The Implementation E-Government to Increase Democratic Participation: The Use of Mobile Government

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Abstract
As information and technology develop the use of technology in various sectors has increased, including in the governance sector. Electronic governance was on the rise, especially with the limited mobility and social interaction restrictions during international health crises. Electronic government studies the use of information and communication technology within the public sector and holds the potentials of transformational government. The adoption of electronic governance in the public sector has created a revolution in the government’s administration and contributed to the improvement of accountability, efficiency, and transparency. The rationality of electronic governance is often associated with the increase of democratic participation through electronic government framework, involving a series of large-scale innovation projects and system that is technology-oriented. Through literature study, the researcher tried to analyse the implementation of electronic government to increase democratic participation through the use of mobile government by elaborating the functions electronic government can offers. The study reveals that electronic governance could provide open government data that opened a forum for citizens to debate over the issue concerning the government’s system that may solve several issues such as the low number of democratic participation and corruption.

Keywords: Electronic Government, Democratic, E-participation
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INTRODUCTION

Government needed citizen participation in political agenda so that they could gain the public’s support for policy initiatives, recognizing potential conflicts, and identifying unforeseen concerns (Conroy & Cowley, 2004). However, to increase citizen participation, there is a question that a government would always encounter: what was the best strategy to engage with the citizens in local public processes? Traditional strategy that required face to face meeting or sending letters through posts were considered inefficient and cost a huge budget, moreover, there is no guarantee that the efforts made to hold such strategy will not be in vain as most of the strategy are often not proven to be a fruitful effort and citizen participation stays low. The lack of citizen participation in the government’s agenda has created a challenge for the government who should ensure that citizens were engaged with the decision they made as those are for their future endeavours (Godshallck, Burby, Brody, 2004).

Bickerstaff (2002) mentioned that participation is defined as the involvement of one or more stakeholders in decision-making or policy in such a way that the stakeholder input is provided, considered during the decision-making process and influence the decision outcome. There are a number of ways in which stakeholder input might influence decision-making. Feeney and Welch (2012) divided the potential outcomes of participation into three categories which are democratic governance process which is the ways in which public participation in government decision-making affects the democratic basis for engagement of citizens in government, input process as the operational character of the interaction that citizens and external stakeholders have with the government, and organizational decision outcomes that refers to the extent to which engagement processes affect agency policies and decision outcomes.

According to Held (2006), citizen participation can be defined as a series of processes that allows the members of society to be actively involved or influence public opinion in order to participate in a political agenda and other democratic decision. Citizen participation represent one of the most effective form of an open and good governance. It was usually symbolized by the existence of working groups, meetings, or assemblies. However, as information and communication technology (ICT) develop, citizen participation now can be done through online network that allows digital participations, especially a platform where citizens could voice their opinions and share what they can to contribute to the country’s development. Today, almost every country in the world have at least some forms of online service for their citizens. Integration between information and communication technology (ICT) within
the public sector were commonly known as electronic government (e-Government). Nations (2014) reported that the revolutionary growth of electronic governance in the recent period has contributed to the governments’ strategic decision-making processes’ transparency, accountability, efficiency, and citizen’s participation.

Based on data served by Pena-Lopez at al. (2016), the number of countries scoring high on the E-governance Development Index (EGDI) increased from 10 in 2003 to 29 in 2016. The United Nations stated that the main purpose of e-government was to make government information and services available to the citizen by utilizing network services (UN, 2005). On the wider scope, e-governance’s broader meaning was the use of information and communication technology to support the development of a country’s governance sectors including business sectors, administrative sectors, and democracy involved actions. While according to Backus (2001), e-governance is the application of electronic means for the interaction between government operations to simplify and improve democratic, government and business aspects of governance.

