

Comparison of Zoom and Google Meet in Online Worship with ISO 25010 Quality Model (Case Study: Churches in Tigaraksa)

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Abstract— The church in the Tigaraksa region, which was established in 1997, was led by Samuel Tjendana. This church was the beginning of the movement in the Tigaraksa area. The church in the Tigaraksa area initially had a congregation of approximately 50 people. The church in the Tigaraksa area eventually grew and opened branches in the areas of Citra Raya, Rangkas Bitung, Cikasungka, Adiyasa Park, Kirana Park and Cikande. At this time the number of the congregation is approximately 1000 people. Offline worship took place 8 times a week. The offline worship is divided into 3 days, namely Wednesday, Saturday and Sunday. Now in the time of the COVID-19 pandemic, it is recommended to reduce mobility. The PPKM states that spiritual activities must be carried out from home. In online worship at the Church in Tigaraksa, there are 2 video conferencing applications used, namely Zoom and Google Meet. This study aims to see the quality of Zoom and Google Meet by testing using the ISO 25010:2011 Quality Model. This research uses 7 of 8 characteristics, namely Functional Suitability, Performance Efficiency, Compatibility, Reliability, Security, Portability and Usability. The results of this study are that Zoom is better used than Google Meet because it gets a better score, namely 4.74 for zoom and 4.672 for google meet from the 7 characteristics tested.

Keywords— Video Conference Software, Zoom, Google Meet, Online Worship, ISO 25010:2011.

I. INTRODUCTION

The church in the Tigaraksa region, which was established in 1997, was led by Samuel Tjendana. This church was the beginning of the movement in the Tigaraksa area. The church in the Tigaraksa area initially had a congregation of approximately 50 people. The church in the Tigaraksa area eventually grew and opened branches in the areas of Citra Raya, Rangkas Bitung, Cikasungka, Adiyasa Park, Kirana Park and Cikande. At this time the number of the congregation is approximately 1000 people. Prior to COVID-19, offline worship took place 8 times a week. The offline worship is divided into 3 days, namely Wednesday, Saturday and Sunday.

A new type of corona virus found in humans since an extraordinary event appeared in Wuhan, China, in December 2019, was later named Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-COV2), and caused Coronavirus Disease-2019 (COVID-19)[1]. Indonesia first reported 2 positive cases of COVID-19 on March 2, 2020 [2]. As of July 1, 2021 at 10:15:30 in Indonesia, 2,203,108 people have been confirmed positive for COVID-19 [3]. As of March 16, 2020, suddenly 134 people were confirmed positive, new regulations

were announced to control the spread of COVID-19 in the community. This regulation describes instructions for staying at home or working – from home during the COVID-19 outbreak [4]. Indonesia has implemented Community Activity Restrictions (PPKM). PPKM regulates school and workplace holidays; religious activity; activities in public places or facilities; social and cultural activities; modes of transportation, as well as other security protections related to and [5]

The church in the Tigaraksa area supports the PPKM conducted by the government and decided not to hold meetings or spiritual activities directly (face to face) but to carry out all activities online or online. This decision was taken to reduce the risk and prevent the transmission of COVID-19 by reducing mobility. The decision for our church activities to be carried out without any in-person meetings has taken place since March 22, 2020. In the end, online worship activities in the church in the Tigaraksa area were also forced to be carried out without any in-person (online) meetings.

Currently, this study calculates the comparison of the selection of applications used. The selected applications are Zoom, and Google Meet. The comparison is made as a guideline that currently the congregation can easily carry out online worship activities by using one of the applications that is the main choice. The study used testing with the ISO 25010 Quality model. The study used 7 characteristics out of 8 existing characteristics and 24 sub-characteristics.

II. RESEARCH METHODS

This research uses several research methodologies. research methodology is the method used to test the quality between Zoom and Google Meet.

