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ANALYSIS OF THE IMPLEMENTATION OF THE E-S-QUAL MODEL ON THE EFFECTIVENESS OF DIGITAL ZAKAT: AN EMPIRICAL STUDY AT THE FACULTY OF ECONOMICS AND BUSINESS, UNIVERSITY OF NORTH SUMATRA

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Abstract

The main objective of this study is to examine the factors that influence the effectiveness of digital zakat using the E-S-QUAL theory. In the industrial revolution 4.0, digital payment of zakat has become an increasing trend, especially among the millennial generation. This study used a survey method with a non-probability sample of digital zakat users at the Faculty of Economics and Business, University of North Sumatra, resulting in 121 valid respondents. Data was collected through distributing questionnaires and analyzed using the SmartPLS tool. The analysis results show that efficiency and reliability variables have a positive and significant influence on the effectiveness of digital zakat, while fulfillment, privacy, speed, and system availability variables show no significant influence. The R-square for digital zakat effectiveness is 54.9%, showing the moderating influence of the independent variables on effectiveness. This study emphasizes the importance of improving digital service quality to increase user satisfaction and loyalty in zakat payment, as well as contributing to the literature on digital zakat in Indonesia.

Keywords: ***efficiency, fulfillment, privacy, speed, system availability, reliability, effectiveness of digital zakat, loyalty, E-S-QUAL Model.***

1. INTRODUCTION

The Industrial Revolution 4.0 has brought significant changes in various aspects of life, including people's behavior in carrying out their zakat obligations. One of these changes is the presence of digital zakat, which utilizes digital technology to facilitate the process of collecting and distributing zakat funds. Al Arif, Nofrianto, and Fasa (2023) explain that the use of digital zakat has become a form of adaptation to technological changes that occur in the era of the Industrial Revolution 4.0. Digital zakat refers to a digital platform that allows muzakki (people who pay zakat) to pay zakat online, without having to come directly to zakat institutions. Abidin and Utami (2020) added that digital zakat is a form of zakat management that uses digital technology to facilitate the collection and distribution of zakat funds, making it more efficient and transparent.

Digital zakat is a platform that allows muzakki to pay zakat online, either through special applications, websites, or digital banking services (Rel, 2023). Meanwhile, Sakka and Qulub (2019) emphasized that the digital zakat method involves online media such as digital banking and financial technology (fintech), which allows zakat payments to be made more easily and quickly. With digital zakat, the zakat payment process becomes more practical and accessible to the wider community, anytime and anywhere. It also helps zakat institutions in managing zakat funds more effectively, as well as increasing public participation in fulfilling zakat obligations.

In some countries, digitalization in zakat payment has been widely implemented. In Saudi Arabia, zakat fitrah can be paid online through credible platforms such as Zakaty, making it convenient to pay zakat on time (Nursalikah, 2023). Di Pietro, et al.'s (2018) research related to social fundraising in Italy shows an increase in the number of donations. Meanwhile, in the Maldives, in 2018 the Maldives Inland Revenue Authority (MIRA) implemented a digital payment application to increase the collection of zakat al-Mal called Vaarupay (Muneeza, 2018). In Malaysia, the number of digital zakat payers has reached a growth of 43.5% compared to 2017 (Majelis Islam Wilayah Persekutuan, 2018). In Indonesia, based on data from the National Amil Zakat Agency, in 2022,

IDR 22.43 trillion was obtained from zakat, infaq, sadaqah and other religious social funds, this increased by 58.90% from 2021. The increase came from the payment of zakat fitrah which increased by 22.11%, and zakat on livestock by 400.95%. However, this realization only reached 86.29% of the set target of IDR 26 trillion (The National Board of Zakat Republic of Indonesia, 2022).

