Analysis of Success Factors of the Electronic Building Permit Service System through the Public Values Approach

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Abstrak

In terms of providing licensing services in the public sector, e-government provides a new nuance. The presence of the Online Building Permit (IMB) service, provided by the DKI Jakarta Provincial Investment and One-Stop Integrated Service (DPMPTSP), is sought to be a medium to cut possible financial and time costs associated with the licensing processes, to improve service quality, and also to eliminate the practice of brokers/licensing intermediaries. In practice, the level of intention to use this online IMB service among residents is relatively minimal. Based on this phenomenon, this research aims at analyzing the factors driving the success of e-Government through the public value approach. This study employs a qualitative descriptive method using the Theory of E-Government Success Model from De Lone and McLean (2016) and Public Value proposed by Scott et al (2016). The research result reveals that DKI Jakarta DPMPTSP as a public organization has supported the provision of the online IMB service well, however, several factors need to be improved to increase the public value of the online IMB services to the community. Analysis of the five theoretical success measures (Trust, Well-Informedness, Communication, Information Retrieval, and Participation) is expected to explain the majority of citizens’ perceptions of the success of e-Government.

Keywords: E-Government; Success model; Public Value

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INTRODUCTION

The provision of public services in the Covid-19 pandemic cannot be suspended but must be delivered online by relying on available digital technology. (Agostino et al, 2021). The use of e-government in public sector institutions for service delivery during the Covid-19 pandemic shows that e-government can be a powerful tool for the delivery of public services when on-site services cannot be provided. The success of e-government depends on how the public perceives it, therefore, to create effective and prime e-government, the government needs to focus on bringing it closer to public values.

In Indonesia, especially in DKI Jakarta Province, various efforts have been made to increase the ease of doing business through simplification of the licensing process. Among the 10 (ten) indicators of ease of doing business, dealing with construction permits Indonesia is still ranked 110 out of 190 countries with a score of 66.8. Corruption, bureaucratic inefficiency, and minimal investment capacity are also problems of competitiveness in Indonesia. A survey conducted by the World Economic Forum (WEF) in 2018 showed that there were 16 factors inhibiting investment in Indonesia:

![Figure 1. Inhibiting Investment Factors](image)

Bureaucratic inefficiency (bureaucratic inefficiency) of 11.10% is in second place, which includes uncertain service delivery in terms of procedures, complex bureaucratic requirements, and lack of clarity on costs and service completion times.

In addition, in a survey conducted by Litbang Kompas on 22-24 April 2020, not being able to take care of correspondence and permits that have an impact on business (by 8%) is a public concern amid the Covid-19 pandemic. Other things include declining ASN professionalism (9.2%), lack of quality of health services obtained (23%), difficulty finding basic commodities (38%), and not getting a job (7.3%).

The evaluation of the implementation of Work From Home (WFH) for state civil servants carried out by the Ministry of Administrative and Bureaucratic Reform released by the Kompas daily (13 April 2020) found that there were still shortcomings in public services. Of the 348 reports, the complaints were related to population administration services (153 reports), tax services (40 reports), licensing services (20 reports), immigration services (11 reports), and oil and gas services (8 reports).

Local governments are expected to provide services easily and quickly, simplify regulations, and cut down on complicated procedures through the use of information and communication technology/ICT (Ombudsman RI, 2020).

The Third Global Forum on Reinventing Government explained the importance of e-government implemented by the government because: It can save costs and time; Can respond to community needs for public services; Will increase openness and transparency which will increase public trust.

The intention to use e-government is important to evaluate because of its significant influence in adopting and spreading the use of technology in society. Therefore, the measurement of intention to use (Intention to use) proposed in this model also pays attention to the public value of the benefits felt by the community because of the potential for intention to use electronic services to improve public services.

Measuring success in the public sector is a difficult task. Companies in the private sector focus on efficiency, quality, and reliability, in contrast to a public manager who must combine the above with accountability, the creation of trust, and differences in public preferences (Hefetz & Warner, 2014).

De Jong (2015) says “there are two differences between private values and public values: Public values in addition to customer satisfaction, also enforce regulations that bind outward and inward, sometimes people are not happy with what the government is doing (as a consequence of enforcing the rules); The performance of the public sector is not enough with customer satisfaction alone, it must also meet the needs and wants and involve all
parties related to people who produce public value.

With the implementation of e-government, organizations and individuals will find it easier or get maximum results in the work they do.

