

# User Satisfaction of Distance Learning During the Covid-19 Pandemic: Effect of Information System Quality and Service Quality in Financial Education and Training Agency of Makassar

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## User Satisfaction of Distance Learning During the Covid-19 Pandemic: Effect of Information System Quality and Service Quality in Financial Education and Training Agency of Makassar

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**Abstract:** This study aims to determine the effect of information system quality and service quality of distance learning system on user satisfaction during the Covid-19 pandemic at the Financial Education and Training Agency of Makassar. This study uses a quantitative approach with multiple regression analysis techniques and frequency distribution. The results of the study found that the quality of the information system has a positive and significant effect on user satisfaction and the quality of system services has a positive and significant effect on user satisfaction. The two variables simultaneously have a positive and significant effect on the satisfaction of distance learning system users at the Financial Education and Training Agency of Makassar. In addition, in general the indicators of information system quality, service quality, and user satisfaction of the distance learning system at the Financial Education and Training Agency of Makassar were considered very good by the learning participants. Financial Education and Training Agency of Makassar as the technical implementer of BPPK is expected to be able to maintain the quality of the system and services provided in order to obtain the maximum of user satisfaction. When users are satisfied with the existing system, the achievement of learning outcomes is also expected to increase.

## Introduction

In carrying out its duties and functions, namely managing education, training (learning), certification and knowledge management in the emergency conditions of the Covid-19 pandemic, the Financial Education and Training Agency of Makassar continues to innovate and adapt to the services provided (Azwar et al., 2021). During the pandemic of 2020, the Financial Education and Training Agency of Makassar has held 12 trainings with a total of 348 trainees (Semantik BPPK, 2020). Through this training, the Financial Education and Training Agency of Makassar is expected to be able to create and organize new learning models that are in accordance with current conditions (BPPK (Badan Pendidikan dan Pelatihan Keuangan), 2020). Therefore, the Financial Education and Training Agency of Makassar does not stop services due to the pandemic, but adapts or converts services by optimizing digital platforms and information technology systems in the form of a website-based *Kemenkeu Learning Center* (KLC) information system

<sup>2</sup> (www.klc.kemenkeu.go .id) for Non-Face-to-Face training sessions and Zoom Virtual Meeting applications for Face-to-face training sessions (Iskandar & Subekan, 2020).

As a form of adaptation to technological developments, flexibility learning space, consideration of effectiveness and efficiency, and ease of application of integrated learning, the Financial Education and Training Agency of Makassar develops and implements learning in the form of distance learning as an alternative to learning. The distance learning model organized by the Financial Education and Training Agency of Makassar, referred to as *Pelatihan Jarak Jauh* (PJJ), is a learning carried out outside the training venue that emphasizes independent learning that is managed systematically and not limited by distance and time using various media learning (Azwar et al., 2021).

<sup>3</sup> Distance learning at the Financial Education and Training Agency of Makassar is an electronic system-based learning process, where the benefits obtained are increasing independent learning abilities and the ability to display information with the help of information technology devices or systems. However, it cannot be denied, an information technology system always has two sides, namely advantages and disadvantages. Distance learning also has a weakness or negative side, namely not all teachers and training participants have the same level of understanding in operating information technology system devices and internet network problems (Syah & Angellia, 2020). Based on data from the Evaluation Report for the Implementation of PJJ at the Financial Education and Training Agency of Makassar in 2020, it was found that there were problems related to the quality of the information system and quality of service, both for providers and teachers, as well as user satisfaction from the distance learning system used. In detail, the problems mentioned above are as follows (Seksi Evaluasi dan Informasi, 2020):