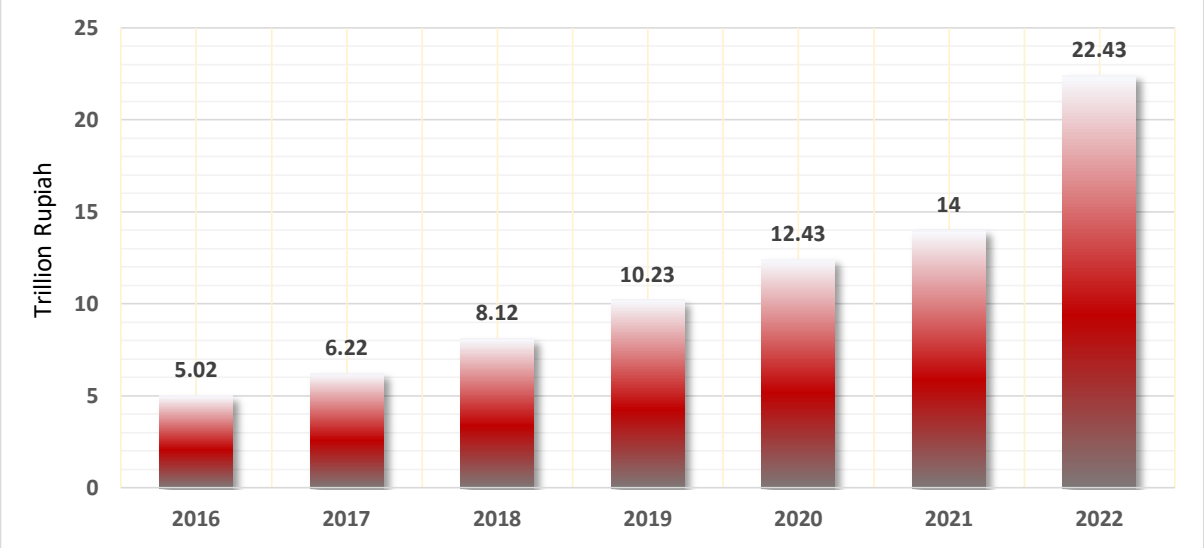

Figure 1. Realization of National Collection of Zakat, Infaq, Sedakah, and Other Religious Social Funds in 2016-2022

Zakat collection is generally done by cash method. Muzakki provides funds directly in the form of cash to the Amil Zakat Institution. This method involves the process of collecting zakat in places such as mosques, zakat institutions, or other zakat collection centers (Nofiaturrahmah, 2016). The change to digital zakat carried out by the Amil Zakat Institution is an effort to maximize the potential of zakat (Soleh, 2020). Digital zakat is more in line with the current era, where individuals often use digital platforms. Digital utilization as a medium for zakat payment is considered an interesting thing that creates willingness and trust (Aminah, Syafrida & Awaludin, 2021).

In 2021, around 70% of donors are millennials with an age range of 25-44 years who entrust their zakat. Digital zakat is starting to increase in use, especially for the millennial generation because of its ease of use (Al Athar & Al Arif, 2021). Data obtained from the National Amil Zakat Agency for 2017-2022 shows that the use of digital zakat in Indonesia continues to increase. Figure 2 shows the highest amount in 2022 of Rp. 175 billion. This proves that digital zakat in Indonesia is growing and is in demand by the public (Center for Strategic Studies of the National Amil Zakat Agency, 2022).

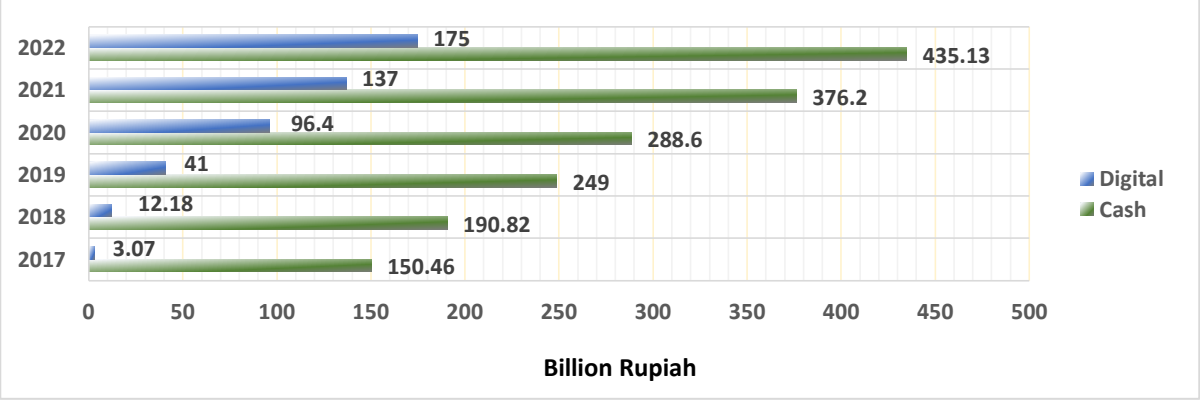

Figure 2. Total Transaction Value of National Zakat Payment in 2017-2022

The implementation of digital zakat in Indonesia can overcome the problem of public trust in paying zakat to the Amil Zakat Institution (Luthfiyanto, 2020). In addition, the results of research by Utami, Suryanto, Nasor, and Ghofur (2020), that collaboration with digital financial platforms and online shopping applications makes it easier to pay zakat anytime and anywhere. In addition, muzakki can easily monitor the distribution of zakat and access the financial statements of the Amil Zakat Institution (Tantriana & Rahmawati, 2018).

