

DIGITALISATION OF THE ONLINE ZAKAT MAJLIS AGAMA ISLAM NEGERI PULAU PINANG (MAINPP): TOE FRAMEWORK

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ABSTRACT

The Industrial Revolution 4.0 has contributed to the increasing use of ICT tools in business transactions in the service and product sales sector. Zakat MAINPP uses systems to collect payments, distribution, accounting and financial activities, data processing, documentation, human resources training and record systems. The result of various official online applications and unofficial social media platforms contribute to payment and claims either from or to customers. Human and machine interaction has become important, especially in complying with Zakat payments by Muslims in Malaysia. Therefore, it is

important for financial institutions to enhance their online services in order to comply with government policy in harmonizing the usage of applications. 150 staff from all departments involved in the survey with proper guidance. Therefore, all staff must be familiar with particular system to meet individual performance and complying job scope. This paper explores the TOE factors in digitization adoption and practices by individual and team operation of all department in Zakat MAINPP. The analysis found that technology factors contribute more on digitization practices followed by organization and environment factor. Future study and recommendation are presented at the end of this paper.

Keywords: Digitalisation, Zakat, Collection, Electronic Payment, Online Transaction

1. INTRODUCTION

To understand the broader context of this study, it is essential to outline the key concepts and frameworks that underpin this research. This process involves detailing the concept of DT, the role of SMEs within the national context, and the diffusion of DT among SMEs, which are elaborated upon in the following subsections. Previous study tested the TOE factors determined technology adoption. Research has found that age factor as determinant for readiness of staff to use the system. In fact, the technology factors itself contribute to the usage. The ease of use, usefulness, privacy, and security are popular factors to contribute to the usage. Previous study by Wahab (2010) has found that three factors important in choosing the e-banking provider. In this context, small scale organization are relatively under-researched, and there is a need to better understand the factors leading to their adoption of digital technology (Faiz et al, 2024).

Overview of Digital Technology (DT)

The term digital technology refers to a set of technologies associated with digital transition that extend beyond organizational boundaries (Ghobakhloo, 2020). Some scholars suggest that DT represents a collection of intelligent innovations that define the current technological paradigm (Pedota et al., 2023). The implementation of these DTs can digitize and streamline a firm's value creation process, thereby bolstering competitiveness, enhancing productivity, and fostering digital innovation (Papadopoulos et al., 2020). A recent study reveals that firms with increased revenue during COVID-19 were

associated with the use of DTs in their operations, while enterprises that did not engage with DT generally faced declining turnover (Ashiru et al., 2023). The importance of zakat in the Muslim community could be further enhanced by providing a more detailed background on the concept and historical practice of Zakat MAINPP especially within Malaysia. This would set a stronger foundation for understanding the significance of digitalis.

The Technology–Organization–Environment (TOE) framework

The TOE framework is regarded as the quintessential model to reveal factors that promote or inhibit IT-related adoption among firms, because its three dimensions cover all the factors necessary for successful technology adoption (Sun et al., 2024). The framework identifies several key predictors of the likelihood of certain innovations, namely technological, organizational, and environmental, which can present both opportunities and constraints to the adoption of new innovations (Tornatzky & Fleischer, 1990). Technological factors pertain to the characteristics of the technology itself, influencing a firm's decisions to adopt, including adoption costs, perceived benefits, perceived risks, compatibility, and complexity of technological innovation, which are mostly derived from Rogers' diffusion of innovation theory (Tiwari et al., 2023). Organizational factors are inextricably linked to and controlled by firms, such as human resources, top management support, the number of resources, and size. All these factors may make firms more receptive to innovation (Baker, 2012). Environmental factors are characterized as factors arising outside such firms' spheres, where firms do not have control over these factors, such as competitive pressure and government regulation (Maroufkhani et al., 2020). The TOE framework is considered progressive because it can incorporate different elements from state-of-the-art knowledge in specific research fields (Su et al., 2023). However, some scholars criticize the TOE framework for not incorporating important variables in its taxonomies (Toufaily et al., 2021). Thus, to avoid any bias from the application of the TOE framework, it is used as the overarching theoretical foundation to unify different constructs under a single umbrella in this study.

Diffusion of Innovation Theory (DOI)

Given the TOE's limitations, this study adds another theoretical lens to improve its framework, namely Rogers' DOI theory. DOI theory attempts to explain how and why an innovation, such as information, ideas, or products gains momentum and spreads within a social system over time via communication channels (Rogers, 2003). In this theory, an innovation is defined as an idea,

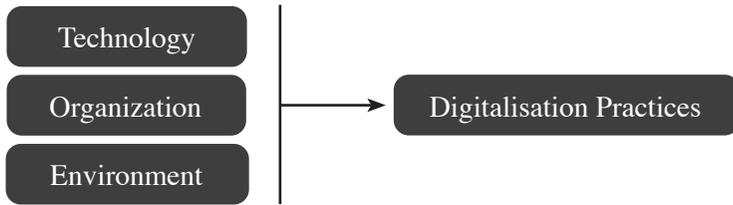
practice, or object perceived as new by an individual or organization. In principle, the DOI assumes that the higher the individual's perception of five key elements, the greater the possibility of that individual adopting the innovation (Tiwari et al., 2023). Zakat Pulau Pinang is one unit of agencies reported to Majlis Agama Islam Pulau Pinang. Among ZPP and another four agencies reported to MAIPP are Waqaf Penang, KITAB, Yayasan Agama Islam Pulau Pinang and Halal International Center. It began with Assahabah Urus Zakat Sdn. Bhd. in 1994 as subsidiaries of Majlis Agama Islam Pulau Pinang. Their operation is only collecting zakat from Muslim's in Penang under the name of Pusat Urus Zakat Penang. At the beginning of their operation, the focus was only collecting zakat for property in the state of Penang, that cover the Island and Province Welleslay. Majlis Agama Islam Negeri Pulau Pinang responsible for collecting Fitrah and doing the collection in the state of Penang. However the success story of ZPP increased the collection up to RM 9.36 million in 1998 from 0.19 million in 1994 increasing the confidence of MAIPP to also delegate the collection activities and distribution started from Mac 1999. ZPP has given an authority to collect all types of zakat as ordered by Islam.

