

# Public Acceptance of Digital Library Services in Boyolali Regency

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## ABSTRACT

In 2017, Boyolali Regency ranked the lowest in Central Java Province regarding E-Government development. The Boyolali Government has initiated several electronic-based service innovations, including the iBoyolali digital library service. This study aims to identify the factors influencing user acceptance of the iBoyolali application. This study employs the Unified Model of Electronic Government Adoption (UMEGA) framework and utilizes convenience sampling, collecting data through online questionnaires from 103 iBoyolali users. The data analysis used Partial Least Square - Structural Equation Modeling (PLS-SEM). The findings reveal that the digital library services in Boyolali Regency incorporate and practice the variables outlined in the UMEGA framework. Further analysis indicates that public acceptance of the iBoyolali service is generally positive. Specifically, the study identifies four UMEGA variables—performance expectation, effort expectation, social influence, and attitudes. Conversely, facilitating conditions and perceived risk did not significantly impact the acceptance of the iBoyolali service. This study provides important insights for the Boyolali Government and other stakeholders aiming to enhance the adoption of digital library services, offering a basis for developing strategies to improve user engagement and satisfaction.

**Keywords:** Digital library; technology acceptance; digital library users

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## 1. INTRODUCTION

The technology use rate in the 4.0 era has led various sectors of life to run more adaptively and modernly. Likewise, in the world of public administration, the influence of the digitalization era requires the government to work in new ways. Rapid technological developments encourage changes. At first, public services were identical to convoluted flows and became more efficient (Pandey & Nugroho, 2020). According to Mensah et al. (2020), the demands of public service quality standards and greater transparency have encouraged the government to embed correct information and utilize Information and Communication Technologies (ICTs) into the public administration system to meet the growing demand.

With that pace, Indonesia has begun to adopt the concept of E-Government in its services to the public to continue to adapt to the world's progress. E-Government is defined (Indrajit, 2016) as a modern interaction system between the government, the community, and other stakeholders, which utilizes information technology (especially the Internet) to improve the quality of public services. Furthermore, adopting the E-Government concept has contributed to supporting the realization of Indonesia's Sustainable Development Goals (SDGs). This refers to the research results (Lim, 2015), which state that the demand for e-government services is not only a characteristic of developed countries but also serves as an enabler for the sustainable development of developing countries. Especially during the pandemic, digital and online-based services were very appropriate to help reduce mobility and crowds from the community. This indicates that in unforeseen circumstances, such as the COVID-19 pandemic, public services cannot be suspended but must be delivered online, relying on available digital technology (Agostino et al., 2020).

Accordingly, digital transformation in government has been carried out in many countries. Many governments worldwide increasingly use information and communication technology (ICT) developments to offer online services to their citizens (Verkijika & Wet, 2018). For example, Presidential Instruction No. 3 of 2003, concerning National Policies and Strategies, has become the gateway for developing E-Government in Indonesia, where a new policy has now been set, namely Presidential Decree No. 95 of 2018 concerning Electronic-Based Government Systems (SPBE). This policy emphasizes that to realize effective, clean, transparent, and especially quality and reliable government management, SPBE is needed. Therefore, Setiani & Maesaroh (2018) state that as an autonomous region, every regional leader is encouraged to take the necessary steps according to their respective duties, functions, and authorities to achieve national E-Government development. This synergy is essential considering that in its implementation, there needs to be uniformity of understanding, actions, and steps from all government institutions in Indonesia. Based on these rules, each provincial area begins to take action to implement E-Government policies in its territory.

The results of research conducted by Yunita & Aprianto (2018) regarding the development of the implementation of E-Government in Indonesia through website analysis show that Central Java Province is one of the regions that has successfully implemented E-Government to the utilization stage. This indicates that Central Java Province has moved further than other provinces in implementing E-Government. Meanwhile, Rozikin et al. (2020) show that Central Java has the most dominating public service innovations based on the ranking of public service innovation competitions conducted by the Ministry of State Apparatus Utilization and Bureaucratic Reform.