Over the years, many researchers have tried to find a definite definition for electronic governance to accommodate development in the related fields. On its preliminary stage, electronic governance was limited to data digitisation and storage. However, as ICTs developed further, e-governance administration also embraced other administrative needs such as electronic services that may serve citizens on their daily life. With the existence of e-Government, the government could modernize administrative services so that the services they provided could be more personalized, effective, accessible, convenient, and flexible. There is a potential that e-Government can also lower the transaction cost which leads to more efficiency (Sanchez-Torres & Miles, 2017).

Electronic governance does not only benefit the government, but also the citizens. For citizens, they will be able to access information, requested documents online, or made reports through online platforms provided so that they can save time, which increases the citizen’s convenience. Not only that, as electronic governance was related to data digitisation, data that was made available for public to see could benefit the government by boosting the citizen’s trust toward the government’s work (OECD, 2016; Heeks R, 2005; West DM 2004).

Providing government’s services through electronic government can help to strengthen the relationship between the government and the citizen, and potentially allows citizens and government to have a mutualism relationship where they could learn about one another and created necessary linkage for a functional democracy (Schlozman, Verba, Brady, 1995). By using information and communication technology, the government will be able to facilitate citizen empowerment by offering information that could help the citizen to make a democratic decision, promoting civic equity, enhance access to and the delivery of government services (Ilavasaram, Alathur & Gupta, 2011; Quirke & Freeman, 2013).

Using systematic literature review, this paper aims to analyse the benefit of electronic government (e-Government) to increase the citizen’s participation, the challenge faced in the implementation of e-Government, to identify what e-Government could contribute to the government and to the citizen, as well as to evaluate the overall citizen’s participation from the country that implemented e-Government to show a result if e-Government was implemented.

1. Public usage of SNS and their engagement with government
Based on Chuqing Dong’s (2018) study, SNS is a web service provided for the society to build up a network relationship and communicate with each other. The modern era keeps developing as it gives an impact to people who are communicating, taking some examples of social media platforms like Facebook, Twitter, or Instagram. Apparently it differs from government SNS, although it’s less bureaucratic and mostly informal, it is considered as a communication channel for the government needs (Dong & Ji, 2018). There are some considerations taken regarding public engagement using social media as the main tool to strengthen the relationship between the organizations, other than that, it is to gain supportive behaviours to the organization as well (Dong & Ji, 2018).

Related to this matter, government is separated into three fields: formal politics, public administration and civil society. Based on Leif Sundberg’s study, these fields are surprisingly dependent in several ways possible, not only that, the fields are distant if they’re aligned with their cultures, legal and official status, and lastly the mode of operation. Through these fields, the concept of e-Government itself was found. One of the concepts is e-services, made and used for citizens to perform online and no obligation to physically make a contact with the agency. Another concept is about e-democracy, filling in between civil society and formal politics. For example, the case of e-voting.

In order to increase US voters, it is needed to conduct the e-voting system to organizations and individuals. This e-democracy tool exists to keep the citizens updated with the available information and facilitate them with a platform to place their vote in the democratic process (LeRoux et al., 2020). According to Kelly LeRoux’s study, there’s a positive impact from e-voting, one of the positive impacts is online voters tend to vote again. Other than that, it enhances the citizens participation for government needs. In the United States, they once made several attempts to conduct online voting in order to increase citizen participation, but there was trouble since they made it for overseas military families. These overseas military families were not used with the presidential election (LeRoux et al., 2020).

Most governments rapidly adopt SNS but unfortunately they have to deal with the decline that arises because the citizens refuse to engage with public affairs and questioning about the measurement through social media (Dong & Ji, 2018). The other struggles written by Chuqing Dong are the concern about the audience targeted, into what level online participation can be measured, and how many things need to be invested in social media, especially if it’s needed for government matters. Other than the decline itself, there’s a matter when the citizens do not know where or how they are supposed to place their vote during the election. This thing becomes a low turnout of e-Government (LeRoux et al., 2020).

