategy.

4. Coding Analysis
A code-based analysis has been conducted through NVivo software to observe trends in eGovernment Strategy of different countries.
Once the coding process was started, word count and frequency of occurrence were analyzed and exported from the NVivo 12 plus software and continued the analyses of emerging concepts from the data generated using the word frequency tool in NVivo. The main finding of this study suggests the eGovernment strategy reports of different governments are focusing on citizens during formulation time. Figures 3 shows that the term like citizens, electronic, eGovernment, online, strategy and portal are used maximum times in these reports. On the other hand, few words like entities, broadband, skills and telecommunications were used very less in different countries reports. This represents citizens are most important for the success of their projects. However, eGovernment failures shows that they are not taking on-board citizens during execution time.

Figure 3. Word Cloud- show the importance of citizens from the eGovernment Strategies of different countries
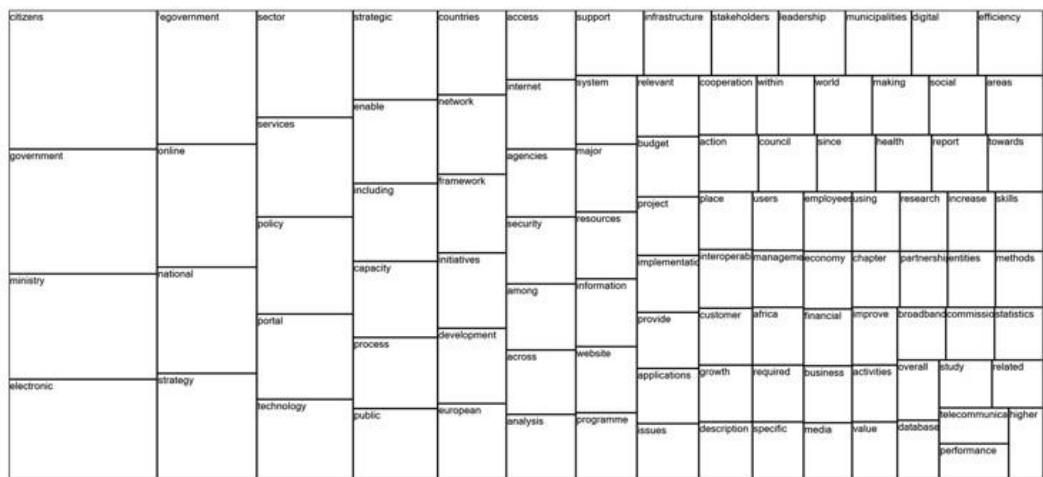
Figure 4. Hierarchy Chart of eGovernment Strategies of different countries

Figure 4 shows the hierarchy chart of the concepts presented in eGovernment Strategies of different countries. In the Figure 4 citizens square area represents the maximum number of coding at the node. However, database, telecommunication and performance in the above figure right hand side smaller area of covered by the nodes, shows the smaller number of coding at the node.

Figure 5. Hierarchy Chart of Digital Pakistan Policy, eGovernment Strategy and IT Policy of Pakistan

