

The Influence of Information System Quality and Information Quality on User Satisfaction of Presence Application through Perceived Usefulness on Regional Secretariat of Malang District Government



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ABSTRACT: Taking into account the urgency regarding Civil Servant Discipline, the Government issued Government Regulation of the Republic of Indonesia Number 94 of 2021 concerning State Civil Apparatus regarding Civil Servants who must comply with the provisions of PNS discipline to ensure the maintenance of order in the smooth implementation of their duties. The Ministry of Communication and Information created an Android-based attendance application to support this regulation. This study discusses the presence of application user satisfaction which is influenced by the quality of information systems, information quality, and perceived usefulness. This study used the Slovin sampling method with 203 users as samples. Data were analyzed using SPSS 26. Data analysis techniques used were descriptive analysis, classic assumption test, t-test, and path analysis. The results of the study concluded that information system quality and information quality significantly affect perceived usefulness, information system quality and information quality affect user satisfaction, and perceived usefulness affects user satisfaction. The mediation results show that perceived usefulness can mediate the influence of information system quality and information quality on user satisfaction.

KEYWORDS: Information System Quality, Information Quality, Perceived Usefulness, User Satisfaction, Presence Application

I. INTRODUCTION

Based on the Government Regulation of the Republic of Indonesia Number 94 of 2021 concerning Civil Servant Discipline, this Government Regulation (PP) was issued in order to implement the provisions in Law no. 5/2014 concerning State Civil Apparatus regarding civil servants who are required to comply with civil servant discipline provisions to ensure the maintenance of order in the smooth implementation of their duties. Apart from that, to create civil servants who have moral integrity, professionalism and accountability and encourage civil servants to be more productive, civil servant discipline regulations are needed as a guide.

Disciplinary problems with the State Civil Service certainly cannot be separated from the presence of employees, namely attendance. Presence must be carried out by all Malang Regency Government employees. Previously, attendance was carried out using finger print machines located in every Malang Regency Government office. The finger print results are integrated with a web-based attendance application. So employees have to do a finger print first, then the system will display the results of the finger record in the form of an attendance list table on the web-based attendance application.

The solution to this problem is that every Malang Regency Government employee who is WFH or working at home and employees who are on external service can continue to perform attendance without finger recording on a finger machine at the Office, Malang Regency Communication and Information Service utilizing Communication Information Technology by developing a presence application in form of Android-based mobile application. The use of Information Communication Technology in government governance (e-Government) can increase efficiency, effectiveness, transparency and accountability in the administration of Regional Government. In addition, the use of Information Communication Technology is realized through electronic attendance to ensure employee compliance in coming to work and complying with working hours provisions, so that the performance of the State Civil Service and the provision of services to the public can be optimized.

The aim of building the Android-based Malang Regency Government Presence Information System is to improve employee discipline, especially regarding hours provisions, make it easier to monitor employee attendance and improve employee performance in the context of providing services to the Management and the community. A successful information system must be able to provide benefits to service users through the activities it carries out and be able to help the organization achieve its

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goals. Seddon (1997) states that the use of information systems is a behaviour that arises due to the benefits of using the information system. Jogiyanto (2007) differentiated failures in implementing an information system into 2 aspects. The first aspect is the technical aspect, namely the aspect that concerns the system itself which is the technical quality of the information system. Meanwhile, the second aspect is a non-technical aspect, which is related to the perception of information system users which causes users to be willing or reluctant to use the information system that has been developed. Thus, there is a need for an approach to test the success of information systems in order to detect system failures.

Testing the success of an information system is important for an agency that is implementing a new information system. The success of an information system is something that is expected by agencies in implementing information technology systems. With changes in financial management by implementing a new system, there is a need for a way to test how far the system is used, how far the system influences its users, and how far the system provides benefits to users. The success of an information system is also determined by the extent to which the system implemented has presented quality information. In the end, system quality and information quality influence system users thereby increasing the effectiveness of an agency's performance.

