



## **EXPLORING THE ROLE OF TECHNOLOGIES IN ZAKĀT ORGANIZATIONS: THE CASE OF MAURITIUS**

Yasser Chuttur\*

*Software and Information Systems Department, University of Mauritius,  
Reduit, Mauritius. (Email: y.chuttur@uom.ac.mu)*

### **ABSTRACT**

Mauritius is a *Muslim* minority developing country. Over the years, several *zakāt* organizations have been set up to help the needy. Yet, many local *Muslims* still face poverty. Researchers argue that poverty prevailing among *Muslims* may result from inefficient management of *zakāt* funds by *zakāt* organizations. Researchers also claim that *zakāt* organizations should adopt appropriate technologies to assist them in efficiently collecting and distributing *zakāt* to the needy. Evidence, however, is lacking to support this claim. To address this gap, a structured questionnaire was used in this study to collect information about the technology used in thirty major *zakāt* organizations in Mauritius. The questionnaire also collected information about the challenges faced by those organizations when managing *zakāt* funds. Analysis of the survey data revealed that *zakāt* organizations in Mauritius make little use of technologies for their operations. The organizations also reported facing several operational challenges, which in turn affect their ability to efficiently assist needy individuals. In response to the reported challenges, several technology recommendations have been identified. *Zakāt* organizations are urged to adopt the recommended technologies to better play their role in alleviating poverty among needy *Muslims*.

JEL Classification: O33, O35

Keywords: *Zakāt* management, Poverty, Mauritius, Developing countries, Technology

Submitted: 15/07/2022    Accepted: 19/01/2023    Published: 28/06/2023

---

\*Corresponding author: y.chuttur@uom.ac.mu

## 1. INTRODUCTION

*Zakāt* is an *Islāmic* pillar embedded within the *Islāmic* faith to cater for the welfare of the poor and needy people. *Zakāt* represents a portion of the wealth of eligible *Muslims*, that must be distributed to needy individuals every calendar year. The conditions governing eligibility of *Muslims* as *zakāt* donors as well as who should be the recipients are well established in *Islām*. By its very nature, *zakāt* favors a democratic system intended to create equality among the *Muslim* community, thus ensuring that every individual has a good quality of life and well-being. Zainal et al. (2016) further stated that *zakāt* is one of the five fundamental pillars of *Islām* and is an essential obligation for *Muslims*. They explain that the main objective of *zakāt* is to alleviate poverty and reduce the gap between the rich and the poor. Similarly, Ahmed, Johari and Abdul (2017) used evidence from past research to demonstrate the usefulness of *zakāt* in bridging the gap between the rich and the poor in many societies. But as highlighted by Shittu (2019), some countries, mainly developing ones, are still struggling to achieve efficient *zakaat* management and address dire poverty among local *Muslims*.

In many countries, *zakāt* collection and distribution has already been institutionalized through non-governmental organizations, mosques, and governments (Beik, 2015). Mauritius is a small island found in the Indian Ocean off the east coast of Madagascar and Africa. Considered as a developing country, the population is *Muslim* minority with only about 200,000 *Muslims* from a total of 1.1M. Over the years, several *zakāt* organizations have been established to collect and distribute *zakāt* in the country. Local *Muslims* regularly contribute to the *zakāt* system, and over time, one would expect to see a decline in poverty within the *Muslim* community. Surprisingly, it is noted that poverty among *Muslims* still prevails, thus warranting further research to better understand this phenomenon.

The approach taken to manage *zakāt* funds may vary depending on whether a given country is a *Muslim* or a non-*Muslim* country and the relevant governing law (Ibrahim and Shaharuddin, 2015). Thus, all *zakāt* organizations do not operate in the same way (Lubis, Lubis, and Almaarif, 2019). For instance, every *zakāt* organization will have a management board, which will decide on different approaches to collect *zakāt* and interpret how and to whom to distribute the collected *zakāt* (Ghani et al., 2018). Consequently,

there can be divergence among *zakāt* institutions regarding identifying an eligible beneficiary and how to utilize *zakāt* funds. This diversity of practices is, however, not without consequences.

Zainal et al. (2016) claim that sometimes *zakāt* will not reach deserving groups among the *Muslim* community. In other cases, *zakāt* beneficiaries who are less worthy may receive help at the expense of more deserving ones. The underlying bureaucracy and slow decision making process imposed by some *zakāt* institutions is further reported to be a significant problem within some organizations (Jahar, 2019; Muhammad, 2019; Müller, 2017). In addition, duplication of paperwork and sluggishness in processing *zakāt* applications further often prevent needy individuals from receiving adequate *zakāt* funds in time.

