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Problems and solutions in zakat digitalization: Evidence from South Kalimantan, Indonesia

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Abstract

Purpose – This study aims (i) to analyze the readiness of zakat management institutions in zakat digitalization and (ii) to analyze the problems and solutions in managing zakat funds through digital platforms.

Methodology – The study used two methods, called the interview and the Delphi-ANP methods. The data used in this study were the results of interviews with zakat managers (OPZ) in South Kalimantan (BAZNAS and LAZNAS). Besides practitioners, it also involved experts from various universities in South Kalimantan.

Findings – The results showed that most zakat institutions in South Kalimantan, Most zakat institutions have a good understanding and readiness to shift to digital platforms. Based on the analysis of problems and solutions in using digital platforms in zakat management, the study found alternative priority problems and solutions for zakat institutions. The problems and solutions covered human resources, IT, institution management and socialization and communication, muzakki, society, government and digitization. In particular, the main cluster of priority problems was management, and the main cluster of priority solutions included human resources.

Originality – The researchers reviewed several studies that explained problems and theories of zakat management through digital platforms. However, there is still seemingly no study reviewing problems to manage zakat funds through digital platforms provided by zakat institutions.

Practical implications – This research shows that OPZ needs to recruit IT and Digital Marketing people. In addition, it suggests OPZ designs and creates crowdfunding, e-wallet, e-commerce, website, and social media. Following that, OPZ should do digital planning for zakat collection and training conducted by BAZNAS Province and Center to OPZ periodically. They also need to establish a partnership with scholars (*Ulama*) and the government agencies to increase the payment zakat digitally.

Introduction

Zakat continues to develop from time to time, especially regarding the types and the payment method. Currently, the amount of Zakat collected by BAZNAS continues to grow from year to year, as illustrated by Table 1.

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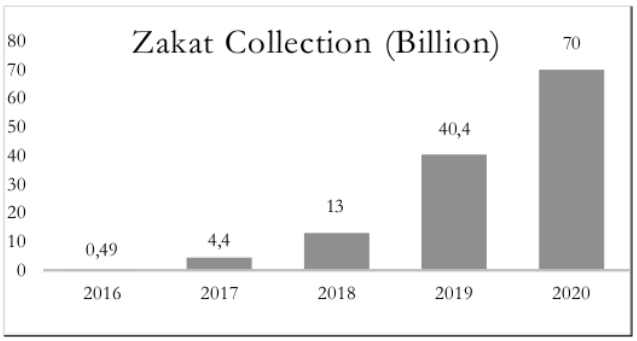
Table 1. Growth of Zakat in Indonesia from 2009-2019

Year	ZIS (Billion)	Growth (%)
2009	1,200.00	30.43
2010	1,500.00	25.00
2011	1,729.00	15.27
2012	2,212.00	27.94
2013	2,639.00	19.30
2014	3,300.00	25.05
2015	3,650.00	10.61
2016	5,017.29	37.46
2017	6,224.37	24.06
2018	8,117.60	30.42
2019	10,227.94	26.00

Source: BAZNAS.go.id (2020)

Table 1 proved that zakat funds collected by BAZNAS continue to increase towards a positive trend. Several factors affected this growth, such as the trust of Muzakki and distributive justice that has been carried out by zakat institutions (Abror & Hudayati, 2020; Aziz & Anim, 2020). However, the growth of zakat fund collection is still far from the existing potential. According to Zakat Mapping Potential Indicators (IPPZ), the potential for zakat in Indonesia in 2019 reaches IDR 233.8 trillion (Pusat Kajian Strategis BAZNAS, 2020). Thus, there are still many rooms to improve.

In addition to growing in terms of numbers, the zakat collection has also developed using technology or digital platforms. This change is a way for zakat institutions to adapt to the changing times, from digital technology in the era of the industrial revolution 4.0 towards the revolution of society 5.0. Then, the change was also reinforced during the Covid-19 pandemic that began entering Indonesia in early 2020. The Ministry of Religion issued a circular letter from the Minister of Religion Number 6 of 2020. One of the contents was to socialize the shift of zakat payments to provide zakat pick-up services and banking service transfers. Figure 1 presents the amount and growth of zakat funds collected digitally:



Source: Baznas.go.id (2020)

Figure 1. Number and Growth of Zakat Funds Collection Through Digital Platforms

The figure 1 shows that zakat collected through digital platforms increases from year to year. Since zakat funds were collected online in 2016, the digital receipts were only 1% of BAZNAS's total revenue target, with the target to IDR 40 billion. In other words, BAZNAS can exceed the digital platform's target number for special collections (Humas Baznas, 2020). This is also supported by scientific research, which explains that the collection of zakat funds increased significantly after using digital platforms (Herman, 2019; Hiyanti et al., 2020; Maulana & Syam, 2019; Profatilov et al., 2015; Soekapdjo et al., 2019; Swandaru, 2019).

However, despite these conveniences and changes, not all Muslims can pay zakat online because approximately 235 million Muslims in Indonesia live in rural areas and do not have financial access to online banking. This number covered 44 percent of the total population. Hence, they still pay zakat through local zakat collectors and mosque managers (Fauzia, 2020). More specifically, according to a study by the National Committee for Islamic Economy and Finance (KNEKS) in 2020 in South Kalimantan, the Community Zakat Literacy Index was 67.06%, the Basic Understanding Index about Zakat was 73.3%, and the Advanced Understanding Index about Zakat was 55.46%. These numbers imply that not all people understand zakat. There is a need to review whether zakat management through digital platforms is relevant and compatible with current community conditions.

