East Asian Journal of Multidisciplinary Research (EAJMR)
Vol. 4, No. 11, 2025 : 5721 - 5738

Analysis of Usability on the vMix Broadcasting Application Toward User Satisfaction Using the USE Questionnaire (Usefulness, Satisfaction, Ease of Use)

Daysi Fikka Kelejan[1*], Stanss Levynna Hermien Verronica Joyce Lapian[2], Willem Johan Frederik Alfa Tumbuan[3], Bode Lumanauw[4], Imelda Wellin Juliana Ogi[5]
[1] Sekolah Tinggi Ilmu Ekonomi Petra
[2,3,4,5] Universitas Sam Ratulangi
Corresponding Author: Daysi Fikka Kelejan fikkadaysi@gmail.com

A R T I C L E I N F O

Keywords: Usability, User Satisfaction, VMix, USE Questionnaire, Broadcasting

Received : 01, November
Revised : 20, November
Accepted: 25, November

A B S T R A C T

This study aims to analyze the usability level of the VMix broadcasting application and its influence on user satisfaction using the USE Questionnaire framework, which includes Usefulness, Satisfaction, Ease of Use, and Ease of Learning. Employing a causal associative quantitative approach, the research involved 30 VMix users from Western and Eastern Indonesia. Data were collected using a Likert-scale questionnaire and analyzed through multiple linear regression with SPSS software. The findings reveal that, partially, the Usefulness and Ease of Learning variables significantly affect user satisfaction, while Ease of Use does not show a significant effect. However, when tested simultaneously, all three independent variables exert a significant influence on satisfaction, with a coefficient of determination (R^2) of 55.1%, indicating that 44.9% of the variance is explained by other factors. These results suggest that enhancing usability and ease of learning is crucial for improving user satisfaction, encouraging developers to prioritize these aspects in future updates.

DOI prefix: https://doi.org/10.55927/eajmr.v4i11.478
ISSN-E: 2828 – 1519 (Online)
https://mtiformosapublisher.org/index.php/eajmr

INTRODUCTION

Currently, humanity has entered the era of the information society, where information has become an essential and inseparable part of modern life. In this era, information is a vital and strategic commodity, increasingly permeating various aspects of community life. In the digital age, the internet has become one of the media that can fulfill human needs. Primary needs such as clothing, food, and shelter can easily be searched for and obtained on the internet. Furthermore, secondary needs such as entertainment are also easily accessible through specific sites like YouTube. In addition to being viewers, almost everyone can also contribute by creating videos that can entertain others. While videos that require editing can take considerable time to produce, creators can conduct live streams without the need for an editing process.

Live streaming can be done through mobile phones or computers. When live streaming is conducted on a computer, several technical aspects must be considered, such as the performance based on the specifications of the computer used, the minimum specifications required, and the power consumption of the hardware during live streaming.

To carry out live streaming, there are many software options available, one of which is VMix. VMix is a video mixer and switcher software that utilizes the latest advancements in computer hardware to provide HD video mixing, a task previously accomplished only with expensive specialized hardware. VMix also functions as streaming software that allows users to publish live productions directly to the internet (Studio Coast, n.d.).

VMix is a software that has numerous features and can be used to produce films and videos. Some examples of these features include allowing users to add multiple cameras, videos, images, audio, text, PowerPoint presentations, virtual devices, chroma key, and much more. VMix also supports the use of one or more cameras (Pratama, 2015).

A fundamental aspect that should be an essential part of applications is the principles of Human-Computer Interaction (HCI), where usability and user experience (UX) are key components. To enhance user experience (UX), the usability aspect of the application needs to be addressed. A lack of formal definitions regarding the usability of an application can affect the user experience during application use (C. Rusu et al., 2015). Usability is recognized as one of the quality dimensions to determine the success of an application product. Usability analysis is a constructive analysis because it directly relates to the user's perspective (W. Ningrum et al., 2019).

