CHALLENGES OF E-PARLEMENT DEVELOPMENT: COMPARISON OF PRACTICE IN INDONESIA WITH OTHER DEVELOPING COUNTRIES

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ABSTRACT

This research analyzes the implementation of e-Parlement in developing countries, identifies challenges that need to be overcome, and provides lessons on the implementation of e-Parlement in developed countries. The theoretical foundation covers aspects such as strategy, operations, technology, and digital transformation in the context of parliamentary digitalization. The source of data used in this study is secondary data from research related to the implementation of e-Parlement which has been researched and written in the form of articles that are then published in international journals indexed by Scopus. The method of searching for articles is carried out online, by searching through the Scopus and Google Scholar sites with the keyword "e-Parlement OR parlement digital" and the period is limited to the last 10 years. The results showed that some of the main challenges faced in the implementation of e-Parlement are information technology (ICT), the capacity of staff and parliamentarians to use ICT, and *political will*. Although e-Parlement is a cutting-edge concept, its implementation is not always effective in developing countries due to constraints such as inequality of access to technology. To that end, lessons from developed countries have provided examples of how strategies, digital operations, digital technologies, and digital transformation can guide to address these challenges.

Keywords: *e-parlement, digitalization, challenges, ICT*

A. INTRODUCTION

Electronic government, also known as e-government, is one concept that has significantly changed the landscape of public administration and the way government interacts with society. In explaining e-government, the World Bank emphasizes the role of the implementation of information technology and the internet in changing the relationship between government and its key stakeholders, namely society, business, and other government departments. Such transformations are often reflected in increased efficiency, citizen-focused services, transparency, and participation, as well as greater levels of trust in government machinery (Tawai, 2020) (Palvia et al., 2017). In recent decades, the development of e-government has created significant changes in the way governments operate and interact with society.

E-government is not just about adopting new technologies, but also involves restructuring government organizations and changing work culture. It involves a complex and ongoing transformation process that requires strong commitment from government leaders, provision of training to civil servants, and construction of reliable technological infrastructure. In addition, E-government can significantly reduce corruption. (Palvia et al., 2017) analyzed various theoretical models, empirical data, and conclusions related to e-government and its role in fighting corruption. In a global context, different countries have developed their e-government strategies, which can differ in scope, level of maturity, and approach. However, all countries have the same goal, which is to increase efficiency, transparency, and participation in public administration.

The same is true in Parliament. Organizations such as parliaments are complex systems that can be thought of as a combination of five different elements namely processes, people, culture, structure, and information systems (Pedersen, 2018). Several factors trigger Parliament to adopt and implement e-government such as the development of information technology, demands for transparency, cost and time efficiency, increased public participation, global competition, security and privacy, and economic pressure (Romanelli, 2016). These factors are prompting parliaments in various countries to implement e-government as part of their efforts to improve efficiency, transparency, and public involvement in political processes and legislation. Between e-government and e-parlement there are significant differences. E-government has a wider scope and is adapted to the type of services provided by the government, while e-parlement mainly focuses on legislative effectiveness and community participation (Mustafa & Sharifov, 2018).

The concept of e-parliament is not something new (Papaloi & Gouscos, 2011). Since the early 2000s, there have been efforts, projects, and concepts that have demonstrated that citizens can, even should, be included and involved in decision-making processes through integrated information technology tools, products, platforms, and services that allow them to actively participate in interactions with policymakers (Fitsilis et al., 2017). In e-parlement, information and communication technology (ICT) is utilized by parliament to improve parliamentary processes, services, and functions. In this regard, ICT is a facilitator because it allows legislators and parliamentary staff to perform their democratic

functions through the creation of a powerful platform, faster access to legislative documents, business information processing, and document management to be more efficient, more transparent, accountable, and accessible and offers results-based representation.

Some parliaments in certain countries have digitized their procedures, but others have yet to create innovative practices and procedures to keep pace with the ever-changing digital age. Therefore, parliaments not only need to but must also urgently consider the best technologies and standards to support parliamentary records and document management (Global Center for ICT, 2009 World e-Parlement Report). In addition, through this ICT, people should be able to have several channels such as websites, mobile devices, parliamentary search engines, databases, archives, language support, feedback support, etc., to get in touch with their legislators (Mustafa & Sharifov, 2018).