Therefore, it becomes evident that inefficiency within *zakāt* organizations must be identified and corrected to allow them to play their intended role correctly and gain *zakāt* payers' trust. One cause of inefficiency is the lack of appropriate technology to manage *zakāt* organizations. Therefore, several researchers have called for a *zakāt* management system. Such a system can be used to keep track of beneficiary information and facilitate *zakāt* collection and distribution. For instance, Zainal et al. (2016) called for keeping a computerized register and distribution system that can be monitored. Ibrahim and Shaharuddin (2015) pointed out that a system that keeps beneficiary biodata will help address the problem of allocating to non-deserving individuals.

The rest of the paper is structured as follows: Section 2 reviews the literature related to *zakāt* management. Section 3 elaborates on the data collection methods. Section 4 presents the findings. Section 5 is a discussion of the findings and provides some recommendations for efficient zakat fund management. Section 6 concludes the paper.

## 2. ZAKĀT MANAGEMENT

*Zakāt* management can be broadly classified into two main tasks: collection and distribution. To be able to distribute *zakāt* to those in need, a proper collection mechanism must exist. *Muslims*, however, have the flexibility in choosing how to dispose of their *zakāt*. Some may personally know deserving individuals and therefore will distribute their *zakāt* directly to those in need, while others will give their *zakāt* through the intermediaries of personal contacts or trusted

persons such as Imams (Jalaldeen, 2015). The practice of *zakāt* donors directly interacting with the needy is very common in many countries (Jalaldeen, 2015). Moreso, with the use of social networking applications such as Facebook and WhatsApp, information about needy individuals rapidly reaches *zakāt* donors, who in turn will give their *zakāt* accordingly and at their discretion. But as noted by Shittu (2019), such practice, although permissible in *Islām*, does not necessarily represent an efficient means to alleviate poverty among *Muslims*. Giving *zakāt* directly to needy individuals may address their immediate needs but will have little effect on alleviating poverty in society. Furthermore, Shittu (2019) also noted that *zakāt* should have the role to empower the poor such that they may become future *zakāt* donors and hence contribute further to poverty alleviation.

## 2.1 ROLE OF ORGANIZATIONS IN MANAGING ZAKĀT

*Zakāt* management by recognized groups or organizations goes back to the time of Prophet Muhammad (PBUH). He (PBUH) would appoint special delegations to administer *zakāt* in different areas where *Islām* was being preached (Masyita, 2018; Jalaldeen, 2015). Today, in *Muslim* majority countries, such as Malaysia, Saudi Arabia, Kuwait, Pakistan, and so forth, *zakāt* payment is made compulsory by law on its *Muslim* citizens and is usually managed by a centralized body (Masyita, 2018). Some governments, such as Malaysia and Indonesia, may also appoint private bodies to manage *zakāt* in certain regions (Ibrahim and Shahrudin, 2015; Muhtada, 2014). In *Muslim* minority countries, such as the U.K, France, South Africa, India, among others, Non-Governmental Organizations (NGOs) and mosques, here collectively referred to as *zakāt* organizations, are involved in *zakāt* collection and distribution (Ibrahim and Shahrudin, 2015; Jalaldeen, 2015). In practice, the primary role of *zakāt* organizations is to collect *zakāt* and apply fairness to *zakāt* distribution among needy individuals. The ultimate aim of *zakāt* distribution is to address poverty within the *Islāmic* community (Ibrahim and Shahrudin, 2015; Mahmud et al., 2015).

Several studies, however, have reported that even with *zakāt* organizations in several regions across the globe, poverty among *Muslims* still prevail in those regions. To explain this phenomenon, several researchers have argued that *zakāt* organizations cannot always efficiently manage *zakāt* (Masyita, 2018; Abd Halim Mohd Noor et al., 2015; Noor et al., 2012; Wahab and Rahman, 2011). The

authors consider that *zakāt* institutions may fail in their responsibility to manage *zakāt* efficiently, especially in *zakāt* fund distribution. Consequently, they will not necessarily be able to address poverty within the community effectively.

## 2.2 MANAGING *ZAKĀT* USING TECHNOLOGY

Kholifa (2018), Putra, Nasution, and Yummastian (2018), and Swara and Hakim (2016), as cited in Antonio, Laela, and Al Ghifari (2020), advocate technology use to manage *zakāt* at the organization level. Kholifa (2018) found that distributing *zakāt* using digital technologies increases trust with *zakāt* payers. Swara and Hakim (2016) and Putra et al. (2018) have found that web-based applications offer several time saving services in collecting, distributing, and utilizing *zakāt* services, rendering the *zakāt* management process more efficient. Wahab and Rahman (2015) also reported that *zakāt* organizations were found to manage *zakāt* more efficiently through websites. Shittu (2019) further emphasizes the need to adopt modern financial technology when managing *zakāt*. The author also recommends that *zakāt* management must be decentralized within the umbrella of a governing body to encourage collaboration among *zakāt* organizations. Ahmed et al. (2017) also mentioned the need to collaborate among institutions to manage *zakāt* funds efficiently.

