

CITIZEN ADOPTION OF EPARTICIPATION: A STUDY OF JAKARTA SMART CITY EPARTICIPATION INITIATIVES

Muhammad Rifki Shihab, Universitas Indonesia
Achmad Nizar Hidayanto, Universitas Indonesia

ABSTRACT

The rate of eParticipation adoption amongst citizens is reasonably slow and endures as an important topic to explore. This research evaluates the antecedents of citizen adoption of eParticipation, more specifically in eParticipation tools deployed through the Jakarta Smart City initiative, in Jakarta, Indonesia. A total of 252 respondents took part in this quantitative study, and the data were analyzed statistically using PLS-SEM. The results showed that citizens' adoption of eParticipation is formed by their predisposition of intention to use eParticipation. Furthermore, this research has substantiated several antecedents of citizen's intention to use eParticipation, which include attitude, perceived usefulness, and trust in government. Other constructs were also analyzed but did not have significant effects towards citizens' intention to use eParticipation, namely, perceived ease of use, effort expectancy, subjective norm, and trust in Internet.

Keywords: Technology adoption; eGovernment; Decision making; Citizen engagement; Community participation.

INTRODUCTION

The proliferation of modern day eGovernment advancements have enabled governments to offer citizens alternative avenues to improve service efficiencies. In the past decade, we are seeing a substantial increase of government organizations exploiting new potentials to enable citizen engagement and participation, hence coined as eParticipation. Similarly, a Smart City initiative has developed into a widely deliberated phenomenon across the globe. One of the most triumphant measure of eParticipation deployment is the presence of citizen engagement, to enable reciprocated information and knowledge (Kogan & Lee, 2014).

EParticipation is defined herein as the use of information and communication technologies (ICTs) to augment two-way interactions between citizens and their government. This understanding is derived from Macintosh's (2004) consideration of the role of ICTs in encouraging citizens' political engagement and participation. eParticipation technologies are aspired to improve the efficiency and effectiveness of citizen participation and interaction with their government (Zheng, 2017).

Researchers and government organizations have high hopes that eParticipation could bring about transformative changes in the interactions of citizens and their government. Hence, we see a proliferation of eParticipation technologies deployed, and even more so in recent years. However, such optimism was choked with the grave realities that eParticipation adoption amongst

citizens is low and tend to take shape in a slow and incremental manner (Zheng & Schachter, 2017). Citizens' decisions towards using novel opportunities to interact with their government varies greatly, while some citizens are more keen to try innovative, technology-enabled methods of interactions, a vast majority are curbed to traditional ways of interaction and remain abstained from any form of digital participation.

The concept of eParticipation is highly relevant in Jakarta, the capital city of Indonesia, the third largest democratic country in the world, and a megapolitan of over 8 million residences. The local government of Jakarta, through its Jakarta Smart City (JSC) initiative, has developed numerous platforms and technologies, as part of their endeavor to enable citizen engagement through eParticipation. One of the more renowned one is the launch of a mobile application for online reporting of public complaints, previously known as Qlue, and more recently transformed and rebranded as Citizen Relation Management (CRM).

Alas, the number of citizens who have adopted eParticipation in Jakarta is lacking. For example, Qlue users in Jakarta merely amount to 8% of its residents. Such number of eParticipation adoption is trifling, which indicates low citizen enthusiasm for techno-centric approaches in engaging with their government. Previous research has also highlighted that in light of Jakarta's readiness as a smart city, one dimension, namely citizen participation remains at level 1 and is one that should be addressed (Rajagukguk, 2016). Low level of citizen adoption is contra-intuitive to the development of eParticipation. In order to reap maximum benefits from eParticipation, it is imperative to involve citizens as broadly as possible (Macintosh, 2004). Hence, the Jakarta Smart City Initiative has yet to fulfil one of the key criteria of a successful smart city, which is the realization of broad citizen engagement (Kogan & Lee, 2014).

Understanding issues of eParticipation adoption would be incomplete if perceived solely based on technology adoption theories. Moreover, eParticipation can be examined more comprehensively by employing other perspectives (Manoharan & Holzer, 2011). Other researchers, such as (Kelly Garrett, 2006) emphasized on the ambiguity of technological factors influencing eParticipation adoption. To achieve a thorough understanding of eParticipation adoption amongst citizens calls for an intricate analysis of specific traits of eParticipation, which is more political, and differs from similar researches in the area of eGovernment, which is more administrative in its characteristics. (Kollmann & Kayser, 2010).