Although e-parlement is a cutting-edge concept, there is no guarantee that people, especially in developing countries that have been marginalized due to poverty, poor leadership, corruption, and other abuses, can benefit from the application of ICTs for participatory democracy. ICTs are still considered an expensive means of communication and are generally restricted to those with access to resources and power (Global Center for ICT, 2009 World e-Parlement Report). The adoption of ICTs in parliament has always posed challenges such as data protection, cybersecurity, and ensuring equal access for all citizens. The concept of e-parlement itself creates the potential to fundamentally change the relationship between citizens and government, as well as between citizens and their representatives. On the way to e-parlement, several challenges need to be overcome. Therefore, this study will analyze how the implementation of e-parlement in several developing countries, as well as analyze what challenges arise, that need to be overcome to achieve significant positive changes in the legislative process. This research aims to provide deeper insights into the implementation and challenges associated with the implementation of e-parliaments in the context of developing countries and learn about the implementation of e-parliaments in developed countries. In addition, the study is expected to guide policymakers in dealing with these changes to improve public participation, efficiency, and accountability in the political process.

This research aims to investigate the implementation of e-parliament in developing countries and analyze the challenges that arise in the process. Theoretical gaps in understanding the transformational potential of e-parliament in participatory democracy and political accountability create a basis for further exploration. Meanwhile, the apparent empirical picture of the lack of concrete evidence regarding the effectiveness of e-parliament in developing countries provides a strong rationale for conducting further research in this context. This research has high social relevance because it has the potential to help policymakers improve the quality of democracy and governance in developing countries and fill knowledge gaps about the use of e-parliament technology. Thus, it is hoped that this research can provide valuable guidance for improving public participation, efficiency and accountability in political processes in these countries.

B. LITERATURE REVIEW

The information system used by Parliament has gradually developed to make academic literature on e-Parlement limited (Kanthawongs, 2004). The World e-Parlement Report (2008, p. 12) defines e-Parlement as "a Legislature empowered to become more transparent, accessible, and accountable through ICT. It empowers the community, with all its diversity, to be better engaged by providing higher quality and broader information and access to its parliamentary documents and activities. The Indonesian Parliamentary Center (2019) IPC states that an e-parlement can run if there are four components, namely stakeholders, process, infrastructure, and data. These four components are one unit to develop e-Parlement so that it does not only focus on digitalization. IPC argues that the highlight is the information and communication technology infrastructure that is currently being developed by many parliaments in the world. Meanwhile, according to (Koryzis et al., 2021) In his research, there is a framework consisting of four different components as the basis for parliamentary digitalization, namely:

1. Strategy: an integrated strategy with a clear definition of the vision and objectives of the digitization of parliament;
2. Operations: digitization of parliamentary operations, which is the next stage after the strategy is the operational stage related to the identification and planning of digitization actions
3. Technology: adaptation to new technologies for digital growth using the parliamentary hype cycle;
4. Digital transformation: developing and harmonizing the supporting factors of digital transformation.

An overview of the factors supporting digital (and organizational) transformation is needed such as strong leadership, digital skills, and potential benefits for users. Koryzis et.al also mentioned that if parliament wants to transform into a digital parliament, then the digital parliamentary transformation framework based on priorities consists of people, culture, structure, data, processes, and systems.

C. RESEARCH METHODS

Based on the background and problem formulation that has been presented, we will try to provide an overview of the implementation of e-Parlement and the challenges of its implementation in various developing countries. The data source we use is secondary data from research related to the implementation of e-Parlement which has been researched and written in the form of articles that are then published in international journals indexed by Scopus. The method of searching for articles is carried out online, by searching through the Scopus and Google Scholar sites with the keyword "e-Parlement OR parlement digital" and is limited to the last 10 years.

