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Ontime Application System Analysis

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ABSTRACT

Employee absenteeism is a very crucial aspect in an institution. Employee discipline can be seen from attendance at both private and government offices. The South Tangerang City DPRD Secretariat Office is one of the Government Agencies that applies employee attendance as a basis for assessing compliance with regulations. In its implementation, taking employee attendance already uses Android-based online attendance called Ontime, Ontime Based Online is an online (Mobile) based attendance application Apps) but there are still several problems in using it, one of which is that there are still bugs in using this application, so it is not yet known whether the status of using this online attendance is at a satisfactory level or not. Therefore, research on user satisfaction needs to be carried out to measure how satisfied users are with this online attendance application. This research uses quantitative methods with the webqual 4.0 model. The data collection technique is carried out in two ways, namely interviews and questionnaires, processing data analysis using IBM SPSS Statistics. With the mean result of user satisfaction being 87.2% in the "very good" category

Keywords: User Satisfaction, Online Attendance, Webqual

INTRODUCTION

Currently, technological growth is accelerating very quickly, so that existing technology is more advanced than before [1]. The rapid progress in the field of technology and information systems has made companies strive hard to optimize their strategies so that they are always ahead and not left behind by competitors [2]. The rapid development of technology is currently occurring in various changes in living standards [3].

It is commonplace that technology is currently very much needed in every human activity, both individual and group, and the technology that is developing very rapidly is information technology. The rapid development of Information Technology can be seen from the living habits of the Indonesian people, how society always involves technology in carrying out daily activities(Setiawan, 2020).

Utilizing data innovation through data frameworks does not necessarily result in increased quality and speed of data for administration (but more than that it can create an administrative data framework that can make integration steps in the field of data and operations between parties in an organization both locally and comprehensively and minimizing the dangers that will arise [5]. Proper use of technology can make everything that is done easier, work that is supported by technological facilities can increase employee productivity [6].

Along with the increasing mobility of society, recently the use of mobile devices has become very popular. Mobile technology has now entered an era of very rapid development compared to several years ago(Bagus Adidyana Anugrah Putra et al., 2020). Mobile devices or mobile devices as supporting

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advances in information and communication technology continue to improvise with various variations, one of which is Android devices. Android-based applications are widely used in carrying out daily activities.(Bryan Prasetio & Wellem, 2022). Considering how important information is today, everyone is flocking to use the available applications(Safitri & Basuki, 2020)

Employee absenteeism is a very crucial aspect in a government or private institution. Compliance with agency regulations can be measured by punctuality which is considered to support the progress of an agency(Safuan & Rahman, 2021). Employee discipline can be seen from attendance at the office, based on this, to be able to record and collect all attendance data in an office requires an attendance system.(Arifin et al., 2021).

The Secretariat of the South Tangerang City DPRD carries out its duties as a regulatory implementing component and supports the obligations and capacity of the DPR(Mayor of South Tangerang, nd). With this task, the Secretariat of the South Tangerang City Regional People's Representative Council is a Type A Service Office, namely Regional Apparatus with a heavy workload.(Mayor of South Tangerang, nd). With a total of 268 Honorary Employees(Secretary of South Tangerang City DPRD, 2023). Basically, the South Tangerang City DPRD Secretariat Office already uses fingerprints (Finger Print) in carrying out the employee attendance process, but the Covid-19 pandemic that has occurred in recent years requires every employee to keep their distance from one another.

Based on this, taking employee attendance using fingerprints is considered dangerous because apart from causing crowds, it is feared that using fingerprints together will also cause the spread of the Covid 19 virus within the Secretariat Office of the Regional People's Representative Council, South Tangerang City. For this reason, the South Tangerang City Regional People's Representative Council Secretariat Office has begun to change the employee attendance system from using fingerprints to Android-based online attendance called Ontime.

Ontime Based Online is an online based attendance application (Mobile Apps)(Administrator, 2022).Using online attendance also makes it easier for employees who are unable to attend due to external service, leave or illness without having to meet directly with the supervisor concerned.