The D&M model was developed by DeLone and McLean in 1992, is a model for testing the success of information systems. Many researchers test the success of information systems using the D&M model which is applied in various agencies. Many researchers also criticize the accuracy of the D&M model in describing the success of implementing information systems. Based on theory and research results that have been studied by DeLone and McLean (1992), the D&M success model is a parsimony model. So, it is very good to apply the D&M success model to test the success of information systems in agencies that apply information technology. Seddon (1997) proposed a modification of the model, by replacing the dimensions of use with perceived usefulness, especially for the context of mandatory use of information.

II. METHOD

This study uses quantitative research by examining factors influencing user satisfaction in Regional Secretariat Malang Regency. Population: This research was conducted on Regional Secretariat Malang Regency employees, totaling 413 employees. Sampling technique: The sampling technique used in this study was the Slovin sample method, which is the number of samples is 203 employees.

The data analysis technique used is descriptive analysis for each variable and a requirements analysis test for further hypothesis testing using multiple regression and path analysis. The analysis requirements tests performed were the normality, multicollinearity, autocorrelation, and heteroscedasticity tests. Hypothesis testing using multiple regression analysis was carried out to determine whether the independent variables partially influence the dependent variable and to determine the linear regression equation. Path analysis was carried out to determine whether the mediating variable can mediate the independent variables on the dependent variable. Analysis of needs testing, hypothesis testing, and multiple linear regression analysis equations using the help of IBM SPSS Statistics version 26 software.

III. RESULT AND DISCUSSION

A. Result

1. Partial test (t-test)

The basis for decision-making in this partial test is that if the significance value t is < 0.05 , H_a is accepted, whereas if the significance value t is > 0.05 , H_a is rejected. Partial test results (t-test) are presented in the following table:

Table 1. Partial Test Results Model 1

Model	Unstandardized Coefficients	Standardized Coefficients	Beta	t	Sig.
	B	Std. Error			
Constant	7,832	1,744		4,491	0,000
Information System Quality (X_1)	0,429	0,073	0,438	5,863	0,000
Quality Information (X_2)	0,309	0,099	0,234	3,140	0,002

The information system quality variable (X_1) obtained a positive t-count of 5,863 with a sig. of $0.000 < 0.05$. So, the information system quality variable positively and significantly affects the perceived usefulness variable. It shows that hypothesis 1, which is that information system quality has a positive and significant effect on perceived usefulness, is accepted.

The quality information (X_2) obtained a positive t-count of 3,140 with a sig. of $0.002 < 0.05$. So, the quality information is positive and significantly affects perceived usefulness variable. It shows that hypothesis 2, which is that the quality information positively and significantly affects perceived usefulness, is accepted.

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Table 2. Partial Test Results Model 2

Model	Unstandardized Coefficients	Standardized Coefficients	Beta	t	Sig.
	B	Std. Error			
Constant	2,949	1,409		2,094	0,000
Information System Quality (X ₁)	0,132	0,061	0,151	2,156	0,032
Information Quality (X ₂)	0,393	0,078	0,335	5,060	0,000
Perceived Usefulness (Y ₁)	0,330	0,054	0,371	6,054	0,000

The information system quality variable (X₁) obtained a positive t-count of 2,156 with a sig. of 0.032 < 0.05. So, the information system quality variable positively and significantly affects the user satisfaction variable. It shows that hypothesis 3, which is that information system quality has a positive and significant effect on user satisfaction, is accepted.

The information quality variable (X₂) obtained a positive t-count of 5,060 with a sig. of 0.000 < 0.05. So, the information quality variable positively and significantly affects the user satisfaction variable. It shows that hypothesis 4, which information quality has a positive and significant effect on user satisfaction, is accepted.

The perceived usefulness (Y₁) obtained a positive t-count of 6,054 with a sig. of 0.000 < 0.05. So, the perceived usefulness variable positively and significantly affects the user satisfaction variable. It shows that hypothesis 5, which is that perceived usefulness positively and significantly affects user satisfaction, is accepted.