Through these keywords, eight relevant articles were found and Scopus indexed checks through https://scimagojr.com/ site. The eight journals found were then reviewed as follows:

No.	Author Name	Journal Title	Review
1.	(Serra-Silva, 2022)	How parliaments engage with citizens Online public engagement- a comparative analysis of Parliamentary websites.	There are several challenges in the relationship between parliament and citizens. It is difficult for the state to provide adequate information to citizens. In addition, the limited ability to use technology by citizens hinders communication with parliament. The adoption of e-Parlement is also influenced by political power and the readiness of communication tools for citizens to participate is still minimal.
2.	Ali Abdullahi dan Abdulsalam S. Mustafa (2021)	Barriers to the effective implementation of e-parlement in Africa_ A case study on the 8th Nigeria National Assembly (2015–2019)	The challenges in implementing e-Parlement in Africa can be categorized into three directions – technological, social, and economic. Among them are a lack of infrastructure, limited ICT skills, and poor strategic plans for adopting ICT. Other challenges are limited access to affordable internet services and technologies, lack of awareness of e-parlement, lack of political will, and access to best practices in ICT. In addition, inhibiting factors include resistance to change, low funding, digital literacy, public perception of the usefulness of technology, facilitating conditions, as well as inadequate policy interventions to encourage such initiatives.
3	Gbolahan Olasina (2014)	E-parlement services as tools for anti-corruption and transparency.	One of the major challenges in the implementation of e-parlement in developing countries such as Nigeria is the cost of access to e-parlement for the average citizen. Economic depression and poverty have made it difficult for many Nigerians to get food and the cost of internet access will be enormous. In addition, the lack of infrastructure also hinders the use of e-government and is a major obstacle for people to participate electronically. This is also further exacerbated by the low literacy of Nigerian citizens towards ICT literacy and the low interest of citizens towards e-Parlement.
4	Alberto Mencarelli (2022)	Parliaments Facing the Virtual Challenge: A	The challenges faced in digitizing parlement include related to technological infrastructure that is not all owned by parlement. In addition, cybersecurity issues

		Conceptual Approach for New Models of Representation	from outside threats, the need for a clear legal umbrella to support the digital parliament, cultural resistance to change coming from parliamentarians' staff, and other stakeholders, and accessibility challenges for citizens who do not have tools or who lack digital literacy.
5	Emad Abu-Shanab, Raya Al-Dalou', dan Rawan Ali Talafha (2018)	E-parlement in Jordan - challenges and perspectives	The challenges of e-parlement in Jordan include the lack of accessibility and limitations of digital literacy among the public, as well as the need to strengthen information and communication technology (ICT) infrastructure across the country. The willingness and motivation of parliamentarians to adopt technology practices in parliament is the main challenge to the implementation of e-Parlement in Jordan.
6	Antonio Teixeira de Barros, Cristiane Brum Bernardes and Malena Rehbein (2016)	Brazilian Parlement and Digital Engagement	The implementation of parliamentary digitization through several systems does not all run optimally. The use of digital tools creates barriers not only for parliamentarians but also for citizens in Brazil. In addition, data processing on one of the applications is still not organized to produce information that is useful to the public.
7	Dimitris Koryzis, Apostolos Dalas, Dimitris Spiliotopoulos, and Fotios Fitsilis (2021)	Parltech Transformation framework for the digital parlement Big Data and Cognitive Computing	Digital transformation in parliament requires strong leadership, digital skills, and potential benefits for users, people, cultures, structures, data, processes, and systems. However, the digitalization of parliament is faced with several challenges, namely the low literacy and ability to technology faced by personnel and parliamentarians.
8	Abdulsalam S. Mustafa dan Mahammad Sharifov (2018)	The Challenges of e-Parlement Adoption and Its Mitigation	The challenge in adopting e-Parlement is still a lack of political will from parliamentarians and a commitment to transparency. In addition, e-Parlement support resources are still limited, there is a lack of skills of parliamentarians and parliamentary staff in using ICT, as well as the absence of suitable software or platforms to adopt e-parlement, and complexity in social media management