But nothing man-made is perfect, and this is also the case with the Ontime application, there are still several obstacles in its use, such as frequent errors in the application which cause the application to exit by itself, Maps errors when taking attendance by employees, and not maximizing the use of the Ontime application. by employees adds to the list of problems that must be resolved in research for the use of this application.

LITERATURE REVIEW

Understanding Systems

*System*sis that a relationship structure exists in a fact [17]. There is also an opinion that says the system reflects a set of entities that relate to each other and work together to obtain a certain purpose [1(Firdani & Al, 2023; Iskamto, 2023). Information optimization refers to the process of processing developing documents so the material is more valuable for the recipient [20]. According to Whitten and Bentley, information reflects the results of processing data which is then used as a means to make decisions and create something useful for the recipient (Iskamto, 2022).

Understanding Information Systems

An information system is a process of mutual interaction between humans with computer devices, communication networks, and data sources to carry out information collection, processing and dissemination activities within an organization (Peiris & Kulkarni, 2015).

Understanding Application

Applications refer to proprietary software that is specifically designed for certain purposes, such as methods of using word processing, managing worksheet schedules, displaying presentations, graphic design, and so on (Barimbing & Astini, 2023).

Understanding Absence

Attendance is data processing carried out on a scheduled basis to process attendance data for each employee every month [5]. Employee attendance reflects data that can be used to show the presence of

employees in a company every day [24]. It is said that attendance reflects a way to record the arrival and return of employees and also reflects the unit of recapitulation activities contained in an institution (Anuar et al., 2021).

a. Understanding Webqual WebQual is a measurement technique or method used to carry out quality assessments on websites and reflect the results of improvements from a method called SERVQUAL which is widely used first in assessing the quality of a service [3].

Change in arranging variables and question items has occurred in the WebQual method, namely (Lilyana et al., 2022).

1. WebQual 1.0 is the first release of the WebQual tool, developed into a unit of the quality activity studio and distributed to students who are invited to provide quality assessments of digital-based business school websites.
2. WebQual 2.0 is the second series of WebQual improvements issued in order to improve the quality of the imperfections found in the previous series of WebQual methods.
3. WebQual 3.0 is the latest iteration of the WebQual series which is an improvement over version 2.0. The goal of WebQual 3.0 is to identify three aspects of website quality which include usability, information quality, and interaction quality.
4. WebQual 4.0 is the latest version of WebQual development based on the human-computer interaction discipline. This latest series, WebQual 4.0,focuses on three aspects of study, namely usability, information quality, and interaction quality to improve the assessment of websites.

RESEARCH METHODS

In general, this research was conducted using a quantitative approach, the population of this study were employees of the South Tangerang City DPRD Secretariat. Based on the Slovin formula above, the number of samples in this study was 34.80 which was then rounded up to 35 people. This process is a way of explaining data from various factors. The data used to illustrate are the results of research on Ontime Application System Analysis for the South Tangerang City DPRD Secretariat Office using webqual 4.0 which is used as an independent variable with User Satisfaction being the dependent variable, information in the form of material that has been collected is then processed using descriptive analysis techniques to provide an overview is clear from the data.

Validity test

The results of the validity test of the independent variable (ontime application) and the dependent variable (user satisfaction) are obtained from the calculation of rcount > from rtable, it can be concluded that all instruments of the independent variable (ontime application) and the dependent variable (user satisfaction) are considered valid because > 0.325 so they can be used as a basis for future research. The validity calculation formula is as follows:

$$r - hitung = \frac{n\,(xy) - (\sum x)(\sum y)}{\sqrt{[n(\sum x^2) - (\sum x)^2][n(\sum y^2) - (\sum y)^2]}}$$

Information

n = number of samples
x = variable score (research subject's answer)
x = total score of the variable for the nth research subject

Reliability Test

The results of the reliability test in this study were obtained from data that had been distributed via questionnaire to 35 respondents. From the reliability test, it was found that the r-count value of the independent variable (on-time application) was 0.899 and the r-table value of the dependent variable (user satisfaction) was 0.612. From the calculation results above, the reliability index criterion has a value of rcount > rtable, namely 0.6. so it is declared reliable.The formula determines the variance value for each question item.

$$i = \left(\frac{k}{k-1}\right)\left(1 - \frac{\sum \sigma b^2}{\sigma t^2}\right)$$

Information
ri = reliability56nstrument
k = the number of questions or the number of questions
$\sum \sigma b^2$ = number of item variants

σt^2 = total variance

1. Review Questionnaire Results

At this stage the author carries out a data analysis process using data resulting from distributing questionnaires based on the three indicators contained in the WebQual 4.0 method as independent variables and user satisfaction as the dependent variable. The mean calculation is carried out for the data analysis stage. The results obtained from calculating the mean using the Interval criteria assessment. Data obtained by filling out a questionnaire carried out by 35 respondents was then calculated using the mean formula.