Figures 5 & 6 show the hierarchy chart of the concepts presented in IT Policy of Pakistan, eGovernment Strategy and Digital Pakistan Policy reports. In Figure 4 services square area represents the maximum number of coding at the node. However, right hand side smaller area of covered by the nodes, shows the smaller number of coding at the node.
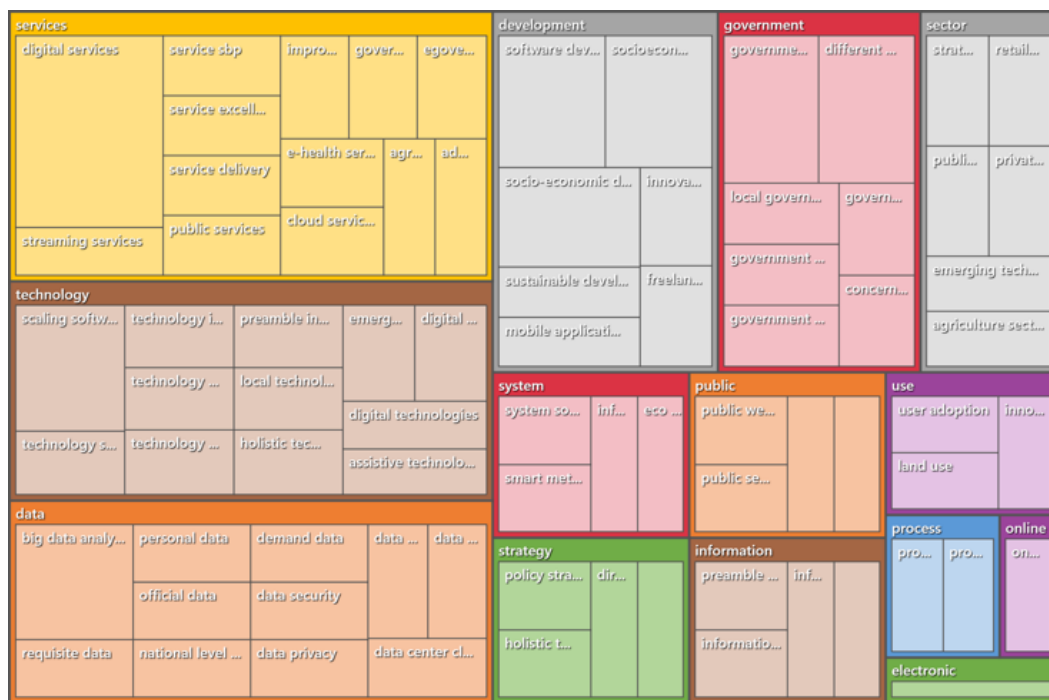
Figure 6. Hierarchy Chart of Digital Pakistan Policy, eGovernment Strategy and IT Policy of Pakistan

It seems that government of Pakistan is good to provide digital government policy but failed in its implementation which has negative impact on eGovernment ranking [15]. Digital government has been utilized to please the bosses instead of address the various real issues face by the citizens. On papers government is achieving all milestones whereas reality is totally different. eGovernment roadman 2016-20 provided by the government to achieve SDGs as set by the UN (see figure 7). Nevertheless, the government not only set timelines to reach goals but try to take onboard citizens and achieve it on time. It seems that government of Pakistan is good to provide digital government policy but failed in its implementation which has negative impact on eGovernment ranking.

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Figure 7. eGovernment Roadmap 2016 – 2020

4.1. Digital Pakistan Future Plans

To address sustainability, interactivity, and standardization of eGovernment activities, NITB will establish frameworks, policies, and standards for the following:

IT Products/Services Procurement Framework
IT Advisory Framework
Enterprise Architect Framework

NITB will continue providing technical expertise to federal government organizations to enhance and reinforce core ICT infrastructure and resources, including the establishment of citizen-facing portals and applications. During 2017-18, NITB will initiate the following projects under eGovernment initiatives to facilitate citizens, businesses, and government organizations.

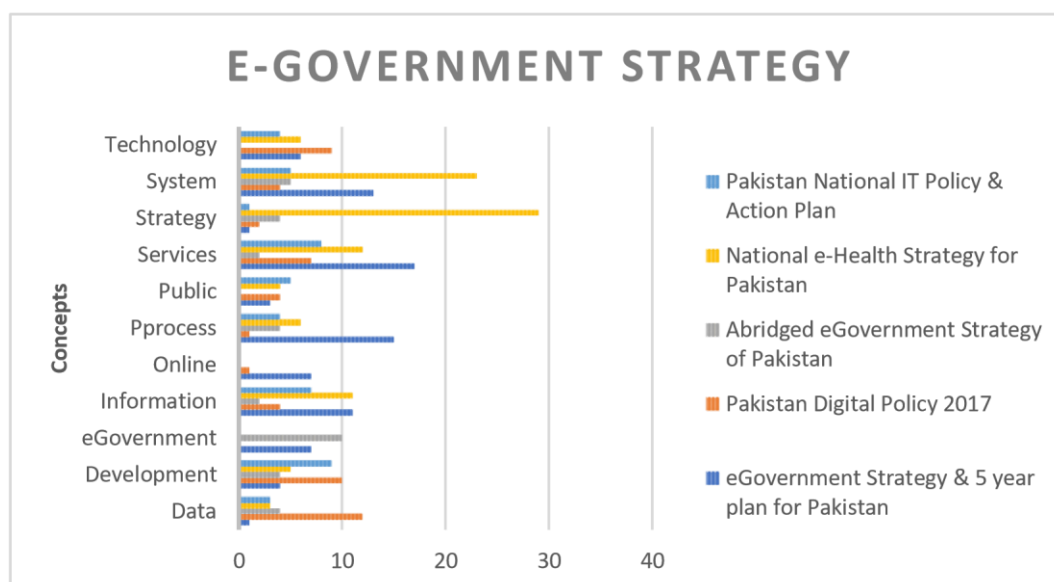E-Health: Implementing a "One Patient - One ID" system across all federal government-administered hospitals, including a central Patient Registration System, modules for outpatient and specialties/consultant services, in-patient and emergency/casualty services, operation theatres, intensive care units (ICU), diagnostic information, patient billing, medical stores and pharmacy management, and clinical laboratory modules. Additionally, provision of HR, finance, library, helpdesk, and assets management systems.

