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Impact of Digitalization on Zakat Receipt

Adeh Ratna Komala
Accounting Departement, Universitas Komputer Indonesia

Email: adeh@email.unikom.ac.id

Abstract. This study aims to analyze the impact of digitalization on zakat receipts in zakat management organizations in Bandung. This is done considering the potential for zakat in Indonesia which reaches Rp. 233.8 trillion, while the distribution is only 83.7%, which ideally is around 87.5% as of November 2019. The method used is a survey method using a questionnaire via google form to approximately 36 respondents at the OPZ Dompet Dhuafa West Java, Salman Amal House Bandung, Baitul Maal Hidayatullah West Java, Rumah Zakat Indonesia, BAZNAS and several mosques. The data analysis was carried out through descriptive and verification analysis. The results show that the level of closeness (correlation coefficient) between digitalization and zakat receipts is 0.694, while R square (R2) is 0.482 which indicates that zakat receipts can be influenced by ZIS digitalization of 48.2%, while the remaining 51.8% is influenced by variables others not investigated. This is certainly an opportunity for further research to examine other variables that can increase zakat receipts.

1. Introduction

Digitalization in the collection of Zakat Infaq Alms (ZIS) has an impact on increasing ZIS revenue [1]. The development of information technology makes the world borderless [2]. Technology has provided convenience, no exception for Muslims [3]. The population of Indonesia, which is predominantly Muslim, has great potential in raising ZIS funds [4]. Take zakat from some of their wealth, with that zakat you clean and purify them and pray for them.. (At-Taubah: 103) one of the verses of the Qur'an that commands zakat according to its pillars and conditions. Zakat paid certainly does not burden muzakki (zakat payers) and mustahik (zakat recipients).

Zakat Management Organization is a party that collects zakat funds in Indonesia [5]. The government has issued a regulation on zakat management, namely Law No. 38 of 1999, which states that the government divides into two types of OPZ, namely the Amil Zakat Agency (BAZ) which was formed by the government and the Amil Zakat Institution (LAZ) which was formed by the community [6]. Then, developed Law no. 23 of 2011, which states that the position of BAZ and LAZ is different. In the law there are pull factors, namely: spirit of consciousness, spirit of innovation, dan spirit of empowering. In addition, there are driving factors, namely: huge market potential, friendly regulation, IT Infrastructure, and awareness increasing. However, there is a need for innovation from OPZ to carry out other technological innovations in the form of collaboration with banks and other financial sectors, so that their utilization is widespread [1].

The chairman of the National Amil Zakat Agency said that OPZ continues to use digital channels to attract muzakki to pay their zakat [7]. During the pandemic, BAZNAS was able to increase the value of zakat, infaq and alms (ZIS) collection by 30 percent compared to the previous year. As of 2020, ZIS funds have been collected in the amount of IDR 385.5 billion, an increase from IDR 296 billion in 2019. This amount is equivalent to 101.44 percent of the ZIS collection target set in early 2020. Digitalization has increased zakat receipts and contributed to mustahik in need.

Several previous studies have been conducted regarding the digitalization of zakat. Digital zakat payments increase the potential for zakat receipts. Barriers that occur in the community are weak internet access and the need to build relationships between muzakki, mustahik and OPZ.

In addition, it is necessary to find the right strategy to optimize zakat payments digitally [8]. Digitalization is used in terms of collecting and distributing zakat in Indonesia and accelerating economic growth. OPZ is developing well through digitization to influence the emergence of new markets [9].

Digitalization is a medium used to provide technology-based services. Digitalization has been used by OPZ as a medium for zakat management services, so it needs to be developed for the concept of innovation, strategy and legality in its management system [10]. Digitalization is an opportunity and a challenge for OPZ, as an opportunity because it is a medium for easy access for muzakki to pay zakat and for OPZ it is a media for promotion, collection and reporting of zakat. The challenge faced by OPZ is the need for technologically literate resources so that it is necessary to improve the skills of OPZ managers [11]. Digitalization is a medium that can show accountability and transparency to muzakki who pay zakat. Muzakki will get records and data about zakat received by OPZ, what is the ratio for OPZ, what is the ratio for mustahik. With the digitalization of muzakki who are in different countries can take advantage of it [11].