Although many users have adopted the VMix application and it is widely recognized, the application continues to receive numerous comments through the VMix Forum regarding issues that arise after updates or installations, such as error messages and problems encountered in VMix GT when trying to insert overlays. Such issues can certainly disturb users and negatively impact their satisfaction with the application. Therefore, the researcher conducts a usability analysis on the VMix broadcasting application to assess its usability and effectiveness for users, as well as to analyze whether usability variables correlate with user satisfaction. The analysis is conducted using the USE (Usefulness,

Satisfaction, Ease of Use) Questionnaire as a parameter for measuring usability. The USE Questionnaire is chosen as a measurement tool as it encompasses three dimensions: learnability, efficiency, and satisfaction, which are the most easily observed and compared usability parameters (ISO, n.d.). The USE Questionnaire consists of four variables: Usefulness, Satisfaction, Ease of Use, and Ease of Learning (Kusuma et al., 2016). Using the USE Questionnaire, the variables of Usefulness, Ease of Use, and Ease of Learning will be measured both individually and collectively to determine their influence on Satisfaction.

The accelerated development of digital media has intensified the need for reliable broadcasting software, with VMix emerging as a widely adopted platform due to its comprehensive production features. Despite its broad utilization, user discussions in the VMix Forum indicate persistent usability challenges such as system errors following updates, difficulties in overlay configuration, and inconsistent interface performance—which may hinder overall user satisfaction. While prior research has applied the USE Questionnaire to evaluate usability in various digital systems, empirical studies focusing specifically on professional broadcasting applications remain limited. Furthermore, existing findings present inconsistencies regarding which usability dimensions significantly influence satisfaction, revealing a gap in understanding how usability operates within advanced production environments. Addressing this gap, the present study examines the usability of the VMix application using the USE Questionnaire across users from Western and Eastern Indonesia, offering novel empirical insights into the relative influence of Usefulness, Ease of Use, and Ease of Learning on user satisfaction in the broadcasting context.

THEORETICAL REVIEW

Broadcasting

Broadcasting, as it is known in English, refers to the entire process of delivering broadcasts, which begins with the preparation of production materials, production, the preparation of broadcast materials, and then the transmission until the broadcast is received by listeners/viewers at a particular location (Djamal, 2011).

Broadcasting is the process of transmitting signals to various locations simultaneously, whether through satellites, radio, television, data communication networks, and so on. It can also be defined as a server-to-client service that distributes data to multiple clients at once in a parallel manner, with relatively fast access from the video or audio source. The term broadcasting applies to the world of television and radio, which continuously attracts public attention, especially among the youth. The types of productions processed by broadcasting companies include: Corporate Profile, TV Programs, Music Videos, and TV Commercials (Djamal, 2011).

It also has a significant social role as a medium of communication. Communication can be defined as the process of conveying ideas, thoughts, and/or opinions from a person known as the communicator to a number of targets, in this case, the communicants. Generally, broadcasting is the presentation of programs in the communication process aimed at persuading or

guiding people to entertain and take actions that benefit the broadcasting party (Djamal, 2011).

Vmix

vMix is software that allows you to create professional-quality productions on your own computer at a lower cost. vMix gives you the power to add multiple cameras, videos, images, audio, web streams, PowerPoint presentations, titles, virtual sets, chroma key, and much more to your production. You can then display, record, and live stream your production simultaneously (Core Media Indonesia, 2017).

With all its advantages, vMix is a professional choice in various fields for conducting production activities. vMix itself comes with many options that suit the needs and budget of users. What differentiates one type of vMix from another? (Core Media Indonesia, 2017)

vMix is a video mixer and switcher software that leverages the latest advancements in computer hardware to provide live HD video mixing—a task that was previously only possible with expensive hardware. vMix also functions as live streaming software, allowing you to publish your live productions directly to the Internet! (Core Media Indonesia, 2017)

vMix runs on the Windows 7, Windows 8, and Windows 10 platforms. Additionally, vMix is a comprehensive solution with features for LIVE mixing, switching, recording, and LIVE streaming in SD, as well as full HD and 4K video sources, including cameras, video files, DVDs, images, PowerPoint presentations, and much more. (Core Media Indonesia, 2017)

Figure. 1 Vmix

As a solution, vMix makes it easier for users to build their own custom computers at a more affordable cost. The existing vMix Reference System allows

you to build a vMix PC with specifications that meet your production needs. (Core Media Indonesia, 2017)

Usability

According to the International Organization for Standardization (ISO 9241-11), usability refers to how users can utilize a product to complete tasks and achieve specific goals with effectiveness, efficiency, and satisfaction during a particular use process (International Organization for Standardization, n.d.). Effectiveness and efficiency support the use of a product to complete specific tasks with accuracy and speed, while satisfaction is the perception of the effectiveness and efficiency of the product being used (Baarnum, 2011). Usability measurement is conducted to identify and fix issues through testing the functionality and usability of designs in applications, involving user perspectives.