A. Characteristics and Sub-Characteristics ISO/IEC 25010

1. Functional Suitability

These characteristics represent the extent to which the functions of the software have met the user's needs that are planned and implemented when used in a particular situation [6]. This Functional Suitability is broken down into 3 sub-characteristics, namely:

- a. Functional Completeness
- b. Functional Correctness
- c. Functional Appropriateness

2. Performance Efficiency

This characteristic represents performance relative to the quantity of resources used. Divided into 3 sub-characteristics, namely:

- a. Time Behavior
- b. Resource Utilization
- c. Capacity

3. Compability

This characteristic is the level of software, systems or components capable of sharing information on the software. Divided into 2 sub-characteristics, namely:

- a. Co-existence
- b. Interoperability

4. Reliability

Reliability is the degree to which the software is able to perform certain functions within a certain period of time. These characteristics are divided into 3 sub-characteristics, namely:

- a. Maturity
- b. Availability
- c. Fault Tolerance
- d. Recoverability

5. Security

Security is a level of software that is able to provide information protection, divided into 5 sub-characteristics, namely:

- a. Confidentiality
- b. Integrity
- c. Non-repudiation
- d. Accountability
- e. Authenticity

6. Maintainability

Maintainability is a characteristic that represents the level of effectiveness and efficiency of a software in order to make modifications. Divided into 5 sub-characteristics, namely:

- a. Modularity
- b. Reusability
- c. Analyzability
- d. Modifiability
- e. Testability

7. Portability

Portability is the level of effectiveness of a software can be transferred from a different operational environment. Divided into 3 sub-characteristics, namely:

- a. Adaptability
- b. Installability
- c. Replaceability

8. Usability

Usability is the degree to which the software allows it to be used by certain users for a purpose. Divided into 6 sub-characteristics, namely:

- a. Appropriateness Recognizability
- b. Learnability
- c. Operability
- d. User Error Protection
- e. User Interface Aesthetics
- f. Accessibility

B. Analytical Hierarchy Process (AHP)

In a decision-making process, decision makers are often faced with various problems. multivariate decision-making or optimization technique used in comprehensive policy analysis by taking into account qualitative and quantitative matters [7]. The advantages of the AHP method are widely expressed by anyone.

C. Black Box Testing

The black box testing method focuses on the functional requirements of the system, so the black box testing allows system developers or applications to create a set of input conditions that will train all the functional requirements of a program. Black box testing is not an alternative to white box testing, but is a complementary approach to finding other errors, besides using the white box method. Black box trials try to find errors in several categories, including; incorrect or missing functions, interface errors, errors in data structures or external database access (if any), performance errors, and initialization and termination errors [8].

D. Stress Testing

Stress testing is used to test the stability and reliability of the system. This test can determine the system's resilience and fault handling under very heavy load conditions. It even tests beyond the normal operating point and evaluates how the system performs under such extreme conditions. Stress Testing is carried out to ensure that the system will not crash under crisis situations. Stress testing is also known as endurance testing.

The most prominent use of stress testing is to determine the limits, at which a system or software or hardware fails. It also checks whether the system exhibits effective error management under extreme conditions. System failure under extreme conditions can result in enormous loss of revenue. Better prepare for extreme conditions by executing Stress Testing [9].

E. J.R Lewis Usability Quality Factor Questionnaire

Usability is a measure of the quality of the user experience of a product or system or software [10]. J.R. Questionnaire Lewis was specifically designed to analyze user and usability factors in 1993. There are a total of 19 questions in the questionnaire which can be divided into 6 sub-factors when combined with the ISO 25010:2011.

In this method using a Likert scale. The Likert scale uses a 1-5 score, where 1 is an opinion/answer strongly disagrees, 2 is an opinion/answer disagrees, 3 is a neutral opinion/answer, 4 is an opinion/answer agrees, 5 is an opinion/answer strongly agrees.

F. Validity and Reliability

Validity is a measure of a variable that indicates the variable is properly used in a study. This test is useful to measure whether the function in this questionnaire can produce relevant data or not. Data can be said to be relevant if it has high validity. R his research was conducted by comparing the calculated r numbers and the r table [11]. The

data will be said to be valid if the calculated r value is greater than r Table, and vice versa, the calculated r is searched using the SPSS program,

This test is useful for determining whether the questionnaire can be used more than once, at least by the same respondent to produce consistent data. Reliability testing can be done by using the Cronbach's alpha measure.

III. RESEARCH RESULT AND DISCUSSION

A. Determination of Characteristic and Sub-characteristics Weights of Quality Model ISO 25010 using AHP

The weight of each characteristic and sub-characteristic will be calculated using the AHP method. The weight of the characteristics will be determined based on the characteristics used in this research, which are 7 of the total 8 characteristics provided by ISO 25010. The characteristics used are Functional Suitability, Performance Efficiency, Compatibility, Reliability, Security, Portability and Usability. The seven characteristics used will be weighted with a total value of 100% and the percentage value of each characteristic will be different based on its weight. The weighting of the sub-characteristic values is carried out for each characteristic. This research uses 24 sub-characteristics from a total of 31 sub-characteristics contained in ISO 25010.