2. Path Analysis

Table 3. Path Analysis Results

Variable	Direct Effect	Indirect Effect	Total Effect	Information
Information system quality (X ₁) – Perceived usefulness (Y ₁) – User satisfaction (Y ₂)	0,151	0,438 x 0,371 = 0,162	0,151 + 0,162 = 0,313	Indirect effect > direct effect, 0,162 > 0,151
Information quality (X ₂) – Perceived usefulness (Y ₁) – User satisfaction (Y ₂)	0,335	0,234 x 0,371 = 0,08	0,335 + 0,08 = 0,415	Indirect effect < direct effect, 0,08 < 0,335

The indirect effect of information system quality on the user satisfaction variable through the perceived usefulness variable is 0.162 > direct effect 0.151. This means that the perceived usefulness variable is able to become a mediating variable for the information system quality variable on the user satisfaction variable.

The indirect effect of information quality on the user satisfaction variable through the perceived usefulness variable is 0.08 < direct effect 0.335. This means that the perceived usefulness variable is able to become a mediating variable for the information quality variable on the user satisfaction variable, but the direct effect is bigger than indirect effect.

B. Discussion

1. The Influence of Information System Quality on Perceived Usefulness

Based on the results of the research analysis, it shows that the quality of the information system has a significant effect on Perceived Usefulness. This means that the convenience of access, ease of learning, and reliability of the Presence application impact usefulness, increase productivity, save time, and make life easier for users of the Presence application. The findings align with Kartika's (2016) research, which states that perceived usefulness will increase if the quality of the information system provided is also good. Access convenience gets the highest average score in the presence application compared to other indicators. This can be interpreted as users paying attention to the comfort of access to the presence application, which includes ease of accessing the application at any time, the application is easy to obtain, the application installation process is easy, and the presence application can run smoothly when used. This convenience of access provides usefulness to the presence application and can increase the perceived benefit.

The research results also follow the theory expressed by Seddon (1997), which states that the quality of information from an application or software will increase perceived usefulness if the information contained therein is complete and accurate, which can be seen from the perspective of the perceived benefits from using the application or software.

2. The Influence of Information Quality on Perceived Usefulness

The results of the research analysis show that the quality of information has a significant effect on Perceived Usefulness. This means that the completeness of information, accuracy, and ease of understanding of the Presence application has an impact on

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usefulness, increases productivity, saves time, and makes life easier for users of the Presence application. The findings align with research by Haryanto (2018), which states that users need the information an application provides to get perceived usefulness. In the attendance application, completeness of information gets the highest average score compared to other indicators. This can be interpreted as the user paying attention to the completeness of the information from the presence application, which includes the information provided by the application, which is complete and following the user's needs. Apart from complete information, the information on the presence application is also easy to understand, even for new users or those who are not used to using the presence application. This also makes presence easier for presence applications and can increase perceived usefulness.

The research results also follow the theory expressed by Seddon (1997), which states that the quality of information from an application or software will increase perceived usefulness if the information contained therein is complete and accurate, which can be seen from the perspective of the perceived benefits from using the application or software.

3. The Influence of Information System Quality on User Satisfaction

The research analysis results show that the quality of the information system significantly affects User Satisfaction. This means that the convenience of access, ease of learning, and reliability of the attendance application influence the effectiveness, efficiency, and format. According to users, the quality of the Presence application information system is easy to learn because they feel satisfied with the information system provided by the Presence application. On the other hand, if an information system is not easy to learn according to users, then the quality of the information system could be better. The research findings are in line with research by Anastasya (2021), which states that the quality of information systems has a significant positive effect on user satisfaction. However, this is different from the research conducted by Tulodo (2019), which states that the quality of information systems significantly negatively affects user satisfaction.