Efforts to try to better understand eParticipation adoption amongst citizens have been undergone. Numerous previous researches have been conducted as part of the scientific endeavor to better understand the topic at hand. It is noteworthy to highlight the work of (Naranjo Zolotov et al., 2018), which has summarized the antecedents of eParticipation, based on previous literatures, keeping in mind the diverse eParticipation tools as well as geographic localities. It is understood that most such researches were geared more towards technological perspectives (Stieglitz & Brockmann, 2013; Alathur et al., 2014; Ali & Ali, 2015; Cegarra-Navarro et al., 2014; Bianchini et al., 2016), or issues edging with trusts (Kim & Lee, 2012; Scherer et al., 2014; Alharbi et al., 2015; Persaud et al., 2015; Abdullah Alharbi et al., 2016).

This research then distinguishes itself from previous research by trying to empirically examine the antecedents of eParticipation usage, with technological as well as trust perspectives as its leading precursors. Therefore, this study intends to fill a specific scientific gap, which is to enrich our understanding of the technological as well as trust precursors of eParticipation usage amongst citizens, more specifically offering such insights from Jakarta, Indonesia.

THEORETICAL BACKGROUND AND HYPOTHESES DEVELOPMENT

EParticipation

The term eParticipation was first defined comprehensively by Macintosh (2004), which is the use of information and communication technology (ICT) to provide information and support citizen engagement with their government. According to (Sæbø et al., 2008), e-participation consists of two elements namely "e" and "participation". Participation can be interpreted generally as joining, both in an activity or discussion and in taking a role for decision making, whereas the 'e' is understood as being conducted electronically aided with an array of technological tools (Sæbo et al., 2008).

Macintosh (2004) builds three levels of participation to classify eParticipation, namely e-enabling, e-engaging, and e-empowering. E-enabling describes the level at which the government provides facilities so that people can attain information from the government aided through technology. E-engaging explains the level at which there is a consultation mechanism between the government and the citizen, through a top-down method (from government to community). Here the community is involved and contributes to government issues. Finally, E-empowering describes the level of which the government engages the community to participate actively, through the bottom-up method. At this level, society plays a role in policy making. In general, eParticipation enables citizen engagement through utilizing information and communication technology (Macintosh, 2004).

EParticipation in Jakarta, Indonesia

As the capital city of a country with the highest rate of urbanization in the world and a city that has the highest income per capita in Indonesia, Jakarta presents various complex challenges and is still trying to build a cohesive and active community to participate in realizing a better Jakarta.

The Jakarta Smart City (JSC) initiative provides a novel space for citizens to participate in shaping future Jakarta, enabled by applications and websites that can be accessed through mobile phones. For example, by using the Qlue application, citizens can report problems that can be directly followed up by the relevant agencies. Citizens are also empowered to monitor the performance of their government through websites such as performance.jakarta.go.id or report directly via the governor's short messaging service (SMS). The governor's SMS feature has been modified so that it can be managed using a computer so that incoming reports can be followed up more effectively because it can involve large number of mass in evaluation and follow ups. JSC has recently developed a platform for the government to manage all forms of community participation called Citizen Relationship Management (CRM). The purpose of CRM is to accelerate the response to every citizen complaint that comes from various complaint channels. These various applications and websites are mediators that are expected to increase interaction and communication between the community and government (Jakarta Smart City, 2020).