B. Result of Determination of Characteristic and Weights of Quality Model ISO 25010 using AHP

Calculation of the weights found that the characteristics become the highest priority level with a weight of 19.5%. Performance efficiency is the second highest priority with a weight of 17.3% each. Usability is third highest with 16.2%, Reliability is the fourth highest with 15.9%. Security is the fifth priority characteristic with a weight of 15.1%. The sixth and seventh priority rankings are Portability and Compability. This journal will present four result namely Functional Suitability, Performance Efficiency and Security and Usability.

C. Weighting of Sub-characteristics on Functional Suitability

The functional suitability characteristic has 3 sub-characteristics, namely functional completeness, functional correctness and functional appropriateness. The priority of the functional completeness and functional correctness sub-characteristics is given the same priority level, while the functional appropriateness sub-characteristic has a lower priority. The weighting is done using the AHP method which is calculated using the AHP calculator.



Fig. 1. Sub-characteristics of Functional Suitability Weight Results.

D. Weighting of Sub-characteristics on Performance Efficiency

The characteristics of performance efficiency have 3 sub-characteristics, namely time behaviour, resolution utilization and capacity. The time behaviour and resource utilization sub-characteristics are given the same priority level that is priority 1, while the capacity sub-characteristics have priority 2. The weighting is done using the AHP method which is calculated using the AHP calculator.

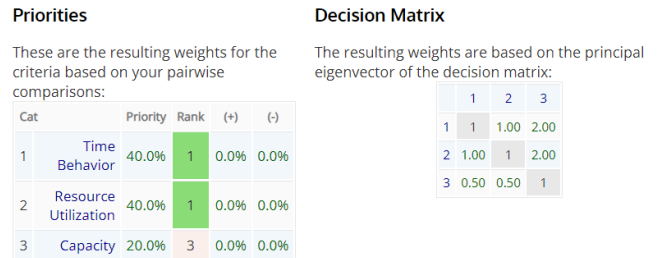


Fig. 2. Sub-characteristics of Performance Efficiency Weight Results

E. Weighting of Sub-characteristics on Security

Security characteristics have 5 sub-characteristics, namely confidentiality, integrity, non-repudiation, authentication and accountability. This research uses 3 sub-characteristics, namely Confidentiality, integrity and authenticity because on Zoom and Google Meet there are no tests that relate to non-repudiation and accountability. The two sub-characteristics require action to follow the previous action, while in zoom and google meet there is no such feature. Confidentiality, integrity and authenticity sub-characteristics are given the same priority level. The weighting is done using the AHP method which is calculated using the AHP calculator.

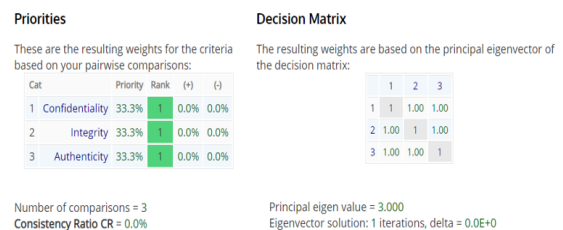


Fig. 3. Sub-characteristics of Security Weight Results

F. Testing of Zoom dan Google Meet

The object of research, namely Zoom and Google Meet, will be tested using the ISO 25010 quality model standard on 7 characteristics according to those determined at the research methodology stage in chapter 3. The test was carried out with the Samsung Note 9 Smartphone with the following specifications:

- Chipset : Exynos 9810 (10 nm) - EMEA.
- OS : Android 8.1 (Oreo)
- RAM : 6GB
- Internal memory : 128GB.