D. RESULTS AND DISCUSSION
Implementation of parliamentary digitization in various countries

Abdullahi & Mustafa (2021) revealed that in Nigeria technology has developed since 1990. But before 1999, the development did not meet expectations. Since 2001, the National Information Technology Development Agency has been established which is tasked with overseeing policies in the use of ICT to build sustainability and global competitiveness. The policy also regulates the use of e-Government, where the facility can facilitate government administration and provide services. Even so, the overall impact is still low. In 2010, e-Parlement was re-introduced by adopting Bungeni, a Parliamentary and Legislative Information System so that it can be accessed by citizens and the Nigerian Legislature (NASS) becomes more transparent. The implementation of e-Parlement by NASS then failed to have the desired impact due to the lack of effort made.

In 2011 – 2015, the e-Parlement project was adopted by the 7th DPR Legislative Agenda by implementing e-voting with the hope that voting would be more efficient to save time. In 2015 – 2019 there was a re-emergence of interest in the adoption of e-Parlement in the 8th National Assembly Legislative Agenda, the expected results are transparency and accountability of legislative information, practices and procedures to the public, better and faster delivery of information and services to the public, increasing citizen participation by increasing citizen accessibility and increasing access to current activities in legislator constituencies through portals private (Nigerian National Assembly). Nigeria's private web portal wwww.nass.gov.ng emphasizes reporting but lacks educating citizens about legislative processes and agendas as well as parliamentary affairs. (Mustafa & Sharifov, 2018)

In line with research conducted by (Abdullahi & Mustafa, 2021) and Mustafa &; Sharivof (2018), Oni et al. (2021) stated that the implementation of e-Parlement in Nigeria is still mostly at the stage of providing information. Meanwhile, support facilities to interact and consult with constituents are still low. E-parlement is the most basic thing in efforts to reduce the wide gap. In addition to Nigeria, another country on the African continent that implements e-Parlement is Ghana. According to research from Awotwi and Amega-Selorm (2016), there are 2 (two) Non-Governmental Organizations (NGOs) in Ghana that have an interest in encouraging transparency and accountability from the legislature to realize *E-Government*, especially e-Parlement, namely Savana Signatures (SavSign) and Penplusbytes. SavSign launched a mobile-based governance project called MSIG (*Mobile for Social Inclusive Governance*) with an effort to provide opportunities for women and youth with HIV/AIDS and disabilities to articipate in local government in Tamale, Northern Ghana.

SavSign provides a Citizen Request Dashboard where *DPRD* and the Community can interact and share opinions on issues that exist including development issues. The interaction increases community contribution in terms of planning, budgeting, and decision-making at the local level and encourages transparent and accountable governance. Trials on MSIG were conducted in 2014 in 4 (four) *DPRD* including the cities of Tabale, Yendi, Wa, and Savegulu. As of

December 2014, 2,064 communities were participating effectively. In addition, MSIG also has a *citizen* interactive platform that allows residents to provide suggestions and feedback on policy planning and assembly decision-making. The existence of this platform makes it easier for the assembly to identify and involve marginalized groups in the planning and decision-making process efficiently because the platform saves costs, time, and energy for community mobilization. In addition to facilitating the assembly, the platform also increases the accessibility of information to marginalized groups.

In addition to SavSign*, Penplusbytes* has the vision to build effective working relationships with governments, parliaments, and other sectors to foster governance and transparency. *Penplusbytes* provides a forum that agrees on the importance of the ability to improve interaction between citizens to maintain accountability, provide a platform for information exchange, and develop information technology strategies to expand citizen participation and civil society organizations. The results of the study were also mentioned in research conducted by Mustafa and Sharivof (2018), Ghana developed the *Parliamentary Watch* application that allows users to access detailed information about elected parliamentarians and knows parliamentary activities.