Hypotheses Development

Perceived usefulness is understood as the degree to which an individual believes that using a system would enhance his or her performance. In other words, there is a positive beneficial

relationship between the user and the system. In contrast, perceived ease of use focuses on the individuals believe that using a system is free of effort. On the other hand, attitude is an individual's tendency towards the system, expressed with a degree of favor or disfavor (Davis, 1989). The variety of eParticipation tools offered in Jakarta allows for ample divergence in terms of citizens' perceived ease of use or usefulness, which in turn will shape their tendency of attitude towards eParticipation. This research then set forth the following hypotheses:

H1: Citizens' perceived ease of use affects their attitude towards eParticipation

H2: Citizens' perceived usefulness affects their attitude towards eParticipation

H3: Citizens' attitude affects their intention to use eParticipation

H4: Citizens' perceived ease of use affects their intention to use eParticipation

H5: Citizens' perceived usefulness affects their intention to use eParticipation

Effort expectancy is the extent of convenience perceived from using a system. In the case of this research, it is the extent of citizens added convenience in engaging with the government, when compared to traditional approaches of engagement. eParticipation offers a realm of engagement between citizens and the government independent of the traditional restrictors, such as time and space. Such added convenience should shape citizens intention to use eParticipation. Conversely, subjective norm refers to social pressure from others which shape an individual's willingness to comply. In this case, citizens should feel more compelled towards intention to use eParticipation given enough social pressure from others around them. Then we hypothesized the following:

H6: Citizens' effort expectancy affects their intention to use eParticipation

H7: Citizens' subjective norm affects their intention to use eParticipation

Trust is defined as the firm belief in the reliability, truth, and ability of something. Previous research such as (Naranjo Zolotov et al., 2018) has shown that trust is a critical precursor towards the adoption of eParticipation, despite is not in being part of the more known adoption theories such as TAM or UTAUT. In the context of eParticipation, trust can be considered as external variables, and be specified into trust in government and trust in Internet. Trust in government focuses on an individual's assumption that the government is honest, trustworthy, and competent. Whereas trust in Internet focuses on the individuals' assurance of Internet's safe and secure environment. We then specified the following hypotheses:

H8: Citizens' trust in government affects their intention to use eParticipation

H9: Citizens' trust in Internet affects their intention to use eParticipation

From a psychological perspective, the theory of planned behavior (TPB), is a theory that associates an individual's beliefs and behaviors. Precursors such as perception, attitude, or subjective norm shape an individual's behavioral intention, which in turn would lead to their behaviors (Ajzen, 1991). This research argues that in the context of eParticipation, citizens actual

use of eParticipation is highly dependent on their behavioral intention to use eParticipation. Hence, the following hypotheses was developed

H10: Citizens' behavioral intention to use eParticipation affects their actual usage of eParticipation.

This research has established ten hypotheses, and for brevity can be seen visually as the underlying research model in Figure 1.