2. Theoretical basis

Internet technology has penetrated national borders, all obstacles are removed and can be connected to the internet [13]. Application is the use of a computer, instructions or statements that are arranged in such a way that the computer can process input into output [14].

It is further stated that the application system is a set of computers consisting of several interconnected parts and in its application comes from the system design to process some existing data with programming language rules or provisions to achieve the desired results efficiently and effectively.

E-commerce is an example of an application system. E-commerce is a business application system that uses a business model where products are sold directly to consumers or other businesses [13]. Zakat via online payment is a BAZNAS zakat payment service with ZIS payments through an online payment or e-payment mechanism in collaboration with sharia and conventional parties.

Financial technology is a combination of financial services and technology that ultimately changes the business model from conventional to moderate where transactions can be carried out in seconds, although rarely far away. Digitalization has changed the payment system so that it can reduce capital and operational costs so that the payment system becomes more efficient.

3. Research Methods

The research method used in this research is descriptive method and verification method. The unit of analysis is the zakat management organization domiciled in Bandung including the Salman Amal House, Dompet Dhuafa Bandung, Baitul Mal Hidayatullah West Java, Indonesian Zakat House and several West Java DKM. Questionnaires were distributed to several muzakki and the Accounting/finance division of the Zakat Management Organization in Bandung. The Zakat Management Organization is designated as the unit of analysis in this study because OPZ is an organization that collects funds from the Muslim community.

In collecting data using a survey method through a questionnaire with the media google form. The dat a analysis was carried out through descriptive analysis, namely explaining the characteristics of the variables studied in order to support problem solving to obtain operational advice and verification analysis using simple linear regression with the aim of knowing the effect of digitalization on zakat receipts, by first transforming the data on an ordinal scale into interval scale using the Methode Successive Interval (MSI).

4. Research Results and Discussion

The following is the respondent's profile which includes gender, age, education, name of zakat management organization and length of time being a muzaki.

Table 1 Respondent Profile

Respondent Profile	f	%
Gender		
Male	15	41,7%
Female	**21**	**58,3%**
Age		
41 - 50 years old	15	41,7%
> **50** years old	**21**	**58,3%**
Education		
Senior high school	7	8,3%
Diploma	7	8,3%
Bachelor	**18**	**50,0%**
Postgraduate	12	33,3%
Organization Name		
Dompet Dhuafa	6	16,7%
Rumah Amal Salman	3	8,3%
Masjid	9	25,0%
BAZNAS	3	8,3%
R umah Zakat	3	8,3%
BMH	**12**	**33,3%**
Time to be Muzaki		
1 – 5 years	15	41,7%
11 – 15 years	3	8,3%
> **21** years	**18**	**50,0%**

Based on the table above, respondents are generally female (58.3%), aged > 50 years (58.3%), have a bachelor's degree (50%), entrust their ZIS to the BMH organization (33.3%) and have become muzaki for > 21 years (50%)

4.1 Descriptive Analysis

The results of the study are related to the analysis of the influence of digitalization (X) on zakat receipts (Y). The data that has been collected is then coded (coding) and processed using descriptive analysis to determine the respondents' responses to each variable studied, then followed by simple linear regression analysis with 36 respondents.

Table 2
Overview of Digitalization Variable (X)

Digitalization (Variable X)									
1	So far, you understand well about digitalization		TM	KM	CM	M	SM	Total	average
		f	0	15	**18**	3	0	36	2,67
		%	0%	42%	**50%**	8%	0%	100%	
2	So far, you know the products of digitalization zakat		TM	KM	CM	M	SM	Total	average
		f	0	**21**	15	0	0	36	2,42
		%	0%	**58%**	42%	0%	0%	100%	
3	So far, you feel that it is easier for you to access zakat products		TD	KD	CD	D	SD	Total	average
		f	0	6	**21**	6	3	36	3,17
		%	0%	17%	**58%**	17%	8%	100%	
4	So far, it is easier for you to make transactions/pay zakat		TD	KD	CD	D	SD	Total	average
		f	0	6	**18**	9	3	36	3,25
		%	0%	17%	**50%**	25%	8%	100%	
Average of variable									2,88

Based on the table above, respondents quite understand well about digitalization (50%). More than half of respondents stated that they do not know for sure digitalization products (58%). More than half of the respondents feel that it is quite easy for them to access zakat products (58%), and half of the respondents feel that it is quite easy for them to transact/pay zakat (50%). Overall, the average score for the digitalization variable was 2.88. This value is in the interval 2.60 – 3.40 which indicates that the respondents have a fairly good knowledge of ZIS digitalization.