To measure the success of digital zakat in Indonesia, it is necessary to evaluate its effectiveness using supporting assessment theories. Electronic Service Quality (E-S-QUAL) theory is designed to be applied to various digital service contexts, including digital zakat (Parasuraman, Zeithaml & Malhotra, 2005). This theory helps organizations improve user experience and achieve competitive advantage in an increasingly digital market. With E-S-QUAL Theory, organizations can identify aspects that need to be improved from service quality to increase user satisfaction and build higher loyalty (Boshoff, 2007).

Penerapan zakat digital di Indonesia dapat mengatasi masalah kepercayaan masyarakat untuk membayar zakat ke Lembaga Amil Zakat (Luthfiyanto, 2020). Selain itu, hasil penelitian Utami, Suryanto, Nasor, dan Ghofur (2020), bahwa kolaborasi dengan platform keuangan digital dan aplikasi belanja online memudahkan pembayaran zakat kapanpun dan dimanapun. Selain itu, muzakki dapat dengan mudah memantau penyaluran zakat dan mengakses laporan keuangan Lembaga Amil Zakat (Tantriana & Rahmawati, 2018).

Untuk mengukur keberhasilan zakat digital di Indonesia, perlu dilakukan evaluasi terhadap efektivitasnya dengan menggunakan teori-teori penilaian yang mendukung. Teori Electronic Service Quality (E-S-QUAL) dirancang untuk diterapkan pada berbagai konteks layanan digital, termasuk zakat digital (Parasuraman, Zeithaml & Malhotra, 2005). Teori ini membantu organisasi untuk meningkatkan pengalaman pengguna dan mencapai keunggulan kompetitif di pasar yang semakin digital. Dengan Teori E-S-QUAL, organisasi dapat mengidentifikasi aspek-aspek yang perlu ditingkatkan dari kualitas layanan untuk meningkatkan kepuasan pengguna dan membangun loyalitas yang lebih tinggi (Boshoff, 2007).

In the research demographic, the use of E-S-QUAL theory is mostly carried out in the United States (Rita, Oliveira, & Farisa, 2019), Iran (Zavareh, Ariff, Jusoh, Zakuan, Bahari, & Ashourian, 2012), Vietnam & Australia (Nguyen et al., 2022), Lebanon (Hammoud, Bizri, & El Baba, 2018), and Hungary (Pakurár, Haddad, Nagy, Popp, & Oláh, 2019). Meanwhile, research examining E-S-QUAL in the Southeast Asian Region, especially in Indonesia, is still few and limited so that further research needs to be carried out. This is further emphasized by several studies that E-S-QUAL has a positive and significant impact on user satisfaction and loyalty (Alnaim & Sobaih, 2022; Harsono, Hidayati, & Za, 2023; Rachmawati & Syafarudin, 2022; Toni, Moko, & Mugiono, 2022; Yang & Tsai, 2007).

2. RESEARCH METHODS

2.1 Population and Sample

The population in this study are digital zakat users in the Faculty of Economics and Business, University of North Sumatra, who are students, lecturers and education staff. Based on data obtained from the Higher Education Database in 2024/2025 odd, it is known that there are 4,533 people recorded. The sampling method in this study uses non-probability sampling with convenience sampling type. The convenience sampling method is that researchers choose any individual who is ready as a participant (Cooper & Schindler, 2017). This is because the sample chosen is not known exactly how much data on muzakki who use digital zakat at the Faculty of Economics and Business, University of North Sumatra.

The use of Krejcie and Morgan (1970) table in this research has several reasons. First, to determine the appropriate sample size from a larger population and the desired level of certainty. Second, because this table can determine the number of representative samples for populations up to 1 million. Based on these considerations, this study by looking at the Krejcie and Morgan (1970) table is estimated to have a sample size of 354 samples with a certainty level of 95%. Of these, the questionnaires that returned and were suitable for use in the study were 121 respondents (33.6%) because they were filled in properly. While 113 respondents (31.4%) did not use digital zakat and the remaining 126 respondents did not use digital zakat.

2.2 Data Collection

Data collection in this study used a questionnaire and the type of research data was primary data. Primary data is original research conducted and reported at a level sufficient for decision makers for management (Cooper & Schindler, 2017). Primary data is used because research data is obtained directly from digital zakat users. The

source of this research data comes from respondents by distributing questionnaires online via google form to digital zakat users. The distribution of questionnaires online has proven effective in reducing filling time and paper costs. The use of online questionnaires can facilitate research with large populations and samples (Sekaran & Bougie, 2017).