This achievement cannot be separated from the policies that have encouraged the development of E-Government in Central Java. Central Java Governor Regulation Number 45 of 2013, concerning the Implementation of ICT for the Central Java Provincial Government, is an umbrella policy in the implementation of E-Government. This policy aims to realize and implement the provision of technology-based access to information and public services to support better governance. However, it cannot be denied that each region will always find its obstacles and challenges in practice. Glyptis et al. (2018) explained that the implementation of e-government, especially in developing countries, although promising, faced several obstacles, such as the absence of a well-thought-out e-government strategy, lack of technology and infrastructure, appropriate policies, and legal frameworks for organizational problems and culture, and operational costs.

**Table 1.** E-Government ranking of regency/city government of Central Java Province 2017

Regency/City	Policy	Dimension				Total	Rank	Rating
		Institutional	Infrastructure	Application	Planning			
Sragen	3.6	3.4	3.8	3.4	3.4	3.52	1	Very good
Semarang	3.2	3	3.6	3.4	3.8	3.40	2	Good
Surakarta	1.4	1.8	2.2	2.6	2.6	2.12	17	Fair
Boyolali	N/A	N/A	N/A	N/A	N/A	N/A	35	Poor

Source: The Communications and Information Service of Central Java, 2017

The table above shows that Central Java Province has a good image in implementing E-Government nationally. However, in practice, some districts/cities still lack adoption of E-Government. In practice, each region will always find its obstacles and challenges, as [Glyptis et al. \(2020\)](#) clarified in their research. In that prospect, based on the data from 35 districts/cities in Central Java Province, Boyolali Regency occupies the last position in the E-Government ranking with a very poor status. To improve this condition, the Boyolali Regency Government finally issued Boyolali Regency Regent Regulation (PERBUP) Number 13 of 2018 concerning the Implementation and Development of E-Government within the Boyolali Regency Government. With this policy, every government agency in Boyolali Regency has begun to innovate in its service process, especially based on the use of ICT.

Boyolali Regency Library and Archives Service is one of the government agencies actively involved in developing electronic-based services. This institution began a mission to create an application called *iBoyolali* in 2017. *iBoyolali* is one of the digital-based libraries for people who love to read in Central Java Province. Likewise, *iJateng* was launched, followed by *iSalatiga* and *iBoyolali*. Research conducted by [Fatmawati \(2017\)](#) on the *iJateng* application found that there were obstacles to using this application because of problematic internet networks, incomplete digital collections, eye fatigue, low socialization, etc. The above problems are assumed to be in line with the research of [Alam et al. \(2020\)](#) which explains that although mobile-based service applications are popular in developing countries, the adoption rate is still low. They think this is relatively the case due to a lack of attention given to the factors influencing application adoption among the younger generation in Indonesia. Nevertheless, the presence of *iBoyolali* has contributed to education development in Central Java and Indonesia. That is because digital libraries have a very important role in educating the community and as one of the supporters of achieving the 2030 SDGs ([Fatmawati, 2017](#)).

Given that the level of use of *iBoyolali* is still relatively low, no previous research has discussed the factors that affect user acceptance of the *iBoyolali* application. Hence, research is necessary to evaluate user acceptance of this library application. Moreover, it has been explained that the role of digital libraries during this pandemic was crucial and was one of the means of helping to achieve the SDG goal of quality education. Therefore, this evaluation is important to determine the factors that trigger users to accept and use the application ([Putri & Mahendra, 2017](#)). In addition, it also stated that research on user acceptance is one of the key factors that affect the successful implementation of an application.

Another fact ([Solihin et al., 2019](#)) shows that Boyolali Regency is part of Central Java Province and has low *Alibaca* (*Aktivitas Literasi Membaca*), or reading literacy activity index levels. The *Alibaca* Index is a national-level index created by the Ministry of Education and Culture to measure each provincial level's reading tendency and literacy level ([Luthfi, 2020](#)). So, it is assumed that the *iBoyolali* application can also support increasing public interest in reading and become useful for students and academics. This assumption aligns with ([Tsekea & Chigwada, 2020](#)), who found that academic libraries significantly support e-learning in higher education institutions by providing electronic information resources, which are key in research, learning, and teaching. [Acheampong & Agyemang \(2021\)](#) said that a tech-based library is expected for students to face e-learning during the pandemic.