Table 3 Description of Zakat Receipt Variables (Y)

Zakat Receipt (Variable Y)									
5	So far, you have felt the benefits of digitalization when transacting/paying zakat		TM	KM	CM	M	SM	Total	average
		f	0	2	**6**	3	1	12	3,25
		%	0%	17%	**50%**	25%	8%	100%	
6	So far, you are interested in digitalization as an innovation in transactions/paying zakat		TM	KM	CM	M	SM	Total	average
		f	1	3	**4**	**4**	0	12	2,92
		%	8%	25%	**33%**	**33%**	0%	100%	
7	So far, you prefer and continue to use digitalization in paying zakat		TM	KM	CM	M	SM	Total	average
		f	**3**	**3**	2	**3**	1	12	2,67
		%	**25%**	**25%**	17%	**25%**	8%	100%	
Variable average									2.94

Half of the respondents feel the benefits of digitalization to pay zakat (50%). One third of respondents stated that they are interested or quite interested in digitalization as a new innovation from the financial industry in transacting/paying zakat (33%). Meanwhile, a quarter of respondents stated that they chose, did not choose and did not choose to use digitalization to pay zakat (25% each). Overall, the average score for the Zakat Acceptance variable is 2.94. This value is in the interval of 2.60 – 3.40 which indicates that the respondent is spending zakat quite well.

Regression Analysis

Simple linear regression analysis in this study was used to determine the effect of digitalization on Zakat Receipt, by first transforming the data on an ordinal scale into an interval scale using the Successive Interval (MSI) Method.

Classic assumption test

Prior to the formation of the regression model, classical assumptions were tested in order to obtain a BLUE (Best Linear Unbiased Estimated) estimation result. The testing of this assumption consists of two tests, namely the normality test and the heteroscedasticity test.

Data Normality Test

The normality test in the regression model is used to test whether the residual value resulting from the regression is normally distributed or not. A good regression model is one that has a normally distributed residual value. Test the normality of the data using the graphical method, namely by looking at the spread of data on diagonal sources on the normal probability plot graph (P-P Plot of Regression Standardized residual) and Kolmogorov-Smirnov. As a basis for making the decision, if the points spread around the line and follow the diagonal line and the significance value is greater than 0.05, then the residual data is normal.

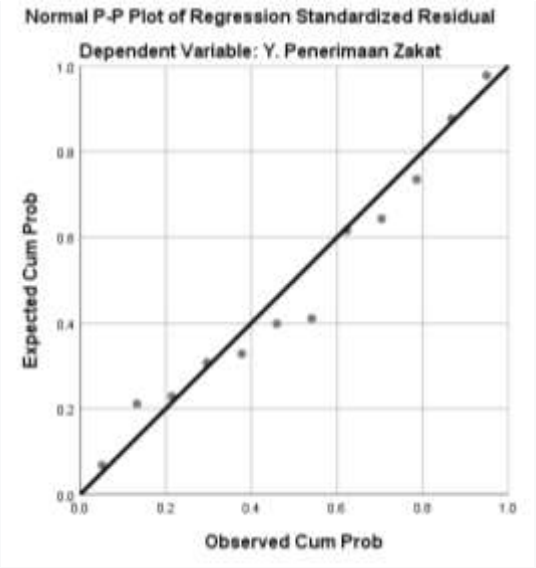

Figure 1. Normality Test with P-P Plot Method

Based on the normality graph using the normal p-plot above, it is known that the points spread out following a diagonal line which indicates that the regression model meets the assumption of normality. To strengthen, the following is a normality test using the Kolmogorov-Smirnov test with the following results

Table 4 Normality Test with Kolmogorov Smirnov .Test

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		12
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	1.95656453
Most Extreme Differences	Absolute	.177
	Positive	.177
	Negative	-.117
Test Statistic		.177
Asymp. Sig. (2-tailed)		.200[c,d]

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

Based on the output table of the Kolmogorov Smirnov test above, the significance value (Asymp. Sig. (2-tailed)) is 0.200. The significance value (p-value) is greater than 0.05, so it can be concluded that the data is a normal distributed regression model.