In Jordan (Abu-Shanab et al., 2018), legislators play a major role in the legislative process. Legislators have the responsibility to propose and approve draft laws; besides that legislator also have the authority to make final decisions regarding applicable laws and regulations. E-Parlement can contribute to improving democracy in Jordan because it provides a platform for legislators so that legislators can engage in consultations and electronic discussions with constituents and other stakeholders. This can increase transparency and accountability in the legislative process and encourage community participation and involvement in decision-making. In addition, e-Parlement helps simplify the legislative process so that parliamentary operations are more efficient. Policy-making will be more effective due to the creation of better governance from the implementation of an e-Parlement.

In addition to the African continent, the European continent, and the Asian continent, e-Parlement is also applied in the Americas, one of which is in Brazil (Braga, Mitozo, & Tadra, 2016). There were two patterns of use of digital technology by the Brazilian parliament in 2014 and 2016, where there was a gradual improvement in legislatures in less developed countries that led to a reduction in the digital divide between states. Digital technology includes the use of websites, social networks to live broadcasts. The increase in the use of digital technology in parliament is directly proportional to the level of socio-economic development of Brazil, where the use of digital technology is carried out to promote parliamentary activities so that the parliament can communicate directly with the public. Despite the improvement, there is still room to improve the function of e-Parlement education.

Implementation of Parliamentary Digitalization in Indonesia

The government as a public service provider must provide public services that are more accessible to the public (Wirawan, 2020). The availability of public services must be accompanied by the implementation of digital transformation,

one of the efforts made in the form of e-Parlement is when the House of Representatives of the Republic of Indonesia makes improvements to its website so that it can be more informative and participatory. Based on research conducted by (Febrina & Manurung, 2022), the Legislation Information System (*SILEG*) governance policy was launched by the House of Representatives of the Republic of Indonesia through the Regulation of the Secretary of the House of Representatives of the Republic of Indonesia Number 13 of 2020 concerning Guidelines for the Implementation of the *SILEG DPR RI*. The contents of the *SILEG DPR RI* are information and documents related to legislation. In addition to the informative function of providing information, the *DPR RI* also provides a channel so that the public can participate in the legislative process called Rumah Aspiration (http://rumahaspirasi.dpr.go.id). The function of the Rumah Aspiration channel is so that the community can submit requests for face-to-face submission of aspirations, but there is no data available regarding aspirations that have been submitted by the community and the results of responses from relevant Board members. In addition to Rumah Aspirasi, there are 2 (two) other channels available online, namely Community Participation in Law Planning (*SIMAS PUU*) and Community Participation in Law Implementation (*SIMASPANLAKUU*). In the Performance report of the 2021 *DPR* Expertise Agency Law Implementation Monitoring Center, one of the factors that hinder the implementation of the *SIMASPANLAKUU* application is inadequate Human Resources (HR) and mechanisms. The content provided by the *DPR RI* website as a whole has provided general information related to parliament that can be easily accessed by the public although there are still some information criteria that are not available. It can be that the implementation of e-Parlement in the DPR is still at the stage of providing information and has not yet reached the provision of interactive features to allow communication between the Parlement and its constituents.

In addition to the House of Representatives of the Republic of Indonesia, (Sari & Purbokusumo, 2020) in their research stated that the *DPRD Kota Surakarta* produced several product innovations, namely systems that are useful for facilitating, supporting, and providing services to the community. The online-based product of the *DPRD Kota Surakarta* also supports the implementation of e-Parlement is Simleg or Legislation Information System. Simleg is a system that was created and then followed by other systems and aims to support the parliamentary work process so that it can be a liaison between the *DPRD* and the community. Starting in 2016, the e-Parlement of the *DPRD Kota Surakarta* was initiated with the function of using applications in the form of disseminating information and one-way communication to the community, namely through the web https://*DPRD*.surakarta.go.id. Applications provided by the *DPRD Kota Surakarta* include:

1. Kumperda (Collection of Regional Regulations) is an application that contains regional regulations in Surakarta City.
2. Aspra (Aspiration and Information Portal) is an application that aims to collect aspirations and portal activities in the *DPRD Kota Surakarta*.

3. Digital Archive is an application that loads archive data on shelves or warehouses so that people can have access to old data without having to search the shelves or warehouses first.