However, the *iBoyolali* application has only been downloaded 1000+ times from the Google Play Store. This indicates that only about 0.14% of the total 721,124 people of the productive age in 2020 in Boyolali Regency used the application. Then, based on the results of convenience sampling, a pre-survey of 21 students domiciled in Boyolali Regency. They were asked about the *iBoyolali* application and found that only 19% knew about it.

**Table 2.** Data comparison of the number of downloads and percentage of users digital-based regional libraries

<b>Apps</b>	<b>Total Downloads</b>	<b>Number of Productive Population</b>	<b>User Percentage ±</b>
iPusnas	1.000.000.000+	189.656.487	0.53%
iJateng	10.000+	23.363.185	0.043%
iBoyolali	1.000+	721.124	0.14%

Source: Data processed, 2022

The table shows that the *iBoyolali* application has a relatively small number of downloaders compared to *iPusnas* and *iJateng*, which are the role models of *iBoyolali*. *iPusnas* and *iJateng* are digital library applications equipped with eReaders for reading eBooks. *iPusnas* is owned by the National Library of the Republic of Indonesia, while *iJateng* is owned by the Central Java Province Library and Creativity Service with PT. Woolu Kasara Maya (Aksaramaya) is the application developer. In addition, the data also shows that the percentage value of digital library application users at the national, provincial, and regional levels does not reach a value of 1% of the total productive population. This condition encourages the assumption that community adoption of digital library applications is still relatively low. Departing from the explanation above, the problem is that although social digital libraries are necessary, the public interest in using them is still relatively low, and even the existence of digital libraries is still foreign to most people's ears, especially in the Boyolali area. Nevertheless, Mobile-based applications in the context of digital libraries (Rafique et al, 2020) are getting a lot of interest, but their acceptance and use are also low. Therefore, it is necessary to explore empirically the acceptance of mobile library applications.

Based on previous studies described above, it can be stated that there has been research on user acceptance models in E-Government services. However, few studies have examined user acceptance of mobile-based digital library services. This is based on the search results of journals in Scopus by entering the keyword "User acceptance of mobile library" and found only 16 publications in the last five years. However, among the studies above, several similarities are noticed with this research: the user acceptance method used, the object of study on E-Government applications, and even the unit of analysis on ICT-based libraries. Conversely, some differences were also found between the previous studies and this study. That includes research locations, user acceptance models such as independent and dependent variables, and qualitative methods. Hence, considering all the differences and similarities, this study aims to determine the effect of user acceptance variables with the Unified model of electronic government (UMEGA) on the intention to use the *iBoyolali* digital LIBRARY application.

## 2. METHODS

The UMEGA model was chosen in this study because it is considered the most suitable acceptance model for studying governance. In addition, the UMEGA model is a user acceptance model with a better degree of degree because it results from improvements from the previous model (Dwivedi et al, 2017). This model has five independent variables: performance expectancy, effort expectancy, social influence, facilitating conditions, and a perceived risk

variable. The five variables are assumed to affect behavioral intention and attitude in this model. The following is the conceptual framework of this research.