2.3 Data Analysis

This research uses the Partial Least Squares-Structural Equation model (PLS-SEM) data analysis method. Covariance Based SEM (CB-SEM) and Variance Based SEM are part of SEM which is better known as Partial Least Squares (PLS). CB-SEM can estimate structural models from theoretical reviews testing causality between constructs and assessing the feasibility of the model and confirming it with empirical data. This study uses the PLS-SEM method because the number of samples needed in this study is relatively small (Hair et al., 2017). PLS-SEM is a method that does not assume certain distributed data and can be nominal, categorical, ordinal, interval and ratio (Ghozali, 2013). The PLS-SEM statistical model in this study is based on the outer model (measurement model) which consists of 21 measurement items on 6 independent variables. In addition, it is also based on the inner model (structural model) which consists of 8 measurement items on 2 dependent variables.

3. RESULT AND DISCUSSION

3.1 Demographic Profile of Respondents

Table 1.
Demographic Profile of Respondents

Characteristic	Description	f	%
Gender	Male	26	21.5%
	Female	95	78.5%
	Total	121	100%
Ages	21-30 Years	103	85.1%
	31-40 Years	14	11.6%
	41-50 Years	4	3.3%
	>51 Years	0	0%
	Total	121	100%
Education Level	High School	58	47.9%
	Undergraduate / S1	45	37.2%
	Postgraduate / S2	18	14.9%
	Doctorate / S3	0	0%
	Total	121	100%

Based on Table 1, it can be seen that the majority of respondents in this study were female, with a percentage of 78.5%, while male respondents only amounted to 21.5%. This shows that the involvement of women in this study is quite dominant. In terms of age, the majority of respondents were in the age range of 21-30 years, which reached 85.1% of the total respondents. This age group dominated the participating respondents, followed by the 31-40 years age group at 11.6%, and the 41-50 years age group which only reached 3.3%. There were no respondents above 51 years old, indicating that the majority of respondents are the younger generation, particularly those in the early to mid stages of their careers. In terms of education level, most respondents had their last education up to senior high school (SMA) level, amounting to 47.9%. Respondents who had an undergraduate degree (S1) were 37.2%, and those with a postgraduate degree (S2) were 14.9%. No respondents had a doctoral degree. This reflects that the majority of respondents have secondary and tertiary educational backgrounds, but not many continue their education to postgraduate or higher levels.

3.2 Inner Model Analysis

After testing the outer model which produces valid and reliable results, the next step is to test the inner model (structural model). This inner model testing is carried out by paying attention to the path coefficient value and the r-square value. A higher r-square value indicates that the proposed prediction model has better predictive ability. R-square is able to measure the proportion of variance of the dependent variable that can be explained by

the independent variables in the model. In addition, the path coefficient value gives an idea of how strong the influence of the independent variable is on the dependent variable. This path coefficient is an important indicator that shows the direct relationship between variables in the structural model. In other words, the path coefficient shows the strength and direction of the relationship between these variables. In the process of testing the structural model, several other indicators such as the t-statistic value or p-value are also used to test the significance of the path coefficient. If the t-statistic value is greater than the critical value or the p-value is less than the specified significance level (5%), then the effect is considered significant.