- a. related to the quality of the information system, namely: (1) there are problems related to the simulation of application material which is more suitable if done face-to-face (directly) because the internet connection varies from region to region; (2) the learning method is better done face-to-face, because if it is done via *zoom* the obstacles are more, for example assignments in the office or network problems; (3) the remote method for practical materials such as the SAKTI application, the time duration is very less; (4) related to time, it still seems that there are many shortcomings, because on the teacher's side there is actually a lot to be conveyed but the time provided has run out; (5) the quality of writing teaching materials (PDF) which still needs to be improved; (6) there is a discrepancy between the learning materials/materials and the participants' expectations/needs;
- b. related to quality of service, namely: (1) the education and training providers do not understand the location of the different participants so that sometimes they are not ready to serve participants; (2) communication between the organizers is not good so that miscommunications often arise regarding break hours, starting and ending hours of study;

- c. related to user satisfaction, namely: (1) participants are not satisfied with the use of the PJJ absent application through Semantics which seem unprepared and often experience errors; (2) many participants were confused by the use of several tools in the PJJ absence application through Semantics;

Problems related to this learning system are feared to affect user satisfaction and hinder the achievement of learning outcomes as expected. Therefore, it is necessary to see how the influence of aspects of system quality, information quality, and service quality on system user satisfaction, in this case training participants, and the learning outcomes of training participants. Previous studies examining the implementation of remote training also found problems related to system quality, information quality, service quality and user satisfaction. (Hidayatullah et al., 2020) found that although the use of the zoom virtual meeting system application was the most frequently used application in the distance learning process, this application system was still considered unable to guarantee the security of data and information for its users. Next, (Yulianto, 2020) stated that the use of a distance learning system with the e-Milea system for employees of the Ministry of Maritime Affairs and Fisheries during the pandemic is a relatively new system and there has been no evaluation regarding the level of user satisfaction so it is very necessary to evaluate it.

In addition, the adoption and development of information technology systems is an expensive investment. An expensive investment does not necessarily promise a quality system and in accordance with what is expected by the organization. The success of information system implementation is influenced by various complex factors, while the failure of information system implementation usually occurs because the system is not compatible with business processes and information needed by the organization (Janson & Subramanian, 1996). (Wiyono et al., 2008) stated that the results of a survey conducted by a research institute on 232 respondents in the United States regarding the implementation of an Enterprise Resource Planning (ERP) system in their workplace, showed that 51% saw ERP implementation as unsuccessful and 46% felt their organization did not understand how to use the system to develop yourself in running a business.

In addition to being related to system problems, information and services from a system, the success of implementing an information system is also very dependent on user satisfaction. (Ives et al., 1983) stated that user satisfaction of an information system is a subjective or perceived measure of system success. The use of the system can be used as an indicator of the success of the system based on certain conditions. If users consider the system to be unreliable or the data inaccurate, their use of the system will represent doubt because they are dissatisfied. If it is in a voluntary environment, the system will be avoided by users. In addition, (Goodhue & Thompson, 1995) state that the success of a company's information system depends on how the system is run, the ease of the system for its users, and the use of technology used.



(Mason, 1978) introduced a theory known as the theory of information influence, which emphasizes the influence of an information. (Mason, 1978) then replaces effectiveness with influence and defines the level of influence of an information as a sequence of events that occur at the receiving end point of the information system. The level of influence contains a sequence of influence events, namely: receipt of information (receipt), evaluation of information, and application of information that leads to changes in acceptance behavior and system performance. (DeLone & McLean, 1992) suggested that system quality and information quality, individually and collectively affect user satisfaction and use. (DeLone & McLean, 1992) also argue that user satisfaction is considered to be a direct antecedent of individual impact (performance), which will also have an organizational impact.

One of the popular models that is widely used in researching behavioral aspects in the implementation of an information system, especially implementation at the organizational level is the model developed by (DeLone & McLean, 1992) which is known as the DeLone and McLean Information System Success Model (D&M Information System). This model reflects the dependence of six measures of information system success, namely: system quality, information quality, user satisfaction, use, individual impact and organizational impact. Then after that, from the contributions of previous studies and due to changes in the role and handling of information systems that have developed, (DeLone & McLean, 2003) updated their model and called it the updated Delone and McLean information system success model (Updated D&M IS). DeLone and McLean added a new dimension to the updated model, namely service quality. Another change found in the updated model is the unification of the individual impact and organizational impact variables into one variable, namely net benefits.