There are ways to make e-Government happen. With citizens voluntary behaviour, it gives a significant influence for government and public policy. Both government and public administration are interlaced, since both things are essential in applying open government to the citizens. At the local government level, the connection between civic behaviour and public’s politic stands out and it becomes an issue that creates a concern about the authority (Dong & Ji, 2018). Providing information about the election online is also another way to increase the engagement of citizens to place their voice. Other than that, spreading information online reduces the cost for the citizens to seek out information through multiple sources since it’s already available online. If the cost increases, the likelihood of the citizens to vote
becomes less. That’s why, the provision of reliable information is important to increase the number of voters for election (LeRoux et al., 2020).

There are promises that come from e-Government, the promise of increasing benefit and the expected usage of ICT will transform in a way they need. There’s a value regarding this matter, where they say that e-Government is an era with a new paradigm where the relevance starts with democratic and institutional values. Thus, there are ways to achieve this value, one of the ways is to include citizens through the process (Sundberg, 2019). By making these things happen, then the value that has been built will be achieved.

Cited from Leif Sundberg, the writer wrote about the risks of e-Government. Though SNS is completely needed, the risks that involve the use of information and communication technology (ICT) are high, taking an example of crashing a website when there was a high demand, unauthorized third parties that exposed important information, or the company that acquired plenty of user data. The ethical issues arise regarding this matter, since there are parties using data without permission that might influence the fair elections and the debate of citizens’ privacy.

2. Public participation

The participation of young adults in an offline event through an individual stage is highlighting the outcome of social media behavioural engagement with government. In terms of using SNS as a media to dig information about the government, the previous study made by Chuqing Dong wrote about the concept of offline public participation in two different types of participation: political participation and civil participation. The first participation has citizens’ voluntary behaviour, in order to influence the government action and public policy. The last participation, which is civil participation, refers to the contribution of participatory behaviour in neighbourhood and local community development (Dong & Ji, 2018).

Previous research has found SNS's positive record, when used, it increases the interaction between users on news and online public affairs. This influences an individual's engagement related to community issues for civic errands. The larger the interpersonal network online, the bigger the possibility to engage in civic events addressing community issues. Thus, Chuqing Dong believed that SNS usage gives a significant effect to young adult public participation in offline settings and the online usage is positively associated with it.

This study aims to identify the diverse opportunities of democratic engagement in the public administration context by conceptualizing public participation as a unilateral construct encompassing democratic activities that affect the electoral outcome, government action, policy making, and the development of local communities.

a. Government transparency

The essentialness of transparency that comes with e-Government initiative, it has the quality relationship between public and organizations. Both public relations and public administration think that transparency becomes a multidimensional construct. By that, three aspects are identified: decision making processes transparency, policy content transparency, lastly outcomes and effort transparency. With two way communication, it builds trust, openness, involvement, investment and commitment between the citizen and the government itself (Dong & Ji, 2018).

Previous study written by Chuqing Dong said that there’s a need to put extra attention to the perception of transparency through the stakeholders’ point of view. If
the transparency is self-assessed, it is meaningless unless the citizens have already put their trust in the organization and perceiving that they are transparent. These concepts of transparency are divided into three parts: substantial information, stakeholder participation and accountability. Concerning the availability of accurate information to help the citizens’ understanding about the organization is included in substantial information; while the stakeholders need to understand the accurate information about the organization to make their final decision in participation; lastly the accountability that refers to the responsibility in terms of words, actions and decisions especially the organization. This study wanted to emphasize that electronic governance may help to enhance government’s transparency, which in turns, eradicate structural problems such as embezzlement and corruption within the governments or any other related sectors where the information were provided through electronic governance.

b. Government-public relationships (GPR)

One of the functions of electronic governance as described by Sanchez-Torres & Miles (2017) was to foster the relationship between the government and the citizen so that the citizen would be an active participant on government’s decision-making process. Political participation should involve the citizen’s voluntary behaviour to influence the government during the decision-making process, the execution of public policy, and any other government’s actions (Gil de Zuniga et al., 2012). Whereas civic participation refers to the citizen’s participatory behaviour that contributes to the development of the society including the citizen’s local communities and their own neighbourhoods. Both kind of participations were interwoven because civic participation and political participation constitute good citizenship. On top of that, citizen’s participation would lead the country to an “open government” behaviour where issues concerning local community can be solved through the relationship that’s formed between the government and the citizens.