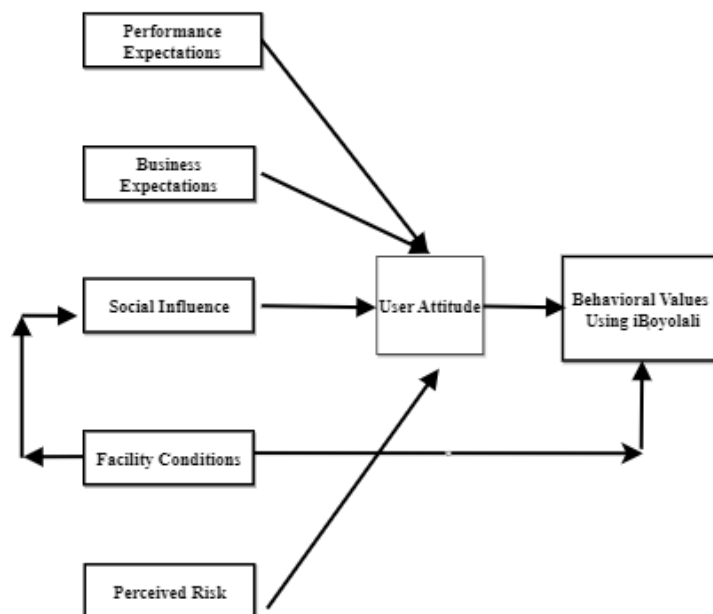


Figure 1. Conceptual framework

The hypothesis in this study is by the flow of thinking in the UMEGA model, **(H1)** Performance Expectancy has a positive effect on Attitude in using the *iBoyolali* application, and **(H2)** Effort Expectancy has a positive effect on Attitude in using the *iBoyolali* application, **(H3)** Social Influence has a positive effect on Attitude in using the *iBoyolali* application, **(H4)** Facilitating Condition has a positive effect on Behavioral Intention in using the *iBoyolali* application, **(H5)** Facilitating Condition, has a positive effect on Performance Expectancy in using the *iBoyolali* application, **(H6)** Perceived Risk, harms attitude in using the *iBoyolali* application, and finally, **(H7)** Attitude has a positive effect on Behavioral Intention in using the *iBoyolali* application.

The method used in this research is quantitative, with the type of associative research. The data was collected using a survey method, and online questionnaires were distributed. The population in this study consisted of users of the *iBoyolali* application. Because the number of users is not known with certainty, the sample was determined by the Cochran formula; namely, the minimum sample must reach 96 to be able to represent the unknown population. The researchers got as many as 103 respondents, with details of 58 students, 33 of the general public, and 12 of the state civil service. The research continued as this number met the unknown population's minimum sample requirements (96). After the questionnaire results were obtained, the researcher suspended the statement items with a Likert scale set in 5 categories: strongly disagree, disagree, neutral, agree, and strongly agree. Data processing was carried out using the Structural Equation Modeling - Partial Least Square or SEM-PLS method and utilizing the Smart-PLS application with the Outer Model Evaluation stages (Validity Test, Reliability Test), Inner Model Evaluation (R2, F2, Q2), and Hypothesis Testing. This analysis technique was chosen because, according to (Ghozali, 2014), with SEM-PLS, researchers can perform a strong analysis even though the sample used is small or below 100. Based on a series of explanations above, this article aims to determine what variables from the Unified Model of Electronic Government Adoption (UMEGA) influence user interest in using the *iBoyolali* application.

### 3. RESULTS AND DISCUSSION

#### Results

Researchers have distributed questionnaires to iBoyolali users through the chat feature available in the iBoyolali application or through social media channels such as WhatsApp groups and Instagram. Through this deployment step, the researchers got as many as 103 respondents with details of 58 students, 33 of the general public, and 12 state civil service. In the following, the evaluation of the outer model, the evaluation of the inner model, and the results of hypothesis testing in this study are presented.

#### Outer Model Evaluation

The evaluation of the outer model in this study uses several criteria to test its validity and reliability. As for the validity test, the criteria used are convergent validity and discriminant validity. Meanwhile, the criteria used in the reliability test stage are composite reliability and Cronbach alpha.

**Table 3.** Convergent validity results

Variables	Indicator	Outer Loadings	AVE	Status
Performance Expectancy	PE 1	0.854	0.653	Valid
	PE 2	0.832		Valid
Effort Expectancy	PE 3	0.796	0.658	Valid
	PE 4	0.747		Valid
	EE 1	0.857		Valid
	EE 2	0.815		Valid
Social Influence	EE 3*	0.510	0.634	-
	EE 4	0.758		Valid
	SI 1*	0.543		-
	SI 2	0.833		Valid
	SI 3	0.786		Valid
Facilitating Condition	SI 4	0.856	0.573	Valid
	SI 5	0.700		Valid
	FC 1	0.738		Valid
	FC 2*	0.351		-
	FC 3	0.786		Valid
Perceived Risk	FC 4	0.747	0.664	Valid
	FC 5*	0.542		-
	PR 1	0.774		Valid
	PR 2*	0.570		-
Attitude	PR 3	0.848	0.662	Valid
	PR 4	0.822		Valid
	AT 1*	0.697		-
	AT 2	0.845		Valid
Behavioral Intention	AT 3	0.737	0.739	Valid
	AT 4	0.855		Valid
	BI 1	0.877		Valid
	BI 2*	0.664		-
	BI 3	0.912	Valid	
	BI 4	0.784	Valid	