Based on the definition, according to Nielsen Norman (2012), usability measurement is conducted based on the following components (Hadi et al., n.d.):
1. Learnability: The ease with which novice users can learn the structure and functionality of the application.
2. Efficiency: How quickly users can complete tasks or find information using the resources available within the application.
3. Memorability: The ease with which users can remember how to use the application and retain their knowledge after a period of not using it.
4. Errors: The frequency of mistakes users make while using the application. Errors occur due to a mismatch between the user's perception and what the application actually presents.
5. Satisfaction: The positive response exhibited by users after using the application, where they feel free from discomfort.

User Satisfaction

User satisfaction refers to the responses and evaluations of individuals regarding their overall experience with a service and product. Satisfaction relates to a person's confidence in a positive experience. One of the key contributions to the success of an application product is a high level of user satisfaction during its use. If users' desires are met, it will lead to high satisfaction with the product. User satisfaction is closely related to the quality and utility of a product, making it a benchmark in the development process to measure the strengths and weaknesses of product performance (Suaryana et al., 2017).

According to Lupiyoadi and Hamdani, there are several common factors that can influence satisfaction, including (Puspitasari et al., 2019):
1. Product Quality: Users will feel satisfied if the product they are using is of high quality.
2. Service Quality: The delivery of services to meet users' expectations, needs, and desires, as well as the accuracy of the delivery.
3. User Emotion: Users feel proud when using a product, which may lead them to recommend it to others.

4. Ease of Use: Users believe that using the product requires no effort (free of effort).

Use Questionnaire

The USE Questionnaire is a usability measurement method that uses a questionnaire containing 30 statements grouped based on criteria or variables. USE stands for Usefulness, Satisfaction, and Ease of Use. In accordance with ISO (International Organization for Standardization) standards, USE involves effectiveness, efficiency, and satisfaction as aspects of measurement (Rahadi, 2014).

According to Arnold M. Lund (2001), the USE model consists of four dimensions of measurement or criteria used in assessing usability, namely (Lund, n.d.):

1. Usefulness: How useful the product is in supporting activities or achieving specific goals.
2. Ease of Use: The perceived ease experienced by users while using the product to complete specific tasks.
3. Ease of Learning: The ease with which users learn and remember how to operate the product.
4. Satisfaction: The positive responses from users during product use that foster a sense of satisfaction.

In practice, the USE model is rarely used for measuring internal systems or applications, where the usefulness variable becomes less relevant due to the mandatory nature of application usage (Rahadi, 2014).

Related Research

As part of the literature review, the researcher includes several previous studies to understand the comparisons as well as the advantages and disadvantages of earlier research.

The first related study is an analysis of usability in user experience on the UMM Online KRS System using the USE Questionnaire, conducted by researchers Wahyu Kusuma, Vebrian Noviasari, and Gita Marthasari. This study aims to measure the influence of independent variables namely usefulness, ease of use, and ease of learning on the dependent variable, which is satisfaction, both partially and simultaneously.

This study shows that simultaneously, the three independent variables have a significant effect on the dependent variable, while partially, the variables usefulness and ease of use have an influence on the dependent variable, and the variable ease of learning does not have an effect (Kusuma et al., 2016).

The second related study is an analysis of the usability of the E-Learning System using the USE Questionnaire, conducted by researchers Vivi Sahfitri and Maria Ulfa. This study aims to measure the influence of the USE variables on user satisfaction. The results indicate that the variables usefulness and ease of use have a partial effect on the variable satisfaction, while the variable ease of learning does not. Furthermore, simultaneously, the variables usefulness, ease of use, and ease of learning have a significant effect on the variable satisfaction (Sahfitri et al., 2014).