Given that this distance learning model is an adaptation or new innovation within the Financial Education and Training Agency of Makassar, especially during the Covid-19 pandemic and the new normal transition and there are still various problems related to the system based on the evaluation report on the implementation of learning, it is important to conduct a study or research to see how successful the implementation of this distance learning system is by analyzing the factors that affect the satisfaction of distance learning system users during the Covid-19 pandemic, such as information system quality and service quality.

Therefore, the objectives of this research are to determine the effect of information system quality and service quality of the distance learning system, either partially or simultaneously, on user satisfaction during the Covid-19 pandemic at the Financial Education and Training Agency of Makassar. Theoretically, this research is expected to be useful in providing empirical evidence about the success model of information systems in the form of the Distance Learning System (PJJ) which is applied within the Ministry of Finance. This research is also expected to be useful as a research reference in the field of public information systems, especially in the development of human resource

development for the apparatus, so that it can be used as material for further research. Practically, the results of this study are expected to provide benefits as feedback in order to improve and ensure the achievement of efficiency and effectiveness in the development and improvement of the knowledge, skills and attitudes of ASN, especially the Ministry of Finance environment as an information system user. Although several previous studies have tried to examine and evaluate the implementation of the Distance Learning learning/training system, these studies have not reviewed or evaluated the implementation of the remote training learning/training system which was carried out specifically for State Civil Apparatus (ASN) during the pandemic, especially in Ministry of Finance environment. This is the novelty side of the research compared to previous studies.

## Method

Based on the objectives to be achieved, this research belongs to the category of explanatory research, namely research that aims to explain the relationship between two or more variables (Hamdi & Ismaryati, 2019) or research based on theories or hypotheses that will be used to test a phenomenon that occurs. . This research also includes association and causal research because it analyzes the relationship or influence (cause and effect) of two or more phenomena through hypothesis testing among variables (Sekaran & Bougie, 2019). Meanwhile, in terms of approach, this research uses a quantitative approach through econometric modeling techniques or differential statistics (Creswell, 2010; Sarwono, 2006).

The population in this study were all participants of the PJJ held at the Financial Education and Training Agency of Makassar during the 2020 pandemic, totaling 348 people. The sample in this study was taken using the non-probability sampling method, where each member of the population does not have the same opportunity to be selected as a sample (Hamdi & Ismaryati, 2019), with a purposive sampling technique, namely the selection of samples based on certain criteria and considerations (Ghozali, 2006). The criteria and considerations for selecting the sample in this study were PJJ which was carried out with a final/comprehensive exam. Some PJJs are held only with Pre and Post Tests and some do not even carry out cognitive learning evaluations. PJJ-PJJ like this cannot be used as a sample because it has a relatively short training duration with the intensity of user interaction and a relatively short learning system so that it is not able to become the object of measuring the level of satisfaction with the use of the system. Based on these criteria, the number of research samples was set at 169 people.

Sources of data used in the form of primary and secondary data. Primary data in the form of data generated directly from respondents, in the form of answers to questions on the questionnaire sheet from the training participants as respondents. While secondary data is in the form of supporting data obtained and available to related

agencies such as the Education and Training Program Terms of Reference *Kerangka Acuan Program* (KAP), Outlines of Learning Programs *Garis-Garis Besar Program Pembelajaran* (GBPP), and Reports of the Implementation of the Evaluation and Information Section of the Financial Education and Training Agency of Makassar.

Based on the inquiries above, this study uses three variables consisting of independent variables and dependent variables. The independent variables of this study consisted of the information system quality and service quality variables. Meanwhile, the dependent variable of this study consisted of the user satisfaction variable. The variables of information system quality, service quality and user satisfaction are measured using a 5-point Likert Scale, namely: Very Not Good (1); Not Good (2); Enough (3); Good (4); Very Good (5). The use of a 5-point Likert Scale on the variables of information system quality, service quality and user satisfaction was adopted from previous research conducted by (Bailey & Pearson, 1983), (Parasuraman et al., 1988), (Seddon & Yip, 1992) dan (Yakubu & Dasuki, 2018). In addition to referring to previous research, measurement items that represent indicators to measure the independent and dependent variables in this study are also adjusted to the use of the learning system in PJJ to be relevant to the research objectives.