Many organizations across the globe have already adopted various forms of technology to collect and distribute *zakāt* (Che Mohd Salleh and Chowdhury, 2020). In Indonesia, for instance, Zubaidah and Afifah (2020) demonstrate how technology use by the National *zakāt* Institution, BAZNAS, has facilitated *zakāt* management in the country. Zubaidah and Afifah (2020) reported that websites, databases for information sharing and financial reporting, mobile applications and online payment services are an integral part of the BAZNAS *zakāt* management system used.

In another study, Muhammad (2019) explained that developing countries could learn from the experience of high-income *Muslim* majority countries, which are already using technology for *zakāt* management. Muhammad (2019) typically looked at the features of the *zakāt* management system implemented for Bahrain, Brunei Darussalam, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates. He found that all countries studied were using a *zakāt* management system, which provided one or more of the following

features: organization website, online *zakāt* calculator, online payment facility, online financial reports, and *zakāt* mobile applications.

In another study, Lubis et al. (2019) investigated how *zakāt* management technology was used in developed and developing countries. The author reports that different countries have adopted different technological approaches for *zakāt* management. Most countries, however, share similar technical features, such as websites, databases, and mobile applications, while collaborative networks and office applications are less common.

Mauritius has several *zakāt* organizations and they regularly collect *zakāt* funds. Yet, the prevailing poverty among *Muslims* in the country raises the question of whether *zakāt* organizations are indeed operating efficiently. Many reasons can cause a dysfunctioning organization with lack of or poor technology use being one of them. To date, however, no study has been conducted to reveal the technologies in use in *zakāt* organizations in Mauritius. Therefore, an exploratory study on *zakāt* organizations in Mauritius should shed light on 1) the kinds of technologies available and used in those organizations, 2) the challenges (if any) those organizations face when managing *zakāt* funds, and 3) the kinds of technologies that can address the challenges reported by the organizations. This study therefore seeks to answer the following research questions.

RQ1: What kinds of technologies are used by *zakāt* organizations in Mauritius?

RQ2: What challenges are faced by *zakāt* organizations in Mauritius when collecting and distributing *zakāt*?

RQ3: What kinds of technologies can assist organizations in effectively managing *zakāt* funds?

### 3. METHODS

For this study, an exploratory descriptive research approach is preferred. The exploratory research strategy is appropriate to address the research questions for this study as findings obtained through exploratory research are expected to provide better insights into a research problem which has not been studied before and which requires better understanding (Stebbins, 2001).

### 3.1 QUESTIONNAIRE DESIGN

A survey was conducted to collect both quantitative and qualitative data from *zakāt* organizations operating in different regions in Mauritius. The survey questionnaire consisted of three sections as listed in Table 1. Sections A, B, and C each had a specific purpose. Questions asked for Section A were closed-ended in the form of multiple-choice questions, Section B had both closed-ended and open-ended questions, whereas Section C had open-ended questions only.

TABLE 1.  
Questionnaire Design

Section	Purpose
A	Gather basic demographic information (staff, technology availability, computer literacy) regarding a given <i>zakāt</i> management organization.
B	Collect data regarding the different technologies used by <i>zakāt</i> organization in Mauritius when managing <i>zakāt</i> .
C	Collect data regarding the different challenges faced by <i>zakāt</i> organization in Mauritius when managing <i>zakāt</i> .

### 3.2 POPULATION SAMPLING

According to the latest census data<sup>1</sup> for Mauritius, a large majority of *Muslims* stay in the financial capital of Port Louis. The country does not have a centralized organization to oversee *zakāt*. Therefore, non-governmental *Islāmic* organizations and mosques are responsible for collecting and distributing *zakāt* among the poor and the needy. *Zakāt* organizations are considered charity organizations and are usually registered with the National Corporate Social Responsibility (CSR) Foundation<sup>2</sup>.

Since this study is exploratory, a purposive homogeneous sampling technique was used (Etikan, Musa, and Alkassim, 2016). This approach was considered appropriate to obtain a sample of organizations sharing similarity in their role as *zakāt* management organizations and hence, suit the needs of this study.

Participating organizations for this study were selected using the following approach. A preliminary list of organizations was obtained by manually filtering the results obtained using a Google

search with the keywords 'Zakāt Institutions, Mauritius'. The list of charity organizations registered with the National Corporate Social Responsibility (CSR) Foundation was also used to pre-select some potential organizations suitable for the study. Finally, after screening the pre-selected list of charity organizations, 30 organizations, which satisfied the criteria of being a *zakāt* organization, were retained to participate in the study. The sample size of 30 is considered acceptable for this type of study and the given context (Johanson and Brooks, 2010).