The similarities between the previous research and this study are measuring the influence of usability aspects on user satisfaction, using the same method, namely usability, by applying the USE questionnaire, and employing the same statistical methods. The researcher utilizes several previous studies as the foundation and reference for this research.

METHODOLOGY

Research Design

The type of research conducted in this study is causal associative research using quantitative techniques. According to Sigiyono (2016), causal research aims to determine the relationship between two or more variables. This research allows for the development of a theory that functions to explain, predict, and control a phenomenon. A causal relationship is characterized by a cause-and-effect relationship, where one variable (independent) influences another variable (dependent). Associative research employs quantitative or statistical analysis techniques.

Sample and Sampling Techniques

The population of this study consists of users of the VMix application spread across several regions in Indonesia. The sample selected includes 30 respondents who are users of the VMix GMAHK application in the western and eastern regions of Indonesia. The researcher used purposive sampling for sample selection.

Instrumentation

This study uses primary data, where the researcher collects data through a survey method, gathering information directly from existing respondents. The researcher employs primary data collection by directly using a questionnaire targeting users of the VMix application.

Data Collection Procedure

The researcher collected data by distributing a questionnaire to users of the VMix application using a Likert scale. The questionnaire was created in the form of a Google Form to facilitate respondents in filling it out. This also helps the researcher to collect the filled-out data, as it is automatically saved in the researcher's Google account.

Statistical Formulas

The statistical model used by the researcher in this study is multiple linear regression. The researcher utilizes computer software, namely SPSS. The formula for calculation is as follows:

$$Y = \alpha + \beta 1X1 + \beta 2X2 + \beta 3X3 + e$$

Keterangan:
Y = Dependent variable (Satisfaction)

X = Independent variables (Usefulness (X_1), Ease of Use (X_2), Ease of Learning (X_3))
β = Regression coefficients
α = Y-intercept (the value where the line crosses the Y-axis) / Constant
e = Residual (error tolerance)

Data Analysis

Before the researcher conducts hypothesis testing, the following preliminary tests are performed: validity and reliability tests. After that, classical assumption tests are conducted, which consist of the Multicollinearity Test and the Heteroscedasticity Test

Validity and Reliability Test

The validity test and reliability test are conducted to assess the feasibility of the instruments used in this research.

1. Validity Test

The validity test is conducted to measure the level of accuracy or precision of the research instrument. An instrument or questionnaire is considered valid if it can represent what is intended to be measured and reflects the alignment between the concepts and the indicators used for measurement. In the validity test, a variable is declared valid and can be further analyzed if it meets the criteria stating that the KMO (Kaiser-Meyer-Olkin) MSA (Measures of Sampling Adequacy) value in the KMO and Bartlett's Test column must be greater than or equal to 0.500. Meanwhile, the probability level (sig) must be less than or equal to 5% (0.05).

Table. 1 Usefulness

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.681
Bartlett's Test of Sphericity	Approx. Chi-Square	27.279
	df	6
	Sig.	.000

Table. 2 Ease of Learning

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.650
Bartlett's Test of Sphericity	Approx. Chi-Square	49.765
	df	28
	Sig.	.007

Table. 3 Ease of Use

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.427
Bartlett's Test of Sphericity	Approx. Chi-Square	103.861
	df	55
	Sig.	.000

Table. 4 Satisfaction

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.743
Bartlett's Test of Sphericity	Approx. Chi-Square	66.523
	df	21
	Sig.	.000

2. Reliability Test

The reliability test is conducted to assess the consistency or stability of the measurement instrument to determine whether the instrument or questionnaire has been used repeatedly by the same respondents. The results of the test are evaluated based on the Cronbach's Alpha coefficient. If the resulting Cronbach's Alpha value is less than 0.6, the reliability is considered poor. If the Cronbach's Alpha value falls within the range of 0.6 to 0.7, the reliability is deemed acceptable, while a Cronbach's Alpha value greater than 0.8 indicates that the reliability is very good.