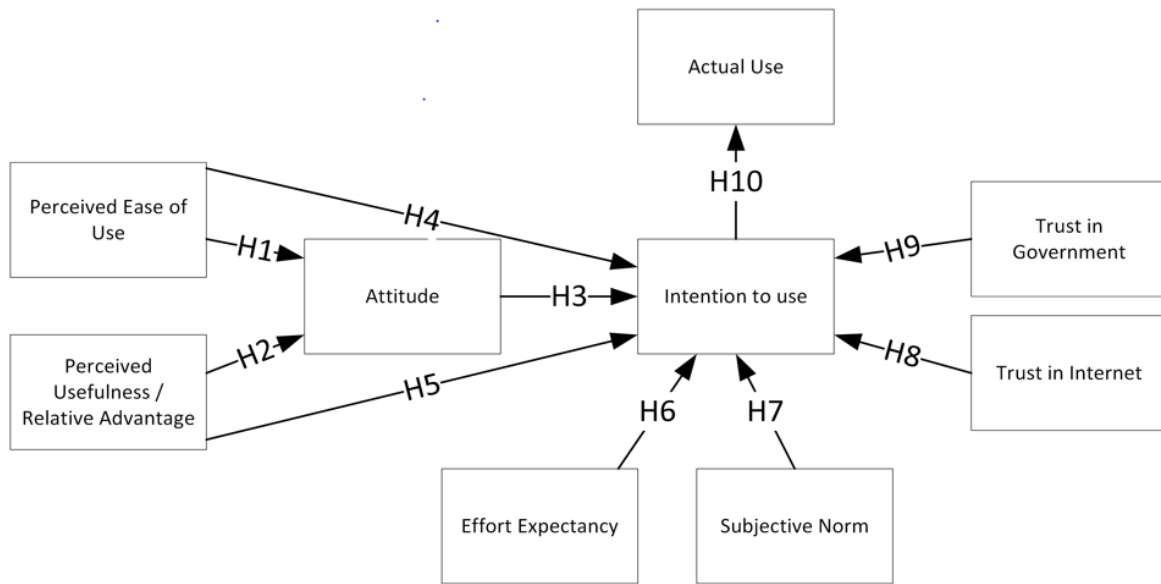


FIGURE 1

UNDERLYING RESEARCH MODEL

RESEARCH METHODOLOGY

This empirical study was conducted to evaluate the relationships of the aforementioned constructs. A questionnaire was first devised; a survey was then conducted to collect the data, which in turn was analyzed statistically using Partial Least Squares Structural Equational Modeling (PLS-SEM).

Instrument Development

The research instrument was devised based on the underlying research model and was designed to measure every variable's indicator by using a Likert scale of 1 (strongly disagree) through 5 (strongly agree) (Boone & Boone, 2012). The question item was formulated by adapting those defined in previous research and was then translated into Bahasa Indonesia to fit the local context. A list of the question items as indicators is presented in Table 1. Prior to disseminating to a large sample, the questionnaire was first pilot tested to ten graduate students in the Faculty of Computer Science, Universitas Indonesia, to ensure readability and consistency in meaning after translation.

Data Collection

The population in this research is residents of the Greater Jakarta Region. The minimum number of samples is 80, which is ten times the number of variables affecting an endogenous variable in the model (Hair et al., 2014). Data was collected in a non-probabilistic fashion, by using convenience as well as snowball sampling. The questionnaire was devised and promoted online through social media and messaging applications. In total, this research gathered 252 valid responses, during the period of May and June 2020.

Statistical Analysis Using PLS SEM

Data was analyzed using PLS SEM, aided with SmartPLS 3 as the tool. PLS is advantageous over other methods, because it is capable of analyzing models with reflective and formative constructs, does not demand large amount of data, nor require the assumption of normal distribution (J. F. J. Hair et al., 2014; Peng & Lai, 2012). Data was analyzed two folds. First the outer/measurement model was evaluated to ensure validity and reliability. Then the inner/structural model was evaluated to analyze the paths, coefficient of determination, and to test the hypotheses.

ANALYSIS AND RESULTS

Respondents Demography

252 respondents participated in this research and completed the questionnaire. Their demography is spread throughout different regions of Greater Jakarta, such as North Jakarta (5%), Central Jakarta (10%), East Jakarta (21%), West Jakarta (6%), South Jakarta (24%), and the remaining were from various suburbs of Bodetabek regions (33%). In terms of gender, the respondents were balanced between males (51%) and females (49%). The majority of the respondents were between 21-30 (44%) and 31-40 (44%) years old, and their education level was predominantly either diploma (29%) or undergraduate (62%) degrees. Most of the respondents (87%) were employed, with smartphones usage experiences of more than 5 years (94%) and almost all of them are active social media users (99%). A large proportion of the respondents showed interest in their local government's political agenda (74%) as well as interests to monitor the government performance (88%). A mere number of respondents have never utilized eParticipation (18%). Whereas the remaining had various prior experiences with eParticipation for various purposes, such as capturing information (78%), interactive communications (22%), and engaging contributions (18%) pertaining to civic issues.

Outer Model Evaluation

The measurement model was evaluated by conducting validity as well as reliability tests. Validity examinations were aimed to ascertain the level of validity of all latent variables and were conducted through convergent as well as discriminant validity examinations. Convergent validity was measured through outer loading values of greater than 0.7. and Average Variance Extracted (AVE) values of greater than 0.5 (J. F. J. Hair et al., 2014). One indicator belonging to subjective norm variable (SN4) was removed because its outer loading value was less than that required.

Additionally, discriminant validity examination was also conducted through Fornell-Larcker Criterion, ensuring all indicators belonging to their respective variables. Reliability test determines the level of data consistency of all indicators and was conducted by examining the values of composite reliability (CR) and Cronbach's alpha (CA). In PLS SEM, CR is considered more appropriate, whereas CA is more conservative. CR and CA values must be greater than 0.7 (J. F. J. Hair et al., 2014; Peng & Lai, 2012). Upon evaluation, the model was declared as valid and reliable, having surpassed the predetermined evaluation measures. A summary of the outer model evaluation is presented in Table 1.