G. Testing on Functional Suitability Characteristics

a. Functional Completeness

The sub-characteristic of functional completeness was tested on two research objects, namely Zoom and Google Meet to see how far the set of functions covers all tasks and user goals specified. Functional completeness sub-characteristic testing scenario carried out using the Black-box method Testing Zoom and Google have the same score of 5.

b. Functional correctness

Functional correctness sub-characteristics were tested on two research objects, namely Zoom and Google Meet to see how far the product or system provides correct results with the required level of precision. *Functional Correctness* sub-characteristic testing scenario carried out using the Black-box method. Testing Zoom and Google have the same score of 5.

c. Functional Appropriateness

The sub-characteristic of functional appropriateness was tested on two research objects, namely Zoom and Google Meet to see how far the function facilitates the achievement of certain tasks and goals. Testing scenario carried out using the Black-box method. Testing Zoom and Google have the same score of 5.

d. Functional Suitability Characteristic Scores

The total value of the functional suitability characteristics is obtained from all sub-characteristic values multiplied by their respective weights. The calculation of the total value of the functional suitability characteristics is carried out according to the assessment scenario that has been made in fig 1. The total value of the functional suitability characteristics can be seen in table 1 and table II.

TABLE I. Assessment of Functional Suitability Characteristics on Zoom.

No	Sub-characteristics	Weight	Score	Total
1	Functional Completeness	42.9%	5	0.429*5 = 2.145
2	Functional Correctness	42.9%	5	0.429*5 = 2.145
3	Functional Appropriateness	14.3%	5	0.143*5 = 0.71
Total Score of Functional Suitability				5

TABLE II. Assessment of Functional Suitability Characteristics on Zoom

No	Sub-characteristics	Weight	Score	Total
1	Functional Completeness	42.9%	5	0.429*5 = 2.145
2	Functional Correctness	42.9%	5	0.429*5 = 2.145
3	Functional Appropriateness	14.3%	5	0.143*5 = 0.71
Total Score of Functional Suitability				5

H. Testing on Performance Efficiency Characteristics

a. Time Behavior

The time behavior sub-characteristics were tested on two research objects, namely Zoom and Google Meet to see how far the response and processing time as well as the throughput level of a product or system, when carrying out its functions, met the requirements. Testing scenario carried out using the Black-box method Testing Zoom has score of 5 and Google have the score of 4.

b. Resource Utilization

The sub-characteristics of resource utilization were tested on two research objects, namely Zoom and Google Meet to see the amount and type of resources used by the product or system, when carrying out their functions, meet the requirements. Testing scenario carried out using the Black-box method. Testing Zoom and Google have the same score of 5.

c. Capacity

The capacity sub-characteristics were tested on two research objects, namely Zoom and Google Meet to see how far the maximum product limit or system parameters meet the requirements. Testing scenario carried out using the Black-box method. Testing Zoom have score of 4 and Google have the score of 5

d. Performance Efficiency Characteristics Scores

The total value of the performance efficiency characteristics is obtained from all sub-characteristic values multiplied by their respective weights. The calculation of the total value of performance efficiency characteristics is carried out according to the assessment scenario that has been made in fig 2. The total value of the performance efficiency characteristics can be seen in table III and table IV.

TABLE III. Assessment of Performance Efficiency Characteristics on Zoom.

No.	Sub-characteristics	Weight	Score	Total
1	Time Behaviour	40%	5	0.40*5 = 2
2	Resource Utilization	40%	5	0.40*5 = 2
3	Capacity	20 %	4	0.20*4 = 0.8
Total Score of Performance Efficiency				4.8

TABLE IV. Assessment of Performance Efficiency Characteristics on Google Meet.

No.	Sub-characteristics	Weight	Score	Total
1	Time Behaviour	40%	4	0.40*4 = 1.6
2	Resource Utilization	40%	5	0.40*5 = 2
3	Capacity	20 %	5	0.20*5 = 1
Total Score of Performance Efficiency				4.6

I. Testing on Security Characteristics

a. Confidentiality

The sub-characteristic of confidentiality was tested on two research objects, namely Zoom and Google Meet to show the extent to which the product or system ensures that data can only be accessed by those authorized to have access. Tests are performed on two objects using the same test scenario. The scenario for testing the confidentiality of the sub-characteristics on Zoom was carried out using the observation method. Testing Zoom and Google have the same score of 5 because user information is very difficult to obtain without access rights.

b. Integrity

Integrity sub-characteristics were tested on two research objects, namely Zoom and Google Meet to see the extent to which systems, products, or components prevent unauthorized access to, or modification of, computer programs or data. Tests are performed on two objects using the same test scenario. Integrity sub-characteristic testing scenario on Zoom is carried out using the observation method. Testing Zoom and Google have the same score of 5 because the account difficult to change without access rights.