The implementation carried out in 2016 is the stage of the *DPRD Kota Surakarta* to complete the equipment so that the creation of e-Parlement can be created. This is done by buying a computer that supports graphic programs, can process photos and videos, and creates a *DPRD Kota Surakarta* website. The year 2017 is a period of information and communication technology development. This is supported by the creation of various products to help the performance of the *DPRD Kota Surakarta*. In 2018, the *DPRD Kota Surakarta* launched digital television products and focused on developing and maintaining existing systems.

Challenges of Implementing e-Parlement

Based on the literature review above that discusses the implementation of e-Parlement in various countries, it is known that several things are challenges in implementing e-Parlement. This is based on the theory put forward by Koryzis that digitalization can run if supported by the vision of parlement, the digitization process, supporting technology, and digital transformation efforts that pay attention to the side of human readiness, culture, structure, process to the work support system of parliamentarians, as follows:

1. Information and Communication Technology

One important component of the e-Parlement concept is the presence of technology. The use of information and communication technology (ICT) by public organizations to provide accessible, efficient, productive, and modern public services is now also starting to be implemented in parliament (Sobacı, 2012). ICT is considered to be one of the significant supporting forces for parliament to do its work effectively and fulfill its responsibilities under the constitution. The concept of e-Parlement in (Abu-Shanab et al., 2018) is the use of ICT to manage parliamentary activities and connect parliamentarians with their constituents so that from the above understanding it shows that ICT is very crucial in the application of e-Parlement.

The implementation of e-Parlement in several countries based on the analyzed literature shows that e-Parlement infrastructure is the most widely faced challenge. This condition is caused by the low cost of providing hardware and software, inequality in the quality of devices used at the regional level, poor internet connection, to the operational costs of providing infrastructure (Gostojiy, Ledeniyan, &; Grsiy, 2020; (Abu-Shanab et al., 2018). The security of e-Parlement is also a concern due to concerns about insecure systems so users are worried about using the system provided by Parlement (Mustafa & Sharifov, 2018).

The survey results from the 2020 World e-Parlement Report released by IPU (2021) show that the majority of the ICT budget burden in parliament comes from the parliamentary institution itself and the budget continues to increase compared to the budget in previous years which was relatively low because it only budgeted less than 10 percent for IT development in parliament. IPU emphasized that for ICT to improve parliamentary performance optimally, the ICT strategic plan (*Renstra*) in parliament needs to be updated and have a clear vision for

implementing the strategic plan. Commitment and budget support are also needed not only from parliament but also from the government, considering that developing a technology-based e-parliament requires a lot of money.

2. Kapasitas staf dan anggota parlemen dalam menggunakan ICT

Mustafa & Sharifov (2018) explain that parliamentarians and staff working with them need to develop their skills in the field of ICT. Those who are less capable in the IT field will interfere and hinder the optimization of the use of existing tools or systems. This condition will affect the gap between parliamentarians and their constituents due to limited access to communication to absorb and receive public input. (Abu-Shanab et al., 2018) say there is a digital divide, especially in skills and knowledge even among political officials. This gap, if not resolved, could potentially lead to concerns among lawmakers over changes in the way parliament discusses bills with new technologies.

To overcome the problem of the ability of parliamentary members and staff in the field of ICT, IPU (2021) encourages ICT training efforts for members and staff. The training will not only introduce new digital technologies that can be utilized but are expected to encourage confidence in MPs and staff to use technology in their work. Even so, self-development efforts cannot be fully utilized through a series of ICT training that has been prepared (Mustafa &; Sharifov, 2018). Therefore, the personal encouragement of MPs to learn ICT is very important so that MPs can utilize parliamentary colleagues or staff in learning and improving ICT usage skills.

3. Political will

Political will according to (Post et al., 2010) is described as a commitment formed through a common understanding of a particular issue and is considered a potentially effective policy. (Abdullahi & Mustafa, 2021) in their research found that political will is very important in ensuring the successful implementation of e-Parlement. Although there are laws and policies, their implementation is ineffective due to low political will. This condition also shows that parliamentarians tend to change e-Parlement regulations to suit their individual needs rather than prioritizing the successful implementation of e-Parlement.