This study used inferential statistical analysis techniques in the form of multiple regression analysis with the the IBM Statistics SPSS 22 computer program. Before analyzing the data, the data quality test was conducted first. Data quality testing aims to determine whether the instrument used is valid and reliable, because the truth of the processed data will determine the quality of the research results. The data quality test used in this study is a test of validity and reliability.

Validity test is a measure that shows the level of validity or validity of an instrument (Arikunto, 2006). A questionnaire is said to be valid if the questions on the questionnaire are able to reveal something that will be measured by the questionnaire. The significance test is carried out by comparing the calculated  $r$  value with the  $r$  table for degree of freedom ( $df$ ) =  $n-2$ , in this case  $n$  is the number of samples. To test whether each indicator is valid or not, it can be seen in the Cronbach Alpha output display. in the Correlated Item-Total Correlation column. If  $r$  count is greater than  $r$  table and the value is positive, then the item or question or indicator is declared valid.

Reliability test, according to (Ghozali, 2006), is a tool to measure a questionnaire which is an indicator of a variable or construct. A questionnaire is said to be reliable or reliable if a person's answer to the statement is consistent or stable from time to time. Measurement of reliability can be done in two ways, namely: (i) repeated measure: here the object of research will be presented with the same questions at different times, and then see whether the answers are the same or not; (ii) one shot or one-time measurement: here the measurement is only once and then the results are compared with other questions or measure the correlation between the answers to the questions. SPSS software provides this facility with the Cronbach Alpha ( $\alpha$ ) statistical test. The reliability test using



the Cronbach Alpha ( $\alpha$ ) method was measured based on the Cronbach Alpha ( $\alpha$ ) scale of 0 to 1. Cronbach Alpha values  $> 0.5$  were categorized as reliable (Triton, 2005).

Based on the framework of thinking and research techniques, the structural model of the research is formulated as follows:

$$Y = aX_1 + bX_2 + e \quad (1)$$

where  $X_1$  = Information System Quality,  $X_2$  = Service Quality,  $Y$  = User Satisfaction,  $a$  and  $b$  = regression coefficient, and  $e$  = error value.

## Result

### Response Rate

After determining the number of research samples as many as 169 people, research questionnaires have been sent online to all respondents via their respective email addresses using the evaluation system on the Application of *Semantik BPPK* and Google Forms.

Table 1. Questionnaire Data Tabulation

Description	Total
Number of samples (respondents)	169 people
Number of questionnaires distributed	169 questionnaires
Number of questionnaires returned	169 questionnaires
The number of returned questionnaires that are completely filled out and can be processed	163 questionnaires
Number of returned questionnaires that are not completely filled out and cannot be processed	6 questionnaires

Source: Primary Data (processed)

Until the deadline for returning the questionnaires, based on the data in Table 1, the number of questionnaires that were returned in a completely filled state and could be processed further was only 163 questionnaires/person. This means that the rate of return of the questionnaire (response rate) reaches 96.45% of the number of samples specified. Even though the response rate does not reach 100%, the research can still proceed to the analysis stage. (Hartono, 2004) states that the response rate does not have to reach 100%, but it will be better if the response rate is higher. Even a questionnaire sent through the media (such as post or e-mail) with a response rate of 30% can be said to be adequate. The filled out questionnaires were then tabulated and data processing was performed.