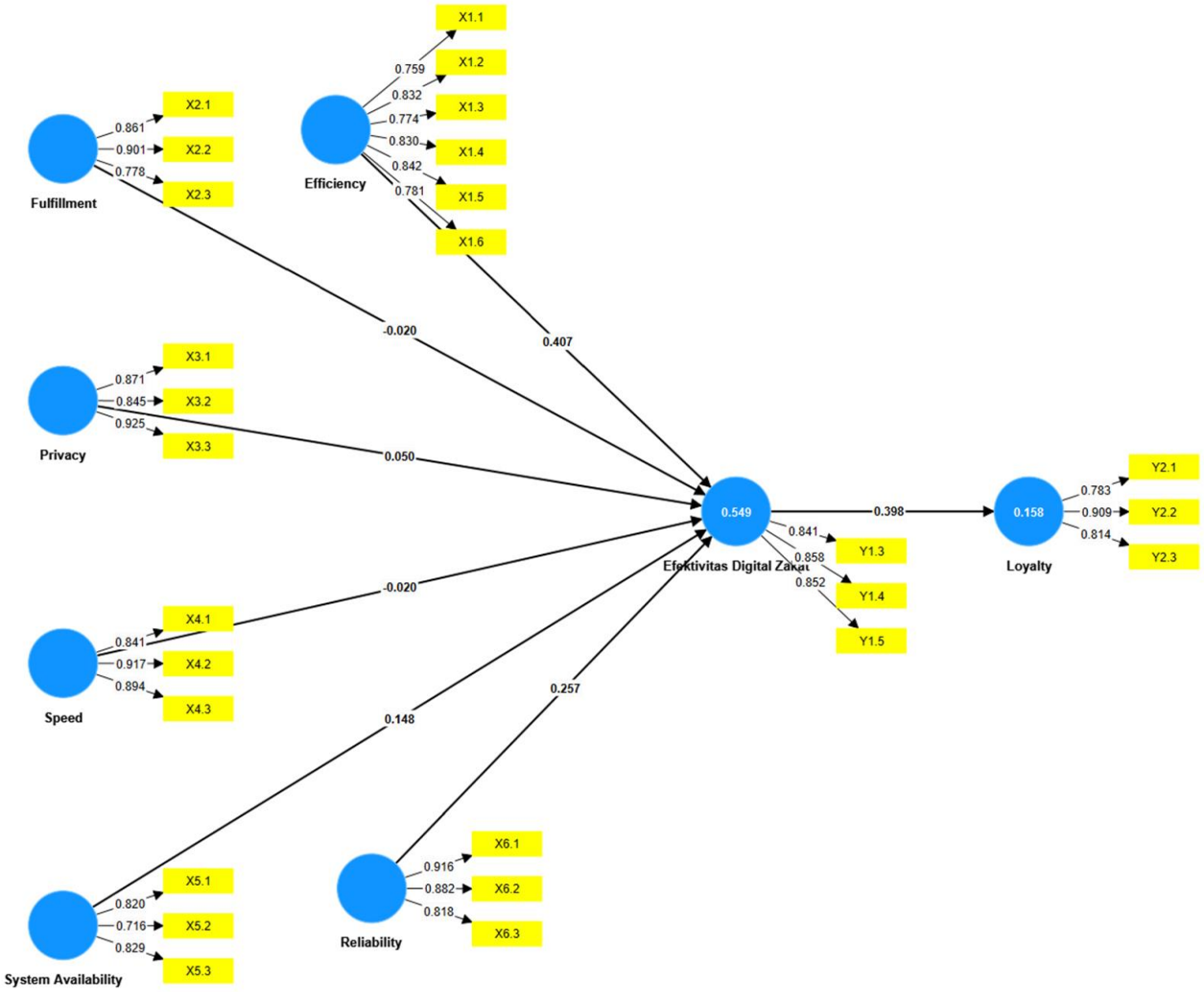

Figure 3. PLS-SEM Bootstrapping Analysis Results

3.2 Determination Coefficient Test

Based on the data processing that has been carried out, as shown in Figure 3, it can be seen that the R-square of the effectiveness of digital zakat (Y1) is 0.549 which means that the influence of efficiency (X1), fulfillment (X2), privacy (X3), speed (X4), system availability (X5), and reliability (X6) on the effectiveness of digital zakat (Y1) is 54.9%. According to Hair et al. (2017), this is included in the moderate or moderate influence which together affect the effectiveness of digital zakat. In addition, the R-square value of loyalty (Y2) is 0.158, which means that the effectiveness of digital zakat (Y1) is able to explain loyalty (Y2) by 15.8%, the remaining 84.2% is explained outside this research model (Band, 2006).

3.3 *Path Coefficient*

Testing the effect of an explanatory variable on the dependent variable can be done with the t test. The standard t-statistic value is greater than 1.96 and with a significance smaller than 0.05, the proposed hypothesis is

accepted. Conversely, if the t-statistic value is smaller than 1.96 and with a dignification greater than 0.05, the proposed hypothesis is rejected (Hair, et al., 20171).

Table 2.
Path Coefficient Test and Significance of Direct Effect

Variabel	Original Sample	Sample Mean	Std dev.	t Statistics	P values
Y1 → Y2	0,398	0,410	0,071	5,575	**0,000***
X1 → Y1	0,407	0,405	0,110	3,716	**0,000***
X2 → Y1	-0,020	-0,005	0,090	0,220	0,826
X3 → Y1	0,050	0,051	0,099	0.508	0,611
X4 → Y1	-0,020	-0,023	0,090	0,227	0,821
X5 → Y1	0,148	0,146	0,120	1,228	0,219
X6 → Y1	0,257	0,255	0,098	2,610	**0,009***

Source: Data processing with SmartPLS (2024) * Significant at α = 5%

Based on the test results, it can be seen that:

1. Effectiveness of digital zakat (Y1) has a positive and significant effect on Loyalty (Y2), with a coefficient value of 0.398 and t statistics 5.575> 1.96 or P values of 0.000 <0.05. Every change in the effectiveness indicator of digital zakat will significantly increase the loyalty of digital zakat users.
2. Efficiency (X1) has a positive and significant effect on the effectiveness of digital zakat (Y1), with a coefficient value of 0.407 and t statistics 3.716 > 1.96 or P values of 0.000 < 0.05. Any change in the efficiency indicator will significantly increase the effectiveness of digital zakat.
3. Fulfillment (X2) has no significant effect on the effectiveness of digital zakat (Y1), with a coefficient value of -0.020 and P values of 0.826 > 0.05.
4. Privacy (X3) has no significant effect on the effectiveness of digital zakat (Y1), with a coefficient value of 0.050 and P values of 0.611 > 0.05.
5. Speed (X4) has no significant effect on the effectiveness of digital zakat (Y1), with a coefficient value of -0.020 and P values of 0.821 > 0.05.
6. System availability (X5) has no significant effect on the effectiveness of digital zakat (Y1), with a coefficient value of 0.148 and P values of 0.219 > 0.05.
7. Reliability (X6) has a positive and significant effect on the effectiveness of digital zakat (Y1), with a coefficient value of 0.257 and t statistics 2.610 > 1.96 or P value of 0.05. Any change in the reliability indicator will significantly increase the effectiveness of digital zakat.

4. DISCUSSION

4.1 Effect of Efficiency on the Effectiveness of Digital Zakat

The results showed that efficiency (X1) has a positive and significant effect on the effectiveness of digital zakat (Y1) so that H1 is accepted. The results of this study answer the research hypothesis that efficiency has an influence on the effectiveness of digital zakat. Efficiency variable is the strongest influence on the effectiveness of digital services (Parasuraman et al., 2005; Santouridis et al., 2012). The results of this study support the E-S-QUAL theory which states that efficiency is the ability of services to be accessed quickly and easily (Boshoff, 2007). The results of this study are in line with research conducted by Anshari and Manjaleni (2024), Kuo and Yang (2011), Parasuraman et al. (2005), and Santouridis et al. (2012) which states that there is an influence between efficiency and the effectiveness of digital services. Based on the answers to the respondent's demographic profile, the majority of respondents have ages in the range of 21-30 years (85.1%). Respondents consider the use of digital zakat will make the zakat payment process faster and easier because respondents in that age range tend to look for more practical ways. Based on the answers to the questionnaire statements, respondents rated well the efficiency of digital zakat reaching a maximum number of 82 respondents (67.8%) on the application service menu is easy to find. In addition, the majority of respondents rated well the efficiency variable related to the information presented arranged in an organized manner. So efficiency is a variable that influences the achievement of digital zakat effectiveness.

4.2 Effect of Fulfillment on Digital Zakat Effectiveness

The results showed that fulfillment (X2) has no significant effect on the effectiveness of digital zakat (Y1). With a negative effect of 0.020, the standard deviation value of 0.090> from the mean which is -0.005, with a t statistics value of 0.220 < from 1.96 with a p value of 0.826> 0.05 which means a negative and insignificant effect. Thus H2 is rejected. These results do not support the E-S-QUAL theory which says that the expected indicators to measure the fulfillment variable proposed by Parasuraman et al. (2005) is divided into two, namely indicators that refer to delivery and reliability (Boshoff, 2007). This is what makes Boshoff (2007) change the fulfillment variable to delivery because it is considered that the indicator better reflects the delivery variable. This result is also supported by previous research by Kau, Abdul, Ishak, and Panigoro (2023), Komala and Firdaus (2020), Laksono, Wijoyo, and Perdanakusuma (2020), Salsabila and Amrina (2023), and Widya and Elisabet (2022) which state that there is no influence between before and after using digital applications. The number of respondents who have recently become digital zakat users shows that interest in the use of digital zakat applications has increased. This proves that respondents in this study are familiar and accustomed to using digital services. So that respondents do not feel that the needs and expectations on the application such as zakat is distributed in a timely manner, mustahik receives zakat in a reasonable time, and muzakki receives reports are things that must be considered. In the digital zakat application, these things are definitely available and users will receive the latest reports related to the zakat paid. Therefore, the ability of digital services in terms of meeting the needs and expectations of users does not affect the effectiveness of digital zakat.