Table. 5 Usefulness

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.684	.694	8

Table. 6 Ease of Learning

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.742	.740	4

Table. 7 Ease of Use

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.710	.717	11

Table. 8 Satisfaction

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.822	.823	7

Multicollinearity Test

Table. 9 Multicollinearity Test

Coefficients[a]

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Usefulness	.669	1.495
	Ease_of_use	.653	1.533
	Ease_of_learning	.775	1.290

a. Dependent Variable: Satisfaction

The multicollinearity test aims to determine the level of high correlation between research variables, specifically between the dependent variable and independent variables. If there is a high correlation among the independent variables, the relationship between the independent variables and the dependent variable can become disrupted (Huda, 2016). The multicollinearity test refers to the presence of a definitive linear relationship among the independent variables (Purwoto et al., 2007).

The table above shows that each independent variable has a tolerance value greater than 0.10 and a VIF (Variance Inflation Factor) less than 10. Therefore, it can be concluded that the model does not exhibit signs of multicollinearity and is acceptable for linear regression testing.

Heteroscedasticity Test

The heteroscedasticity test aims to examine whether there is a correlation or relationship between independent variables in a multiple linear regression model. The heteroscedasticity test is intended to assess whether there is a difference in variance of residuals from one observation to another in the regression model (Engko, 2008).

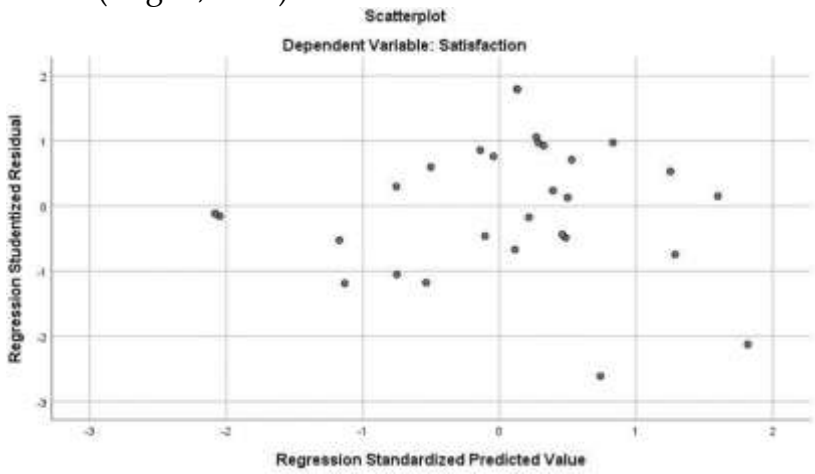

Figure. 2 Heteroscedasticity Test

Based on the scatterplot output above, it is observed that:

1. Data points are spread above and below or around the number 0.
2. The points do not cluster only above or below.
3. The spread of data points does not form a wavy pattern that expands, then narrows, and expands again.
4. The spread of data points does not show a specific pattern.

Thus, it can be concluded that there is no issue of heteroscedasticity.

RESULTS AND DISCUSSION

Descriptive Statistics

Table. 10 Descriptive Statistics

Descriptive Statistics

	N	Range	Minimum	Maximum	Mean	Std. Deviation	Variance
Usefulness	30	1.00	3.00	4.00	3.5000	.28992	.084
Ease_of_use	30	1.50	3.00	4.50	3.6417	.38665	.149
Ease_of_learning	30	1.00	3.00	4.00	3.5303	.27850	.078
Satisfaction	30	1.00	3.00	4.00	3.5571	.34456	.119
Valid N (listwise)	30						

Hypothesis Testing and Interpretation

1. Multiple Linear Regression

Table. 11 Hypothesis Testing and Interpretation

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.203	.656		.310	.759
	Usefulness	.430	.191	.362	2.249	.033
	Ease_of_use	.097	.201	.078	.480	.636
	Ease_of_learning	.414	.133	.465	3.113	.004

a. Dependent Variable: Satisfaction

Based on the table above, it can be seen that in the Unstandardized Coefficients column, the β of each variable has positive values, which means that each variable has a positive influence on the increase in the value of the satisfaction variable and R Square. Therefore, the multiple regression equation model obtained is as follows:

$$Y = 0.203 + 0.430\ X1 + 0.97\ X2 + 0.414\ X3 + e$$, with the understanding

The value of $\alpha = 0.203$ represents the constant or the state when the satisfaction variable is not influenced by other variables, namely Usefulness, Ease of Use, and Ease of Learning. If the independent variables are absent, then the satisfaction variable does not experience any change.