E-Citizen: Developing a portal for cross-agency citizen-centric government information and services. This includes providing all basic citizen services through a single portal or mobile app, such as processes for obtaining birth/death certificates, domicile certificates, CNICs, weapon registration, driving licenses, records from law enforcement agencies, marriage certificates/marital status, passports, income and property tax information, and senior citizen/old age benefits.

E-Women (Baytee): Enhancing the existing 'ICT for Girls' initiative by providing a cross-platform app that offers a single interface for urban and rural female communities in Pakistan. This app will provide advocacy on women's rights, information on laws and regulations, search capabilities for academic institutes, scholarship opportunities, career development and training opportunities, job and internship listings (with a focus on females), and healthcare services including hospitals and doctors.

E-Jobs: Establishing a centralized portal to manage the hiring process (not covered by FPSC) in federal government ministries and departments. This includes job advertisement placement, candidate selection, profile management for job seekers and employers, and maintaining a job seekers database for future analysis.

Smart Office: Automating business processes by providing a unified communication platform. This includes improved and secure enterprise collaboration, email/messaging services, VoIP-based text, audio, and video conferencing, paperless faxing, and a content management system. These initiatives aim to enhance government services, improve citizen access and engagement, and promote efficiency and transparency in government operations.

Figure 8. Cluster analysis of eGovernment Strategy of different countries.

The cluster analysis of different countries strategies. With the size it shows the occurrence of different concepts in eGov strategies. It visualizes the occurrences of words and coded similarly by different nodes (see figure 8). Nevertheless, the citizens are mostly used word which shows their focus on citizen centric services.

Figure 9. Concepts appearance in different eGovernment Strategies of Pakistan.

Figure 9 show the appearance of the concepts presented in IT Policy of Pakistan, National e-Health Strategy, Abridged eGovernment Strategy, Digital Pakistan Policy and eGovernment Strategy reports. In Figure 8 technology concept most of the time use by digital Pakistan Policy, eGovernment mostly use by the Abridged eGovernment Strategy.
Data appears in every policy with most of occurrence in Pakistan Digital Policy.

5. Recommendations
It is essential to enhance citizens' awareness regarding cybercrime risks by establishing a dedicated portal focused on computer safety awareness. Furthermore, organizing information seminars and workshops is crucial to improve awareness levels. Increasing internet adoption can be achieved through effective marketing strategies that are relatively low in cost. Additionally, the government can engage citizens through social networks by launching Facebook pages and Twitter accounts.

Conducting surveys to identify the most frequently used e-services by citizens is recommended. This type of survey enables the government to enhance public access and trust in its services. Furthermore, leveraging ICT to empower women and disadvantaged communities through education can significantly improve their daily lives.

5. Conclusions
This study conducted a comprehensive evaluation of eGovernment strategies. The analysis reveals that citizens are crucial for the success of any eGovernment initiatives. It is imperative for countries to align their eGovernment strategies with the Sustainable Development Goals (SDGs) for 2030. Digital government serves as an essential tool to empower citizens and alleviate poverty; its adoption is vital for citizen development and empowerment. However, many digital government strategies lack a formalized commitment to gender equality and women's empowerment.

Some countries' eGovernment strategies are not available in English, highlighting the need to understand barriers related to formulating and implementing these strategies. Nonetheless, the data collected from various reports on eGovernment strategies significantly contribute to the discourse on the role of eGovernment strategies in sustainable development.