This change also becomes a concern for some people since it still leaves issues of the formality of religious law. Moreover, zakat through digital platform technology has not yet been well-regulated. In fact, the digital zakat has to meet various sharia provisions and principles. In addition, organizations should protect donors from donation managers. They must be able to carry out financial reporting transparency by providing reports to donors that have donated their money (Budiman & Octora, 2019; Ulya, 2018). Several cases have been reported to harm users who want to pay zakat. The case includes fraud by individuals on behalf of BAZNAS to transfer zakat funds through fraudsters' accounts. Some parties create fake zakat institutions to receive zakat online or create fake zakat applications that are similar to the mobile app of the national zakat institution. In fact, there is no evidence of zakat distribution because zakat is managed online. This issue then causes a gap between the aspired social order and the state of society that exists in reality.

Several problems discussed in the background above indicate a social change in society regarding the digitalization of zakat management. Here, the development of thinking about zakat and financial technology is significant among academics, practitioners, or other stakeholders. The present research examines several studies that explain problems and theories of zakat management through digital platforms from a technical point of view. So far, there has been no discussion to raise the issues and solutions for managing zakat funds through a digital platform. Based on this gap, this study discusses critical problems and key solutions related to the management of zakat funds through the digital platform at the National Amil Zakat Agency (BAZNAS) and LAZNAS. This research offers novelty in the world of research regarding the development of zakat in terms of the best alternative solutions related to the above problems.

Literature Review

Zakat comes from the basic word *zaka*, which means holy, blessing, growing, and commendable. Meanwhile, in the term of fiqh, zakat is a certain amount of property required by Allah to be handed over to the person who is entitled to receive it and using a certain amount itself (Qardhawi, 1997). In Indonesia, zakat management is regulated by Law no. 23 of 2011.

As argued earlier, zakat in Indonesia has significantly developed. One of the examples is the involvement of digital technology. Nevertheless, it should be borne in mind that the provisions of zakat through digital platforms must be in accordance with the provisions of Zakat in Islam. Its features must follow the basic rules of Zakat and do not leave the terms or conditions in zakat (Cholifah, 2019; Gumilang, 2020). Bariyah (2016) explained that this integration benefits because donors can make online donations without having to come to the foundation's office. The integration of technology also assists admins in managing donor data and online donation transactions so that reports can be done more quickly and efficiently (Ibrahim & Septiani, 2017).

For those reasons, the development of fintech used for zakat payments causes heating pros and cons. On the one hand, the presence of fintech has the potential to increase the collection of zakat funds (Soekapdjo et al., 2019). On the other hand, such technology is prone to digital threats, such as fraud, cybercrime, and many other problems related to information technology (Friantoro & Zaki, 2019). Piliyanti (2019) stated that it is a challenge for platform managers and the Indonesian *Ulama* Council to oversee Sharia finance principles on digital

platforms, whether they are obedient and under Sharia and business technology rules in Indonesia. Fahlefi (2018) analyzed that Islamic philanthropic institutions have an important role in supporting the realization of Islamic financial inclusion. Clear regulations, commitment from the authorities, and supervision by the authorities are three matters that can guarantee the professionalism and accountability of Islamic philanthropic institutions in carrying out innovations in the fintech field. In zakat management, innovation is needed by implementing fintech for zakat information systems. This technology can make zakat management more effective and efficient. with some processes (Rachman & Salam, 2018).

Rahmatika and Hariono (2019) explained that a simple application based on technological sophistication could facilitate muzakki and mustahiq in carrying out the process of distributing and fulfilling zakat obligations. Technological sophistication may lead to better risk management. In this context, handling the risk of muzakki and mustahiq is manifested in the form of an order to apply the right distribution for those who are entitled to receive zakat and the distribution of data that is already available on the website of the zakat institution (Azizah & Choirin, 2019).

Rizki (2019) explained that peer-to-peer loans are effectively used to manage zakat funds in sustainable investment instruments by collaborating between LAZ and LKS. The strategy to optimize zakat can be achieved by improving the governance system and information about zakat-based digitalization institutions. In addition, the information for the mustahik and muzaki databases needs to be improved to optimize the collection and distribution of zakat (Santoso, 2019). In the system, the impact of SIMBA implementation on zakat collection in Indonesia was positive and significantly affected the national zakat collection as well as the human development index, which was used as a proxy for human resource management (Swandaru, 2019). On the other hand, the use of fintech affects the amount of ZIS revenue. Masruroh (2016) explained that the application system for zakat, infaq, and alms is very much needed as a suggestion for receiving and distributing people's funds on target, and becomes an alternative solution to assist in the management process of distributing zakat, infaq, and alms. The behavior of muzakki in paying zakat using non-cash transactions (e-money) is based on several factors, namely muzakki's beliefs, the environment, conscious interest, spontaneous interest (reflex motion), and external factors (Aini et al., 2018).

In general, the results of research related to zakat, as stated above, explain that zakat can be collected online to increase the collection of zakat funds. However, unlike previous studies, the present study emphasizes problems and solutions in relation to the management of zakat funds using digital platforms. Thus, the difference with previous research lies in the angle of the approach used and the object of research. However, this research is still put forward because it can enrich the discussion of this research field.