Heteroscedasticity Test

Heteroscedasticity test aims to determine whether in the regression model there is an error or variance inequality in the residual (error) from one observation to another observation. To test for the presence of heteroscedasticity symptoms, the Scatter Plot method was figure 2

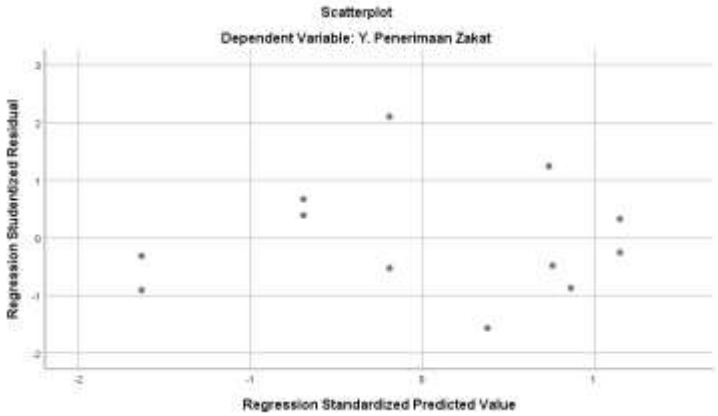

Figure 2. Heteroscedasticity Test

Based on the picture above, it is known that the points obtained spread randomly and do not form a certain pattern or spread above and below zero on the Y axis, so it can be concluded that the data studied did not find heteroscedasticity problems.

Regression Model Equation

The simple linear regression equation to be formed is:

$$\hat{Y} = \alpha + b\,X$$

Information

Y= Zakat Receipt
α = Konstanta
X_1 = Digitalization
B = Regresition coefficient

By using the help of IBM SPSS 25 Software, the results of simple linear regression analysis are obtained as follows

Table 5 Simple Regression Coefficient

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.848	1.979		.934	.372
	X. Digitalisasi	.670	.219	.694	3.052	.012

a. Dependent Variable: Y. Penerimaan Zakat

Based on the results of the SPSS output in the table above, it can be seen that the regression coefficient value is the Unstandardized Coefficients value "B", so that a simple linear regression equation is obtained as follows:

$$\hat{Y} = 1{,}848 + 0{,}670\ X$$

From the results of the regression equation can be interpreted as follows:

1. The constant value is 1.848, which means that if the independent variable, namely ZIS digitization, is 0 (zero), then Zakat Receipt is predicted to be worth 1.848.
2. The regression coefficient value of 0.670 in the ZIS digitalization means that if the ZIS digitalization increases by 1 or is getting better, then Zakat Revenue is predicted to increase by 0.670.

Correlation Coefficient Analysis

Correlation analysis aims to see the extent of the relationship or closeness that occurs between the independent variable and the dependent variable. The following is the value of the correlation coefficient with the help of IBM SPSS 25 . Software

Table 6 Correlation Coefficient (R) and Coefficient of Determination (R2)

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.694[a]	.482	.430	2.05206

a. Predictors: (Constant), X. Digitalisasi

b. Dependent Variable: Y. Penerimaan Zakat

Based on the table above, information is obtained that the correlation value (R) obtained between ZIS Digitalization and Zakat Receipt is 0.694. The value of 0.694 according to Rahmat is in the interval 0.400-0.699 including the category of quite strong correlation. So it can be seen that there is a fairly strong relationship between ZIS Digitization and Zakat Receipt.