Hong’s (2013) study concluded that there is a greater use of internet-integrated and online government services which have been a significant factor in increasing the citizen’s trust and satisfactions toward the government. For online government-public relationship, the performance of e-government was evaluated through citizen’s satisfaction. The use of e-government and the information provided on the platform by the government through an online information-based services were more prevalent than those of transaction-based services (Reddick, 2005). Hong’s (2013) study also explained that the use of government websites has caused the citizen’s trust to increase rather than the use of transactional services. This study aims to emphasize that the implementation of e-government could enhance the engagement between the government and the citizen through communication-based engagement.

RESEARCH METHOD

The study used Kitchenham’s (2009) model of systematic literature review. Data was collected from the search strategy component from April 2020 to May 2020. The study used a set of particular keywords relating to the issue in English language on Scopus database. Keywords used for e-Government were ‘electronic government’, ‘electronic democracy’, ‘e-gov’, ‘open government’, ‘good governance’, ‘citizen participation’, ‘government’s transparency’, and ‘electronic administration. To look up for relevant information, the search was limited to papers published between the last twenty years.

There are a total of 84 publications identified after removing duplicates and publications that strayed too far from the issue written in this study. The author then
reviewed the paper through its abstract, keywords, and title, to ensure that the papers have the theoretical framework the author needed to answer the problem formulation in this study. From the reviews, the author found 45 publications that could be analysed in depth. Data compiled then was analysed based on the hypothesis made for this paper before it was presented in this study.

RESULTS AND DISCUSSION
Advantages of e-Government Implementation in Increasing Citizen’s Democracy Participation
There are several advantages and benefits from e-Government implementation although the advantages and benefits itself may vary in different countries. According to Alshehri and Drew (2010), e-Government platforms have benefited not only the government sectors, but also business sectors and the citizens. Average normal work-day are 7.9 hours per work day to 8.4 hours per work day, which limited the services citizens may receive during hours that are not included in the work hours. However, with the implementation of e-Government, citizens, businesses, and government entities would be able to access the services or information provided by e-Government platform 24 hours a day, 7 day per week. The study shows that the implementation of e-Government also cost-effective. There are significant advantages of e-Government.

In the relation of increasing the citizen’s democracy participation, citizen’s participation would lead the country to an “open government” behaviour where issues concerning local community can be solved through the relationship that’s formed between the government and the citizens.

First, e-Government could provide data transparency. Armstrong (2011) study showed that when a government made information available to public, the public tends to have a better judgment toward the public leader’s image of trust. Numerous studies also showed that publishing relevant information through e-Government platform could help improve transparency which raises the citizen’s trust and gain more funding, as well as public support to projects executed by the government (Bonson, Torres, Royo, Flores, 2012; Cuillier, Piotrowski, 2009; Abu-Shanab, 2013). Relevant information accessibility will influence the citizen’s willingness to participate within the government’s agenda and enhance e-participation between those that accessed the information online and those who don’t.

Jager and Grimes’ (2010) research showed that using e-Government platforms, transparency could be enhanced through several steps such as creating an index for the country’s transparency readiness, measuring the country’s transparency, evaluating the systems that already existed to look for possible expansion, and investing in collaborative pilot projects. Torres, Bonson, Royo, and Flores’ (2012) study analyses a total of 75 European websites and found out that most of the social media tools utilized by the governments have contributed to enhancing transparency levels. On Bretschneider and Ahn’s (2011) study, they evaluated Gangnam’s e-Government applications by conducting interviews. Their study resulted to a report showing that more than half of Gangnam citizens agreed that e-Government applications increased transparency, and more than half of Gangnam citizens believed that e-Government applications has reduced corruption.

