# Local culture and behaviour intention to adopt e-government

#### Muhammad IQBAL

Graduate Institute of Political Economy, Department of Political Science National Cheng Kung University, Taiwan E-mail address: u18097019@ncku.edu.tw

#### Cyprien GENIE

Graduate Institute of Political Economy, Department of Political Science National Cheng Kung University, Taiwan E-mail address: u18107018@gs.ncku.edu.tw

#### Abstract

In general, the basic concept of various theories of E-government adoption is individual reaction to use Egovernment as an independent variable, then intention (behavioral intention) to use E-government as an intermediary variable. The development of e-government adoption theory is developing dynamically. Scholars have developed several models to find out more about the reasons for individuals to accept and use technology and to find out what factors have a significant influence. In this paper, the author will discuss the theory of The unified model of e-government adoption (UMEGA) by adding the variables Perceived Enjoyment (TAM 3) and Habit (UTAUT 2). These variables measure internal factors and external factors that in previous studies had a high level of influence on the use of e-government. The finding in this study is that the social influence variable has a significant impact on attitudes to using e-government. More specifically, local culture is one factor that also has an inhibiting effect on the implementation of e-government. People prefer to use offline services compared to online/e-service/e-government services. This is because the public is worried about the risks experienced, such as data security, the possibility of system failure in public services, and other risk issues that develop in the community. In addition, the community also prefers to come directly to the service office due to public trust related to local cultures, such as (Ewuh Pakewuh, desire to stay in touch with other visitors, shy culture, etc.). If it is assumed, local culture, especially in Yogyakarta, is contrary to the culture of applying technology widely adopted by western countries, which are more open to modern culture, especially technology.

Keywords: Local Culture, Behaviour Intention, E-Government

### 1. Background

Digital technology is an increasingly present element in contemporary society, becoming relevant in reconfiguring reference contexts for human action and forming relationships between human and non-human actors. The concept of Society 5.0 emerged in Japan in a strategic national political initiative [5]. Society 5.0 is a very new concept as a guide for social development and can have a significant impact on society at all levels [6] by proposing a deepening of the potential of the individual-technology relationship in promoting the sustainable improvement of the quality of life of all people in the world through super-intelligent societies. Society 5.0 can significantly impact society at all levels, especially in terms of quality of life and community sustainability. The reference to sustainability as a critical element of innovation refers to the relevance of the economic, social, and environmental dimensions inherent in the innovation process. The economic size of sustainability relates to the profit component, with economic growth, efficient use of resources, and companies' financial viability. The environmental dimension focuses on

combating pollution and the efficient and wise use of natural resources. The social dimension concerns equal opportunity, equity in the distribution of wealth, ethical behavior, equity, and justice.

The concept of society 5.0 is also relevant to the idea of digitization in government. The spirit of society 5.0 is considered relevant to the development of the smart city concept in various countries. In Indonesia, the spirit of implementing smart city policies and digitalization in the government process is one of the targets that has been continuously developed in recent years. One of the focuses of smart city development is to create various applications and digital digitization in the public service process itself, which is then called electronic government (e-government). Along with e-government, theories or models regarding attitudes and acceptance of e-government have been developed to explain the technology used in general and the supporting and inhibiting factors for the technology acceptance [11]. E-government adoption is a person's psychological construction to accept or reject the presence of computer-based technology in delivering information and public services by the government to the public through the internet or other digital means [3].

In general, the basic concept of various theories of E-government adoption is an individual reaction (individual reaction) to use E-government as an independent variable, then intention (behavioral intention) to use E-government as an intermediary variable, and the use of E-government (actual use). ) as the independent variable [16]. The development of e-government adoption theory is developing dynamically [15]. Scholars have developed several models to find out more about the reasons for individuals to accept and use technology and to find out what factors have a significant influence. Components in the psychological model or theories included in the theory or model of e-government acceptance are often referred to using the term construct rather than variables.

In this paper, the author will discuss the theory of The unified model of e-government adoption (UMEGA) ([4]; [14] by adding the variables Perceived Enjoyment (TAM 3) ([1]; [7]) and Habit (UTAUT 2). ([12]; [16]) These variables measure internal factors and external factors that in previous studies had a high level of influence on the use of e-government. The application of e-government at the local government level accelerates the realization of good governance [15]. This is also done by the Government of the Special Region of Yogyakarta. As a follow-up to Presidential Instruction No. 3 of 2003 to improve efficiency, effectiveness, transparency, and accountability in telematics (telematics, media, and informatics), the DIY Government established a policy for the development of Jogja Cyber Province. In 2005, the Digital Government Services (DGS) program was initiated, followed by the issuance of the DIY Governor Regulation number 42 of 2006 concerning the Blueprint of Jogja Cyber Province.

The development of e-Government is an effort to develop an electronic-based DIY administration to improve the quality of public services effectively and efficiently. To realize Jogja Cyber Province, regencies/cities in the Special Region of Yogyakarta have begun to develop an action plan to discover Smart Regency and Smart City. Several online-based applications have been prepared to support the realization of the smart city and smart regency. One that has been implemented is an online-based public complaint service.