Research Methods

This study included several qualitative methods, particularly the Interview, Delphi, and the Analytic Network Process (ANP) methods. The interview session aimed to identify the readiness of the Institution in managing zakat funds digitally. Meanwhile, the Delphi method was performed to identify the problem causing the low digital zakat collection in South Kalimantan and its solution. Finally, the ANP method was used to evaluate the results of the Delphi method and find out the main cause of the low digital zakat collection in South Kalimantan. Additionally, it strives to find the best solution to solve the digitalization problem.

Data

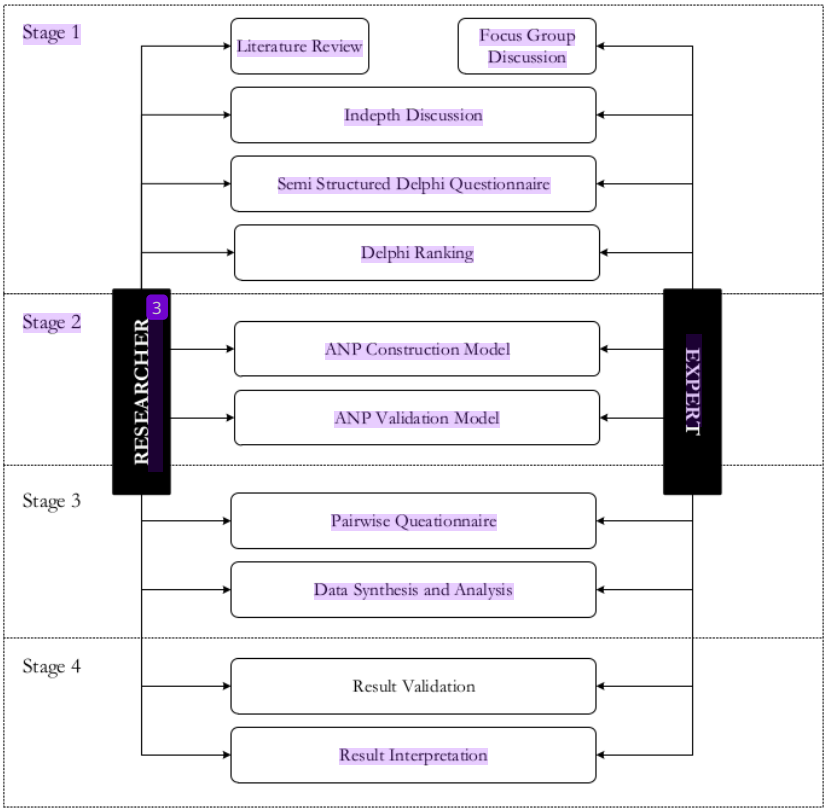
The data used in this study were generated from a series of interviews with zakat managers in South Kalimantan. 14 BAZNAS and 1 (one) LAZNAS involved in the study, consisting of the National Amil Zakat Agency of South Kalimantan province, BAZNAS Banjarmasin City, BAZNAS Banjarbaru City, BAZNAS Batola Regency, BAZNAS Banjar Regency, BAZNAS Tapin Regency, BAZNAS Hulu Sungai Selatan Regency, BAZNAS Hulu Sungai Tengah Regency, BAZNAS Hulu Sungai Utara Regency, BAZNAS Tabalong Regency, BAZNAS Balangan Regency, BAZNAS

Tanah Laut Regency, BAZNAS Tanah Bumbu Regency, BAZNAS Kotabaru Regency and LAZ Rumah Zakat. Besides practitioners, the study also invited experts from various universities in South Kalimantan who understood the condition of Zakat in South Kalimantan.

All respondents were subjected to in-depth interviews. Then, after the process, they were asked to fill out a questionnaire for the Delphi method and the ANP method. The selected practitioner respondents were the chairperson or deputy chairperson of each BAZNAS and LAZNAS. Following that, participants from the expert were represented by regulators (Head of Zakat and Waqf from the Ministry of Religion). There were also several academics from universities that teach and/or have researched on zakats, such as from Universitas Lambung Mangkurat, Universitas Islam Kalimantan, Universitas Islam Negeri Antasari, and Politeknik Negeri Banjarmasin.

Method

This study conducted a series of analyses that included 3 (three) stages (see figure 2). *First*, interviews or in-depth interviews were conducted with all respondents to obtain data related to data analysis on the readiness of OPZ in South Kalimantan in facing the digital era. *Second*, the Delphi method was used and developed by Norman Dalkey and Olaf Helmer at the Rand Corporation, a research institute in Santa Monica, California, the United States, in the 1960s (Dalkey & Helmer, 1963; Hsu & Sandford, 2007).



Source: Ascarya & Yumanita (2009)

Figure 2. Delphi-ANP Method

At this stage, the researcher carried out several stages, such as (i) in-depth interviews with experts and practitioners to prepare open-ended questionnaire questions. This stage was aimed at collecting specific information about a problem. The next stage was (ii) the process of submitting

a structured questionnaire that has been collected in the first stage. Respondents were asked to review the list of elements that had been summarized by the researchers based on the information in the first stage. Then, (iii) the process of delivering the previous results, namely the list of elements, is complemented by a priority assessment that the researchers have summarized. Respondents should provide a ranking order to establish the initial priority among the collected elements. Finally, (iv) the result of this stage was that the value of agreement and disagreement could be identified (Ascarya & Yumanita, 2018).