Quality e-government services make users feel easy and want to use them. However, measuring interest in using e-government is difficult. Currently, researchers are developing models to measure e-government success. Complex online services are often not used by the public, even though what is used as a benchmark for acceptance or success of e-government is usually seen from the intention to use and the intensity of use of these services.

Several studies have developed models to measure the success of e-government services. A complex service system will rarely be used by the public, although the reference for receiving an online service system is the intensity of use and the public’s intention to use it.

E-government services that are often used by the community show the many benefits, ease of operation, and use.

The Technology Acceptance Model (TAM) Marangunić, N., & Granić, A. (2015) defines Intention to Use (ITU) or the intention to use as the tendency of service users to use e-government systems to help their work and use information systems to help various activities. The level of use of e-government can be predicted from people’s attitudes towards e-government services such as motivation to use, also encouraging other users to want to use the same service system according to Davis (1989) in Marangunić, N., & Granić, A. (2015). In 2003, DeLone and McLean released a new theory by adding service quality as an additional variable from the previously existing dimensions, namely, information quality and system quality.

As an effort from the DKI Jakarta Provincial Government, especially through the One-Stop Investment and Integrated Services Agency (DPMPTSP) to improve service quality and increase people’s intention to use e-government, this is through simplification and acceleration of the online building permit service.

Since it was launched on October 24, 2019, until November 30, 2021, DPMPTSP DKI Jakarta has completed 23,330 applications (Pusdatin DPMPTSP, 2021). To apply for a Building Permit online, there are options, including The community accessing the services of assistant officers through a call center or through an application for ordering assistant officers; The community comes to the PTSP service unit and the PTSP service unit becomes the initiator to connect the community to the assistant officers; The public directly accesses the online IMB website.

Furthermore, based on data from Pusdatin DPMPTSP (2021), up to November 2021, 32,249 applicants accessed the online IMB service. A total of 432 files were processed, a total of 3,701 were rejected, a total of 4,786 were canceled, and a total of 23,330 were issued, or about 72% of the incoming applications. In addition to the online IMB application, there are still applicants who come directly to the PMPTSP Implementing Unit service point for licensing consultations and after processing the permit file, the permit can be taken by him.

The presence of an electronic IMB Licensing System service aims to provide convenience, reduce the costs charged to the public and business actors in managing permits, as well as eliminate brokering practices that give a negative impression of services in the public sector. However, what happens is that there is still low intention to use the online IMB licensing system services which are carried out by the community directly and this is an indication of the lack of good intentions to use e-government. Intention to use is a behavioral tendency to use a given technology according to Davis (1989) in Marangunić, N., & Granić, A. (2015).

Several previous studies have topics relevant to the research raised in this article, including the use of e-government, and the theory of technology acceptance. The first study
by Retno Palupi (titled Relationship of perceived benefits, perceived ease of use and user attitudes with the actual use of hospital management information systems) has similarities in that both studies analyze the factors that influence the use of information systems in a public service organization and the same – using the theory of De Lone & Mc Lean. As for the difference, the research that became the database for writing this article added other variables as factors that influence the use, namely user attitudes, and included public values as the dependent variable. In addition, the authors also want to know the use of e-government from the side of government employees by examining the second study entitled Assessment of e-government success from public values (Mellouli et al., 2020). This study aims to reduce research gaps related to the success of e-government from the perspective of government employees, in the context of developing countries. The method used in this research is quantitative SEM-PLS. The analysis shows that information quality, service quality, and system quality have a positive impact on user satisfaction and only service quality has a positive impact on intention to use.

The third research that is still relevant to this research is the research entitled Determinants of E-Government Adoption: Testing the Effects of Perceived Usefulness and Perceived Ease of Use. (Chen, L., & Alikokou, A. K, 2020). This research study presents e-government services. This study can be replicated to certain e-government services such as e-retribution or electronic payment of user fees to include a reliable system. This study reveals that trust is the main determining factor influencing the intention to use e-government services. Furthermore, the perceived usefulness and ease of use must also be considered.

To find out the factors that influence society and the adoption of e-government services in Egypt, the author examines the fourth article entitled: Assessing the implementation of e-government using the TAM model: the case of Egypt. (ElKheshin, S. A., & Saleeb, N, 2020). Through the TAM model, it is found that Perceived Usefulness, Perceived Ease of Use, and Attitude have a positive effect on intentions to use e-government. This study included 5 external factors, namely: trust in the government, trust in the internet, website design, perceived public value, and education level. This research contributes to a better understanding of e-government adoption in Egypt with the new adoption model which is the latest from the Technology Acceptance Model (TAM).