1. The regression coefficient β1 (the value of the regression coefficient X1) of 0.430 indicates that the usefulness variable has a positive influence on the satisfaction variable, which means that for every one unit increase in the usefulness variable, it will affect satisfaction by 0.430.
2. The regression coefficient β2 (the value of the regression coefficient X2) of 0.97 indicates that the ease of use variable has a positive influence on the satisfaction variable, which means that for every one unit increase in the ease of use variable, it will affect satisfaction by 0.97.
3. The regression coefficient β3 (the value of the regression coefficient X3) of 0.414 indicates that the ease of learning variable has a positive influence on the satisfaction variable, which means that for every one unit increase in the ease of learning variable, it will affect satisfaction by 0.414.

T Test

The T-test is conducted to determine the relationship of each usability variable (X1, X2, X3) to the user satisfaction variable (Y) partially by comparing the significance value with the alpha value of 0.1 or by comparing the calculated t value with the t table value.

Table. 12 T- test

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.203	.656		.310	.759
	Usefulness	.430	.191	.362	2.249	.033
	Ease_of_use	.097	.201	.078	.480	.636
	Ease_of_learning	.414	.133	.465	3.113	.004

a. Dependent Variable: Satisfaction

1. Usefulness Variable

Based on the table, it is known that the calculated t value is 2.249, with a significance value for the Usefulness variable (X1) of 0.033. This means that the Usefulness variable (X1) has a significant influence on the satisfaction variable (Y) partially because the t value is greater than the t table value (2.249 > 2.048) and the significance value is less than 0.1 (0.033 < 0.1). Therefore, H1 can be accepted.

2. Ease of Use Variable

Based on the table, it can be seen that the calculated t value is 0.480, with a significance value for the Ease of Use variable (X2) of 0.636. This means that the Ease of Use variable (X2) does not have a significant influence on the satisfaction variable (Y) partially because the t value is less than the t table value (0.480 < 2.048) and the significance value is greater than 0.1 (0.636 > 0.1). Therefore, H2 is rejected and H02 is accepted.

3. Ease of Learning Variable

Based on the table above, it can be seen that the calculated t value is 3.113, and the significance value for the Ease of Learning variable (X3) is 0.04. This means that the Ease of Learning variable (X3) has a significant influence on the satisfaction variable (Y) partially because the calculated t value is greater than the t table value (3.113 > 2.048) and the significance value is less than 0.1 (0.04 < 0.1). Therefore, this result can confirm the hypothesis, and H3 can be accepted.

F Test

The F test or partial test is carried out to determine the relationship of all independent variables (X1 to X3) to the bound variable (Y) simultaneously or simultaneously by comparing the significant value with *the alpha value* of 0.1 or comparing the value of F calculated and F of the table.

Table. 13 F Test

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.895	3	.632	10.615	.000[b]
	Residual	1.548	26	.060		
	Total	3.443	29			

a. Dependent Variable: Satisfaction

b. Predictors: (Constant), Ease_of_learning, Usefulness, Ease_of_use

The table above shows that the simultaneous testing of variables X1 to X3 results in a calculated F value of 10.615 with a significance level of 0.000. This indicates that, simultaneously, the variables of usefulness, ease of use, and ease of learning have a significant influence on the user satisfaction variable (Y) because the calculated F value is much greater than the F table value (10.615 > 2.975) and the significance value is less than 0.05 (0.000 < 0.05). Therefore, the hypothesis H4 can be accepted.

Coefficient of Determination

Table. 14 Coefficient of Determination

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.742[a]	.551	.499	.24397

a. Predictors: (Constant), Ease_of_learning, Usefulness, Ease_of_use

Based on the table, it can be seen that the R Square (R^2) column has a value of 0.551 or 55.1%, indicating that there is a simultaneous influence of the Usefulness (X1), Ease of Use (X2), and Ease of Learning (X3) variables on the Satisfaction (Y) variable of 55.1%, while the remaining 44.9% is influenced by other variables.