### 3.3 DATA COLLECTION AND ANALYSIS

Before collecting data, the questionnaire designed for this study was pretested with five participants. All ambiguities and errors identified were corrected accordingly. The questionnaire was then implemented using Google Forms<sup>3</sup>. The survey was mostly administered by email, but in some cases, a face-to-face meeting was scheduled during which the survey form was filled in by participants.

The study was conducted during the months of January to March 2021. At the end of the survey, quantitative data collected were analyzed using descriptive statistics. Thematic analysis was further applied to qualitative data obtained to reveal any interesting trends.

## 4. RESULTS

This research principally aims at exploring the role played by technology in *zakāt* organizations in Mauritius. The secondary aim is to identify the challenges (if any) faced by *zakāt* organizations when managing *zakāt* funds.

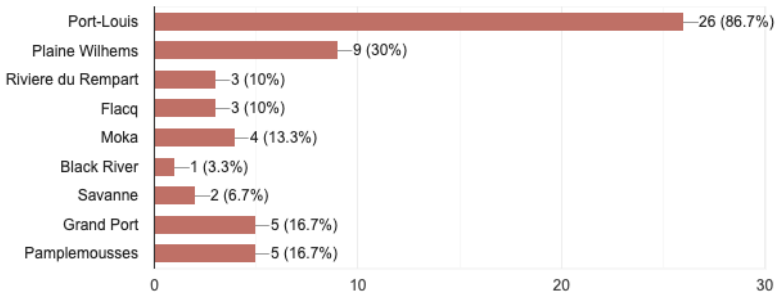
### 4.1 PARTICIPATING ORGANIZATIONS DEMOGRAPHICS

Out of the 30 participating organizations, 80% of the organizations surveyed identified themselves as NGOs, 16.7% were mosques and 3.3% identified themselves as both NGO and mosque.

In addition, as shown in Figure 1, most of the organizations (26 out of 30) which participated in the study had offices in Port Louis, which is the capital and financial district of Mauritius. The same organizations had other offices distributed across all the 9 districts of Mauritius, indicating that NGOs and mosques in Mauritius adopt a decentralized approach.



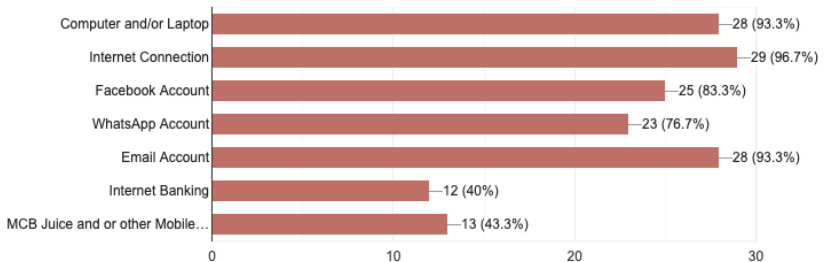
FIGURE 1  
Office Locations of Participating *Zakāt* Organizations in Mauritius.



#### 4.2 TECHNOLOGY IN USE IN *ZAKĀT* ORGANIZATIONS

As shown in Figure 2, most of the participating organizations already have some form of technology, with the majority having a computer/laptop, an Internet connection, and a social networking account (Facebook, WhatsApp). Less than 50% of the organizations, however, had an Internet Banking account or adopted mobile banking technologies.

FIGURE 2  
Technology Present in Participating *Zakāt* Organizations.



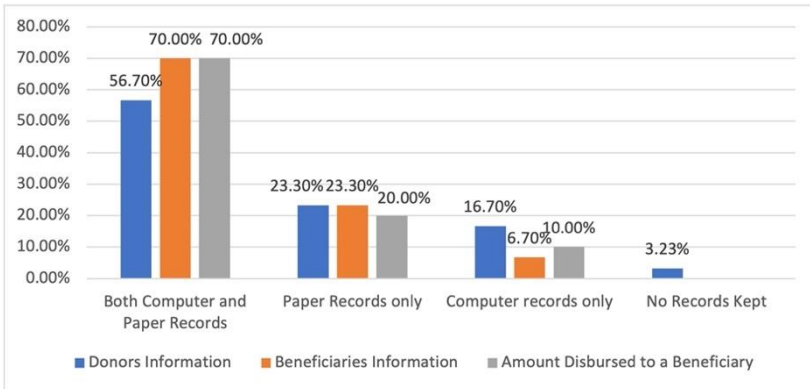
The presence of the above technologies within the surveyed organizations correlates with the level of computer literacy of members reported by each organization. A total of 40% of the organizations reported a minimum average level of computer literacy, 36.7% have reported a good level, whereas 23.3% have reported an excellent level of computer literacy.

### 4.3 RECORD KEEPING

Figures 3 shows the different methods used to keep records for *zakāt* donors, *zakāt* beneficiaries, and *zakāt* expenditures, respectively.