References
1. Nograšek, J. & Vintar, M. eGovernment and organisational transformation of government: Black box revisited?. Government Information Quarterly, 31(1), 108-118 (2014).
2. Chung, C.-s., & Kim, S.-B. (2019). A Comparative Study of Digital Government Policies, Focusing on E-Government Acts in Korea and the United States. Electronics, 8(11),, 1362.
3. Löfgren, K. (2007), 'The governance of e-Government: a governance perspective on the Swedish e-Government
4. D'Cruz, M., Watson, J., & Timbrell, G. (2017). Digital government strategy derivation: A matter of design. Paper presented at the Proceedings of the 28th Australasian Conference on Information Systems.
5. Lowery, L. M. (2001). Developing a successful e-government strategy. San Francisco, Department of Telecommunications & Information Services.
6. Martin, F., & Goggin, G. (2016). Digital transformations?: Gendering the end user in digital government policy. Journal of Information Policy, 6(1), 436-459.
7. Izhar .D, Abdullah. M, Al. S, Shah.T and ilyas.A. (2017). Role of information & communication technology (ICT) and e-governance in health sector of Pakistan. Cogent Social Sciences,18(2),1-18
8. Ministry of Information Technology and Telecommunication – MoITT, 24 March 2018, from http://moit.gov.pk/ (2017)

9. UNKB - Nations digital government Development Knowledge Base (2012), "digital government Survey 2012', Department of Economic and Social Affairs, Division of Public Administration and Development Management, New York.
10. Yilmaz, R. (2017) 'Exploring the role of e-learning readiness on student satisfaction and motivation in flipped classroom', Computers in Human Behavior. Elsevier Ltd, 70, pp. 251–260. doi: 10.1016/j.chb.2016.12.085.
11. EGD, IT & Telecom Division Government of Pakistan (2005), "e-Government Strategy and Five Year Plan of Federal Government of Pakistan 2005" Government of Pakistan, Islamabad.
12. IT & Telecom Division (2000) "National IT Policy and Action Plan 2000" Government of Pakistan, Islamabad.
13. World Economic Forum. (2016). The global gender gap report 2016.
14. UNESCO (2016). ICT and the Information Economy: UNESCO Trains Women in E-Commerce.
15. UNKB - eGovernment Knowledge Database (2017), "United Nations eGovernment Survey 2016: eGovernment in Support of Sustainable Development', Department of Economic and Social Affairs, Division of Public Administration and Development Management, New York. Retrieved from https://publicadministration.un.org/egovkb/en-us/#.Wb-ZDq3MxTY
16. Laizu, Z. Armarego, J. and Sudweeks, F. (2010). The role of ICT in woman's empowerments in rural Bangladesh. Proceedings of cultural attitudes towards communication and technology 2010. Murdoch University, Australia.
17. Ahmed, A., Islam, D., Hasan, A. R., & Rahman, N. J. (2006). Measuring Impact of ICT on Women in Bangladesh Retrieved March 27, 2008, from http://iec.cugb.edu.cn/WorldComp2006/EEE4168.pdf
18. Vanesa. L., & Rua. A., (2019)., The importance of online payment on Travel and Tourism incomes - A Cross-Country Panel Data Study., 199- 22.
19. Işık, C., Günlü Küçükaltan, E., Taş, S., Akoğul, E., Uyrun, A., Hajiyeva, T., Turan, B., Dırbo, A., Bayraktaroğlu, E. (2019b). ˙ Tourism and innovation: A literature review. Journal of Ekonomi, 1(2), 98–154. Retrieved from https://protect-us.mimecast.com/s/OTMNC31GQGHpLzlXIgGL6b?domain=dergipark.org.tr; https://dergipark.org.tr/tr/pub/ekonomi/issue/50958/669185.
20. Barber, S. L., & Gertler, P. J. (2008). Strategies that promote high quality care in Indonesia. Health Policy, 88, 339–347. http://dx.doi.org/10.1016/j.healthpol.2008.04.003
21. Bart, J., Michael, A. F., & William, I. N. (1998). Sampling and statistical methods for behavioral ecologists. Cambridge: Cambridge University Press.
22. Bertot, J. C., Jaeger, P. T., & Grimes, J. M. (2010). Using ICTs to create a culture of transparency: e-Government and social media as openness and anti-corruption tools for societies. Government Information Quarterly, 27, 264–271. Derived from http://dx.doi.org/10.1016/j.giq.2010.03.001
23. Castro, C. and C. Lopes (2022). "Digital government and sustainable development." Journal of the Knowledge Economy 13(2): 880-903.
24. Khurshid, M. M., Zakaria, N. H., Rashid, A., Ahmad, M. N., Arfeen, M. I., & Shehzad, H. M. F. (2020). "Modeling of Open Government Data for Public Sector Organizations Using the Potential Theories and Determinants—A Systematic Review", Informatics, Vol. 7, No. 3, pp. 1-16.