Third, Analytic Network Process Method or ANP was developed by Thomas L. Saaty in 1996. It was the extension and generalization of the previously developed Analytic Hierarchy Process or AHP in 1980. The method could be described as a general theory of relative measurement with absolute scale to solve multidimensional problems in multi-criteria decision making (MCDM) setting of tangible and intangible criteria based on the judgements of the experts in the field (Saaty, 2004; Saaty & Vargas, 2006). Typically, the ANP method requires primary data collected from a pair-wise questionnaire distributed to two groups of respondents, including expert and zakat practitioners. In general, there are three phases or stages in conducting analysis using the ANP approach, namely (i) Model Construction;this stage was carried out to identify what variables should be used in the ANP model related to the research objectives; (ii) Quantification of the Model, that begins with the preparation of a questionnaire that refers to the ANP model that has been validated; and (iii) Results of the Analysis (Ascarya & Yumanita, 2018).

Model Development

Zakat management consists of zakat collection, management, and distribution. Each component has sub-criteria, such as zakat collection consisting of internal and external platforms. Meanwhile, zakat distribution consists of programs in distributing zakat and zakat management consists of applications used in the process of receiving and distributing the zakat. Each of these three criteria contains a problem and its solution, processed using the Delphi and ANP methods. Figure 3 describes problems when managing zakat and its solution using the model development from Delphi-Result:

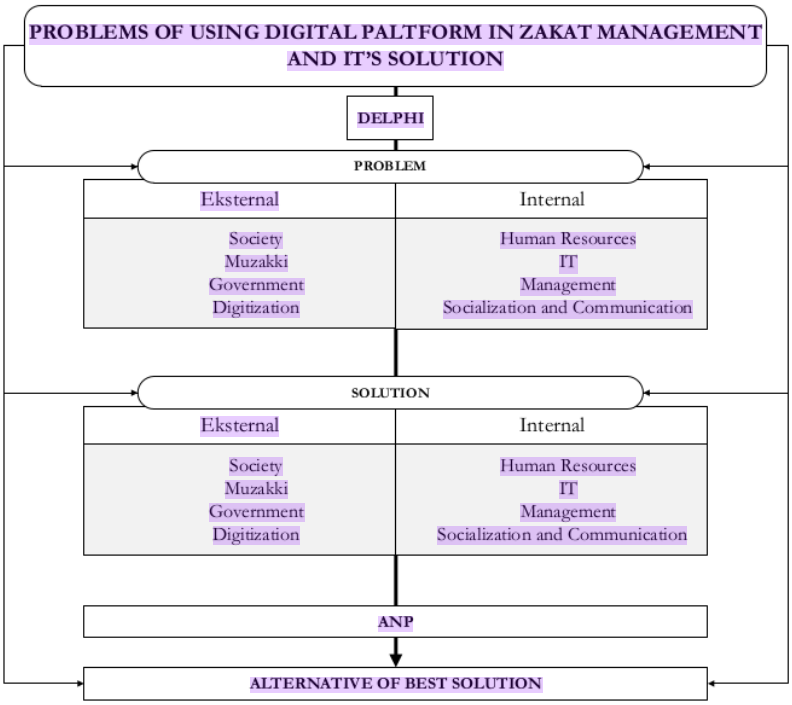


Figure 3. The Problem of Zakat Collection through Digital Platform and its Solutions

According to Delphi results, problems and solutions in zakat collection, management, and distribution fell into two categories, namely internal and external. The internal dimension consists of human resources, IT, management, socialization, and communication. Then, the external dimension consists of the community, muzakki, government and digitalization.

Results and Discussion

Institutional Readiness in Digitizing Zakat Management

Mutula and van-Brakel (2006) developed a research model to assess the technology readiness in an institution or company. Several readiness segments include information readiness, enterprise readiness, human resources readiness, infrastructure readiness (ict readiness), and external environment readiness. The followings are the results of the development of the model, as presented in table 2.

Table 2. Institutional Readiness in Digitizing Zakat Management

Management of Zakat Institutions and Human Resources	Yes (%)	None/No (%)
Official Email	90*	10
Understand Blockchain	80*	20
Have A Database	80*	20
Understand the Importance of Technology	80*	20
Digitization Support	100*	0
Paid Media Channels	70*	30
Human Resources (Amil) Able to use Digital Devices	90*	10
Digital Recruitment	56.7*	43.3
IT Division	40	60*
Digital Marketing Division	40	60*
SOP	80*	20
Internet	93.3*	6.7
Internet Barriers	40	60*
Digital Channel	70*	30
Collection of Zakat		
Cooperation with E-Commerce	23.3	76.7*
Website	46.7	53.3*
Use Crowdfunding	30	70*
Have an E-Wallet	43.3	56.7*
SIMBA	80*	20
Distribution of Zakat		
Rice ATM (*ATM Beras*)	0	100*
Unified Data (*Data Terpadu*)	50	50

The institutional readiness segment in this study uses several indicators, namely: the perceptions of the importance of using technology in LAZ, views related to digitization, readiness to face the digital era, paid media channels, application of the Zakat Core Principle (ZCP), budget allocation for HR development, blockchain implementation plans, and *Amil* digital competency improvement program.

In South Kalimantan, Most zakat institutions have a good understanding and readiness to shift to digital platforms. However, this study found out that the majority still did not have sufficient human resources, such as IT and Digital Marketing personnel. Then, the internet was also perceived as the majority problem. Fortunately, this study indicated that 80% of zakat managers viewed the use of technology in BAZNAS positively. In addition, all zakat managers considered digitalization to support the progress of BAZNAS and Laznas in South Kalimantan.