### Validity and Reliability Test

According to Ghazali (2006) the validity test is used to measure the validity or validity of a questionnaire. A questionnaire is said to be valid if the questions on the questionnaire are able to reveal something that will be measured by the questionnaire. The significance test is carried out by comparing the calculated  $r$  value with the  $r$  table for degree of



freedom (df) = n-2, in this case n is the number of samples. To test whether each indicator is valid or not, it can be seen in the Cronbach Alpha output display in the Correlated Item-Total Correlation(r) column. If r count is greater than r table and the value is positive, then the item or question or indicator is declared valid (Ghozali, 2006). Based on the results of the validity test of the research data, by comparing each of the calculated r values (Correlation Item-Total Correlation) on each question item with r tables for degree of freedom (df) = n-2, where r table = 0.1510 , it was found that all the calculated r values of each question used as an instrument to measure the research variables were greater than the table r values (see Table 2). So it can be stated that the research instrument to measure all variables in this study is valid.

Table 2. Results of Validity Test

Variable	Question Items	Corrected Item-Total Correlation	Status
Information System Quality (X1)	1	.805**	Valid
	2	.791**	Valid
	3	.668**	Valid
	4	.734**	Valid
	5	.784**	Valid
Service Quality (X2)	1	.955**	Valid
	2	.955**	Valid
	3	.955**	Valid
	4	.615**	Valid
	5	.615**	Valid
User Satisfaction (Y)	1	.830**	Valid
	2	.935**	Valid

Source: Author's Calculation

\*\* . Correlation is significant at the 0.01 level (2-tailed)

While the reliability test, according to Ghozali (2006), is a tool to measure the reliability of a questionnaire which is an indicator of a variable or construct. A questionnaire is said to be reliable or reliable if a person's answer to the statement is consistent or stable from time to time. The reliability test used in this study is the Cronbach Alpha test. A construct or variable is declared reliable if it gives a Cronbach Alpha value > 0.50 (Triton, 2005). Validity test results on research data, by comparing each Cronbach's Alpha value on each variable or research instrument, found a value greater than 0.6, so it can be stated that the research instrument to measure the variables in this study is reliable (See Table 3).

Table 3. Results of Reliability Test

Variable	Cronbach's Alpha	Status
Information System Quality (X1)	.790	Reliable
Service Quality (X2)	.891	Reliable
User Satisfaction (Y)	.687	Reliable

Source: Author's Calculation

### Frequency Distribution

Variable of Information System Quality

Table 4. Frequency Distribution of Respondents' Responses Variable of Information System Quality

Question Items	Number of Responses Frequency (%)					Total
	Very Not Good (1)	Not Good (2)	Enough (3)	Good (4)	Very Good (5)	
1	1	3	9	50	100	163
	0,6	1,8	5,5	30,7	61,3	100,0
2		2	8	55	98	163
		1,2	4,9	33,7	60,1	100,0
3	1		8	51	101	163
	0,6		4,9	31,3	62,0	100,0
4			1	47	115	163
			,6	28,8	70,6	100,0
5			3	48	112	163
			1,8	29,4	68,7	100,0

Source: Author's Calculation

Based on Table 4 above, it can be stated that for question 1, most respondents answered with good and very good answer categories, namely 50 people (30.7%) answered good and 100 people (61.3%) answered very good related to the suitability of the method learning with Distance Learning materials. For question 2, most of the respondents answered with good and very good answer categories, namely 55 people (33.7%) answered good and 98 people (60.1%) answered very good related to the adequacy of the distance training implementation with the amount of material that given. For question 3, most respondents answered with good and very good answer categories, namely 51 people (31.3%) answered good and 101 people (62.0%) answered very good related to the adequacy of time in doing assignments, quizzes or exams. For question 4, most respondents answered with good and very good answer categories, namely 47 people (28.8%) answered good and 115 people (70.6%) answered very good regarding the suitability of the learning material with the expectations/needs of the participants. Meanwhile for question 5, most respondents answered with good and very good answer categories, namely 48 people (29.4%) answered good and 112 people (68.7%) answered very good related to easy-to-understand teaching materials. Based on this data, it can be seen that in general the quality indicators of the distance learning information system at the Financial Education and Training Agency of Makassar are considered very good by the learning participants.