The mean formula is as below:

$$\overline{X} \frac{\sum i}{n}$$

Information:

$\overline{X}$ =score $rata{-}rata$

Xi =scorefrom$data\ ke{-}i$

N = amount of data

RESULTS AND DISCUSSION

a. Usability Indicator

The Usability indicator results obtained can be seen as described below:

***Table*4.10**Usability Questionnaire Wave

Code	Answer	Amount	Percentage

USA1	Strongly agree	12	34.3%
	Agree	23	65.7%
	Don't know	0	0%
	Don't agree	0	0%
	Strongly Disagree	0	0%
USA2	Strongly agree	14	40%
	Agree	21	60%
	Don't know	0	0%
	Don't agree	0	0%
	Strongly Disagree	0	0%
USA3	Strongly agree	13	37.1%
	Agree	22	62.9%
	Don't know	0	0%
	Don't agree	0	0%
	Strongly Disagree	0	0%
USA4	Strongly agree	14	40%
	Agree	21	60%
	Don't know	0	0%
	Don't agree	0	0%
	Strongly Disagree	0	0%
USA5	Strongly agree	12	34.3%
	Agree	17	48.6%
	Don't know	4	11.4%
	Don't agree	2	5.7%
	Strongly Disagree	0	0%

Information Quality Indicators

Based on the questionnaire that has been circulated, the results of the data obtained on the Information Quality indicator are as in the table below:

***Table*4.11**Information Quality Questionnaire Wave

Code	Answer	Amount	Percentage
IFQ1	Strongly agree	14	40%
	Agree	14	40%
	Don't know	4	11.4%
	Don't agree	3	8.6%
	Strongly Disagree	0	0%
IFQ2	Strongly agree	5	14.2%
	Agree	28	80%
	Don't know	1	2.9%
	Don't agree	1	2.9%

	Strongly Disagree	0	0%
IFQ3	Strongly agree	14	40%
	Agree	21	60%
	Don't know	0	0%
	Don't agree	0	0%
	Strongly Disagree	0	0%
IFQ4	Strongly agree	15	42.9%
	Agree	20	57.1%
	Don't know	0	0%
	Don't agree	0	0%
	Strongly Disagree	0	0%

a. Interaction Quality Indicators

The following table will show the results of distributing the questionnaire on the Interaction Quality indicator:

Table 4.12 Wave of Questionnaires on Interaction Quality

Code	Answer	Amount	Percentage
SIQ1	Strongly agree	2	5.7%
	Agree	29	82.9%
	Don't know	3	8.6%
	Don't agree	1	2.8%
	Strongly Disagree	0	0%
SIQ2	Strongly agree	12	34.3%
	Agree	17	48.6%
	Don't know	4	11.4%
	Don't agree	2	5.7%
	Strongly Disagree	0	0%
SIQ3	Strongly agree	4	11.4%
	Agree	25	71.4%
	Don't know	5	14.3%
	Don't agree	0	0%
	Strongly Disagree	1	2.9%

b. User Satisfaction Indicator

In the Interaction Quality indicator table that has been distributed through the questionnaire, the results are obtained and can be seen in the table below:

***Table*4.13**Wave of Questionnaires on User Satisfaction

Code	Answer	Amount	Percentage
KP1	Strongly agree	15	42.9%
	Agree	16	45.7%
	Don't know	4	11.4%
	Don't agree	0	0%
	Strongly Disagree	0	0%