TABLE 1 MEASUREMENT MODEL EVALUATION RESULTS				
Question item / indicator	Item loading	CA	CR	AVE
Perceived ease of use				
The use of the municipality's eParticipation was clear and understandable.	0.921	0.896	0.935	0.827
I found the municipality's eParticipation as easy to use.	0.913			
Learning to operate the municipality's eParticipation was easy for me.	0.894			
Perceived usefulness				
Using municipality eParticipation enabled me to accomplish tasks more quickly	0.879	0.867	0.919	0.790
The eParticipation offered online by my municipality were useful to me	0.908			
I found using the municipality's eParticipation as useful	0.879			
Attitude				
In my opinion, it is desirable to use eParticipation	0.786	0.831	0.899	0.749
It is wise to harvest citizens opinion on public issues through the use of	0.887			
Using the eParticipation to participate in public decision making is a good idea	0.919			
Effort Expectancy				
It would be easy for me to reach a skilled handling of the municipality's	0.856	0.776	0.870	0.690
Using the municipality's eParticipation tools would not take too much time from my normal duties	0.846			
The municipality's eParticipation tools adapts to my requirements	0.789			
Subjective Norm				
People who are important to me think I should use eParticipation	0.786	0.855	0.896	0.636
It is expected that people like me use eParticipation	0.863			
The people in my life whose opinion I value would approve my use of	0.895			
My direct environment would be positive about the use of municipality's	0.826			
Trust in Internet				
The Internet has enough safeguards to make me feel comfortable using it for	0.855	0.91	0.937	0.787
I feel assured that legal and technological structures adequately protect me from	0.896			
I am not worried that the information sent via Internet can be viewed by others.	0.902			
In general, the Internet is now a robust and safe.	0.896			
Trust in Government				
I think I can trust Pemprov DKI Jakarta.	0.931	0.934	0.953	0.834
I believe that Pemprov DKI Jakarta offers eParticipation honestly and realistically.	0.915			
I trust that Pemprov DKI Jakarta keep my best interests in mind.	0.892			
In my opinion, Pemprov DKI Jakarta is trustworthy.	0.916			
Intention to Use				
I will engage in eParticipation if I have access to Internet.	0.867	0.887	0.917	0.69

I will engage in eParticipation if have have the means necessary.	0.774			
Interacting with public officials through eParticipation is something that I will do.	0.832			
Overall, I will use eParticipation for democratic decision making.	0.871			
I intend to use eParticipation in the near future.	0.806			
Use		0.882	0.927	0.809
I use eParticipation very intensively.	0.914			
I interact with the government using eParticipation.	0.893			
I use a diversity of tools on the Internet for political participation.	0.891			

Inner Model Evaluation

The inner model was evaluated by measuring the path coefficient, the coefficient of determination (R^2) as well as hypotheses testing. The coefficient of determination (R^2) measures the level of change variation of dependent variables brought about by its preceding independent variables. The R^2 values, as shown in Table 2, indicate that 62.8% variance of attitude towards eParticipation, 53.3% variance of intention to use eParticipation, and 41.5% variance of actual eParticipation usage was influenced by their preceding constructs. Overall, this research model can be categorized as having moderate determination, in which all R^2 values were greater than 0.33 and less than 0.67 (Chin, 2010; J. F. J. Hair et al., 2014)

Construct	R Squared
Attitude	0.628
Intention To Use	0.533
Use	0.415

The model was then tested by means of bootstrapping to 5000 samples, as suggested by (Peng & Lai, 2012). Furthermore, the model was treated as reflective, with two tailed evaluation to determine its hypotheses results. With a 95% confidence level, the minimum value of path coefficient T-Statistics must be greater than 1.96, and P Value must be less than 0.05 for a hypothesis to be accepted (J. Hair et al., 2011). A summary of the inner model evaluation result is presented in Table 3. The model resulted in four hypotheses rejected and six hypotheses accepted.