Coefficient of Determination Analysis (R2)

The coefficient of determination (R2) is used to measure how far the ability of the independent variable to contribute or influence the dependent variable. From the table of SPSS output results above, it is known that the coefficient of determination or R square is 0.482 or 48.2%. This shows that Zakat Acceptance is able to be influenced by ZIS digitization by 48.2%, while the remaining 51.8% is influenced by other variables not examined.

Hypothesis Testing (t Test)

By using the IBM SPSS 25 Software program, the following hypothesis test results were obtained

Table 7 Results of Hypothesis Testing (t Test)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.848	1.979		.934	.372
	X. Digitalisasi	.670	.219	.694	3.052	.012

a. Dependent Variable: Y. Penerimaan Zakat

H_0: $\beta_1 = 0$: ZIS digitalization has no significant effect on Zakat Receipt
H_1: $\beta_1 \neq 0$: ZIS digitalization has a significant effect on Zakat Receipt

With a significant level (α) of 5%, df = 10, so that the ttable for the two-party test is -2.228 and 2.228.
Criteria : Reject H_0 if $t_{count} > t_{table}$ or $-t_{count} < -t_{table}$, accept H_1
Reject H_1 if $t_{count} < t_{table}$ or $-t_{count} > -t_{table}$, accept H_0

From the table of SPSS output results above, the t_{count} value for the ZIS digitalization variable on Zakat Revenue is 3.052 and the p-value (Sig.) is 0.012. From the table of SPSS output results above, the t_{count} value for the ZIS digitalization variable on Zakat Revenue is 3.052 and the p-value (Sig.) is 0.012. If described, the values of t_{count} and t_{table} for testing the hypothesis appear as figure 3:

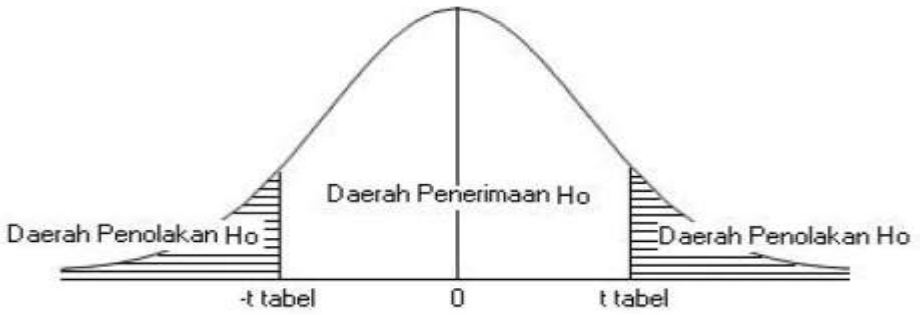

Figure 3 Hypothesis Testing Curve

Based on the hypothesis test curve above, it can be seen that the value of t_{count} is greater than the value of t_{table} so that H1 is accepted, which shows that with an error rate of 5%, it can be seen that ZIS digitalization has a significant effect on Zakat Acceptance, so the research hypothesis is accepted.

5. Discussion

Based on the results of data processing, it can be said that digitalization affects zakat receipts, this shows that technological advances have an impact on zakat receipts in the city of Bandung. The correlation results show a unidirectional and very strong and positive relationship with zakat receipts, where if digitalization increases, zakat receipts will increase in zakat management organizations.

These results support previous research which states that digitalization is the right strategy in optimizing zakat payments so that it can increase zakat income [8]. Other researchers say that digitalization affects the emergence of new markets [9].

This result also proves that the phenomenon that occurs in zakat management organizations where digitalization has pushed the rate of zakat acceptance. This is an opportunity that must continue to be worked on so that it will increase zakat income and have an impact on the welfare of the muztahik. From the results of the coefficient of determination, it shows that the magnitude of the influence of digitalization funds is 48.2% and the remaining 51.8% is influenced by other factors outside of independent variables such as human resource competence, innovation, and socialization.