On developing country or countries with high corruption index, e-Government could be one of the solutions in reducing corruption. The government could provide content containing economic and financial report, budgetary, social projects, and
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macroeconomic scale that public could access to harness transparency of financial and economic information online (Diaz, Hernandez, Ouriachen, 2012). The available information has made it easier for citizens to actively participates in monitoring the officials so the potentials of misconduct could be reduced. Therefore, e-Government will greatly benefit the attempt on government’s transparency, which in turns, increases the citizen’s trust toward the government.

Challenge of e-Government Implementation in Increasing Citizen’s Democracy Participation

Albeit the advantages e-Government provided for both the government and the citizens, there are several challenges e-Government that could delay the implementation of e-Government. There are four categories of barriers that is mostly found in countries that tried to implement e-Government which are social, financial, technical, and organizational (Alshehri & Drew, 2011).

OECD (2003) reported that major challenges faced by countries trying to implement e-Government was technical challenge. There is a huge gap of information and communication technology barriers between developing country and non-developing country that involves the country’s infrastructure. To implement e-Government, there need to be a decent internetworking to accommodate information-sharing and open up new channels for delivery of new services and communication. Transitioning to traditional government models to electronic government models, a country would need a guiding set of standards, models, and principles. Developing country suffers from the gap in opportunity for the citizens who have access to the internet and the citizens who do not have access to the internet or digital divide (Alshehri & Drew, 2011), which hindered citizen’s democracy participation. The challenge is not only limited to the information and communication technology’s infrastructure, there are also measurement for electronic readiness as well as information and communication technology’s literacy. Countries with low electronic readiness and electronic literacy would not be able to maximize the advantage of e-Government implementation.

There is also a matter of privacy. E-government focuses on information openness, which makes privacy as critical issue. The country that implemented e-Government should guarantee the user’s privacy protection (Basu, 2004). However, it is hard to determine to which extent protection should be given regarding on information attributed to an individual and it took a heap of policy to make on addressing privacy issue in an e-government context (Alshehri & Drew, 2011). When a citizen participates in government’s agenda, there is potential information regarding of the individual would be leaked and endanger the freedom of citizen’s participation itself. The government would need to provide security against the increasing danger that could create unauthorized access and unauthorized modifications or devastations.

Aside than technical barriers, e-Government implementation also faced organizational barriers. To successfully implement e-Government, supports from the leaders and top management of government is necessarily needed. According to Feng (2003), organizational supports is a significant factor that contributes to e-Government development. The cooperation and coordination between partners and stakeholders would ensure the availability of required resources and training to successfully implement e-Government system. On the business side, e-Government may also be seen as a threat that made the employee fear their position would be replaced by
technology. Organizational support would be needed to help employees understand that e-Government would not endanger their jobs, instead, e-Government would be able to develop the employee’s skills so that the employees can be reassigned to another role that could adapt to the change.

Social issues can become barriers too in implementing e-Government system. As mentioned on technical issue above, there were people who have access to internet and technology and those who do not have access to internet and technology. Not all people have the suitable access to computers and internet, be it because they are coming from low economic income family, or they simply do not harbour the necessary skills to operate the technology. There is also cultural and generational gap between the generation that was born before technology’s rapid development and the generation that was born today, as well as financial barriers which often occurs in developing country because of the low income per capita.