H	Paths	Original Sample	T Statistics	P Values	Hypotheses Test
H1	Perceived Ease of Use -> Attitude	0.170	2.310	0.021	Accepted
H2	Perceived Usefulness -> Attitude	0.657	8.618	0.000	Accepted
H3	Attitude -> Intention To Use	0.271	3.075	0.002	Accepted
H4	Perceived Ease of Use -> Intention To Use	0.012	0.128	0.898	Rejected
H5	Perceived Usefulness -> Intention To Use	0.307	3.507	0.000	Accepted
H6	Effort Expectancy_ -> Intention To Use	-0.060	0.769	0.442	Rejected
H7	Subjective Norm -> Intention To Use	-0.072	0.768	0.443	Rejected
H8	Trust on Government -> Intention To Use	0.408	3.624	0.000	Accepted

H9	Trust on Internet -> Intention To Use	0.010	0.175	0.861	Rejected
H10	Intention To Use -> Usage	0.644	14.964	0.000	Accepted

DISCUSSION

It is interesting to note that the constructs used herein were all derived from previous eParticipation researches and has shown their positive relationship as antecedents to other constructs (Naranjo Zolotov et al., 2018). However, the results in this research yielded different conclusions. A logical explanation for this is perhaps due to the variety of different eParticipation tools being evaluated with similar constructs. Additionally, such finding also shows that lack of generalizability of previously identified constructs that can be caused due to different contextual factors, such as political, organizational, or even cultural ones. Hence, it is safe to assume that eParticipation adoption amongst citizens differ from one locality to another, as exemplified in this research.

This research found both constructs of perceived ease of use and perceived usefulness as precursors towards the construct attitude. This shows that citizen's favorable tendencies towards eParticipation is predefined in their notion of eParticipation tools' simplicity and potential benefits towards them. Such attitude then shapes citizens' intention to use eParticipation in the near future. This understanding is quite typical and serves to highlight the robustness of previous theories such as TAM in understanding information systems' adoption in general, and as exemplified herein, adoption within the realm of eParticipation.

However, different results were yielded upon viewing the relationships of perceived ease of use and perceived usefulness as antecedents towards intention to use. Perceived usefulness had a significant effect towards intention to use eParticipation, whereas perceived ease of use did not. This shows that citizens aspire more towards eParticipation that enables them to enhance their interaction with their government, offering citizens services that are deemed as beneficial. On the other hand, this research found perceived ease of use as irrelevant in shaping citizens' intention to use eParticipation. Perhaps this is somewhat related to the demography of the respondents in this research, whom were predominantly, those with middle-class income, higher education degree, with ample experience using technology. Such demography bias could lead to respondents' lack of concern in eParticipation's technological ease of use effect in shaping their intention to use eParticipation; it does, however, affects their attitude towards eParticipation.

It is interesting to note that both constructs of effort expectancy and subjective norm failed to show significant effects towards citizens' intention to use eParticipation. In the case of this research, the results show that citizens were less mindful towards the skills, time, learning curve or adaptation efforts to use eParticipation. As such, eParticipation may be portrayed as a simple tool, and one that does not require large efforts to utilize. Additionally, this research took place in Jakarta, a metropolitan where the majority of the residents are familiar with similar technologies. This is represented in the demography of the respondents, who were avid users of the Internet, mobile devices, and applications within their devices. Perhaps, this is the differentiating factor, that in modern metropolitan areas, where citizens are accustomed to similar technologies, effort expectancy to use eParticipation can be deemed as an irrelevant precursor towards intention to use.

Similarly, subjective norm did not have significant effect on citizens' intention to use eParticipation. This contradicts previous research, yet we now know that eParticipation users in Jakarta had a more independent motivation towards their intention to use. Perhaps, the

characteristics of the respondents in this research play a role in such understanding, in which the vast majority of them had personal interest in monitoring the government and political agenda in Jakarta, making them less susceptible to pressures from their peers, families, or other individuals in their community. The results showed that eParticipation adoption in Jakarta is more of a personal decision, and less predisposed to subjective norms, conformity, and the decisions of other individuals in the community.

Trust has always been a key issue in eParticipation adoption. The results in this research yielded two different sentiments concerning trust. First, trust on the Internet was deemed as an irrelevant precursor towards intention to use eParticipation. Perhaps, the respondents' habit of using Internet for other purposes through other applications has led them to having enough comfort in Internet technologies in general, which led them to feeling indifferent in regards to trust on the Internet and its effects on intention to use eParticipation. On the contrary, trust towards the government was found to be a significant antecedent of intention to use eParticipation. Conceivably, this is because eParticipation's nature, which is more political than administrative, hence requiring a higher level of trust towards the government than other eGovernment tools.