\*Removed indicator

Source: Data processed, 2022

Based on the table above, it can be seen that in this study, 7 indicators did not meet the requirements of convergent validity because the value was still less than 0.70. The indicators are EE3, SI1, FC2, FC5, PR2, BI2, and AT1. Thus, these 7 indicators need to be eliminated for the next stage. Then, convergent validity can also be seen based on the average variance extracted (AVE) value with the condition that it is at least 0.5 (Sarwono, 2012). After removing the outer loading indicator < 0.70, the AVE output results all meet the specified standards.



**Table 4.** Discriminant validity results

Variable	AT	BI	EE	FC	PR	PE	SI
AT							
BI	0.885						
EE	0.687	0.709					
FC	0.134	0.255	0.336				
PR	0.249	0.212	0.208	0.277			
PE	0.831	0.840	0.728	0.157	0.169		
SI	0.750	0.729	0.671	0.194	0.444	0.603	

Source: Data processed, 2022

Discriminant validity can be known through the HTMT value in the PLS-SEM calculation results. [Juliandi \(2018\)](#) explained that the latest measurement for this validity is to look at the results of the Heterotrait-Monotrait Ratio (HTM) with the condition that the value is  $< 0.90$ . Based on the table above, it can be seen that after the re-estimate stage, all variables in this study have met the valid requirements of discriminant validity.

**Table 5.** Reliability test results

Variable	Cronbach Alpha	Composite Reliability	Information
AT	0.744	0.854	Reliable
BI	0.822	0.894	Reliable
EE	0.739	0.852	Reliable
FC	0.633	0.801	Reliable
PR	0.748	0.856	Reliable
PE	0.825	0.883	Reliable
SI	0.805	0.873	Reliable

Source: Data processed, 2022

Accordingly, the above table shows that the output results of Cronbach's alpha and composite reliability of each variable in this study have met the requirements. Based on the guidelines in ([Bahri & Zamzam, 2021](#)), all variables have met the Cronbach alpha requirement of  $> 0.60$  and the ideal composite reliability requirement with a value of  $> 0.70$ . Therefore, it can be concluded that all variables in this study are reliable.

**Table 6.** Inner model result

Variabel	AT	f <sup>2</sup>			R <sup>2</sup>	Q <sup>2</sup>
		EE	FC	PR		
AT		0.095		0.001	0.201	0.592
BI	0.986		0.017			0.595
EE			0.690			0.402

Source: Data processed, 2022

The results of the inner model test in this study showed the acquisition of R2 values for Attitude and Behavioral Intentions with a moderate model (0.592 and 0.595), while Effort Expectancy showed a weak model (0.402). For the value of f2, it shows that Attitude has a large influence on Behavioral Intention (0.986). Effort Expectancy and Perceived Risk show a small effect on Attitude (0.095 and 0.001). On the other hand, although the Facilitating Condition shows a small effect on Behavioral Intention (0.017), it shows a large effect on Effort Expectancy (0.690). Then, it's seen that Performance Expectancy has a large influence on Attitude (0.351), and finally, Social Influence shows a moderate effect on Attitude (0.201). Overall, the Q2 value shows that Attitude, Behavioral Intention, and Effort Expectancy have a good predictive relevance value because the three results are  $> 0$ .

## Hypothesis Testing

Hypothesis testing is intended to determine the estimated path coefficient (direct effect) between the independent variable on the dependent variable and the mediating variable. It is expected that the estimated value between these variables must be significant by looking at the output path coefficient derived from the bootstrapping calculation results on Smart PLS. However, the hypothesis requirements can be accepted if the t-statistic value exceeds the t-table (1.96) (Ghozali, 2014). The effect is significant if the P-value is < 0.05 for an error rate of 5% (Juliandi, 2018).