KP2	Strongly agree	15	42.8%
	Agree	17	48.6%
	Don't know	3	8.6%
	Don't agree	0	0%
	Strongly Disagree	0	0%
KP3	Strongly agree	14	40%
	Agree	20	57.1%
	Don't know	1	2.9%
	Don't agree	0	0%
	Strongly Disagree	0	0%
KP4	Strongly agree	16	45.7%
	Agree	18	51.4%
	Don't know	1	2.9%
	Don't agree	0	0%
	Strongly Disagree	0	0%

The results of the data that were successfully collectedin the form of responses from respondents which are described in the table above which includes:Usability Questionnaire Wave, Information Quality Questionnaire Wave,Wave of Questionnaires on Interaction Quality, AndWave of Questionnaires on User Satisfaction, will then be used to carry out the data review process.

2. Data Review

a. Review Usability Indicator Data

From the responses to the distribution of questionnaires that have been collected based on data on the use of on-time applications to the average scores found from the Usability indicators, the average scores are obtained as in the table below:

Table 4.14 Mean Usability Indicator Results

Code	Answer Categories					Mean	Percentage (%)
	SS	S	TT	T.S	STS		
USA1	12	23	0	0	0	4.34	86.8%
USA2	14	21	0	0	0	4.4	88%
USA3	13	22	0	0	0	4.37	87.4%
USA4	14	21	0	0	0	4.4	86.8%
USA5	12	17	4	2	0	4.11	82.2%
Average per indicator							86.24%

Based on the assessment of Usability indicators with WebQual 4.0, with categories“Very good”has an average score of 86.24%. From the results of these calculations it can be interpreted that the results obtained on the Usability indicator are in the "Very Good" category.

b. Study of Information Quality Indicator Data

According to the questionnaire that has been circulated, you can find out the average value of the Information Quality Indicator for the use of on-time applications as in the table below.

Table 4.15 Mean Results of Information Quality Indicators

Code	Answer Categories					Mean	Percentage (%)
	SS	S	TT	T.S	STS		
IFQ1	14	14	4	3	0	4.11	82.2%
IFQ2	5	28	1	1	0	4.05	81%
IFQ 3	14	21	0	0	0	4.4	88%
IFQ 4	15	20	0	0	0	4.42	88.4%
Average per indicator							84.9%

Based on the assessment of information quality indicators, an average score of 84.9% was obtained at the "Very Good" level. Based on the score results above, it is clear that the ontime application provides information that is accurate, precise, detailed and easy to understand as a means of conducting attendance.

c. Study of Interaction Quality Indicator Data

According to the questionnaire that was collectedFrom the use of on-time applications which are then input into the average value of the interaction quality indicator, an average score is produced as in the following table.

***Table*4.16**Mean Results of Interaction Quality Indicators

Code	Answer Categories					Mean	Percentage (%)
	SS	S	TT	T.S	STS		
SIQ1	2	29	3	1	0	3.91	78.2%
SIQ 2	12	17	4	2	0	4.11	82.2%
SIQ 3	4	25	5	0	1	3.88	77.6%
Average per indicator							79.3%

Based on the results of the WebQual 4.0 assessment on the Interaction Quality indicator, a mean score of 79.3% was obtained in the "Good" category. From the results of obtaining these values, it can be explained that the services and information provided in the ontime application can provide convenience for users as a means of conducting attendance.

d. Data Analysis on User Satisfaction Indicators

Based on the data obtained from distributing questionnaires on the use of on-time applications into the User Satisfaction indicator, the average values are obtained as in the following table.

Table 4.17 Mean Results of User Satisfaction Indicators

Code	Answer Categories					Mean	Percentage (%)
	SS	S	TT	T.S	STS		
KP1	15	16	4	0	0	4.31	86.2%
KP 2	15	17	3	0	0	4.34	86.8%
KP 3	14	20	1	0	0	4.37	87.4%
KP 4	16	18	1	0	0	4.42	88.4%
Average per indicator							87.2%

Based on the results of the WebQual 4.0 assessment on user satisfaction indicators, a mean score of 87.2% was obtained in the "Very Good" category. From the results of these values, it can be explained that the services and information provided in the on-time application can provide satisfaction for users

3. Review Overall Data

Based on the results of calculating the mean for each WebQual 4.0 indicator and user satisfaction, the results of these calculations can then obtain an overall average value which is presented in the table as follows.