Meanwhile, the implementation of government digitalization is strongly influenced by support from the government. (Rahayu & Juwono, 2018) said that support from public and political officials is a crucial factor in building and developing digital governance under what is expected. Support from public officials can be in the form of a clear legal umbrella to create an environment that supports the implementation of e-Parlement. In addition, resource support in the form of a budget is also needed to build ICT infrastructure.

Reflecting on the success of the Estonian state in carrying out digital transformation, the political will of the government and public officials to adopt technology is one of the success factors (Katterl &; Mergel, 2019). The desire to change and not fixate on the legacy of post-independence in 1991 prompted Estonia to focus on developing ICT for application in government systems rather than developing specific IT and electronics industries. The Estonian government is principled that IT development should be maximized for the benefit of the people.

So from learning successful examples, it can be seen that a change can run well if it gets support and commitment from public officials and the people. Adequate resources and legal umbrellas cannot be maximized to change the existing system if local officials are not committed to implementing it. This further needs to be a concern for countries that are implementing e-Parlement that the new system will be effective if supported by all interested parties.

Learning the Application of e-Parlement in Developed Countries

There are several lessons learned from the application of e-Parlement in developed countries that can be applied to help countries that aim to switch to the e-parliamentary system to serve the public more efficiently and transparently under the theoretical basis used. First, make strategic efforts as the first foundation in the transformation of e-Parlement. Developed countries are devising clear strategic plans to integrate ICT into their parliaments (Pratama & Manurung, 2022). Such as the e-Parlement in Jordan which has provided a platform for legislators so that legislators can engage in consultations and electronic discussions with constituents and other stakeholders (Abu-Shanab et al., 2018). In addition, there are efforts to develop strategies using digital technology to increase citizens' engagement with parliament and contribute to improving democracy. In this regard, Parliament should develop communication strategies and policies on the use of social media by MPs and staff to expedite Parliament's access to citizens. This strategy should include initiatives to facilitate communication with NGOs, faith-based organizations, women, youth, marginalized groups, and the media regarding Parliament's activities using various digitally supported platforms. Digital platforms should include social media, citizen-based mobile applications, and interactive Parliament websites. Online forums can be found in Portugal and the United Kingdom, where they have different forms and structures. The Portuguese parliament has a permanent forum that allows citizens to discuss legislative initiatives or other issues that the assembly wishes to submit for public discussion. Topics are chosen by the assembly and everyone can follow and participate in the debate for about 30 days. In the UK Parliament, select committees can create a forum on its website to gather input from the public. Usually, these programs target a very specific audience and focus on community experience (Silva, 2021).

The second learning is digital operations which refers to how parliament operates day-to-day in utilizing technology by creating and operating appropriate and secure digital systems (infrastructure). Parliaments around the world have begun to utilize ICT to improve their efficiency as legislative institutions. The rate of development certainly varies, and most systems are constantly updated and modified as technology evolves. Those parliaments that have sufficient technological capacity and resources to adapt to existing administrative and information systems have made the greatest progress in this regard. The House of Commons Canada, like most parliaments in the world, provides each member with a private office equipped with adequate office furniture and equipment such as computers, laser printers, keICT machines, televisions, telephones, and others (Kingham, 2003). (Dai, 2007) research shows the efforts of the European Parliament in the early stages of implementing the use of electronics to date. The

success is inseparable from the large initial costs incurred to invest in ICT equipment and infrastructure as a strategy and part of European digital governance. The European Parliament also provides adequate equipment pays attention to stakeholders and builds a culture of ICT use by encouraging its MEPs to actively use ICT tools and the internet in carrying out their duties.