**Table 7.** Hypothesis testing

No	Hipotesis	Path	T Statistik	P Values	Result
H1	PE → AT	0.428	5.701	0.000	accepted
H2	EE → AT	0.230	2.768	0.007	accepted
H3	SI → AT	0.324	4.283	0.000	accepted
H4	FC → BI	0.094	1.117	0.267	rejected
H5	FC → EE	0.639	10.442	0.000	accepted
H6	PR → AT	0.017	0.278	0.781	rejected
H7	AT → BI	0.728	11.061	0.000	accepted

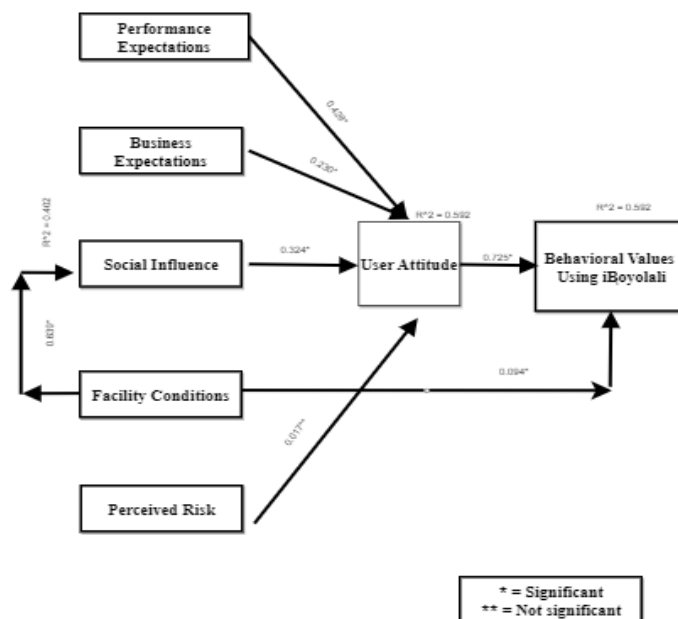
Source: Data processed, 2022

Then, the mediating effect was tested on the attitude variable about the indirect influence between performance expectations, business expectations, and social influences on behavioral intentions (behavioral intention). Testing the mediating effect is only carried out on the accepted hypothesis, and independent variables affect the dependent variable after the mediating variable is involved. The results of the mediation effect test prove that the AT variable can increase the significance of PE→BI, namely ( $\beta$ : 0.185/ t: 2.145/ p: 0.032) to ( $\beta$ : 0.231/ t: 3.347/ p: 0.001); increasing the significance of EE→BI, namely ( $\beta$ : 0.063/ t: 0.806/ p: 0.421) to ( $\beta$ : 0.130/ t: 2.841/ p: 0.005); and increasing the SI→BI significance, namely ( $\beta$ : 0.119/ t: 1.616/ p: 0.107) increasing to ( $\beta$ : 0.176/ t: 3.668/ p: 0.000). The calculation of variance accounted for (VAF) was also carried out to determine the level of a direct effect on the total effect (Nugroho, 2015). From the results of this study, the attitude variable was proven to partially moderate the PE→BI variable by 55.5%, mediate the EE→BI partially by 67.4%, and partially mediate the SI→BI by 59.7%.

## Discussion

Along with the development of the digital era, (Jonar, 2018) states that the user factor is very important and has a major influence on the successful implementation of a new information system. This research determined what factors influence user interest in using *iBoyolali* through the UMEGA approach. The following is a structural model in this study:





**Figure 2.** Structural model of iBoyolali's acceptance

According to the figure above, Performance expectations have a significant effect ( $\beta$ : 0.428/ t: 5.071/ p: 0.000) on attitudes using the *iBoyolali* application. The attitude variable as a mediating variable has also been shown to strengthen the effect of the performance expectation variable on user interest. Besides, the results of this study are in line with (Venkatesh et al., 2003), (Lallmahomed, et al., 2017), and (Putri & Mahendra, 2017), who found that performance expectations can influence people's attitudes toward modern technologies, such as E-Government. So, in the context of this research, it can be stated that *iBoyolali* users pay attention to the benefits they feel, such as simplifying and speeding up work, as reasons for determining their attitude toward using *iBoyolali* sustainably.