Finally, citizens' actual usage of eParticipation is shaped from their preconceived intention to use. This is aligned to previous research, in the field of eParticipation or other technologies in general. Additionally, this finding also supports the robustness of classic theories of adoption such as TAM and TRA. Hence, to achieve higher citizen adoption of eParticipation, it is imperative to consider their predisposition and tendencies that shape their intention to use eParticipation.

IMPLICATIONS

This research offers both theoretical as well as practical implications. First, the results in this research has extended our understanding of the precursors that shape citizens' usage of eParticipation. Despite numerous efforts of researches concerning of eParticipation adoption, this research presents empirical insights from a specific region, with different technological, cultural, and geo-political background. Hence, it serves as an additional comparative perspective regarding the body of knowledge in citizens' adoption of eParticipation.

In addition, several practical implications can be deduced, which can serve as suggestion points to increase citizen adoption of eParticipation, specifically in Jakarta. First, the Jakarta Smart City initiative should focus their efforts to making eParticipation tools that are deemed useful to its citizens. Efforts to better market and socialize the novel ways eParticipation can improve citizen to government interactions should be emphasized strongly. This is not to undermine the roles of eParticipation's ease of use, effort expectancy, or subjective norm, however these constructs can be placed in lesser priorities. Similarly, efforts to increase citizens' trust towards the government should take priority when compared to the limitless issues of trust towards the Internet. Hence, actions alike to prompt replies, ensuring transparent and accountable processes with regards to the information from eParticipation tools should also be underlined.

LIMITATIONS AND SUGGESTIONS

It is important to mention that this research is not without its limitations. First, despite complying with statistical requirements for analysis, the number of respondents and the method of sample selection can be improved. Future research might consider a broader number of respondents, with a stricter probabilistic or stratified sample selection method, for it will be more

inclusive and better represent the diversity of the population and facilitate a more generalized result. Additionally, the constructs analyzed can also be supplemented with other factors outside of the underlying research model herein.

The research object analyzed in this work consisted of various eParticipation initiatives that have been instituted by Jakarta Smart City. It would be interesting for future research to look deeper to analyze specific eParticipation tools, to understand whether the antecedents of adoption consist of similar constructs across different eParticipation tools, characteristics, or purposes. It is also in our future agenda to analyze not only eParticipation adoption, but more specifically the antecedents of citizen engagement, post adoption in eParticipation.

CONCLUSION

This research was intended to analyze the antecedents of citizens adoption of eParticipation, more specifically in Jakarta, Indonesia. The results herein have enriched our understanding of the topic and offers an additional perspective that can serve as a comparative viewpoint to other researches alike. This research found that citizens adoption of eParticipation is formed by their predisposition of intention to use eParticipation. Furthermore, this research has substantiated several antecedents of citizen's intention to use eParticipation, which include attitude, perceived usefulness, and trust in government. Other constructs were also analyzed but did not have significant effects towards citizens' intention to use eParticipation include perceived ease of use, effort expectancy, subjective norm and trust in Internet.