4.3 The Effect of Privacy on the Effectiveness of Digital Zakat

In the results of this study it can be concluded that privacy (X3) has no significant effect on the effectiveness of digital zakat (Y1). With a positive effect of 0.50, the standard deviation value of 0.099> from the mean which is 0.051, with a t statistics value of 0.508 < from 1.96 with a p value of 0.611> 0.05 which means a positive and insignificant effect. Thus H3 is rejected. These results do not support the E-S-QUAL theory which says that privacy is one of the variables proposed by Parasuraman et al. (2005) which remains intact from the configuration (Boshoff, 2007). This result is supported by previous research by Avif, Salim, and Mustapita (2022), Efrianto and Tresnawaty (2021), Mileniumiati, Nursanta, and Masitoh (2022), Sukmawati and Kowanda (2022), and Susanto, Fadhilah, and Udayana (2021) which state that privacy has no effect on the effectiveness of using digital services. This shows that privacy is not always a determining factor in the use of digital services. This shows that accounting students pay more attention to speed and convenience in using digital services and do not really think about the privacy of these services as long as there are no security issues. Therefore, the privacy variable in this study is considered to have no effect on the effectiveness of digital zakat.

4.4 The Effect of Speed on the Effectiveness of Digital Zakat

The results showed that speed (X4) has no significant effect on the effectiveness of digital zakat (Y1). With a negative effect of 0.020, the standard deviation value of 0.090> from the mean which is -0.023, with a t statistics value of 0.227 < from 1.96 with a p value of 0.821> 0.05 which means a negative and insignificant effect. Thus H4 is rejected. These results do not support the E-S-QUAL theory which says that speed is the ability of digital services to be accessed quickly and consistently by users (Boshoff, 2007). These results are supported by research conducted by Anggriani and Maryanto (2023), Ashfa and Ishak (2023), Bachri and Zuripal (2020), and Kuswanto (2009) which state that speed has no effect on the effectiveness of using digital services. This shows that speed is not always a determining factor in the effectiveness of digital services. The results of the research conducted based on the answers to the respondent's demographic profile, found that the majority of respondents used more than 1 application feature, with the most widely used feature being zakat for humanity (66.1%). This feature most often provides information, so it is better known by respondents. Although the speed of the zakat digital application is not optimal, it does not really affect as long as the zakat digital application has a service feature (display) that is easy to find so that the respondents are more aware of it. Although the speed of digital zakat application is not optimal, it does not really affect as long as the digital zakat application has service features (display) that are easy to find so that it makes users comfortable. Therefore, the speed variable in this research population is considered to have no effect on the effectiveness of digital zakat.

4.5 Effect of System Availability on the Effectiveness of Digital Zakat

The results showed that system availability (X5) does not significantly affect the effectiveness of digital zakat (Y1). With a positive effect of 0.148, the standard deviation value of 0.120> from the mean which is 0.146, with a t statistics value of 1.228 < from 1.96 with a p value of 0.219> 0.05 which means a positive and insignificant effect. Thus H5 is rejected. These results do not support the E-S-QUAL theory which states that system availability is one of the variables proposed by Parasuraman et al. (2005) which remains intact from the configuration (Boshoff, 2007). The results of this study are in line with research conducted by Fuadi, Kusyanti, and Rokhmawati (2018), Kau et al. (2023), Safitri, Kusumastuti, and Haryanti (2022), Saputra, Wijiastuti, and Sulistiyono (2021), Wulandari and Istiyanto (2022) which state that the system availability variable does not have a significant effect on the effectiveness of using digital services. Based on the answers to the respondent's demographic profile, the majority of female respondents (78.5%) with high school education graduates (47.9%) use more than 1 digital zakat application, with the most widely used application being Kitabisa (33%). This shows that respondents are not affected by the availability of the system on the digital services they use. If there is a problem with one application, respondents can use another application to make the same transaction. Respondents prioritize the ease of making various kinds of transactions in using digital applications. Therefore, the system availability variable in this research population is considered to have no effect on the effectiveness of digital zakat.

4.6 The Effect of Reliability on the Effectiveness of Digital Zakat

The results of this study show that reliability (X6) has a positive and significant effect on the effectiveness of digital zakat (Y1) so that H6 is accepted. These results successfully answer the research hypothesis that there is an effect of reliability on the effectiveness of digital zakat. Reliability is considered as an important dimension to build effectiveness and user loyalty in digital services (Parasuraman et al., 2005). The results of this study support the E-S-QUAL theory which says reliability is the technical reliability and proper function of the website in providing service fulfillment for users safely (Boshoff, 2007). The results of this study are in line with previous research by Herudiansyah, Fitantina, and Suandini (2023), Paramita and Nugroho (2014), Ronny, Ilfitriah, and Nurhadi (2021), Widayanti, Rahayu, and Hariyanti (2023) which state that there is an influence between reliability on the effectiveness of using digital services. Based on the results of respondent demographics, the majority of respondents aged 21-30 years with 103 respondents (85.1%) agreed that reliability affects the effectiveness of digital zakat. The 21-30 years age group tends to be more familiar with the use of digital platforms for zakat. This is due to the convenience offered by digital platforms in conducting transactions, such as speed, convenience, and accessibility. This generation, often referred to as digital natives, has a higher level of technological adaptation, so they prefer digital-based methods over conventional methods.