## 2. Research method

The research used is quantitative. Quantitative analysis in terms of objectives, this study is used to test a theory, present a fact or describe statistics, and to show the relationship between variables and those that are developing concepts, developing understanding or defining many things (Subana, 2005). This study uses a questionnaire technique and literature study to obtain data to analyze the phenomenon. The population of this study are citizen in Special Region of Yogyakarta. The sample of this study was calculated using the Slovin formula. The sample are 100 respondents. The results of the questionnaire were then processed using SmartPLS 3.0 software.

## 3. Result and discusion

The findings in the Special Region of Yogyakarta show that the attitude variable is 0.761, which can be explained that the influence of the Performance Expectancy variable, the Social Influence variable, the Perceived Risk variable, and the Effort Expectancy variable on the attitude variable is 76.1%. Variable use of E-government (e-gov) obtained by 0.883 can explain the influence of the variable attitude, variable facilitating condition, variable perceived enjoyment, variable habit on the variable use of e-government by 88.3%. The Effort Expectancy variable is obtained at 0.450, which can be explained that the influence of the facilitating condition variable is 45% (Figure 1).





If it is associated with the Rule of Thumb for R Square testing according to [9] Structural model which has an R-square (R2) result of 0.67 indicates that the model is "strong", R-square (R2) of 0.33 indicates that the model is "moderate", and R-square (R2) of 0.19 indicates that the model is "weak". So it can be concluded that the variables that affect the attitude variable and the variable on the use of e-government have a strong level of influence. Meanwhile, the influence of the facilitating condition variable on the effort expectancy variable has a moderate level of influence.



Figure 2 Research Hypothesis Test Results

Figure 2 shows that the findings in the Special Region of Yogyakarta show that only effort expectancy does not significantly affect attitudes to using e-government. This indicates that users perceive usability as more important than ease of use when technology is utilitarian. As a result, business expectations are not seen as a supporting factor for adopting new technologies. The need for online channels for online services in this digital era is considered essential for the effectiveness and efficiency of the community to get excellent service.

In addition, the social influence variable has a significant influence on attitudes to use egovernment. This finding indicates that peers or co-workers are among the essential factors in determining a person's attitude. This is similar to the conclusions of this research which shows that the role of the closest people has an indispensable role in encouraging the use of e-government. In addition, media supporting information or socialization carried out by the government also has a significant role in e-government itself.

The findings in this research, direct education in the use of e-government is one of the most important things. Not only by conducting socialization through newspapers, social media,

or mass media conducted by the local government of the Special Region of Yogyakarta itself, but direct education will be very effective in encouraging people to use egovernment. In addition, this social influence also has an inhibiting effect on the implementation of e-government [8]. More specifically, local culture is one of the factors that also has an inhibitory effect on the implementation of e-government [9]. People prefer to use offline services compared to online/e-service/e-government services [10]. This is because the public is anxious about the risks that will be experienced, such as data security, the possibility of system failure in public services, and other risk issues that are developing in the community (see Figure 1, perceived risk has a significant influence on attitudes to use e-government). In addition, the community also prefers to come directly to the service office due to public trust related to local cultures, such as (Ewuh Pakewuh, desire to stay in touch with other visitors, shy culture, etc.). If it is assumed, local culture, especially in Yogyakarta, is contrary to the culture of applying technology widely adopted by western countries, which are more open to modern culture, especially technology.

In addition, the condition of the facility (facilitating condition) has a significant influence on the use of e-government. It is undeniable that the condition of this facility is one of the most important factors in the development of e-government implementation. The better the condition of e-government facilities in these areas, the more the use of e-government will be. The development of facilities that need to be developed is basic facilities that directly support the service of e-government, such as internet network, wifi in green open spaces, guidelines for accessing and operating e-government, and other basic facilities. If we look more closely, the condition of facilities in the Special Region of Yogyakarta is still not evenly distributed. Yogyakarta City, Sleman Regency, and Bantul Regency have better infrastructure than Kulon Progo Regency and Gunungkidul Regency (figure 3). Therefore, e-government users in Yogyakarta City, Sleman Regency, and Bantul Regency are also more numerous than Kulon Progo Regency and Gunungkidul Regency.



# Figure 3 Distribution of Internet Infrastructure in DIY.

Source: Processed from the Strategic Plan of the Office of Communication and Information of the City of Yogykarta 2017-2022, the Strategic Plan of the Office of Communication and Information of the Regency of Sleman 2017-2022, the Strategic Plan of the Office of Communication and Information of the Regency of Bantul 2016-2021, the Strategic Plan of the Office of Communication and Information and Information of the Regency of Kulon Progo 2017 - 2022 and the Strategic Plan of the Communication and Information of the Regency 2016-2021

In addition, the condition of this facility also has a significant influence on business expectations in using e-government. The assumption is that the better and more complete the facilities provided by the government, the easier it will be for the public to access e-government services. Vice versa, if the condition of the facilities offered by the government is poor or inadequate, the public will find it difficult to access the e-government. The implication is that people will leave e-service/e-government services and continue to use offline services. This phenomenon is commonly called the digital divide [13].