The third lesson can be applied to digital technology or the digitization of parliamentary information. Digitizing parliamentary information (such as Hansard, Meetings, Books, and Libraries), will make access easy for MPs, staff, and the public. Digitizing and uploading this information in an easy-to-use portal will empower members of Parliament to make informed decisions and provide transparency to the public about the performance of Parliament. The Portuguese parliament's desire to make governance changes by utilizing ICT was followed up through the agreement of the entire parliamentary group as outlined in Resolution 68/2003. In it, the regulation, regulates how digital transformation is carried out, namely stipulating that parliamentary institutions must ensure the use of ICT such as the circulation of documents in electronic form, the use of digital signatures, development of personal websites and blogs of parliamentarians to the commitment to encourage the government to optimize technology in submitting documents to parliament (Leston-Bandeira, 2007). This shows that the Portuguese Parliament ensures that a digital parliamentary component is built into it. Then, digital parliamentary transformation activities are continued by targeting stakeholders through the development of an AR@Net system that makes it easier for parliamentarians to access information and data on the legislative process to encourage the use of digital means by parliamentary members and staff.

The fourth learning is digital transformation. Digital transformation represents a fundamental change in the way parliaments work, communicate, and deliver services to society. This includes cultural changes and changes in the mentality of MPs, staff, and relevant stakeholders. The use of ICT in the Swedish Parliament known as the Riksdag has been running since 2005 (Lindh & Miles, 2007). The successful application of information technology as part of digital parliamentary transformation is supported by three parties, namely, parliamentarians, political party organizations, and parliamentary institutions. Swedish lawmakers already have initiatives to use technology in their work, including optimizing e-mail and personal websites to communicate with their constituents. The Riksdag also provides ICT services and provides training and support on the use of ICT to parliamentarians. ICT needs provided include laptops and smartphones that are updated every three years. The Swedish Parliament understands that people increasingly understand the use of ICT, so an adaptive attitude towards technology needs to be taken to make it easier to reach people. Therefore, the components of the implementation of e-Parlement are highly considered both from the infrastructure side, as well as the human side, from the culture of using ICT to the systems and processes that run in it to support the work of board members.

A number of these countries have implemented e-parlement reforms over the past few decades with support from partners. Lessons learned from the implementation of e-Parlement can be useful for Parliaments that want to

implement this system. The e-Parlement system is indeed an important tool in shaping the future Parliament. This can help legislators perform their duties more effectively and efficiently, increase community engagement, and encourage young people to join Parliament and participate in the democratic process.

The novelty of this research lies in its exploration of the challenges and lessons learned from the implementation of e-Parlement in both developing and developed countries, shedding light on the complexities and nuances associated with this concept. It highlights that while e-Parlement is a cutting-edge concept designed to enhance the legislative process and public participation, its successful implementation in developing countries faces significant hurdles, primarily linked to information technology, the digital capabilities of staff and parliamentarians, and the necessary political will. Moreover, the study emphasizes the importance of addressing issues related to technology access inequality. The research underscores that lessons from developed countries can serve as valuable models for strategies, digital technologies, and digital transformation to overcome these challenges and improve the efficiency and effectiveness of e-Parlement. It underscores the pivotal role of political support, technology investment, and a cultural shift within parliaments to facilitate successful e-Parlement implementation, providing a comprehensive and practical framework for enhancing parliamentary processes in the digital age.

E. CONCLUSION

E-Parlement is an important concept in the era of electronic government or e-government. E-Parlement aims to improve efficiency, transparency, participation, and public involvement in political processes and legislation. E-Parlement is different from e-Government. E-Government covers all services provided by the government, while e-Parlement focuses on the legislative process and public participation in parliament. Parliament with its complex entity requires digital transformation to increase efficiency and participation. After searching articles online through the Scopus and Google Scholar sites, it was found that some of the main challenges faced in the implementation of e-Parlement are information technology (ICT), the capacity of staff and parliamentarians to use ICT, and *political will*. In addition, there are lessons learned from developing countries in the implementation of e-Parlement. Although e-Parlement is a cutting-edge concept, its implementation is not always effective in developing countries due to constraints such as inequality of access to technology. They need to address these issues to bring about positive change. To that end, lessons from developed countries have provided examples of how strategies, digital operations, digital technologies, and digital transformation can guide to address these challenges. In addition, success in implementing e-Parlement will largely depend on political support, investment in technology, and a commitment to changing the working culture in parliament.

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