CONCLUSIONS AND RECOMMENDATIONS

Based on the analysis results conducted in the previous chapter, the conclusions are as follows:

1. The results obtained from the Multiple Linear Regression analysis indicate that the variables of usefulness, ease of use, and ease of learning have positive values, leading to a positive influence on the increase in the satisfaction variable and the R square value.
2. The analysis results from the Coefficient of Determination test show that the variables of usefulness, ease of use, and ease of learning account for 55.1% of the variance in the satisfaction variable, while the remaining 44.9% is attributed to other variables not examined in this study.

3. The results from the T-test, or partial testing, indicate that the variables of usefulness and ease of learning significantly impact user satisfaction, with the usefulness variable having the greatest influence, followed by the ease of learning variable. In contrast, the ease of use variable does not have a significant effect on the user satisfaction of the VMix application.
4. The results from the F-test, or simultaneous testing, reveal that the independent variables (X1 to X3) have a significant influence on the dependent variable (Y).

Recomendations

1. Based on the research results above, it is evident that usefulness and ease of learning contribute significantly to satisfaction. VMix should enhance the functionality of the application elements related to these two independent variables, which will subsequently improve user satisfaction when using the VMix application as a broadcasting tool.
2. Although the ease of use variable shows an insignificant effect on user satisfaction, it is hoped that future research can provide a detailed explanation or further examination of the components of this variable.

3. After analysis, it was found that the research variables have an influence of 49% on user satisfaction with VMix, and the remaining percentage is attributed to variables that were not examined. Therefore, it is recommended that other researchers conduct studies on additional variables that may have an impact on user satisfaction with VMix in the future.
4. Recommendations for other researchers who will conduct similar studies on the usability of the VMix broadcasting application include choosing different methods, different respondent characteristics, or resp. ondents with a broader scope, considering that VMix is one of the most widely used broadcasting applications.
5. For other researchers who will conduct similar studies on usability, they can investigate or compare several other broadcasting applications using the same method. By expanding the approach and perspectives in the future, research on content creators will increasingly contribute to the understanding of the ever-changing digital world and its relevance in policy, education, and the industrial sector.

FURTHER STUDY

Future studies are encouraged to expand the scope of this research by involving a larger and more heterogeneous respondent group, particularly users from professional broadcasting environments, educational institutions, and organizations that rely heavily on live production systems. Researchers may also incorporate additional variables such as interface design quality, system performance stability, user engagement, technical support availability, or perceived trust in technology to capture a more comprehensive explanation of user satisfaction beyond the variables examined in this study. Comparative research involving other broadcasting platforms, such as OBS Studio, Wirecast, or Streamlabs, can also provide valuable insights into differences in usability

characteristics across competing applications. In addition, future research may benefit from applying mixed-methods approaches, including usability testing, task-based evaluations, or qualitative interviews, to identify deeper behavioral patterns and user challenges that may not be apparent through self-reported questionnaires. Longitudinal studies are likewise recommended to observe how system updates, feature enhancements, and interface changes influence the dynamics of usability and user satisfaction over time

ACKNOWLEDGMENT

I would like to express my sincere appreciation to all individuals and institutions who contributed to the completion of this study. My gratitude goes to the participants who willingly provided their time and responses, as well as to colleagues and mentors whose insights and guidance greatly supported the research process. Their contributions were invaluable in ensuring the successful completion of this work.

REFERENCES

A. Kusuma, V. Noviasari and G. I. Marthasari, (2016). Analisis Usability dalam User Experience pada Sistem KRS-Online UMM menggunakan USE Questionnaire, Jurnal Nasional Teknik Elektro dan Teknologi Informasi, vol. 5, no. 4, pp. 294-295

A. Nugroho, Rekayasa perangkat lunak berorientasi objek dengan metode USDP. Penerbit Andi. 2010

Agi Event (2021) Apa itu VMIX dan OBS. Retrieved from https://agievent.com/en/news/new- post

C. Rusu, V. Rusu, S. Roncagiolo and C. D. Valparaiso, "Usability and User Experience: What Should We Care About?," *International Journal of Information Technology and System Approach,* vol. 8, no. 2, pp. 1-3, 2015

Core Media Indonesia. (2017, Juni 15) Perbandingan Software vMix. Retrieved May 5, 2022 From https://www.coremedia.co.id/blog/tabel-perbandingan-software-vmix/