Regarding the quality of the attendance application information system, convenience of access gets the highest average score compared to other indicators. Furthermore, regarding attendance application user satisfaction, it is effective to get the highest average score compared to other indicators. This can be interpreted as users paying attention to the convenience of access to the presence application, which includes ease of accessing the application at any time, the application being easy to obtain, the application installation process being accessible, and the presence application running smoothly when used which makes users feel the effectiveness of the presence application which in the end make them feel satisfied with the attendance application.

The research results also follow the theory expressed by DeLone and McLean (1992), which states that the higher the quality of the information system produced by an information system or application, the higher the user satisfaction index will be.

4. The Influence of Information Quality on User Satisfaction

The results of the research analysis show that information quality has a significant effect on user satisfaction. This means that the completeness of the information, accuracy, and easy understanding of the presence of the application influence the effectiveness, efficiency, and format, which indicates user satisfaction. The findings are in line with research by Haryanto (2018), which states that the quality of information significantly affects user satisfaction, which will increase if the quality of the information system provided is also good. However, Pratomo (2016) found that information quality did not affect user satisfaction. In the attendance application, completeness of information gets the highest average score compared to other indicators. This can be interpreted as users feeling that the information provided by the presence application has been provided completely and helps them operate it. The completeness of this information gives users a sense of satisfaction, which can also be seen from the effective indicator, which is the indicator with the highest average score. This means that users feel that the completeness of the information provided makes an application effective for use, which supports the satisfaction of application users.

The research results also follow the theory expressed by DeLone and McLean (1992), which states that information quality consisting of completeness of information, accuracy of information, and understandability can increase user satisfaction because this satisfies users. This is also supported by research by Pearson (1983), which states that the quality of information significantly influences user satisfaction.

5. The Influence of Perceived Usefulness on User Satisfaction

In this research, a significant positive influence was found between the relationship between perceived usefulness and user satisfaction. This can mean that usefulness, increasing productivity, saving time, and making life easier can influence attendance applications' effectiveness, efficiency, and format. The findings align with Hidayat's (2018) research, which states that perceived usefulness will increase user satisfaction or significantly affect user satisfaction. Perceived usefulness is considered a determining factor in acceptance of the presence application information system, which will ultimately provide satisfaction for users (Priyanthi, 2019). In the presence application, usefulness gets the highest average score compared to other indicators. This can be interpreted as users paying attention to the usefulness of the presence application, which includes valuable applications; the presence application is an application that is needed. The usefulness of this presence application is what can provide user satisfaction. In short, if the user can feel the benefits provided by the presence application, he will get satisfaction with the presence application.

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Perceived usefulness is a significant determinant for users to accept, adopt, and use the system (Shine, 2003). Furthermore, Sohn (2017) argues that perceived usefulness shows the interaction between individual perceptions, attitudes, and intentions in using information systems. This can be interpreted that in the research, the individuals who were the research sample showed the right attitude because they felt this application was useful. They were satisfied with the presence application.

6. The Influence of Job Satisfaction on Employee Performance Through Organizational Citizenship Behaviour

In this research, it is known that there is an influence between the quality of the information system and user satisfaction through perceived usefulness. This means that the perceived usefulness variable can mediate between the quality of the information system and user satisfaction. This aligns with research by Hidayat (2018), which states that perceived usefulness can mediate the relationship between information system quality and user satisfaction. Users who think that the quality of the information system can provide value are more likely to be satisfied with the information system than users who do not (Calisir, 2004). Application users feel that the quality of the information system provided can benefit them, which also makes them feel satisfied with the presence application.

This follows the theory of Davis (1989), which states a positive relationship between the use of information systems and user satisfaction. Perceived usefulness occurs when the quality of the information system can be used and benefits its users. In this research, the indicator of access comfort from the information system quality has the highest average score. In perceived usefulness, usefulness has the highest average score; in user satisfaction, effectiveness has the highest average score. This means that users feel that the presence application is an application that makes them comfortable; after feeling comfortable, they feel that this application is useful, and then they feel that it is effective for them.