***Table*4.18**Mean results of ontime applications on WebQual 4.0

No.	Indicator	Percentage (%)
1.	Usability	86.24%
2.	Information Quality	84.9%
3.	Interaction Quality	79.3 %
Overall Average Grade		83.48%

***Table*4.19**Mean Results of User Satisfaction on WebQual 4.0

No.	Indicator	Percentage (%)
1.	User Satisfaction	87.2%
Overall Average Grade		87.2%

After calculating the overall results of the indicators in WebQual 4.0 and user satisfaction, the final results can be obtained for achieving the quality level of the Ontime application with an overall mean value of 83.48%, in the "Very Good" category and the quality of user satisfaction with a mean value of 87.2% with “Very Good” category. The results of these calculations explain that the use of the ontime application is effective and suitable for use as a medium for conducting employee attendance at the South Tangerang City DPRD Secretariat Office with a very good level of user satisfaction.

Data Analysis and Interpretation of Results

Based on the results of research testing, the findings of this research are as follows:Based on measurements using the Ontime Application assessment criteria interval used at the South Tangerang City DRPD Secretariat Office, it has an overall mean value of 83.48% in the "Very Good" category.

a. Based on measurements using the interval criteria for assessing User Satisfaction with the on-time application at the South Tangerang City DPRD Secretariat Office, the mean value is 87.2%, classified as "Very Good".

b. Based on data processing using the Pearson Product Moment correlation test, the significance value of variable , from this table it can be seen that the Pearson correlation or correlation value for variable X is 0.799 and for variable Y is 0.356 with a positive relationship direction.

c. Based on data processing using the summary model table above, it is known that the correlation or relationship value is R of 0.356, from this output the coefficient of determination or R Square is 0.127, which means that the influence of the independent variable X (on-time application) on the dependent variable Y

(user satisfaction) is 12.7%. For the hypothesis, a comparison of significance values was carried out where the sig value was 0.036 < 0.05 and the t-count value was 2.188 > 1.701. Based on this basis for decision making, it can be seen that the t-count value > t-table, so it can be concluded that there is a partial influence between the variables x (ontime application) to variable y (user satisfaction).

Conclusion

From the basic data obtained from distributing the questionnaire, validity testing is carried out to measure whether or not the questionnaire items are valid/valid. Then, reliability testing was carried out to find out that the respondents' answers to the statements were consistent over time. Based on the answers from respondents obtained through distributing questionnaires via Google Form, it is known that the responses of employees of the South Tangerang City DPRD Secretariat Office as users of on-time applications, that the use of on-time applications at the South Tangerang City DPRD Secretariat Office. In general, the score was "Very Good" which is indicated by the mean value with the average score of respondents being 83.48% which indicates the "very good" category, because from the Assessment Criteria Interval table 80% - 100% is classified as "Very Good". Ontime application user satisfaction at the South Tangerang City DPRD Secretariat Office is classified as very good. Based on the results of respondents' responses regarding user satisfaction, namely the average score of respondents was 87.2% which indicates the good category, because from the table 80% - 100% are in the good category. The results of the research show that the use of ontime applications has an effect on user satisfaction at the South Tangerang City DPRD Secretariat Office because the hypothesis was accepted. The Pearson Correlation test table shows that there is a relationship between the two variables which are correlated with each other and have a positive relationship, which can be interpreted as the higher the x variable, the higher the y variable or in other words, the higher the use of on-time applications, the higher the user satisfaction.

For Further Research

a. For further research, it is hoped that we can add or develop research variables not only Usability, Information Quality, Service Interaction Quality, for example the Timeliness variable to review the timeliness of the system so that it can be categorized as a system that influences the level of user effectiveness.

3. For parties interested in conducting similar research to better understand the different ages and educational backgrounds of respondents, one way is to pay attention to the grammar of the questionnaire, so as to minimize the deletion of indicators. Then, it would be better if the distribution of the questionnaire was carried out with direct assistance to the respondents so that there are no misunderstandings regarding the question items in the questionnaire and pay attention to the distribution of data so that the respondents obtained are more varied and evenly distributed so that it is hoped that they will get better results.