The fifth study compares research conducted at the City-level Government entitled Citizens' readiness to adopt and use e-government services in Harbin City, China (Mensah, 2018). This study recommends that the implementation of e-government in China needs to pay attention to ease of use, service quality, and trust. This is the driving factor for the intention to use Chinese citizens to use e-government services.

For this reason, the authors conducted this study to analyze public interest in using the online building permit service system, the success of issuing permits using the system, and also the factors driving public value felt by the community with the implementation of the electronic building permit service system.

**RESEARCH METHODS**

To achieve the goal, qualitative descriptive research was conducted. The post-positivist approach was chosen as a starting point, researchers assume that the existing theory is used as a prediction to observe reality but not completely but only approximated (Cresswell, 2013).

This data collection is also carried out through literature studies, studies of existing documentation from newspapers, and reports, to understand the symbolic meaning behind the existing reality. In addition, several interviews were conducted to collect specific data and information from stakeholders, examine
information inductively, starting from specific themes to general themes, and by interpreting the meaning of the data in the field. This approach is expected to be able to describe objectively the factors driving the intensity of the use of e-government as a driver of public value. The analytical knife used in this research is the E-government Success Model by Delone & McLean (2016) and the Public Value proposed by Scott et al (2016).

**RESEARCH AND DISCUSSION**

**Triggers Factors The Public Value in the Electronic IMB Service System in DKI Jakarta Provincial Government**

**Trust.** Trust according to Ganesan in Barkhordari et.al (2017) is a user's belief in certain things offered by service providers, besides that trust is also a belief in the behavior of the provider. Trust in online payments (e-payments) is the level of risk in a transaction in the financial sector, and trust is believed to reduce perceived risk, leading to positive intentions toward e-government adoption. (Teoh, W. M. Y., Chong, S. C., Lin, B., & Chua, J. W., 2013).

In e-government research, trust is widely used as a research dimension. Here, what is meant by the trust is to act in the best interests of citizens.

Trust is a complex construct and has been used in various studies on e-government. Trust is also defined as an outcome related to the user’s direct experience of web e-government services that act as public service providers and information providers and are reliable in providing these services (Teoh et al, 2013). Thus, trust in the context of e-government relationships can be understood in terms of the risks that partners may experience who fail to fulfill their commitments (O’Keefe et al, 2020).

One of the key elements of this theoretical research approach is to look at the Public Value created through collaboration between citizens and the government. (Moore, 2015). Trust is also identified as a major component in the achievement of public values (M. Evans, et.al 2013). From this perspective, it is important to develop a feeling of trust in the government as an institutional partner. This approach seeks to focus on partnerships with governments in the production of Net benefits or more generally Public Value.

**Well, Informedness.** When Indonesia enters the era of the industrial revolution 4.0 as is happening now, of course, it will also have an impact on the implementation of licensing services at DPMPSTP. A total of 269 types of permits, currently all have been transformed into online services and no longer require manual file collection, besides that online licensing also uses electronic signatures (TTE) so that applicants can print the permitted output directly from their electronic device.

Grimsley & Meehan (2012) argue that citizens need to feel well informed about government and public services. The online IMB service provides an opportunity for citizens to be informed about administrative requirements, increase their understanding of City Planning Information and build their knowledge of building issues that are important to them. Recent studies reveal that as citizens become more accustomed to seeking information, they become more knowledgeable about issues and as a result, are better able to express opinions through the e-government web (Lee & Rao, 2012). Various other studies have identified improvements in accountability and transparency through the use of e-Government. Thus the provision of good information (well-informedness) will provide benefits for process improvement and is a component of public value. To provide good information to the public, changes are made to the stages of the IMB application process. The first, pre-application, in this process, is the provision of direction related to application preparation. The second stage is the examination of administrative and technical requirements, as well as the issuance of approvals. The third stage is the issuance of a definitive IMB SK when the recommendation requirements have been met.

**Communication.** In Indonesia, the online IMB service at the DKI Provincial Government is an example of best practice (best practice) or a pioneer in online construction licensing services, verification of requirements is carried out by administrative officers through the website, then they forward the file to the appropriate field technical team. The authority of the PMPTSP unit starts from the Service level to the Village level and carries out a series of other processes from the beginning until the IMB is completed. Before there was an online IMB service, the public had to go to the PMPTSP...
Unit service point directly by spending energy, time and money, besides that they had to come back if there was a lack of files, and go around to the technical office for approval of recommendations that must be completed by them until the licensing process finished, this is where then there is a gap for the practice of licensing brokering. Since the presence of the electronic IMB service system, there is no need for the public to come directly to the PMPTSP Unit to take care of permits. The public can contact the call center at telephone number 1500164 or via the JAKEVO / ArcGIS website provided, then the officer will check the permit file. The positive thing that can be felt (public value) that is felt directly by the community with the electronic IMB service is the efficiency of energy, cost, and time. In addition, the provision of information on licensing fees and requirements can certainly be more accurate.