7. The Influence of Environment Work on Employee Performance Through Organizational Citizenship Behaviour

In this research, it is known that there is an influence between information quality and user satisfaction through perceived usefulness. This means that the perceived usefulness variable can mediate between information quality and user satisfaction. Although there has been no previous research that says perceived usefulness can mediate between information quality and user satisfaction, this research's results prove that perceived usefulness can be a mediating variable. This is in line with the theory stated by Seddon (1997), which says that perceived usefulness will be created if the information quality of a software is good. Furthermore, Shine (2003) argues that perceived usefulness is one of many factors that can influence user satisfaction.

Perceived usefulness will arise when the quality of the information provided by the presence application can benefit the user. In this research, the information completeness indicator of information quality has the highest average score. In perceived usefulness, usefulness has the highest average score; in user satisfaction, effectiveness has the highest average score. This means that users feel that the presence application has provided complete information and makes them feel that the presence application is good. After feeling that the information provided by the application is complete, they feel that this application is useful. Then, they feel that this application is effective for them to use.

IV. CONCLUSION

Based on the results of research on the influence of job satisfaction, work environment on employee performance through organizational citizenship behaviour on BKPSDM Malang Regency, the following conclusions are drawn:

1. The quality of the information system has a significant effect on perceived usefulness. This means that the better the quality of the information system in the presence application, the more valuable it will be in the form of perceived usefulness. Regarding the quality of the presence application information system, users pay attention to the convenience of access provided by the presence application because it can be accessed at any time and runs smoothly on the user's device.
2. Information quality has a significant effect on perceived usefulness. This means that the better the quality of the information in the presence application, the more valuable it will be in the form of perceived usefulness. Regarding the quality of presence application information, users pay attention to the completeness of the information provided by the presence application because it provides all the information needed by users to feel the benefits of the presence application.
3. Information system quality has a significant effect on user satisfaction. This means that the better the quality of the information system in the attendance application, the more effective the application will be in the form of user satisfaction. The quality of the presence application information system, convenience of access, easy learning, and reliability will create user satisfaction as measured by the attendance application's effectiveness, efficiency, and format. In this case, users feel that the ease of the application to install influences the efficiency of the presence application, which makes them feel satisfied with the presence application.
4. Information quality has a significant effect on user satisfaction. It can be interpreted that the better the quality of the attendance application information, the more satisfaction it will create in the form of a display format that includes all the features. In this case, users feel the information is easy to understand because it is packaged in a display format pleasing to the eye and includes all existing features. Therefore, they feel satisfaction with the presence of the application.

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5. Perceived usefulness influences user satisfaction. This means that the better the perceived usefulness of the presence application, the more user satisfaction it will create in the form of the effectiveness of the presence application. In this case, users feel that attendance, which can be done anywhere, is beneficial because it will make the attendance process easier without having to meet face to face or go to the office, especially for those who are on overseas service; this is very helpful. Therefore, user satisfaction is created from perceived usefulness.
6. Perceived usefulness can act as a mediating variable between information system quality and user satisfaction. A good quality attendance application information system can increase perceived usefulness and user satisfaction. In this case, it can be seen that the results of research on the quality of information systems have effects, namely that the average user pays more attention to the convenience of access, namely the presence of an application that can be accessed at any time, while in perceived usefulness, users pay attention to the usefulness of applications that are useful for the user. This means that the research results are in the same direction, and the application user's sense of satisfaction will increase if the presence application can be used at any time and benefits the user. Therefore, feelings like this must be maintained.
7. Perceived usefulness can act as a mediating variable between information quality and user satisfaction. Good quality attendance application information can increase perceived usefulness and user satisfaction. In this case, the results of information quality research have effects, namely that users, on average, pay more attention to the completeness of information, namely providing complete information in presence applications. In contrast, in perceived usefulness, users pay attention to using valuable applications. This means that the research results are in the same direction, and the application user's sense of satisfaction will increase if the information provided by the presence application will benefit the user. Therefore, completeness of information on attendance applications must be maintained.

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