Effort expectancy is defined as the extent to which users believe that using *iBoyolali* will help them improve performance. One of these things can be seen in the application, which can increase public confidence in improving work. For example, it can be seen in the Boyolali Regency Regional Organization (OPD), which can improve its performance by displaying information through the library application (jatengprov.go.id, 2018). So, Effort expectancy has a significant effect ( $\beta$ : 0.2308/ t: 2.768/ p: 0.007) on attitudes in using the *iBoyolali* application. The attitude variable as a mediating variable has also been shown to increase the effect of the business expectation variable on user interest. Thus, this study gave related results to those (Venkatesh, et al., 2012a), (Dwivedi et al., 2017), (Putri & Mahendra, 2017), and (Rafique et al., 2020). However, some of these studies compactly show that perceived ease of use (effort expectations) is a predictor that has a significant direct effect on attitudes toward using technology. Therefore, in this study, the ease felt when using *iBoyolali*, such as (uncomplicated search and features that are easy to understand and use) becomes a factor for users in determining attitudes to use the application on an ongoing basis. In addition, this digital application can reduce the financial expenses of people who like to read. Using the *iBoyolali* application, people do not need to spend excess money to get knowledge. In addition, the convenience provided through the *iBoyolali* application facility in the form of a chat feature that can be accessed within 24 hours makes it quite easy for people to communicate with each other.

Social influence is the extent to which an individual perceives that others believe they should use an application or system. This dimension can be seen in individuals who can change

their attitude based on information or stories shared by others who have adopted *iBoyolali*. So, in this study, *iBoyolali* users paid attention to social influences such as (family, friends, or the surrounding environment) who had experience using *iBoyolali* as one of the factors that influenced their attitude to participate in using *iBoyolali*. The results prove that Social Influence has a significant effect ( $\beta$ : 0.324/ t: 4.283/ p: 0.000) on attitudes in using the *iBoyolali* application. The attitude variable as a mediating variable has also been shown to increase the influence of social influence variables on user interest. Similarly, the results found are in line with those (Venkatesh, et al., 2012b), (Dwivedi et al., 2017), (Alam et al., 2020), and (Kusuma & Pribadi, 2020). The research above shows compact results if social influence significantly determines individual attitudes toward adopting technology.

The Facilitating Condition does not affect ( $\beta$ : 0.094/ t: 1.117/ p: 0.267) Behavioral Intention in using the application. Thus, this study shows differences from the results of previous studies (Dwivedi et al., 2017; Verkijika & Wet, 2018). However, the results of this study are in line with those (Prasetya, 2018), (Suparyati, 2019), and (Pandey & Nugroho, 2020), who observed that facilitation conditions did not affect user behavior in some E-Government services. So, in this study, it is found that *iBoyolali* users ignore the support of facilities such as network stability, completeness of digital collections, users who help with obstacles, and socialization of usage as reasons for using the *iBoyolali* application.

On the other hand, Facilitating Conditions have a significant effect ( $\beta$ : 0.639/ t: 10.442/ p: 0.000) on the effort expectancy in using the application. Also, the significant impact of facility conditions on business expectations indicates that the technical and infrastructure support provided by the government to its users causes easy access to the system (Dwivedi et al., 2017). These results are similar to those (Khurshid et al., 2020) and (Mensah et al., 2020). So, according to the findings, users pay attention to the completeness of facilities such as internet connection, adequate devices, socialization of use, and other technical support, which can increase the ease of using *iBoyolali*.