D. R. Rahadi, (2014). Pengukuran Usability Sistem menggunakan USE Questionnaire pada Aplikasi Android, Jurnal Sistem Informasi, vol. 6, no. 1, pp. 664-665,. https://doi.org/10.36706/jsi.v6i1.772

Djamal, H. 2011. Dasar-Dasar Penyiaran. Jkarat :Prenada Media Grup

Engko, C. (2008). Pengaruh Kepuasan Kerja Terhadap Kinerja Individual Dengan Self Esteem Dan Self Efficacy Sebagai Variabel Intervening. *Bisnis Dan Akuntansi*, *10*(1), 1–12. http://jurnaltsm.id/index.php/JBA/article/view/111/89

Huda, F. A. (2016). *Uji Asumsi Klasik 12*. http://fatkhan.web.id/uji-asumsi-klasik/

Hudaifa, D., Aknuranda, I., & Brata, K. C. (n.d.). *Evaluasi dan Perbaikan Aplikasi Mobile Malang Menyapa Menggunakan Metode Usability Testing dan USE Questionnaire*

Hadi, K. R., Az-Zahra, H. M., & Fanani, L. (2018). *Analisis Dan Perbaikan Usability Aplikasi Mobile KAI Access Dengan Metode Usability Testing Dan Use Questionnaire*. 9.

ISO (n.d) Ergonomic requirements for office work with visual display terminals (VDTs) — Part 11: Guidance on usability Retireved May 4, 2022 From https://www.iso.org/obp/ui/#iso:std:iso:9241:-11:ed-1:v1:en:en

Joanna (2010), "Penyusunan Usability Index Browser Internet," 2010 Lund, A. M. (2001). *Measuring Usability with the USE Questionnaire12*. 5.

M. Baarnum, (2011)"Usability Testing Essentials," in *Establishing the Essential*, Burlingtong: US, Morgan Kaufmann, pp. 9-23.

P. D. Sugiyono, (2016) "Metode Penelitian Bisnis: Pendekatan Kuantitatif, Kualitatif, Kombinasi, dan R&D," Penerbit CV. Alf. Ban

Pratama, A.N. 2015. Pengembangan MIDI Controller Berbasis Microcontroller Dengan Mekanisme Sentuh. Skripsi. FPBS, Pendidikan Seni Musik, Universitas Negeri Yogyakarta, Yogyakarta

Purwoto, A., AP, S., Heriyani, O., & Eneste, P. (2007). *Panduan Lab Statistik Inferensial - Google Books*. https://books.google.co.id/books?id=jW2fTDlu0z0C&pg=PA97&dq=uji+multikolinearitas+adalah&hl=en&sa=X&ved=2ahUKEwig0Pj7oYvsAhUNXSsKHYL1CogQ6AEwA3oECAEQAg#v=onepage&q=uji multikolinearitas adalah&f=false

S. Puspitasari and Widayanto, (2019). Analisis Faktor-Faktor yang Memengaruhi Kepuasan Pengguna Layanan Go-Ride," Jurnal Administrasi Bisnia, vol. 8, no. 1, pp. 55-56

S. W. Ningrum, I. Akrunanda and A. R. Perdanakusuma, "Evaluasi dan Perbaikan Usability Aplikasi Mobile Ojesy Menggunakan Usability Testing and USE Questionnaire," *Journal Pengembangan Teknologi Informasi dan Ilmu Komputer,* vol. 3, no. 5, pp. 4826-4827, 2019

Studio Coast. (n.d.) Live Video Streaming Software for your PC. Retrieved May 4, 2022 From https://www.vmix.com/

Suaryana, I. G. N. A., Damayanthi, E., & Merkusiwati, L. (2017). Kualitas dan Kepuasan Pengguna Terhadap Sistem Informasi Akademik Berbasis Web. *Jurnal Ilmiah Akuntansi dan Bisnis*, 84. https://doi.org/10.24843/JIAB.2016.v11.i02.p03

V. Sahfitri and M. Ulfa, (2014). Analisis Usability Sistem E-Learning Menggunakan USE Questionnaire," p. 380