The results of the study found that it was difficult to contact the call center and complaints about difficulties in accessing JAKEVO. Error disturbances are often experienced when using the Jakevo application through the Playstore and in the end, the applicants give up and do not access the service.

The call center service 1500164 when contacted by the applicant often sounds busy and difficult to contact, the impact is that the applicant reconsidered calling the call center service again and does not use the IMB service electronically through the JAKEVO/ArcGIS website. It is known that the problem with the JAKEVO/ArcGIS website is due to the migration process on the internal server.

Efforts to integrate the ArcGIS website with JAKEVO are currently being carried out so that the problems that occur can be overcome. In the PMPTSP Service, there are 30 call center officers on duty to receive calls. In addition to receiving calls, they are also tasked with receiving complaint services and providing information on licensing services. The number of 30 people is considered inadequate because based on the 2020 DPMPTSP annual report, data on the number of call center services during 2020 Average Call Center services (22 working days), at:

- January 2020 there are 341 services day,
- February there are 322 services day,
- March there are 295 services day,
- April there are 226 services day,
- May there are 801 services day,
- June there are 2,418 services day,
- July there are 1,023 services day,
- August there are 284 services day,
- September there are at 377 services day,
- October there are 344 services day,
- November there are 366 services day,
- December there are 242 services day,

The overall average Call Center service is 522 services per day.

**Participation.** Citizen participation in the use of online services is a challenging task. However, there are successful examples in developed countries in the field of e-government (Canada and the USA).

The expected benefits have also been discussed in some literature (Medaglia, 2012). The importance of community involvement in influencing the government is an important dimension according to Kolsaker & Lee-Kelley, 2008 in Li, W, et.al (2020). The intended influence can be expressed through commentary, discussion, or negotiation which is an important element of democracy and public values. (Grimsley & Meehan, 2012). JAKEVO web and ArcGIS web used in online IMB services are examples that technology can play a role in achieving better engagement and technology can play a role in achieving better engagement and participation through the introduction of social networks in eGovernment (Medaglia, 2012). ArcGIS and JAKEVO websites can also create interactive and collaborative platforms to bring citizens and public managers together in creative and deliberative processes.

**Ease of Access/ The Information Retrieval Value.** Online information dissemination is a function of e-government and a means of finding information for most online activities (Teo et al, 2020). The ease of accessing the information and the value of the available information is the main determinants.

Increasing the availability and provision of information through e-government services can indicate increased openness and transparency. The implementation of pre-architectural design drawing services at the Department and City/Regency levels as of April 29, 2020, is carried out online. In this case, it has been integrated with the City Planning Information (IRK) and IMB services which have been stipulated by the Governor’s Regulation Number 47 of 2017 concerning Instructions for Implementing One-Stop Integrated Services.
Starting from Wednesday, April 29, 2020, the implementation of Pre-Architectural Design Drawing Services under the authority of the Office and City/District Administration levels is carried out online. In this case, it has been integrated with the City Planning Decision (KRK) and Building Permit (IMB) services. Information dissemination is carried out through the JIF (Jakarta Investment Forum) talk, namely webinars organized by the DKI Provincial Government and the Public Communication Forum (FKP).

CONCLUSION

After conducting research on the electronic IMB service system at the DKI Jakarta Provincial Investment Office and One-Stop Integrated Service, it is known that the public value perceived by the public for this online IMB service has not been maximized as seen from the low online access of citizens to this service. Improvements are needed in various ways so that the public can feel the value of the public, such as the dimensions of Ease of Access/Value of Available Information (Information retrieval), special socialization events need to be made to be able to disseminate information on the IMB service system electronically, for example by holding webinars with architect associations, etc. The difficulty of accessing ArcGIS/JAKEVO services delivered through the call center was responded to too slowly so that service applicants felt dissatisfied and decided not to access the IMB service system electronically and then chose to process permits through intermediaries/brokers. In addition, it was found from interviews with IMB service applicants that the socialization of instructions for using the electronic IMB service system was not optimal, only a few people knew about the existence of this electronic IMB service.

REFERENCES


Pusdatin DPMPTSP, (2021)