Variable of Service Quality

Table 5. Frequency Distribution of Respondents' Responses Variable of Service Quality

Question Items	Number of Responses Frequency (%)					Total
	Very Not Good (1)	Not Good (2)	Enough (3)	Good (4)	Very Good (5)	
1			3	47	111	163
			1,8	28,8	68,1	100,0

2	3	47	111	163
	1,8	28,8	68,1	100,0
3	3	47	111	163
	1,8	28,8	68,1	100,0
4	34	129	163	
	20,9	79,1	100,0	
5	34	129	163	
	20,9	79,1	100,0	

Source: Author's Calculation

Based on Table 5 above, it can be stated that for questions 4 and 5, 34 people (20.9%) answered good and 129 people (79.1%) answered very good regarding the ability/reliability of the teacher in providing remote guidance (reliability) and teacher support in the Tangibles. Meanwhile for questions 1, 2 and 3, there are 3 people (1.8%) who answered enough, 47 people (28.8%) answered good, and 111 people (68.1%) answered very good related to the readiness of the organizers in serving participants during the Distance Training process (responsiveness), the attitude of the organizer in serving participants during the Distance Training process (assurance), empathy from service providers during the Distance Training process (emphaty). From this results, it can be seen that in general the service quality indicators of the distance learning system at the Financial Education and Training Agency of Makassar are considered very good by the learning participants.

#### Variable of User Satisfaction

**Table 6. Frequency Distribution of Respondents' Responses Variable of User Satisfaction**

Question Items	Number of Responses Frequency (%)					Total
	Very Not Good (1)	Not Good (2)	Enough (3)	Good (4)	Very Good (5)	
1	3	1	8	55	94	163
	1,8	,6	4,9	33,7	57,7	100,0
2	3	1	7	43	96	163
	1,8	,6	4,3	26,4	58,9	100,0

Source: Author's Calculation

Based on Table 6 above, it can be stated that for statement 1, most respondents answered with good and very good answer categories, namely 55 people (33.7%) answered good and 94 people (57.7%) answered very good related to satisfaction with the use of the Distance Training facility is easily accessible. Meanwhile for question 2, most respondents answered with good and very good answer categories, namely 43 people (26.4%) answered good and 96 people (58.9%) answered very good related to satisfaction with the use of Easy-to-use Distance Training facilities. Based on this data, it can be seen that in general the satisfaction indicators of distance learning users at the Financial Education and Training Agency of Makassar are considered very good by the learning participants.

#### Results of Multiple Regression Analysis

After performing the analysis using multiple regression techniques according to the structural model that has been formulated previously, the results of the analysis are shown in Table 7.

**Table 7. Results of Multiple Regression Analysis**

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.645 <sup>a</sup>	.416	.408	1.62582		
a. Predictors: (Constant), Service Quality (X2), Information System Quality (X1)						
ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	301.012	2	150.506	56.939	.000 <sup>b</sup>
	Residual	422.927	160	2.643		
	Total	723.939	162			
a. Dependent Variable: User Satisfaction (Y)						
b. Predictors: (Constant), Service Quality (X2), Information System Quality (X1)						
Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-5.555	1.332		-4.172	.000
	Kualitas Sistem Informasi (X1)	.312	.067	.355	4.635	.000
	Kualitas Layanan (X2)	.298	.063	.362	4.721	.000
a. Dependent Variable: User Satisfaction (Y)						

Source: Author's Calculation

From Table 7 above, the regression equation formed is:

$$Y = 0,355 X_1 + 0,362 X_2 + e$$

The significance value of the effect on the  $X_1 \rightarrow Y$  path is 0.000 or less than 0.05, so the coefficient on this path is significant. The significance value of the effect on the  $X_2 \rightarrow Y$  path is 0.000 or less than 0.05, so the coefficient on this path is also significant. The results of the F test based on the ANOVA output in Table 5 show that the influence of the  $X_1$  and  $X_2$  variables, together has an effect on the Y variable. The F test value is 56.939 and the Sig value. of 0.000 which indicates a significant effect (with an alpha of 0.05). Therefore, it can be concluded that the variables of information system quality and service quality simultaneously affect the satisfaction of distance learning system users. From the test results above, it can be seen that the adjusted R square is 0.408 or shows that 40.8% of user satisfaction can be influenced by the variables of information system quality and service quality. The effect of other variables not included in the regression equation in this study was 59.2%.