REFERENCE

Administrator. (2022, December 27). Ontime Based Online. Https://Diskominfo.Tangerangselatankota.Go.Id/Main/Aplikasi/View/56#:~:Text=Ontime%20Based%20Online%20is%20a,Di%20Dinas%20Komunikasi%20dan%20Informatika. https://diskominfo.tangerangselatankota.go.id/main/application/view/56

Arifin, M., Widiyarta, A., & Public Administration Studies, Faculty of Social and Political Sciences, Veteran National Development University, East Java, P. (2021). Effectiveness Of Online Attendance In Work Discipline At The Class I Immigration Office Specifically Tpi Surabaya During The Covid-19 Pandemic Muhammad Arifin, Agus Widiyarta. 9, 35–57.

Bagus Adidyana Anugrah Putra, P., Handrianus Pranatawijaya, V., & Noor Kamala Sari, N. (2020). Implementation of Location Based Service in the Exam Room Presentation Mobile Application. 6, 26–30. https://doi.org/10.22216/jsi.v6i1.5223

Bryan Prasetio, F., & Wellem, T. (2022). Design and implementation of Android applications for tourism information services. Application of InforAnuar, N., Mazli Muhammad, A., Shidrah Mat Daud, N., & Awang, Z. (2021). Grit as a Moderator Between Students' Intention and Oral

Presentation Performance: A Conceptual Study. International Journal of Asian Social Science, 11(6), 270–277. https://doi.org/10.18488/journal.1.2021.116.270.277

Barimbing, V. E., & Astini, R. (2023). Model Analysis of Intention to Using Tije Mobile Applications For Transjakarta Users. International Journal of Applied Management and Business, 1(2), Article 2. https://doi.org/10.54099/ijamb.v1i2.680

Firdani, F. N. E., & Al, E. (2023). Contextual Aspect Of PJBL-Based Physics Module On Planetary Motion In The Solar System For 10TH Grade Students. International Journal of Educational Sciences and Development, 1(1), Article 1. https://doi.org/10.54099/ijesd.v1i1.604

Iskamto, D. (2022). Analysis of The Impact of Competence on Performance: An Investigative In Educational Institutions. Asean International Journal of Business, 1(1), 68–76. https://doi.org/10.54099/aijb.v1i1.74

Iskamto, D. (2023). Data Science: Trends and Its Role in Various Fields. Adpebi International Journal of Multidisciplinary Sciences, 2(2), Article 2. https://doi.org/10.54099/aijms.v2i2.606

Lilyana, F., Tahmat, T., & Rijayana, I. (2022). Development E-Commerce Web Site. Adpebi International Journal of Multidisciplinary Sciences, 1(1), Article 1. https://doi.org/10.54099/aijms.v1i1.277

Peiris, M., & Kulkarni, D. (2015). An Empirical Study of Customer Adoption of E-Commerce: A Customer Trust Model to Support the Adoption of E-Commerce Among Small-and Medium-Sized Enterprises in Sri Lanka. International Journal of Business and Information. https://doi.org/10.6702/ijbi.2015.10.4.4

mation and Communication Technology, 01(02), 114–132. https://doi.org/https://doi.org/10.24246/itexplore.v1i2.2022.pp114-132

safitri, laila, & basuki, Sucipto. (2020). Analysis and design of a text chat information system based on Android web view. IPSIKOM, 8(2), 1–5. https://doi.org/http://dx.doi.org/10.58217/ipsikom.v8i2.180

Safuan, S., & Rahman, D. (2021). Implementation Of An Android-Based Online Attendance System (Case Study At The Regional Government Office Of Majalengka District, West Java). Journal of Technology and Business Information Systems, 3(1), 267–275. https://doi.org/10.47233/jteksis.v3i1.224

Secretary of the South Tangerang City DPRD. (2023). Decision of the Secretary of the South Tangerang City DPRD.

Setiawan, PR (2020). Android Based Online Attendance Application. IT Journal Research and Development, 5(1), 63–71. https://doi.org/10.25299/itjrd.2020.vol5(1).5120

Mayor of South Tangerang. (nd). South Tangerang Mayor Regulations.