FIGURE 3

Methods Used to Maintain Records for *Zakāt* Donors, Beneficiaries, and Amount of Funds Disbursed to a Beneficiary.



When it comes to keeping track of donors, most participating organizations (56.7%) used both computer and paper records. Out of the remaining participants, 23.3% indicated that they used only paper records, 16.7% used only computer records, while 3.3% did not keep any record. For maintaining demographic records of beneficiaries, 70% of the organizations surveyed use both paper records and a computer database, 23.3% used paper records only, and 6.7% organizations used computer records only. To keep track of *zakāt* funds disbursed to beneficiaries, 70% of organizations used both paper records and a computer database, 20% used paper records only and 10% of organizations make use of computer records only.

### 4.4 CHALLENGES IN COLLECTING AND DISTRIBUTING *ZAKĀT*

Very few organizations (13.3%) reported that they had no issues when managing *zakāt* funds. The remaining majority (86.7%), however, indicated that they face at least one of the difficulties listed in Table 2.

TABLE 2  
Difficulties Faced by *Zakāt* Organizations

Challenges faced when managing <i>zakāt</i> funds
Not enough Donors
No proper distribution channel
Donors unable to visit the organization for donation
Lack of staff
No proper recording and maintenance of data
Not enough <i>zakāt</i> funds
Door to door collection or field investigation can be time-consuming
Duplication of work
Lack of documentation on beneficiaries
Data about beneficiaries get lost
Lack of information on an applicant
Unable to track beneficiary's status after <i>zakāt</i> disbursement progress

## 5. DISCUSSION AND RECOMMENDATIONS

Organizations handling *zakāt* in Mauritius fall under two categories: *Masājid* and NGOs. Most organizations do not operate in a single locality and therefore adopt a decentralized business model. They have different sub offices spread across the country and teams for an organization may visit different places across the country to collect and distribute *zakāt* funds. A decentralized business model benefits by reaching out to a larger number of *zakāt* donors and beneficiaries. Consequently, a larger impact on poverty alleviation among *Muslims* in different regions in the country is expected. Given that poverty among *Muslims* in Mauritius still prevails, however, it is evident that the current decentralized approach is somewhat inefficient and further investigation is needed to overcome this.

In fact, decentralization of activities for any organization requires close coordination within the organization network for efficient sharing of information and resources. The lack of supporting tools and technologies to enable information sharing between the head office and sub-offices distributed across the country can have a negative effect on *zakāt* fund management. *Zakāt* administrators may run the risk of being unable to make timely decisions and optimize available resources. Consequently, funds available within the

organization network may not be distributed accordingly, such that some less deserving individuals may receive more than those more needy.

Depending on the decision-making process set in place, it is also possible that activities for distributing *zakāt* funds are affected, causing unnecessary delays in providing any help needed. Needy individuals may thus find themselves in a state of poverty for longer than expected. Furthermore, because of processing delays, needy individuals who could have become financially independent at a given point in time may miss important opportunities to do so if the help was not given when promptly needed. Delays in processing applications for help may also discourage needy individuals from seeking help from the same organizations in future. Accurate reporting is also a must in distributed organization settings. Otherwise, poor decision making is likely to occur with the risk that genuine cases needing help may be disregarded.

Hence, organizations that adopt a decentralized approach must ensure that a proper information sharing system is in place. All members in the organization network will then have access to accurate and timely information that is key for decision making and to support organizational efficiency.

### 5.1 TECHNOLOGIES IN PLACE IN *ZAKĀT* ORGANIZATIONS IN MAURITIUS

All organizations in Mauritius use some form of technology for their operations. Members have reported that they have at least an average level of computer literacy. Table 3 categorizes the most and least used technologies.

TABLE 3  
Most and Least Used Technologies by *Zakāt* Organizations

Technology mostly used	Technology least used
Computers (database/spreadsheet)	Internet Banking
Internet	Mobile Application
Facebook	
WhatsApp	
Email	

Computer literacy among *zakāt* organization members is not an issue. This is further supported by findings obtained regarding the kinds of technologies available in the organizations. Technologies mostly used are computers, Internet, Facebook, WhatsApp, and Email, whereas the least used are Internet banking and mobile applications. Computers are mostly used for record keeping, email for communication, while Facebook and WhatsApp are intended for social networking tasks and some information sharing. Very few organizations made use of Internet banking and mobile applications.

The technologies used are not part of a *zakāt* management system. Instead, each technology is used separately and only supports part of the whole processes involved in *zakāt* fund management. The fact that very few organizations use Internet banking and mobile application is of concern since it shows the lack of interest of *zakāt* organizations in Mauritius to adopt the latest and most efficient technologies to collect and distribute *zakāt* funds.