## Discussion

Based on the results of hypothesis testing, in Table 7, the results of the analysis support all proposed hypotheses with a positive relationship direction. The information system quality variable was found to have a positive and significant effect on user satisfaction, while service quality also had a positive and significant effect on user satisfaction with learning systems.

The first hypothesis (H1) states that the information system quality variable has a positive and significant effect on user satisfaction. The results of the analysis found that the relationship between the information system quality variable and user satisfaction had a coefficient value of 0.312 and a sig. of 0.000. These results indicate that the path coefficient value is positive and the value of sig. smaller than the value of  $\alpha = 0.05$ . Based on these results, it can be concluded that the quality of the information system has a positive and significant effect on user satisfaction so that H1 is declared accepted.

The direction of positive influence, as indicated by the path coefficient value, means that the higher the quality of the information system, the higher the satisfaction of the learning system users. Respondents' responses to the quality of the learning system can be explained empirically from the statements submitted in this research questionnaire. Users in this case the trainees gave a positive assessment of the quality of the learning information system. The results of this study indicate that the user's perception of the quality of the learning system with indicators such as: (1) the suitability of learning methods with distance training materials; (2) sufficient time for the implementation of Distance Training with the amount of material provided; (3) sufficient time in doing assignments, quizzes or exams; (4) the suitability of the learning materials with the expectations/needs of the participants; and (5) easy-to-understand teaching materials will encourage participants' satisfaction with the system.

These results support the information system success model by DeLone and McLean (2003) and previous research by Al-Azawei (2019) and Hidayatullah, et. al., (2020) which states that the quality of information systems is one of the dimensions that determines the successful implementation of a system. If the quality attributes of the information system built by an organization can meet what users need to complete their work, then the successful implementation of the information system can be achieved. From the results of the frequency distribution analysis in Table 4, it can be seen that in general the indicators of the quality of the distance learning information system at the Financial Education and Training Agency of Makassar are considered very good by the learning participants. However, based on the results of data collection through questionnaires in the open-ended questions section (suggestions and inputs), several respondents stated that in some learning materials, the proportion of learning time is considered to still need to be increased, especially for materials that require field practice or direct simulation. In

general, participants complained about the ineffectiveness of the training if it was held remotely or online and it was better to hold it face-to-face (in person).

The second hypothesis (H2) states that the service quality variable has a positive and significant effect on user satisfaction. The relationship between service quality variables and user satisfaction has a path coefficient value of 0.298 and a sig. value. of 0.000. These results indicate that the path coefficient value is positive and the value of sig. smaller than the value of  $= 0.05$ . Based on these results, it can be concluded that service quality has a significant effect on user satisfaction so that H2 is declared accepted.

The direction of positive influence, as indicated by the path coefficient value, means that the higher the service quality, the higher the satisfaction of learning system users. The results of this significant analysis support the information system success model by DeLone and McLean (2003) and previous research by Hidayatullah, et. al., (2020) which states that service quality is one of the dimensions of information system success. The successful implementation of an information system, including a system whose use is mandatory as in this PJJ, has been proven to significantly affect the satisfaction of integrated training participants at the Financial Education and Training Agency of Makassar. From the results of the frequency distribution analysis in Table 5, it can be seen that in general the service quality indicators of the distance learning system at the Financial Education and Training Agency of Makassar are considered very good by the learning participants. The results of this study indicate that the user's perception of the quality of service with indicators such as: (1) the readiness of the organizers in serving the participants during the Distance Learning process (responsiveness); (2) good attitude from the organizers in serving participants during the Remote Training (assurance) process; (3) empathy from service providers during the Distance Learning process (emphaty); (4) the ability/reliability of the teacher in providing guidance remotely (reliability); and (5) teacher support in the process of Distance Learning (tangibles), will encourage participants' satisfaction with the system.