With regard to media channels, 70% of zakat management institutions were reported to use paid media channels, while the rest did not. Further, the average education of *Amil* was undergraduate. In the recruitment process, 56.7% of *Amil* used digital media, and 43.3% did not

use digital media or do it conventionally, such as through a private bidding process. In addition, 90% of *Amil* could use digital channels, while the remaining have not used any digital channels.

This study also investigated if the zakat institutions have a particular division to manage their marketing. The results revealed that most zakat managers did not have IT and digital marketing divisions, by 60%, respectively. Fortunately, most of them (80%) have SOPs; and only 20% of zakat managers did not have SOPs. They reported that the SOPs were only made when needed.

As zakat institutions are encouraged to utilize digital platforms, internet availability at the office is crucial. Luckily, nearly all of the zakat managers (93.3%) mentioned that they had internet access. However, as many as 40% admitted to experiencing obstacles when accessing the internet, especially those who lived in regions far from the provincial capital. In short, of 14 zakat management institutions investigated in this study, 70% were classified as active digital channels, and the other 30% were not.

The second dimension to assess institution readiness is in the zakat collection. It has several indicators, such as cooperation with e-commerce, website availability, the use of crowdfunding, e-wallet, and SIMBA. This study documented that most OPZ in South Kalimantan did not use digitization in collecting zakat so that it failed to reach its full potential. Although nearly half (46.7%) of zakat management institutions had websites, only 23.3% of zakat managers cooperate with e-commerce and 30% use crowdfunding technology to collect zakat. E-wallet for the convenience of paying zakat was used by 43.3% of zakat management institutions. Meanwhile, SIMBA was only used by 80% of zakat institutions.

The final dimension is zakat distribution. The use of digital platforms in this part is limited because it can only be applied to specific programs. The distribution of zakat has not used a Rice ATM yet. Rice ATM is a machine specially designed to take rice automatically. Users who already have an ATM card from Baznas can take rice from this machine with the desired amount according to the specified limit. However, at the moment, Baznas of South Kalimantan Province is in the process of Rice ATM procurement. Finally, 50% of OPZ were reported to have implemented the digitalization data of Mustahik.

Delphi Results

According to Saaty (2004), the geometric mean is the most appropriate calculation for expert opinion consensus. After calculating the g-mean, the experts can measure the level of agreement, called the Kendall coefficient of concordance or Kendall W. The results of the Kendall coefficient index (W) or rater agreement show the level of agreement between respondents on the criteria for the problems and solutions investigated in this study. The results can be seen in Table 3.

Table 3. Rater Agreement (W) of Delphi Result

Problem Cluster	Rater Agreement (W) of Delphi Result				Solution Cluster	Rater Agreement (W) of Delphi Result			
	Expert	P-value	Practitioner	P-value		Expert	P-value	Practitioner	P-value
Internal Problem	0.675	0.000*	0.225	0.001*	Internal Solution	0.500	0.000*	0.225	0.001*
HR	0.293	0.000*	0.229	0.004*	HR	0.264	0.001*	0.543	0.000*
IT	0.521	0.000*	0.250	0.002*	IT	0.621	0.000*	0.629	0.000*
Management	0.286	0.001*	0.243	0.002*	Management	0.314	0.000*	0.593	0.000*
Soc-Com	0.229	0.004*	0.164	0.02**	Soc-Com	0.450	0.000*	0.121	0.101
External Problem	0.175	0.004*	0.125	0.02**	External Solution	0.175	0.004*	0.075	0.127
Society	0.379	0.000*	0.314	0.000*	Society	0.714	0.000*	0.507	0.000*
Muzakki	0.436	0.000*	0.307	0.000*	Muzakki	0.543	0.000*	0.221	0.005*
Government	0.129	0.08***	0.300	0.000*	Government	0.650	0.000*	0.671	0.000*
Digitization	0.225	0.004*	0.371	0.000*	Digitization	0.786	0.000*	0.714	0.000*

*significant at the 0.01 level; **significant at the 0.05 level; ***significant at the 0.10 level

*Soc-com (Socialization and Communication)

Based on Table 3, it can be seen that the expert respondents and practitioners agreed on all clusters of the ten problem clusters. In addition, out of ten solution clusters, expert respondents agreed on all clusters, while the practitioner respondents agreed on eight clusters. Based on the general criteria of the problem, each expert and practitioner respondent agreed on internal problems and external problems. Then, for the solutions, it is noted that expert respondents agreed on internal and external solutions. Still, practitioner respondents did not agree on general external criteria and socialization and communication criteria. This is indicated by the p-value of both criteria, which were not significant at 1%, 5%, and 10%, rather than general external criteria with a value of 12.7% or p-value 0.127. Further, socialization and communication criteria had a value of 10.1% or a p-value of 0.101. Therefore, it can be concluded that the Delphi results showed 90% convergence for all respondents and only 10% inconvergence, which is acceptable for a qualitative method (Saaty & Vargas, 2006).

ANP Results

Overall, the ANP results of all respondents (geometric mean of eight respondents) are provided in Table 4.