Despite the computer literacy of members and computer use in *zakāt* organizations, it is also surprising to find that a good number of organizations still rely on paper records only. Paper records can easily be lost and are not the most suitable for data analysis. It can become difficult to monitor the economic status of beneficiaries over time and eventually evaluate the impact of *zakāt* distribution on poverty alleviation. It is also very difficult to know how much beneficiaries are receiving and whether fair distribution of *zakāt* funds is implemented. Consequently, some beneficiaries may receive more than needed while others may not receive what they deserve.

A system which can link all the processes related to *zakāt* fund management would allow *zakāt* organizations to keep information about donors, amount of *zakāt* funds collected, beneficiaries, and amount disbursed to needy individuals in one place. If needed, this information can be shared with others through secure Internet connection. In addition, financial tools such as Internet banking and mobile applications can further facilitate various tasks related to *zakāt* collection and distribution. A system with reporting tools and data analysis features can also easily help organization take stock of their performance and keep track on the impact of *zakāt* funds distributed to the needy over time. Otherwise, it is likely that organizations will face several difficulties that would affect how poverty is being addressed within the community.

## 5.2 CHALLENGES FACED BY *ZAKĀT* ORGANIZATIONS

As expected therefore, without the appropriate technological support, *zakāt* organizations are bound to face several problems when managing *zakāt* funds (see Table 2). Table 4 lists the different reported challenges grouped and classified under different broad categories.

The challenges gathered are typical for organizations which adopt a decentralized approach, and which lack the necessary coordination of activities, information sharing capabilities, and manpower to run the underlying operations.

Problems listed in Table 4 can be easily addressed using the appropriate technology. For example, lack of manpower, and limited hours of operations can be addressed by setting up online bank accounts or mobile banking accounts. Online services such as Internet banking or mobile applications, enable reaching out to more donors from anywhere and at anytime. This will address the problems of low Manpower, Inefficient Fund Collection Mechanism, and Limited Hours of Operations. Data Management and information sharing problems can be addressed using the appropriate technology. A *zakāt* management system backed by a well-designed database will allow organizations to collect, store, and process all data on donors and beneficiaries. Any transactions such as the amount of *zakāt* collected, donor information, beneficiary details, and amount distributed would be quickly recorded. Information from the database can be queried for reporting purposes. Data on *zakāt* disbursed can then be used to monitor the financial status of the actual beneficiary over time. Readily accessible data can easily be shared over a network to all members for quick decision making.

A *zakāt* management system linking several organizations together can also promote collaboration and address the issue of information sharing and inefficient business process. For instance, an online *zakāt* management system can assist an organization in sharing information required by another entity. This may address the problem of 1) missing documents/lack of information from applicants, 2) duplication of work concerning documents from applicants and beneficiary assessment, and 3) establish a more efficient distribution channel by enabling redistribution of unused funds in the form of cash, food packs or vouchers to beneficiaries through collaborating organization networks.

TABLE 4  
Categories of Problems Faced by *Zakāt* Organizations

Reported challenges in managing <i>zakāt</i>	Problem Category
Not enough Donors	Low Manpower
Lack of staff	
No proper distribution channel	Inefficient Business Process
Not enough <i>zakāt</i> funds	Inefficient Fund Collection
Door to door collection or field investigation can be time-consuming	Mechanism
Lack of documentation on beneficiaries	Poor Data Management
Data about beneficiaries get lost	
No proper recording and maintenance of data	
Unable to track beneficiary's status after <i>zakāt</i> disbursement progress	
Lack of information on an applicant	Lack of Information Sharing
Duplication of work	
Donors are unable to visit the organization for donation	Limited Hours of Operations

### 5.3 TECHNOLOGY USE AND POVERTY ALLEVIATION

As discussed earlier, the goal of *zakāt* organizations is to alleviate poverty through efficient distribution of funds collected from *zakāt* donors to needy individuals. In theory, proper *zakāt* fund management should lead to a decline in poverty within the *Muslim* community. In Mauritius, 17% of the population is of *Muslim* faith. *Muslims* have been generously contributing to the *zakāt* system for years now, yet poverty among the local *Muslim* community prevails.

Researchers claim that appropriate technologies such as *zakāt* management systems can help *zakāt* organizations play a more impactful role in alleviating poverty. *Zakāt* organizations in Mauritius make little use of technology. Many of the organizations surveyed have reported facing several common difficulties when collecting and distributing *zakāt*. Those challenges impact on their operational efficiency. The findings for this study suggest that *zakāt* organizations that do not make use of technologies are more likely to face problems in meeting *Muslim* society needs. To alleviate poverty, it is highly recommended that they consider adopting suitable technologies.