c. Authenticity

Sub-characteristics of authenticity were tested on two research objects, namely Zoom and Google Meet to show the extent to which the identity of the subject or resource can be proven as claimed. Tests are performed on two objects using the same test scenario. The scenario for testing the authenticity sub-characteristics on Zoom is carried out using the

observation method. Testing Zoom and Google have the same score of 5 because lot of data is requested for user verification.

d. Security Characteristics Scores

The total value of the performance efficiency characteristics is obtained from all sub-characteristic values multiplied by their respective weights. The calculation of the total value of performance efficiency characteristics is carried out according to the assessment scenario that has been made in fig 2. The total value of the performance efficiency characteristics can be seen in table V and table VI.

TABLE V. Assessment of Security Characteristics on Zoom.

No.	Sub-characteristics	Weight	Score	Total
1	Confidentiality	33.3%	5	0.333*5=1.665
2	Integrity	33.3%	5	0.333*5=1.665
3	Authenticity	33.3%	5	0.333*5=1.665
Total Score of Security				5

TABLE VI. Assessment of Security Characteristics on Google Meet.

No.	Sub-characteristics	Weight	Score	Total
1	Confidentiality	33.3%	5	0.333*5=1.665
2	Integrity	33.3%	5	0.333*5=1.665
3	Authenticity	33.3%	5	0.333*5=1.665
Total Score of Performance Efficiency				5

J. Testing on Usability Characteristics

Usability characteristics are used in this study because they represent the extent to which a product or system can be used by certain users to achieve certain goals with effectiveness, efficiency and satisfaction in a particular context of use. These characteristics are divided into 6 sub-characteristics, namely appropriateness recognizability in weight has 13,5%, learnability has 22,4%, operability has 22,4%, user error protection has 18,2%, user interface aesthetics has 15.8% and accessibility has 7.7% which will be tested and become the total value of usability characteristics. Usability characteristic testing is done by using a questionnaire. This journal will present one result namely Appropriateness Recognizability on 2 tables and the rest is explained in sentences.

In this research use slovin approach to took sample from population and use 10% error limit.

$$n = \frac{N}{1 + N(e)^2}$$

n = Sample size/number of respondents

N = Population size

E = Percentage of allowance for accuracy of sampling error that can still be tolerated; e=0,1

$$\begin{aligned}
 &= 1000/1+1000(10\%)^2 \\
 &= 1000/1+1000(0,01) \\
 &= 1000/1+10 \\
 &= 1000/11 \\
 &= 90.909090 \\
 &=91
 \end{aligned}$$

This research using 91 respondent when distribute questionnaires to 91 congregation at Church in Tigaraksa.

a. Questionnaire Validity Test

The questionnaire used must be declared valid, then the validity test is carried out. Validity testing was carried out

with the Pearson product moment/correlation using SPSS as a calculation tool. At result If r count is greater than r table then the data is declared valid. This study uses the Merrington r table distribution [12]. The level of significance used in this study is 5% or 0.05 and the total questionnaire from the Slovin sampling technique used is 91 questionnaires, so the r table used is 0.176. The data used in this research is valid because r count is greater than r table as shown in Fig 4 and 5.

587**	238*	328*	408**	585**	504*	586**	576**	572**	598**	498**	598**	485**	881**
<.001	.023	.002	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001
91	91	91	91	91	91	91	91	91	91	91	91	91	91

Fig. 4. Validity Zoom Test Result.

287**	385**	481**	486**	487**	386**	284**	285**	389**	419**	445**	386**	328**	286**	385**	421**	584**
.007	<.001	<.001	<.001	<.001	<.001	.005	.008	<.001	<.001	<.001	<.001	.002	.008	<.001	<.001	<.001
91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91

Fig. 5. Validity Google Meet Test Result.

b. Questionnaire Reliability Test

This test is useful whether the questionnaire used can be used more than 1 time, then the data must be consistent then reliability testing is carried out. Reliability testing was carried out with Cronbach's Alpha using SPSS as a calculation tool. Reliability testing is divided into 2 objects, namely Zoom and Gmeet. Cronbach's Alpha has a reliability index criterion that will be compared with the results of the Reliability test on the 2 objects

TABLE VII. Reliability Index Criteria.