Table 4. ANP-Limiting Result (Internal Problem Cluster)

	Expert	Practitioner	All	R
Internal Problem				
1. Human Resources	0. 232	0. 268	0. 233	2
2. IT	0. 232	0. 190	0. 231	3
3. Management	0. 364	0. 270	0. 357	1
4. Soc-Com	0. 173	0. 271	0. 179	4
Sub-Criteria				
Human Resources				
1. No Training	0. 143	0. 197	0. 177	3
2. Weak Leadership	0. 192	0. 197	0. 184	2
3. Lack of Understanding	0. 228	0. 116	0. 157	4
4. Lack of Training System	0. 234	0. 193	0. 230	1
5. Traditional Mindset	0. 103	0. 101	0. 098	6
6. Lack Innovation	0. 099	0. 196	0. 154	5
IT				
1. No IT System	0. 149	0. 125	0. 147	4
2. Unnamed Muzakki-Transfer	0. 067	0. 240	0. 140	5
3. No Special IT	0. 310	0. 082	0. 132	6
4. No Digitizing Training	0. 150	0. 168	0. 169	2
5. No Digital Database	0. 202	0. 202	0. 253	1
6. Data Manual	0. 122	0. 183	0. 159	3
Management				
1. Limited Funds	0. 191	0. 166	0. 194	3
2. No Digital Planning	0. 290	0. 326	0. 305	1
3. Less Support	0. 211	0. 185	0. 209	2
4. Still Traditional Management	0. 181	0. 151	0. 146	4
5. Hardcopy Report	0. 055	0. 104	0. 078	5
6. No Data Digital Poverty	0. 072	0. 068	0. 067	6
Socialization and Communication				
1. No Effective Soc-com	0. 257	0. 166	0. 222	1
2. No Effective Socmed	0. 108	0. 166	0. 144	4
3. No Connectivity	0. 165	0. 174	0. 193	3
4. Less Coordination	0. 114	0. 332	0. 220	2
5. Less Acurrate Data	0. 191	0. 085	0. 126	5
6. No Soc-com to Mustahik	0. 166	0. 077	0. 095	6

Table 4 illustrates the overall ANP results. The results show the agreement of all expert respondents and practitioners in terms of internal problem criteria. As mentioned in the table, management should focus on the issue of using digital platforms on zakat management (35.7%), followed by human resources (23.3%), IT (23.1%). %) and the utilization of socialization and communication (17.9%). According to practitioners, the main internal problems covered Socialization and Communication, while the experts believed management was the main problem.

If we look closer, the detailed ANP results of internal problems are described as follows. First, human resource issues show an agreement between all practitioners and experts. They agreed that the main issues were the lack of a training system (23.0%). Second, all practitioners and experts agreed that the main focus of its usage issues was no digital database (25.3%). Following that, the ANP result regarding the agreement of all practitioners and experts on management issues was no digital planning (30.5%). Finally, the ANP result on socialization and communication (Soc-Com) issues were no effective soc-com (22.2%).

Table 5. ANP-Limiting Result (External Problem Cluster)

	Expert	Practitioner	All	R
External Problem				
1. Community	0. 1811	0. 180	0. 216	4
2. Muzakki	0.2729	0. 230	0. 260	2
3. Government	0.2726	0. 230	0. 266	1
4. Digitization	0.2734	0. 361	0. 257	3
Sub-Criteria				
Community				
1. Habit of Paying Directly to the Beneficiary	0. 293	0. 311	0. 336	1
2. No Knowledge about Digital System	0. 106	0. 122	0. 121	5
3. No Knowledge about System Information	0. 097	0. 239	0. 158	2
4. Lack of Support	0. 113	0. 162	0. 148	3
5. Direct Perception	0. 260	0. 095	0. 147	4
6. No Information	0. 130	0. 072	0. 090	6
Muzakki				
1. No Knowledge Aged 50	0. 210	0. 295	0. 261	1
2. Contract Mindset	0. 238	0. 133	0. 174	3
3. Low Knowledge	0. 247	0. 176	0. 214	2
4. No Publication	0. 126	0. 128	0. 116	5
5. Fast Report	0. 092	0. 171	0. 137	4
6. Trust to IT	0. 088	0. 097	0. 099	6
Government				
1. Lack of integrated	0. 086	0. 082	0. 083	6
2. No Education from Government	0. 109	0. 303	0. 228	2
3. Lack of Support	0. 149	0. 175	0. 158	3
4. Traditional Coordination	0. 218	0. 219	0. 244	1
5. Less Role Promotion	0. 210	0. 123	0. 151	4
6. Lack of Knowledge about Government	0. 228	0. 099	0. 136	5
Digitization				
1. Limited Payments	0. 084	0. 209	0. 138	4
2. Undeveloped IT	0. 310	0. 247	0. 304	1
3. Unintegrated Data	0. 094	0. 229	0. 175	3
4. Error System	0. 195	0. 079	0. 105	5
5. No Digital Tools	0. 184	0. 157	0. 185	2
6. Scam	0. 133	0. 080	0. 092	6

Table 5 reveals the agreement of all expert respondents and practitioners in terms of external problem criteria. They agreed that the government support should focus on problems in the use of digital platforms in zakat management (26.6%), followed by problems in Muzakki

(26.0%), ddigitization problems (25.7%) and in the community (21.6%). Meanwhile, according to each practitioner and expert, the main internal problem was digitization.

Furthermore, the detailed ANP of external problems is presented as follows. First, community issues show that the agreement went to the habit of paying Directly to the beneficiary (33.6%). After that, the result of ANP showed that all practitioners and experts agreed that no knowledge of digital-old Muzakki (26.1%) was the main issue of Muzakki. Third, the ANP result regarding the agreement of all practitioners and experts in government-related matters in digital zakat management was still using traditional coordination (24.4%). *Fourth,* all practitioners and experts agreed that the issue of digitization was Undeveloped IT (30.4%).