#### 5.4 TECHNOLOGY RECOMMENDATIONS

A *zakāt* management system is an information system with all the hardware and software components necessary to support the processes related to *zakāt* collection and distribution. It follows that a *zakāt* management system should, at its core, 1) facilitate fund collection from donors, 2) ease the process of applying for help from needy individuals, 3) record relevant data for donors, beneficiaries, and funds among other business data, 4) generate necessary reports, 5) perform data analysis, and 6) finally share data with relevant parties for task coordination, and information and resource sharing.

Consequently, *zakāt* organizations are urged to consider the technologies described here when developing or adopting a *zakāt* management system:

- Internet Banking

Online banking systems have become a popular means of doing transactions online in both developing and developed countries. With Internet banking, donors can easily make donations online 24/7 without making personal visits. The process is fast, secured, and easily audited.

- Mobile Application

Most people around the world have access to a smart mobile phone. A mobile app can create a closer relationship between donors and *zakāt* organizations. Donors will also find it easier to use a mobile app to make donations and interact with *zakāt* organizations.

- Shared Cloud Database

A shared database can support information sharing, which can also assist in coordination of activities and resources within the same or across different organizations. Organizations can use the database to share useful and relevant information with organizations in the same network.

- Websites

Websites can act as a one stop shop to provide essential information and services to donors, beneficiaries, and other stakeholders anywhere and anytime. Donors can view the organization's profile and contribute online, while beneficiaries can easily apply for assistance online. Websites can showcase projects by organizations to build trust with donors and promote transparency. Stakeholders from the same



organization or other organizations can easily access specialized services such as search for beneficiary details, assessment conducted on a beneficiary, amount received, and so forth, to avoid aid duplication.

- Analytical and Reporting Tools

Analytical and Reporting tools such as spreadsheets are used in generating reports and keeping transaction records. Organizations can consider online reporting tools that work well with online databases directly. Advanced data analytical tools, dashboards, and chart builders, that come with those tools can provide valuable insights and enable more informed decisions. Reporting also becomes easy and beneficiary economic status can be easily monitored. Shared databases allow reports that help assess *zakāt* impact on poverty alleviation from an organizational network perspective.

## 6. CONCLUSION

This study attempts to shed some light on the role played by technologies in *zakāt* organizations in Mauritius. It is seen that, in general, *zakāt* organizations in Mauritius lack the necessary technological capability to operate efficiently and in turn address poverty among *Muslims* effectively in the country. Several technological recommendations have been made in this respect. Similar organizations in other countries may face similar problems and therefore recommendations made in this study can be extended to their contexts as well. Technology alone, however, cannot fully address the problem of inefficient *zakāt* management. Future studies should also look at the problems faced by *zakāt* organizations from an organizational and a management perspective.

## ACKNOWLEDGEMENTS

The author wishes to thank Ms Adiliah Kramutally and Dr A. Mohabuth for their support in the realization of this study. This study was partly funded by the Human Welfare League.

## ENDNOTES

1. 2011 Housing and Population Census, Republic of Mauritius available at [https://statsmauritius.govmu.org/Documents/Census\\_and\\_Surveys/HPC/2011/HPC\\_TR\\_Vol2\\_Demography\\_Yr11.pdf](https://statsmauritius.govmu.org/Documents/Census_and_Surveys/HPC/2011/HPC_TR_Vol2_Demography_Yr11.pdf)

2. National Social Inclusion Foundation Registered Organizations in the Republic of Mauritius available at <https://www.nsf.mu/organizations/>
3. Google Form available at <https://www.google.com/forms/about/>

## REFERENCES

- Abd Halim Mohd Noor, M.S., A. Rasool, R.M. Yusof, S.M. Ali, and R.A. Rahman. "Efficiency of Islamic Institutions: Empirical Evidence of Zakah Organizations' Performance in Malaysia." *Journal of Economics, Business and Management* 3, no. 2 (2015): 282–6.
- Ahmed, B.O., F. Johari, and W.K. Abdul. "Identifying the Poor and the Needy Among the Beneficiaries of Zakah: Need for a Zakah-Based Poverty Threshold in Nigeria." *International Journal of Social Economics* 44, no. 4 (2017): 446–58.
- Antonio, M.S., S.F. Laela, and D.M. Al Ghifari. "Optimizing Zakah Collection in the Digital Era: Muzakki's Perception." *Jurnal Dinamika Akuntansi Dan Bisnis* 7, no. 2 (2020): 235–54.
- Beik, I.S. "Towards International Standardization of Zakah System." *Fiqh Zakah International Conference*, (2015): 3-17.
- Che Mohd Salleh, M., and M. Chowdhury. "Technology Adoption among Zakah Institutions in Malaysia." In: *Proceedings of the International Conference of Zakah, 2020*, 1–14.
- Etikan, I., S.A. Musa, and R.S. Alkassim. "Comparison of Convenience Sampling and Purposive Sampling." *American Journal of Theoretical and Applied Statistics* 5, no. 1 (2016):1–4.
- Ghani, E. K., A.A. Aziz, S.M. Tajularifin, and N. Samargandi. "Effect of Board Management and Governmental Model on Zakah Payers' Trust on Zakah Institutions." *Global Journal Al-Thaqafah* 1 (2018): 73–86.
- Ibrahim, S.M., and A. Shaharuddin. "In Search of an Effective Zakah Institution Management in Kano State Nigeria." *Journal for Studies in Management and Planning* 1, no. 7 (2015): 242-58.
- Jahar, A.S. "Bureaucratizing Sharia in Modern Indonesia: The Case of Zakah, Waqf and Family Law." *Studia Islamika* 26, no. 2 (2019): 207–45.
- Jalaldeem, M.S.M. "Role of Zakah in Poverty Alleviation and Economic Development – Special Field Study of Maruthamunai." *Journal of Management* 12, no. 2 (2015): 83–97.