No.	Interval	Total
1	< 0.200	Very Poor
2	0.200 – 0.399	Poor
3	0.400 – 0.599	Sufficient
4	0.600 – 0.799	High
5	> 0.800	Very High

These results are compared with the reliability index criteria table so that it concludes that the Reliability Test on Zoom has a very high index and Google meet has high index can look at fig 6 and fig 7.

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	91	100.0
	Excluded ^a	0	.0
	Total	91	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.848	19

Fig. 6. Reliability Zoom Test Result.

Case Processing Summary

Cases	Valid	N	%
	Valid	91	100.0
	Excluded ^a	0	.0
	Total	91	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.671	19

Fig. 7. Reliability Google Meet Test Result.

c. *Testing on Appropriateness Recognizability Sub-Characteristic*

The sub-characteristic of appropriateness recognizability was tested on two research objects, namely Zoom and Google Meet to see the extent to which users can recognize whether a product or system is suitable for their needs. The test is carried out using a questionnaire.

TABLE VIII. Appropriateness Recognizability Test Result on Zoom

Score	Category	Votes
1	Strongly Disagree	0
2	Disagree	0
3	Uncertain	0
4	Agree	149
5	Strongly Agree	124
Total Votes		273

The results of tests carried out using a questionnaire to see the extent to which users can recognize whether a product or system is suitable for their needs. Based on the results of the questionnaire for the appropriateness recognizability sub-characteristics, Zoom got a score of 4 with 149 votes.

TABLE IX. Appropriateness Recognizability Test Result on Zoom.

Score	Category	Votes
1	Strongly Disagree	0
2	Disagree	0
3	Uncertain	22
4	Agree	214
5	Strongly Agree	37
Total Votes		273

The results of tests carried out using a questionnaire to see the extent to which users can recognize whether a product or system is suitable for their needs. Based on the results of the questionnaire for the appropriateness recognizability sub-characteristics, Google Meet got a score of 4 with 214 votes.

d. *Testing on Learnability Sub-Characteristic*

The results of tests carried out using a questionnaire to see the extent to which a product or system can be used by certain users to achieve certain objectives of learning to use products or systems with effectiveness, efficiency, freedom from risk and satisfaction in a particular context of use Based on the results of the questionnaire for the learnability sub-characteristic, Zoom got a score of 4 with 98 votes and Google Meet got a score of 4 with 142 votes.

e. *Testing on Operability Sub-Characteristic*

The results of tests carried out using a questionnaire to see the extent to which a product or system can be used by certain

users to achieve certain objectives of learning to use products or systems with effectiveness, efficiency, freedom from risk and satisfaction in a particular context of use Based on the results of the questionnaire for the learnability sub-characteristic, Zoom got a score of 4 with 98 votes and Google Meet got a score of 4 with 142 votes.

f. *Testing on Operability Sub-Characteristic*

The results of tests carried out using a questionnaire to see the extent to which users can recognize whether a product or system is suitable for their needs. Based on the results of the questionnaire for the appropriateness recognizability sub-characteristics, Zoom got a score of 4 with 236 votes and Google Meet got a score of 4 with 357 votes

g. *Testing on User Error Protection Sub-Characteristic*

The results of tests carried out using a questionnaire to see how far the system protects users from making mistakes. Based on the results of the questionnaire for User Error Protection sub-characteristics, Zoom got a score of 4 with 98 votes and Google Meet got a score of 4 with 142 votes.

h. *Testing on Learnability Sub-Characteristic*

The results of the tests conducted using a questionnaire to see the extent to which the user interface allows pleasant and satisfying interactions for users. Based on the results of the questionnaire for the appropriateness recognizability sub-characteristics, Zoom got a score of 4 with 253 votes and Google Meet got a score of 4 with 366 votes.

i. *Testing on Accessibility Sub-Characteristic*

The results of tests carried out using a questionnaire to see the extent to which the product or system can be used by people with various characteristics and abilities to achieve certain goals in certain contexts of use. Based on the results of the questionnaire for the appropriateness recognizability sub-characteristics, Zoom got a score of 4 with 105 votes and Google Meet got a score of 4 with 134 votes.

j. *Usability Characteristic Scores*

The total value of usability characteristics is obtained from all sub-characteristic values multiplied by their respective weights. The total value of usability characteristics can be seen in table X and table XI.