4.7 Effect of Digital Zakat Effectiveness on Loyalty

The results showed that the effectiveness of digital zakat (Y1) has a positive and significant effect on loyalty (Y2) so that H7 is accepted. These results successfully answer the research hypothesis that there is an effect of digital zakat effectiveness on loyalty. The results of this study support the E-S-QUAL theory (Boshoff, 2007) which says that the effectiveness of digital zakat can support the achievement of user loyalty. The effectiveness of digital zakat can be interpreted as the value of the quality of digital services received by users compared to the cost sacrifices incurred (Santouridis et al., 2012). Service quality leads to user satisfaction which affects purchasing behavior (Lin & Sun, 2009). Anderson and Srinivasan (2003) mentioned that dissatisfied users are more likely to switch to other service providers than users who feel satisfied. Therefore, loyal users are one of the main drivers of success in digital services (Reichheld & Schefter, 2000). The results of this study are in line with previous research Anggraini and Budiarti (2020), Gultom et al. (2020), Hamsina et al. (2017), Putri and Utomo (2017), Rofiah and Wahyuni (2017) which states that there is an influence between the effectiveness of digital services and loyalty.

Based on the demographic profile of respondents, the majority of respondents as many as 56 respondents (46.3%) last used the digital zakat application in a period of <1 month. This shows that there is a relationship between the frequency of use of digital zakat application and its effectiveness. The more often the application is used, the more effective it is expected to facilitate zakat distribution and give positive impact to zakat recipients. High frequency of use can indicate the level of user trust and comfort with the application, which in turn can improve the efficiency of zakat management and distribution. In addition, based on the answers to the questionnaire statements, respondents rated well the effectiveness of digital zakat reaching the maximum number

of 74 respondents (61.2%) on digital zakat has various features offered. In addition, the majority of respondents rated well the variable of digital zakat effectiveness related to digital zakat is not subject to administrative fees, the amount paid by users can be adjusted according to needs, digital zakat has various features offered, digital zakat applications offer good value, and the service options offered in the application function properly. So that the effectiveness of digital zakat is a variable that affects the achievement of loyalty.

5. CONCLUSION

The results showed that efficiency and reliability measurements have a positive and significant effect on the effectiveness of digital zakat. While fulfillment, privacy, speed, system availability do not have a significant effect on the effectiveness of digital zakat. The effectiveness of digital zakat has a positive and significant effect on loyalty. E-S-QUAL theory is relatively new in studying the effectiveness of digital zakat and user loyalty. This research contributes theoretically and practically. Theoretically, it supports the E-S-QUAL theory in the context of digital zakat in Indonesia. Application in the field of Islamic accounting in terms of payment technology that is in accordance with sharia principles, such as transparency, accountability, and fairness. This can encourage more muzakki to use the digital zakat application as a payment medium. In the field of accounting information systems, namely the management, reporting, and transparency of zakat funds will have an impact on Amil Zakat Institutions to improve the management of zakat funds and maximize the potential of zakat. In practice, it is hoped that the results of this study can help Amil Zakat Institutions to focus on developing the implementation of digital zakat services as an effort to maximize the absorption of zakat potential and increase muzakki who will use digital zakat.

6. IMPLICATIONS

The implication of this research shows that in an effort to improve the effectiveness of digital zakat service, Amil Zakat Institution needs to pay attention to efficiency and reliability measurement as the main factors. By improving system efficiency and reliability, Amil Zakat Institution can ensure that the zakat payment process through the digital platform takes place quickly and without interruption, which in turn will increase user trust. This increased effectiveness can also affect muzakki loyalty, encouraging them to continue using the zakat digital platform in the future. Therefore, focusing on developing and maintaining features that improve efficiency and reliability becomes strategic in supporting the success of digital zakat.

On the other hand, the results of this study also provide direction for the development of policies and strategies of Amil Zakat Institutions in sharia accounting and payment technology. By implementing sharia principles such as transparency, accountability, and fairness in the digital zakat system, Lembaga Amil Zakat can create a more conducive environment to increase muzakki participation. The practical implication is the need for investment in technology and staff training to ensure the zakat digital system not only meets technical standards but also the underlying sharia principles. Thus, the results of this study can support better management of zakat funds and increase the potential of zakat that can be absorbed through digital platforms, ultimately strengthening the role of Amil Zakat Institutions in society.

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