- Johanson, G.A., and G.P. Brooks. "Initial Scale Development: Sample Size for Pilot Studies." *Educational and Psychological Measurement* 70, no. 3 (2010): 394–400.
- Kholifah, A.N. "Meneropong Transaksi Zakat di Era Revolusi Industri 4.0." *Viva.Co. Id* (2018).
- Lubis, M., A.R. Lubis, and A. Almaarif. "Comparison of the Approach in the Zakah Management System." *Journal of Physics: Conference Series* 1235, no. 1 (2019): 012048.
- Mahmud, K.T., M.K. Hassan, M. Sohag, and F. Alam. "Impact of Zakah in Alleviating Rural Poverty: A Case Study of Masjid Council for Community Advancement (MACCA) in Bangladesh." *Access to Finance and Human Development: Essays on Zakah, Awqaf and Microfinance* 23 (2015).
- Masyita, D. "Lessons Learned of Zakah Management from Different Era and Countries." *Al-Iqtishad Journal of Islamic Economics* 10, no. 2 (2018): 441–56.
- Muhammad, I. "Analysis of Zakah System in High-Income Islamic Countries." *The Journal of Muamalat and Islamic Finance Research* 16 (2019): 1–11.
- Muhtada, D. "Islamic Philanthropy and the Third Sector: The Portrait of Zakah Organizations in Indonesia." *Islamika Indonesiana* 1, no. 1 (2014): 106–23.
- Müller, D.M. "From Consultancy to Critique: The 'Success Story' of Globalized Zakah Management in Malaysia and its Normative Ambiguities." *Globalizations* 14, no. 1 (2017): 81–98.
- Noor, A.H.M., M.S.A. Rasool, R.A. Rahman, R.M. Yusof, and S.M. Ali. "Assessing Performance of Nonprofit Organization: A Framework for Zakah Institutions." *British Journal of Economics* 5, no. 1 (2012): 12-22.
- Putra, R.J.E., N. Nasution, and Y. Yummastian. "Aplikasi E-Zakat Penerimaan dan Penyaluran Menggunakan Fuzzy C-Means (Studi Kasus: LAZISMU Pekanbaru). Digital Zone." *Jurnal Teknologi Informasi Dan Komunikasi* 6, no. 2 (2018): 42-54.
- Shittu, D.A.B. "Disorganised Assortment and Disbursement of Zakah: A Contributing Factor to Endemic Poverty and Security Lapses in Nigeria." In: *Proceedings of the 6th International Conference on Mosque, Zakat and Waqf Management* (2019): 13-24.
- Stebbins, Robert A. *Exploratory Research in the Social Sciences*. SAGE, 2001.
- Swara, G.Y dan D. Hakim. "Perancangan Sistem Aplikasi Pengelolaan Zakat Berbasis Web (Studi Kasus: Badan Amil

- Zakat Masjid Raya Andalas Kota Padang).” *Jurnal TEKNOIF* 4, no.1 (2016): 32 - 39.
- Wahab, N.A., and A.R.A. Rahman. “A Framework to Analyse the Efficiency and Governance of Zakah Institutions.” *Journal of Islamic Accounting and Business Research* 2, no. 1 (2011) 43-62.
- \_\_\_\_\_, and A.R.A. Rahman. “Efficiency of Zakah Institutions and its Determinants.” In: *Access to Finance and Human Development—Essays on Zakah, Awqaf and Microfinance* 33 (2015).
- Zainal, H., S.K. Basarud-din, R.M. Yusuf, and S.N.Z. Omar. “Managing Zakah Fund in Malaysia.” *Journal of Global Business and Social Entrepreneurship* 1, no. 2 (2016): 46–53.
- Zubaidah, S., and A. Afifah. “Development of Zakah Management Digitalization in Indonesia. In: *Proceedings of the International Conference of Zakah* (2020): 59-48.