1. E-Government and M-Government

There are various ways on implementing e-Government system. In order to increase the citizen’s participation in exercising their democracy rights, e-Government should have an interactive platform where the citizen could interact and participate on governance agenda (Mengistu, Zo, Rho, 2009). One of the ways to implement e-Government system is by using mobile technologies such as personal digital assistants (PDAs), laptops, and mobile phones that is integrated with wireless networks. Mobile government (m-Government) would be able to offer more services and information. M-Government was an emerging trend in public service delivery and is part of a broader phenomenon of mobile-enabled development that guarantee the portability and mobility for the government, business, and the citizen. M-Government is considered as more convenient way to access information that could provide a real-time access and personalized information access that can maximize the benefits and advantages of e-Government implementation.

M-government are not separated from e-Government. While e-Government encompasses usage of all technologies to deliver information and services to the citizens in order to improve the activity of the government and increasing the citizen’s participation, m-Government is an add on to e-Government system that utilizes mobile technologies to execute the system (Mengistu, Zo, Rho, 2009). There are several support and solutions that can be provided by m-Government such as uniqueness and mobility as mobile technologies can reach people anytime and anywhere convenient, provision of location-based government services, on-time information delivery, ease of use, and improving emergency management by transmitting crucial information timely. M-government can be applied to four main purposes such as m-services, m-communications, m-administration, and m-democracy in the public services.

2. The Use of M-Government to Increase Citizen’s Democracy Participation

Mobile technology has been an inseparable part of human life within the presence of smartphone. Thus, it holds many potentials for government to improve communication and service for the citizen. Benefiting from smartphone personalized use, high mobility, and high accessibility, government could reach higher number of audiences. Enhanced interactive feature that could be embedded into citizen’s smartphone would provide real time communication between government and citizen, where this leaves some room for citizen to give real-time information that consist of news, phenomenon,
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opinion, and critics. Enhancement of government service through mobile devices also gives accessibility for citizen to access public service delivery such as medical services, public transportation, and security (Antoski & Gusev, 2005).

With the existence of mobile government, it is also possible to facilitate their citizen with democratic interactive application, such as a tool for election, civic engagement in policy development, also suggestion box. Although it has a lot of potential but there are some limitations that may occur on field such as lacking infrastructure, misuse of government application, and their citizen education towards technology that should be put on consideration. The benefits that government could achieve from implementing m-government are:

1. Larger audience
Mobile phone has large number of users, including hard-to-reach vulnerable group that live in rural area, people with disabilities, and elders. Also, mobile phone has a lot of tools that could be a great help to spread information because of its flexible communication tools such as voice to text tool for hearing impaired people.

2. Mobility and Accessibility
Citizen could access government information everywhere and anytime if they have mobile device and internet connection nearby.

3. Mobile device as personal device
Smartphone is considered as personal device; it could help government to track-down their citizen location and help the process investigation in case of crime.

The benefits for citizen are:

1. Accessibility and convenience
Mobile technology could be used to enable citizen towards public service, government information, and reporting events.

2. Health and Safety
Accessible medical services such as ambulance, suicide hotline call, and responsive emergency call whether there are crimes occurred around them. Within this feature it could save more lives.

3. Education
Government could provide information through mobile devices or provide education content for children in primary school.

4. Place to submit critics
Through the usage of mobile phone, citizen could report power abuse, civic engagement in policy development, also participate in democratic decision making such as election.

CONCLUSION
There are many advantages of implementing e-Government to increase the citizen’s democracy participation such as efficacy, efficiency, convenience, low-cost budget, and transparency. In further issue, e-Government could enhance citizen’s participation through monitoring financial and economic information that were made available for public to track decisions and projects made by the government. However, there are still many to be improved on the implementation of e-Government such as digital divide, generation gap, ICT’s literacy and infrastructure, as well as the need of organizational support. One of the ways on executing the implementation of e-
Government was to use mobile technologies as it was easy to use and more advantageous since there are many mobile technologies nowadays. Mobile technology can be utilized to implement mobile Government or m-Government as mobile technology provides flexibility, efficiency, efficacy, accessibility, and convenience for the user. On top of that, m-Government could be used to reach larger audiences and approach various sectors through the easy use of technology.

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