6. Conclusions and suggestions

The zakat potential is optimized by the Zakat Management Organization through education about zakat and digital development, namely providing applications for muzakki in an effort to distribute their zakat. The shift from traditional to digitalization of services through technology has helped Zakat Management Organizations in expanding their reach and expanding target communities. Innovations in utilizing technological advances have the potential to increase the collection and distribution of zakat. The huge potential of zakat can be optimized through digitalization so that zakat targets can be realized. There is a price to be paid from the use of technology for its main users, namely amil zakat, namely increasing their competence in utilizing technology so that they become users who are able to facilitate other users such as muzakki in paying their zakat.

References

[1] Soeharjoto Soekapdjo, Debbie Aryani Tribudhi, Lucky Nugroho. 2019. *Fintech Di Era Digital Untuk Meningkatkan Kinerja Zis Di Indonesia*. Jurnal Ilmiah Ekonomi Islam (JIEI). Vol 5, No 3

[2] Soeharjoto. 2016. Pengaruh Penanaman Modal Asing dan Daya Saing Terhadap Ekspor Industri Manufaktur di Indonesia. Media Ekonomi. Vol. 24(2).

[3] Walter, Leimgruber. 2004. *Between Global and Local*. Aldershot (England): Ashgate Publishing Limited.

[4] Soekapdjo Soekarjoto, Lucky Nugroho, Ahmad Badawi, Wiwiwk Utami. 2018. Bad Debt Issues in Islamic Bank: Macro and Micro Influencing Indonesian Case. International Journal of Commerce and Finance. Vol 4(1)

[5] Romdhoni, Abdul Haris. 2017. *Zakat Dalam Mendorong Pertumbuhan Ekonomi dan Pengentasan Kemiskinan*. Jurnal Ilmiah Ekonomi Islam. Vol. 3(1).

[6] Marzuki, Angga dan Ibnu Qomar. 2015. *Arah Baru Kebijakan Publik: Studi Kasus Pemberdayaan Zakat*. Jurnal Bimas Islam Vol. 8(4).

[7] Rahmawati, Yuke. 2011. *Refleksi Sistem Distribusi Syariah Pada Lembaga Zakat dan Wakaf Dalam Perekonomian Indonesia*. Al-Iqtishad. Vol. 3(1).

[8] Noor Ahmad. 2021. Baznas: Digitalisasi Permudah Umat Tunaikan Zakat melalui https://www.republika.co.id/berita/qnlqjf349/baznas-digitalisasi-permudah-umat-tunaikan-zakat

[9] Pertiwi Utami, Tulus Suryanto, M. Nasor, Ruslan Abdul Ghofur. 2020. *The Effect Digitalization Zakat Payment Against Potential of Zakat Acceptance in National Amil Zakat Agency*. Iqtishadia, Journal of Islamic Economics and Business. Vol.13,No.2.2020. PISSN: 19790724,EISSN: 25023993

[10] Ummu Salma Al Azizah, Muhammad Choirin. 2018. *Financial Innovation On Zakat Distribution And Economic Growth*. International Conference Of Zakat 2018 Proceedings ISSN: 2655-6251
[11] M. Aulia Rachman. Annisa Nur Salam. 2018. *The Reinforcement of Zakat Management through Financial Technology Systems*.International Journal of Zakat | ISSN: 2548 2335 | Vol. 3 (1) 2018. DOI https://doi.org/10.37706/ijaz.v3i1.68
[12] Dian Friantoro and Khozin Zaki. 2018. *Do We Need Financial Technology for Collecting Zakat?*. International Conference Of Zakat 2018 Proceedings ISSN: 2655-6251
[13] Safura Hijriana, Siti Ainun Nisa F, Vina Aprilia Nugroho. 2018. *Role of Financial Technology in Zakah Optimization*. International Conference Of Zakat 2018 Proceedings ISSN: 2655-6251https://www.youtube.com/watch?v=LW99Az6KAR8&t=3s
[14] Agus Herm awan. 2012. Komunikasi Pemasaran, Jakarta: Erlangga
[15] Jogiyanto. 2003. Sistem Teknologi Informasi. Yogyakarta: Andi Offset
[16] Irfan Syauqi Beik. 2019. Potensi Zakat di Indonesia Sangat Besar, tetapi…., https://money.kompas.com/read/2019/11/07/153000126/potensi-zakat-di-indonesia-sangat-besar-tetapi-?page=all.