Table 6. ANP-Limiting Result (Internal Solution Cluster)

	Expert	Practitioner	All	R
Internal Solution				
1. Human Resources	0. 377	0. 377	0. 352	1
2. IT	0. 227	0. 213	0. 246	3
3. Management	0. 224	0. 211	0. 246	2
4. Soc-Com	0. 172	0. 199	0. 155	4
Sub-Criteria				
Human Resources				
1. Digital Marketing Recruitment	0. 241	0. 391	0. 343	1
2. Incentive System	0. 087	0. 058	0. 071	6
3. Socialization or Training	0. 209	0. 071	0. 103	5
4. Baznas Training	0. 197	0. 230	0. 227	2
5. Combine it with digital	0. 128	0. 091	0. 103	4
6. Coordination digital teams	0. 138	0. 159	0. 153	3
IT				
1. Create IT System	0. 157	0. 381	0. 273	1
2. Create Bank Account	0. 076	0. 194	0. 123	4
3. IT Recruitment	0. 347	0. 157	0. 264	2
4. Structured Training	0. 141	0. 100	0. 123	5
5. Build Database	0. 140	0. 124	0. 151	3
6. Amil Participation	0. 140	0. 043	0. 065	6
Management				
1. Digital Planning	0. 194	0. 363	0. 322	1
2. Maximize Existing Resources	0. 130	0. 277	0. 223	2
3. Coordination with stakeholders	0. 311	0. 102	0. 161	3
4. Update Management System	0. 133	0. 101	0. 111	5
5. Digitize Report	0. 149	0. 102	0. 115	4
6. Register Digitally	0. 083	0. 055	0. 068	6
Soc-Com				
1. Socialization Planning	0. 117	0. 082	0. 121	5
2. Media Collaboration	0. 294	0. 174	0. 219	2
3. Manage Coordination	0. 114	0. 123	0. 123	4
4. Training Periodically	0. 135	0. 398	0. 257	1
5. Integrated Data	0. 249	0. 103	0. 170	3
6. Routinely Report	0. 092	0. 119	0. 110	6

The overall ANP results in table 6 show the agreement of all expert respondents and practitioners in terms of internal solution criteria, human resources. The solution should focus on solving the problem of using digital platforms in zakat management (35.2%), followed by Management (24.6%), IT utilization (24.6%), and Socialization and Communication (15.5%). Meanwhile, according to the experts and practitioners, the main internal solution was human resources.

Meanwhile, if we look at the ANP results in more detail, the practitioners and experts agreed that the main solution for human resources was digital marketing recruitment (34.3%).

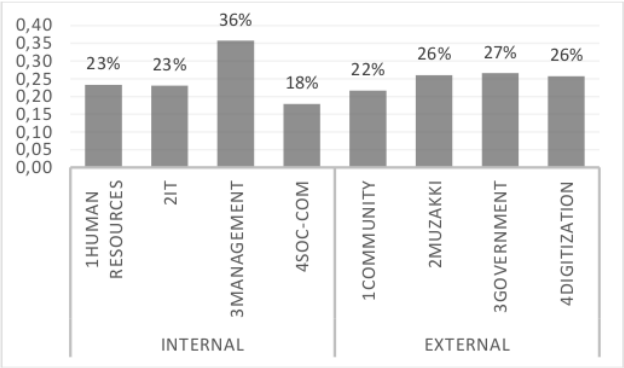
Another ANP result of IT utilization solutions was creating IT System (27,3%). Further, the ANP results for management solutions was Digital Planning (32,2%). Finally, the ANP results for Socialization-Communication solutions included Periodically Training (25,7%).

Table 7. ANP-Limiting Result (External Solution Cluster)

	Expert	Practitioner	All	R
External Solution				
1. Community	0. 2733	0. 158	0. 209	4
2. Muzakki	0. 2735	0. 231	0. 289	1
3. Government	0. 2729	0. 228	0. 281	2
4. Digitization	0. 1803	0. 383	0. 221	3
Sub-Criteria				
Community				
1. Cooperation with Ulama	0. 338	0. 378	0. 356	1
2. Differentiation of Socialization	0. 124	0. 122	0. 123	4
3. Increasing Knowledge	0. 211	0. 226	0. 220	2
4. Massive Promotion	0. 140	0. 121	0. 137	3
5. Collaboration to Educating	0. 110	0. 076	0. 085	5
6. Digital Documentatiton	0. 077	0. 076	0. 079	6
Muzakki				
1. Direct Promotion	0. 065	0. 259	0. 125	4
2. Akad Socialization	0. 097	0. 100	0. 098	5
3. Various Media	0. 316	0. 209	0. 295	1
4. Maintain Good Relations	0. 235	0. 156	0. 204	2
5. Maximalizing Services	0. 158	0. 209	0. 195	3
6. IT Announcements	0. 129	0. 067	0. 083	6
Government				
1. Coordination	0. 287	0. 293	0. 288	1
2. Massive Support	0. 266	0. 312	0. 288	2
3. Infrastructure Support	0. 162	0. 103	0. 134	4
4. Modern Coordination	0. 136	0. 150	0. 144	3
5. DISKOMINFO Support	0. 080	0. 091	0. 088	5
6. Regular Coordination	0. 070	0. 052	0. 059	6
Digitization				
1. Expand Payment Methods	0. 128	0. 198	0. 169	3
2. Increase Payment Choices	0. 327	0. 387	0. 365	1
3. Automatic System	0. 231	0. 134	0. 185	2
4. Create Policies	0. 105	0. 167	0. 142	4
5. Mustahik Number	0. 120	0. 054	0. 069	6
6. Double Verification	0. 090	0. 061	0. 069	5

Table 7 shows an ANP overall agreement of all expert respondents and practitioners in terms of external solution criteria. First, the data suggested Muzakki focus on solving the problem of using digital platforms in zakat management (28.9%), followed by government (28.1%), digitization (22.1%), and community (20.9%). According to experts in this study, the main external solution was Muzakki, while the practitioners believed that the main external solution was digitization.