REFERENCES

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.
- Alathur, S., Vigneswara Ilavarasan, P., & Gupta, M. P. (2014). Determinants of citizens' electronic participation: insights from India. *Transforming Government: People, Process and Policy*, 8(3), 447-472.
- Alharbi, A, Kang, K., & Hawryszkiewicz, I. (2015). The influence of trust and subjective norms on citizens' intentions to engage in e-participation on e-government websites. *Australasian Conference on Information Systems*, 2011, 1-12.
- Alharbi, Abdullah, Kang, K., & Sohaib, O. (2016). Citizens Engagement in e-Participation on E-Governemnt Websites through SWAT Model: A Case of Saudi Arabia. *Proceedings of 20th Pacific Asia Conference on Information Systems (PACIS 2016)*, May, 1-10.
- Ali, H., & Ali, T. (2015). E-participation: Factors affect Citizens' acceptance and readiness in Kingdom of Bahrain. *International Conference on Information Society, i-Society 2014*, 146-150.
- Bianchini, D., Fogli, D., & Ragazzi, D. (2016). Promoting Citizen Participation through Gamification. *Proceedings of the 9th Nordic Conference on Human-Computer Interaction - NordiCHI '16*, 1-4.
- Boone, H.N.J., & Boone, D.A. (2012). Analyzing Likert Data Likert-Type Versus Likert Scales. *Journal of Extension*, 50(2), 1-5.
- Cegarra-Navarro, J.G., Garcia-Perez, A., & Moreno-Cegarra, J.L. (2014). Technology knowledge and governance: Empowering citizen engagement and participation. *Government Information Quarterly*, 31(4), 660-668.
- Chin, W.W. (2010). How to Write Up and Report PLS Analyses. In *Handbook of Partial Least Squares* (pp. 655-690).
- Davis, F.D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, 13(3), 319-340.
- Hair, J.F.J., Hult, G.T.M., Ringle, C., & Sarstedt, M. (2014). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM). In *Long Range Planning*, 46, 1-2.
- Hair, J., Ringle, C., & Sarstedt, M. (2011). PLS-SEM: Indeed a Silver Bullet. *The Journal of Marketing Theory and Practice*, 19(2), 139-152.

- Jakarta Smart City*. (2020). <http://smartcity.jakarta.go.id>
- Kelly Garrett, R. (2006). Protest in an Information Society: a review of literature on social movements and new ICTs. *Information, Communication & Society*, 9(2), 202-224.
- Kim, S., & Lee, J. (2012). E-Participation, transparency, and trust in local government. In *Public Administration Review*, 72(6), pp. 819-828.
- Kogan, N., & Lee, K. J. (2014). Exploratory Research on the Success Factors and Challenges of Smart City Projects. *Asia Pacific Journal of Information Systems*, 24(2), 141-189.
- Kollmann, T., & Kayser, I. (2010). A Comprehensive Approach to Citizen Engagement in e-Democracy. *Proceedings of the 6th International Conference on E-Government*, 54–62.
- Macintosh, A. (2004). Characterizing e-participation in policy-making. *Proceedings of the 37th Annual Hawaii International Conference on System Sciences*, 1, 1-10.
- Manoharan, A., & Holzer, M. (2011). E-governance and civic engagement: Factors and determinants of e-democracy. In *E-Governance and Civic Engagement: Factors and Determinants of E-Democracy* pp. 1-655.
- Naranjo Zolotov, M., Oliveira, T., & Casteleyn, S. (2018). E-participation adoption models research in the last 17 years: A weight and meta-analytical review. *Computers in Human Behavior*, 81(1), 350-365.
- Peng, D.X., & Lai, F. (2012). Using partial least squares in operations management research: A practical guideline and summary of past research. *Journal of Operations Management*, 30(6), 467–480.
- Persaud, A., Kindra, G., Alrashedi, R., & Kindra, G. (2015). Drivers of eParticipation: Case of Saudi Arabia. *The Journal of Business Inquiry*, 14(1), 1-22. <http://www.uvu.edu/woodbury/jbi/articles>
- Rajagukguk, H. (2016). *Analisis tingkat kesiapan kota pintar: studi kasus jakarta smart city*. Universitas Indonesia.
- Sæbø, Ø., Rose, J., & Flak, L. S. (2008). The shape of eParticipation: Characterizing an emerging research area. *Government Information Quarterly*, 25(3), 400-428.
- Scherer, S., Wimmer, M.A., Tambouris, E., Macintosh, A., & Bannister, F. (2014). *Conceptualising Trust in E-Participation Contexts*, 8654. Springer-Verlag.
- Stieglitz, S., & Brockmann, T. (2013). The impact of smartphones on e-participation. *Proceedings of the Annual Hawaii International Conference on System Sciences*, 1734-1742.
- Zheng, Y. (2017). Explaining Citizens' E-Participation Usage. *Administration & Society*, 49(3), 423–442.
- Zheng, Y., & Schachter, H. (2017). Explaining Citizens' E-Participation Use: the Role of Perceived Advantages. *Public Organization Review*, 17(3), 409-428.