Perceived risk is a construct that raises user concerns about using *iBoyolali*. In this case, it can be seen that some users have difficulty relying on the internet network to access the application services. In addition, there are still many resources that are not in the form of soft files, thereby reducing readers because they cannot find the reading material they want. There are concerns about possible misuse of personal data and other insecurities among the users. So, from the results obtained, it can be seen that Perceived risk does not have a negative effect ( $\beta$ : 0.017/ t: 0.278/ p: 0.781) on attitudes in using the *iBoyolali* application. However, it contradicts Verkijika & Wet (2018) and Khurshid (2020). Nonetheless, this study is similar to (Idenanda, 2020) and Pandey & Nugroho (2020). Both show similar results in that there is no negative effect between perceived risk and a person's attitude toward using an electronic service system. As a result, it can be stated that users do not consider the perceived risks as factors that influence their attitude toward using *iBoyolali*.

Attitude is a key factor in predicting behavioral interest in using technology. The positive attitude of *iBoyolali* users can influence their desire to use the application continuously. This can be proven by a supportive response, a feeling of help after receiving other benefits, suggestions, evaluations, etc. Thus, Attitude has a significant effect ( $\beta$ : 0.728/t: 11.061/p: 0.000) on Behavioral Intention in using the *iBoyolali* application. Also, this research is found in line with (Verkijika and Wet, 2018), (Prasetya, 2018), (Idenanda, 2020), and (Mensah et al., 2020). Therefore, these studies collectively state that there is a significant effect on attitudes toward using technology systems representing citizen-centered e-government systems.

#### 4. CONCLUSION

This research was conducted to know what variables influence user interest in using *iBoyolali* through the Unified Model of Electronic Government Adoption (UMEGA) approach.

The approach analyzes the effect of five independent variables on one variable, which passes through one mediating variable. Then, the data was collected through a questionnaire, which was then analyzed using the Partial Least Square - Structural Equation Modeling (PLS-SEM) method.

Based on the analysis that has been carried out, it was found that out of the seven hypotheses proposed, there were five accepted hypotheses (H1: PE has a positive effect on AT); (H2: EE has a positive effect on AT); (H3: SI has a positive effect on AT); (H5: FC has a positive effect on EE); (H7: AT has a positive effect on BI) and two rejections, namely (H4: FC has a positive effect on BI) and (H6: PR hurts AT).

First, Performance Expectancy (Performance Expectancy) provides how much technology can be used in certain activities. Second, Effort Expectancy is intended to be the level of ease in using technology. Third, Social Influence is defined as the extent to which other people influence or recommend using technology. Fourth, Facility Conditions (Facilitating Conditions) are intended to determine the completeness of the technology. Fifth, Facilitating Conditions proved to have a positive effect ( $\beta$ : 0.639/ t: 10,442/ p: 0.000) on business expectations in using iBoyolali. Sixth, Perceived Risk is defined as a perceived concern or threat to using technology. Finally, Attitude, in this case, is intended as the level of individuals having a positive or negative assessment of the use of technology.

Based on the details above, this study can conclude that four variables in UMEGA affect behavioral interest in using *iBoyolali*. The variables include Performance Expectations, Business Expectations, Social Influence, and Attitudes. Meanwhile, the condition of facilities and perceived risks were not proven to affect behavioral interest in using the application. These results indicate that users pay more attention to the perceived benefits and ease of using the service. The surrounding environment also influences a person's participation in using iBoyolali. Besides, the positive attitude obtained from these three factors gave birth to behavioral intentions to use the application. However, whether the condition of the facilities is complete or not, it turns out that users do not pay much attention to adopting the application. Likewise, the perceived risk is not a factor that makes users reluctant to use *iBoyolali*.

In this way, the results of this study can be input in the future and used as evaluation material for the government, especially the Boyolali Regency Library and Archives Service, to pay attention to improving the above factors that affect the interest in using iBoyolali. Thus, it is hoped that the number of iBoyolali users will increase. And with the increase in *iBoyolali* users will certainly have a good impact on the level of reading literacy activity (*Alibaca*) in Boyolali Regency, even at the provincial level. In addition, increasing iBoyolali users as a source of information and knowledge will be in line with supporting the realization of the 4<sup>th</sup> SDG goal, namely quality education with a focus on Ensuring Inclusive and Equitable Quality Education and Increasing Lifelong Learning Opportunities for All. Most importantly, the higher public participation in using electronic-based services such as iBoyolali will be a benchmark for the government's success in implementing E-Government in Boyolali Regency.

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