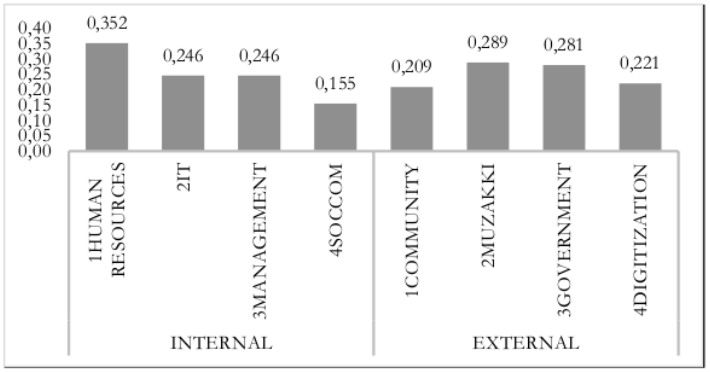
The detailed ANP results from external solutions demonstrated that the practitioners and experts' agreement on solving community problems was to cooperate with Ulama (35.6%). Another ANP results revealed the agreement of the practitioners and experts on solutions to the problem against Muzakki. The main focus was various media (29.5%). Meanwhile, the ANP result regarding the agreement of all practitioners and experts on government solutions was coordination (28.8%). Finally, the ANP result for digitization solutions was to increase the payment choice (16.9%).



Source: Data Processing (2021)

Figure 4. ANP Result (Priority Problem)

Figure 4 shows that the main problem of using digital platforms in zakat management consisted of two aspects of the solution (internal and external). The main cluster of problems was 1) management (Internal), particularly because the planning for zakat collection with digital platforms was not adequate. The second cluster of the problem was 2) government (External) because they still used a traditional way of coordination. The next cluster was 3) Muzakki (External), mainly because many Muzakki did not understand how to use digital applications, especially the generation aged 50 and over. The fourth cluster was 4) Digitization (External), particularly due to undeveloped IT. The following clusters involved 5) Human Resources (Internal) due to a lack of training for new operators and 6) IT (Internal) because they had no digital integrated zakat recipient database. Another cluster was 7) Community (External) because people were used to paying zakat directly to the Mustahik they already knew (neighbors, relatives). They felt more comfortable and satisfied because they knew exactly the need and culture of the community. The final cluster was 8) socialization & communication (Internal), mostly because socialization was less effective.



Source: Data Processing (2021)

Figure 5. ANP Result (Priority Solution)

Meanwhile, Figure 5 provides some solutions for using digital platforms in the Management of zakat problems. The solutions can be divided into two aspects (internal and external). First, this study found out that the main cluster of solutions was 1) Human resources (Internal), especially related to IT and digital marketing division recruitment. The next cluster referred to 2) Muzakki (External), regarding the socialization to Muzakki about digital platform OPZ through various media. The next clusters involved 3) Government (External) by suggesting to coordinate with the government on a regular basis and 4) Management (Internal) by doing digital planning for zakat

collection in a structured manner. Another solution cluster was 5) IT (Internal), by means of designing and creating crowdfunding, e-wallet, e-commerce, website, and social media. The next clusters involved 6) Digitization (External), which encouraged an increase in the payment choice via digital methods, and 7) Community (External), which promoted partnerships with scholars (Ulama) and government agencies. The final cluster was 8) socialization & communication (Internal), by periodically organizing training conducted by BAZNAS Province and Center to OPZ.

Practical Implications

This study believes that the best alternative solution is to 1) improve IT and Digital Marketing Division Recruitment, 2) design and create crowdfunding, e-wallet, e-commerce, website, and social media, 3) do digital planning for zakat collection in a structured manner, 4) organize training conducted by BAZNAS Province and Center to OPZ periodically, 5) establish cooperation with scholars (*Ulama*) and government agencies, 6) do socialization to Muzakki about digital platform OPZ through various media, 7) coordinate with the government on a regular basis, and 8) increase the choice of zakat payment digitally

Conclusion

In conclusion, the present study investigated 15 OPZ in 2021 in South Kalimantan. Most of them understood and were ready to use digital platforms in managing zakat. Particularly, they were ready in the management of zakat institutions and human resources, except for IT and digital marketing division and internet barriers. In the zakat collection, however, the majority were not ready, except for using the SIMBA system from BAZNAS. Further, zakat distribution did not have a Rice ATM. Meanwhile, some OPZ admitted their readiness for digitizing distribution data, The main cluster of priority problems were 1) Management (35.7%), 2) Government (26.6%), 3) Muzakki (26.0%), 4) Digitization (25.7%), 5) Human Resources (23.3)%, 6) IT (23.1%), 7) Community (21.6%), and 8) Socialization & Communication (17.9%) respectively. Meanwhile, the main cluster of priority solutions covered 1) Human Resources (35.2%), 2) Muzakki (28.9%), 3) Government (28.1%), 4) Management (24.64%), 5) IT (24.63%), 6) Digitization (22.1%), 7) Community (20.9%), 8) Socialization & Communication (15.5%) respectively.

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