The third hypothesis (H3) states that the variables of information system quality and distance learning service quality simultaneously have a positive and significant effect on user satisfaction. The F value obtained from the results of data analysis in Table 8 (ANOVA) is 56.939 with a sig.  $= 0.000$  or less than the value of  $= 0.05$ . Based on these results, it can be concluded that the quality of information systems and services simultaneously has a significant effect on user satisfaction so that H3 is declared accepted.

All findings from research analysis contribute to public administration policies, especially in the context of management and development of human resources (apparatus). As understood, reliable apparatus resources are a valuable investment for a public organization (Darmi & Suwitri, 2017; Junus et al., 2022; Rahayu & Atmojo, 2019; Usman & Iskandar, 2021; Zainal et al., 2020). Therefore, the capability and professionalism of the apparatus' resources need to be improved so that public organizations can continue to survive and develop. The development of apparatus

resources aims to equip, improve, and develop work competencies in order to increase capabilities, productivity and welfare. The development of the apparatus can be done through education and training. Education and Training is one way or strategy to develop and improve the ability, expertise, quality, leadership, skills, and service of the apparatus in a planned and sustainable manner to become a professional apparatus (Amin et al., 2018; Karinda & Nursin, 2018; Lestari et al., 2021; Paembonan et al., 2021; Podungge et al., 2020; Zoellner, 2012). Human resource development in the bureaucracy or public administration has been recognized as something that is very important to realize the achievement of professional government conditions in good governance. This has become a common phenomenon in various government circles today, both at the central and regional levels. In order to improve and develop the quality of government apparatus, one of the important efforts that must be made is through education and training in order to create competent and reliable government officials in carrying out government and development tasks. One strategy is to increase knowledge, skills, and attitudes through education and training.

Education and training are efforts made in order to increase productivity, effectiveness and efficiency of public organizations. This education and training can be provided periodically so that each employee can continue to improve his competence in order to improve organizational performance. The development of learning models or training and education in the form of distance learning is a form of adaptation to technological developments, flexibility of learning space, consideration of effectiveness and efficiency, and ease of application of integrated learning. Distance learning as an alternative to learning for apparatus resources in public organizations aims to meet the needs of improving and developing human resources in public organizations through the use of technology and information even though it is constrained by restrictions on the implementation of training such as during the pandemic (Afiyah et al., 2021; Barabash et al., 2021).

The results of this study contribute as empirical evidence about the success model of information systems in the form of the Distance Learning System (PJJ) which is applied in the environment of public organizations in particular and public administration in general. The results of this study can be a scientific reference in the field of public information systems, especially in the development of apparatus resource development. Practically, the results of this research become feedback in order to improve and ensure the achievement of efficiency and effectiveness in the development and improvement of knowledge, skills and attitudes of ASN, especially in the environment of public organizations in particular and public administration in general.

This study uses a limited research object, so it is recommended that in the next research, observation and evaluation is carried out on a wider object by involving various Financial Education and Training Centers/work units within the Financial Education and Training Agency and expanding the measurement of research variables such as



environmental factors, organization, internet network and others, so that the results are more comprehensive in the context of developing the quality of apparatus resources. For further research, data collection is also recommended using a deeper interview method as an effort to avoid the possibility of non-objective respondents filling out the questionnaire.

## Conclusion

Based on the results of analysis and hypothesis testing, it is concluded that the quality of information systems has a positive and significant effect on user satisfaction and service quality has a positive and significant effect on user satisfaction. The two variables simultaneously have a positive and significant effect on the user satisfaction of distance learning system at the Financial Education and Training Agency of Makassar. Financial Education and Training Agency of Makassar as the technical implementer of BPPK is expected to be able to maintain the quality of the information system and services provided in order to obtain maximum of user satisfaction. When users are satisfied with the existing system, the achievement of learning outcomes is also expected to increase.

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