TABLE X. Usability Characteristics Assessment on Zoom.

No.	Sub-characteristics	Weight	Score	Total
1	Appropriateness Recognizability	13.5%	4	0.135*4= 0.54
2	Learnability	22.4%	4	0.224*4=0.896
3	Operability	22.4%	4	0.224*4=0.896
4	User Error Protection	18.2%	4	0.182*4=0.728
5	User Interface Aesthetics	15.8%	4	0.158*4=0.632
6	Accessibility	7.7%	4	0.077*4=0.308
Total Score of Usability				4

TABLE XI. Assessment of Usability Characteristics on Google Meet.

No.	Sub-characteristics	Weight	Score	Total
1	Appropriateness Recognizability	13.5%	4	0.135*4= 0.54
2	Learnability	22.4%	4	0.224*4=0.896
3	Operability	22.4%	4	0.224*4=0.896
4	User Error Protection	18.2%	4	0.182*4=0.728
5	User Interface Aesthetics	15.8%	4	0.158*4=0.632
6	Accessibility	7.7%	4	0.077*4=0.308
Total Score of Usability				4

K. Total Scores

The total assessment is carried out by calculating the value of all the characteristics used with the weights of the predetermined priorities, the total value calculation is carried out by the formula 3.1. The characteristics used include functional suitability, performance efficiency, compatibility, reliability, security, portability and usability. The total assessment is calculated for each research object, namely Zoom and Google Meet. The final total of the assessment can be seen in table XII and XIII.

TABLE XII. Zoom Total Score.

No.	Characteristics	Weight	Score	Total
1	Functional Suitability	19.5%	5	0.975
2	Performance Efficiency	17.3%	4.80	0.830
3	Compatibility	7.9%	4.25	0.336
4	Reliability	15.9%	5	0.795
5	Security	15.1%	5	0.755
6	Portability	8.1%	5	0.405
7	Usability	16.2%	4	0.648
Total Score				4.744

TABLE XIII. Google Meet Total Score.

No.	Characteristics	Weight	Score	Total
1	Functional Suitability	19.5%	5	0.975
2	Performance Efficiency	17.3%	4.6	0.796
3	Compatibility	7.9%	4.25	0.336
4	Reliability	15.9%	5	0.795
5	Security	15.1%	5	0.775
6	Portability	8.1%	4.19	0.339
7	Usability	16.2%	4	0.648
Total Score				4.664

L. Recommended Video Conference Based on ISO 25010 Tests

From the Total Assessment, it was found that Zoom is a better application to use based on the ISO 25010 quality model. Zoom has advantages in the characteristics of performance efficiency and portability. Zoom is better used in performance efficiency, which has better time behavior. Time behavior that has a high weight also results in a good assessment. Zoom's superiority in these characteristics leads to relative performance. Zoom is better so that the amount of resources used is more optimal. Zoom also excels in portability characteristics where zoom can adapt and can be installed on various existing platforms. While Google Meet can only be installed on some platforms.

Google Meet which is not superior in various characteristics also has advantages in several sub-characteristics such as performance efficiency in the capacity sub-characteristic which has a fairly good weight. But it's a shame that in the end the final assessment total, Google Meet has to admit that Zoom has better quality based on the ISO 25010 quality test.

IV. CONCLUSION AND SUGGESTION

A. Conclusion

In this research, which uses 2 objects, namely Zoom and Google Meet, the test is carried out based on the test scenario and the same assessment indicators. Zoom excels in performance efficiency characteristics where the time

behavior sub-characteristics have a better value and also excels in portability characteristics where Zoom can adapt and can be installed on various existing platforms. Google Meet has advantages in sub-characteristics in performance efficiency, namely the capacity sub-characteristic where Google Meet has less storage utilization compared to Zoom.

In the end this research shows that after testing the two objects carried out with the ISO 25010 Quality Model, Zoom is recommended because it has a better value than Google Meet. Zoom is recommended to the Church in the Tigaraksa area to be used as an Online Worship application at the Church.

B. Suggestion

This research is useful as an example for further research. Further research can use all the characteristics, namely 8 characteristics of the ISO 25010 Quality Model. In addition, the testing method can also be improved further in further research such as being able to determine better indicators. Researchers can also use other types of questionnaires as a comparison which is better. It is hoped that further research can produce better results than this research.

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