Collection department operation in ZPP can be divide to 4 section which are Bahagian Dakwah Korporat, Bahagian Kaunter, Bahagian Dakwah Am and Bahagian Fitrah. Bahagian Dakwah Korporat will focus on the collection of Zakat from corporate companies such as banks, factories, retails and the stock market sector. Bahagian Kaunter only focus on individual customer attending the counter service, there are 8 counters available in the state of Penang recently. Bahagian Dakwah Am will focus on the operation and management staff in any agencies running operation in Penang such as District Municipal Office, District Police Department, universities and schools.

The Distribution Department can be divided into two departments which are, Asnaf housing department and Asnaf Welfare department. All sections are headed by the manager while departments are led by the General Manager. However, this paper explores the system and application practices along the way from 2019 until 2023 and investigates their progress only for collection.

Theoretical Framework

The paper lacks a clear theoretical framework that guides the research. Incorporating a section that outlines the theoretical underpinnings of digital finance in the context of Islamic.



This study integrates the technology, organization, and environment (TOE) framework with Rogers' diffusion of innovation (DOI) theory to investigate the factors influencing SMEs' digital technology adoption.

2. METHODOLOGY

Data Collection

To gather the data about the usage of internet tools for collection activities, the current practices of IT systems by five departments including collection, distribution department, finance, human resources and IT department.

Data Analysis

Data from 150 Zakat MAINPP staff was analyzed using multiple regression analysis. In order to identify the factors a simple mean analysis was conducted. The table shows that our collection increased for four categories of collection which are income, savings, shares, EPF, gold, silver, agriculture and livestock. The percentage of increment is inconsistent between the categories, roughly it shows that the collection was increased due to the usage of technology for zakat collections.

3. FINDINGS

Results identify that the most important predictors, ranked from the most to the least influential, are digital culture, international orientation, top management support, trading partner pressure, human resources, and adoption costs. The supported variables include adoption costs, top management support, human resources, digital culture, and trading partner pressure. Some factors indirectly impact adoption through top management support.

Factors (TOR)	Mean Score
Technology	0.81
Organization	0.79
Environment	0.15

Technology factors contribute more to the system application. As we know, IT department rapidly improve the system usage in order to support digitisation process in all departments especially distribution. Instead, organisation also played an important role in encouraging the system usage. Message from top management is very clear. Board Directors meeting stress on the efficiency of Zakat MAINPP operation to meet targeted collection. With the highest mean score (0.81), technology leads to digitalization in MAINPP. The third factor is the environment. We believe that MAINPP become umbrella for five institutions in Penang which are Yayasan Islam Pulau Pinang, Waqaf Pulau Pinang, Darul Hidayah Rehab Centre, Pusat Hemodialisis and Institut Latihan Islam Pulau Pinang and Inapan Kasih Sayang. Both institutions are now moving towards 100 percent paperless policy and full flesh system application by 2030.

4. CONCLUSION

The data has confirmed that the initiatives taken by the Collection Department show the improvement in the collection process. The introduction of technology-based tools supports the target collection decided by the Board of Director Meeting. This research contributes to the theoretical discourse on technology adoption by integrating the TOE framework with Rogers' DOI theory. It highlights that no single TOE element functions in isolation. The findings provide practical guidance for SME managers, stressing the need to improve organizational factors, such as, human resources, digital culture, and top management support. Governments may use these findings to identify ways to support Zakat MAINPP digital technology adoption, particularly by offering subsidies to reduce costs, which remain a barrier key findings more comprehensively, reiterate the importance of the study, and suggest practical implications for policy, practice, and future research contribution to the field of digital finance in Islamic practice.

5. DISCUSSION

Muslims today face various challenges in the economic and social that require support to create well-being among humans. Thus, zakat is seen as one of the primary mechanisms that catalyze the ummah's civilization, which is effective and follows the circulation and development of the current world (Meerangani et al., 2022). Zakat is one of the tools that play an essential role in strengthening the economic position of Muslims as well as ensuring justice and wealth by reducing imbalance in income between the communities. Zakat plays an essential role in overcoming the problem of wealth distribution imbalance, catalyzing wealth redistribution activities in stages and helping to curb inflationary tendencies (Ellany et al., 2014). Through the obligation of zakat, Islam has created a caring and responsible nature in every Muslim so that they take care of the needy in society. Through the zakat system, people can bridge the socio-economic gap between the rich and the poor through the awareness that exists in the affluent that the needy also have certain rights and shares in their property.

6. FUTURE RESEARCH

Future research should consider qualitative research in order to capture more value data specially from the views of customers. By combining two ways of data collection the result is more accurate in explaining human behavior towards the system usage.

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