Another finding indicates that the habit variable also has a significant influence on the use of e-government. The definition of habit in this study refers to people's habits in using the internet, e-government, online applications. This variable is a complementary variable from the Unified Model of Electronic Government Adoption (UMEGA) [14]. This finding indicates that habit is closely related to behavior, especially behavior using e-government. The more one is familiar with the internet or online platforms; the more likely one is to use e-government. This finding supports the findings of Pribadi (2021), which shows that the experience of using the internet/e-government has an essential role in encouraging someone to use e-government.

In addition, of course, other factors also have a significant influence, such as age [2]. According to [2], the younger a person's age, the greater the possibility of people to use e-government. However, the older a person is, the less likely they are to use e-government. Another behavior was also revealed by Anggraeny (2020), who found the tendency of people living in urban areas to have a more open mind and be more adaptive to technological changes, especially e-government. On the other hand, people who live in rural areas prefer offline services to online services (e-service/e-government).

## 4. Conclusion

The results of research conducted in the Special Region of Yogyakarta show that the factors that influence people in using e-government are performance expectations, social influences, risk perceptions, facility conditions, comfort perceptions, and habits. However, the expectation of convenience does not have a significant effect on the use of e-government in the Special Region of Yogyakarta

# 5. References

- Balog, A., & Pribeanu, C. (2010). The role of perceived enjoyment in the students' acceptance of an augmented reality teaching platform: A structural equation modelling approach. Studies in Informatics and Control, 19(3), 319-330
- [2] Batara, E., Nurmandi, A., Warsito, T., & Pribadi, U. (2017). Are government employees adopting local egovernment transformation? The need for having the right attitude, facilitating conditions and performance expectations. Transforming Government: People, Process and Policy
- [3] Beldad, A., van der Geest, T., de Jong, M., & Steehouder, M. (2012). A cue or two and I'll trust you: Determinants of trust in government organizations in terms of their processing and usage of citizens' personal information disclosed online. Government information quarterly, 29(1), 41-49
- [4] Dwivedi, Y. K., Rana, N. P., Janssen, M., Lal, B., Williams, M. D., & Clement, M. (2017). An empirical validation of a unified model of electronic government adoption (UMEGA). Government Information Quarterly, 34(2), 211-230.
- [5] Gladden, M. E. (2019). Who will be the members of Society 5.0? Towards an anthropology of technologically posthumanized future societies. Social Sciences, 8(5), 148
- [6] Hayashi, H., Sasajima, H., Takayanagi, Y., & Kanamaru, H. (2017, September). International standardization for smarter society in the field of measurement, control and automation. In 2017 56th Annual Conference of the Society of Instrument and Control Engineers of Japan (SICE) (pp. 263-266). IEEE
- [7] Hussain, A., Mkpojiogu, E. O., & Yusof, M. M. (2016, August). Perceived usefulness, perceived ease of use, and perceived enjoyment as drivers for the user acceptance of interactive mobile maps. In AIP Conference Proceedings (Vol. 1761, No. 1, p. 020051). AIP Publishing LLC
- [8] Iqbal, M., Pribadi, U., & Elianda, Y. (2020). Factors affecting the citizen to use e-report application in Gunungkidul Regency. Smart Cities and Regional Development (SCRD) Journal, 4(2), 27-39.
- [9] Iqbal, M. (2020). Factors that influence E-Government utilizing towards E-Report application (case study: comparation between Lapor Sleman and Jogja smart service (JSS) in 2018). KKU International Journal of Humanities and Social Sciences, 10(1), 1-25
- [10] Iqbal, M. (2020). Factors that influence E-Government utilizing towards E-Report application (case study: comparation between Lapor Sleman and Jogja smart service (JSS) in 2018). KKU International Journal of Humanities and Social Sciences, 10(1), 1-25
- [11] Kripanont, N. (2007). Examining a technology acceptance model of internet usage by academics within Thai business schools (Doctoral dissertation, Victoria University).
- [12] Nikolopoulos, F., & Likothanassis, S. (2017, March). Using UTAUT2 for cloud computing technology acceptance modeling. In Proceedings of the Second International Conference on Internet of things, Data and Cloud Computing (pp. 1-6).
- [13] Pérez-Morote, R., Pontones-Rosa, C., & Núñez-Chicharro, M. (2020). The effects of e-government evaluation, trust and the digital divide in the levels of e-government use in European countries. Technological Forecasting and Social Change, 154, 119973.
- [14] Pribadi, U. (2021). Citizens' intention to use e-government services: the case of e-complaint service in Indonesia. International Journal of Electronic Governance, 13(2), 114-131.
- [15] Suharyana, Y. (2017). The Implementation Of E-Government For Public Services In Banten Province. Jurnal Kebijakan Pembangunan Daerah, 1(1), 45-58.
- [16] Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. MIS quarterly, 425-478