

## Development of an Online Zakat Application System

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**Abstract:** File management better known as classical file management was handled by humans. There are too difficult to manage the file for an organization with only using manpower. However, with this sophisticated technology, such things can be best solved when using computer or file management systems. As a step towards capitalizing on the use of the technology system, this study was conducted to develop the Online Zakat Application System to assist students and the UTHM Islamic Center in particular in the application and management of zakat applicants' data in UTHM. In addition, the system is also able to store application data in a computerized database in line with the era of computer technology use. In this study, the Waterfall development model was used to develop this system. For the evaluation process of the developed system, the expert checklist form and the expert confirmation form were distributed to the lecturer of the Faculty of Technical and Vocational Education as well as officials from the Islamic Center. The data obtained were analyzed using frequency and feedback analysis methods. The results of the study showed that all the experts have given a very positive response to the overall development of the system. As a result, this Online Zakat Application System has achieved the objectives of the study and received very positive feedback from the experts involved in the system evaluation process.

**Keywords:** Data Management, File Management System, Online Zakat Application System

### 1. Introduction

A system can be described as a complex component that interacts with one another to achieve a goal. According to Ngafifi (2014), the system is also used as a tool to facilitate all human affairs today. From a decade ago, electronic devices such as mobile phones, computers, and so on is the only human desire. This perception started to change as one electronic device became a necessity for mankind in this era of globalization. It is because all information is accessible at your fingertips only. The information system has many types of components involved. According to (Edmondson, Kern, and Rogge 2019), information systems can be referred to as socio-technical systems. There are

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combinations of several elements such as human, data, hardware, software, network, and other interconnected procedures to provide useful information to consumers (Edmondson et al. 2019).

According to Huat et. al (2011), the information is a set of facts and data that has been compiled and processed in a manner that carries the meaning or value to the user in preparing the task or solving the problem to a fact or raw data that facilitates the transformation of data to information. Information is considered very important to be cared for and not to be stolen by the wrong person. Therefore, information management should be taken seriously because, in the event of information leakage or data, it will give an adverse implication to individuals or their organizations.

The main issue that is often discussed is data safety. In a system and also data management too, it is not exempt with a matter of data safety. The methods of using files and paper in handling an important business are very high risk of document and data corruption. According to (Allmer, 2011), stating the importance of safety and privacy studies in today's information society. For example, an organisation faces accidents such as fire, flood, and other natural disasters, surely all the data, as well as the important documents, could not be saved. This certainly brings some trouble to recover the data. In addition, finding the file or data was difficult and also complicated to do because the saved records are not stacked with the perfect shape. Besides, a lot of time is required to recover saved data, especially some of the data stored in the store.

Based on the research background, there are various constraints in the use of a manual information management system. Among them are, data security issues problems. User data security issues are very important to maintain. This is because data or customer information is easy to lose, and it is also easy to be stolen by those who are not responsible. In addition, finding information is difficult and it is among the sources of information system vulnerabilities manually. It is because the stored data is not properly arranged. Therefore, one of the ways to solve the problem is to develop an online information management system. This system is also can solve the problems found in the information management system manually. In addition, data security can also be improved with the availability of computerized database systems.

The study was to develop an online zakat application system to be used by UTHM's students who wish to apply for zakat and also the Islamic Centre UTHM which manages the student Zakat application. In addition, the objective of this study is to gather information on the existing systems used to upgrade the existing system for the better.

The main objective of the development of Zakat application system is for the use of UTHM primary campus only to facilitate students seeking zakat aid online and facilitating the Islamic centre of UTHM to manage zakat application. The objectives of this system are to be developed as follows:

- To design an online zakat application system.
- To develop an online zakat application system.
- To evaluate the function of the online zakat application system.

## 1.2 Literature Review

Zakat is one of the financial resources for Islamic economic development. In addition, Zakat can also reduce the incidence of poverty while strengthening the local economic position. Zakat funds will be able to impact the poverty eradication of the Community and economic development in the event of Zakat distribution (Mannan, 2003). Zakat Management is located under the authority and responsibilities of the States. Majlis Agama Islam Negeri (MAIN) played the role of managing zakat in most states. This responsibility is one of the core functions in the administration that has been implemented since the old (Abdul Rahim, 2007).

The Zakat management system in Malaysia has undergone major changes in the present era. This is evident when zakat payments can be made through the Financial Process Exchanges (FPX) by bank customers via the internet (Canggih, Fikriyah, and Yasin 2017). In this globalisation period, Internet usage is so important in our daily lives. It also has the circulation of the zakat management systems in Malaysia.

According to Shawal Kaslam (2009), the E-Zakat has emerged as one of the Government's initiatives in integrated Internet applications to build a competitive and modern Zakat institution. Besides that, E-Zakat is an online media used for supporting the ways that Zakat organization delivers services, especially in the collection and distribution of zakat funds to zakat recipients. The use of online applications can reduce leakages problems and leakage in money management and able to increase service effectiveness (Shahnur Azad et al. 2013). The online application provides a variety of alternatives to customers while interacting with public officers. ICT is also an indirect mechanism capable of controlling corruption in each sector (Bandsuch et al. 2008).

The importance of transparency in corporate governance can be seen through statements such as transparency is the pulse of governance (Shafie, Maelah, and Basnan 2016). This element enables the stakeholders to access accurate information to assist them in making decisions (Bandsuch et al. 2008). Transparency is also able to reduce asymmetric and less accurate information because allowing everyone to access the same information (Chen et al 2007). This makes transparency good information as a prerequisite for good governance (Chiang 2005).

## **2. Methodology**

The methodology was used to develop this Online Zakat Application System is the Waterfall Model (refer Figure 1). This model is also carried out in stages in phases and does not occur "overlaps". The development of the system was developed in several phases called the development life cycle. The interfaces that have been designed are developed in the Adobe Dreamweaver software using PHP, HTML, as well as CSS programming languages. Adobe Photoshop software is used to edit pictures and graphics available in this system.

In the system requirement analysis phase, the existing system used by the management of the Islamic Centre is reviewed in more detail in advance to be aware of the original system features to be changed to the system on an online basis. All information was collected and reworked so that information could be used as a source of reference for the next phase. This phase will also implement the process of analyzing the project needs to ensure the development of the Online Zakat Application System is more systematic and orderly.

In the design phase, developers are required to design a suitable design based on the system to be developed. These designs need to take into the target and needs of users so that the system developed can achieve a predetermined objective. In the implementation phase, all the frameworks and designs that were produced were developed to be one of the system parts.

In the evaluation phase, the assessment was the formative evaluation. The formative evaluation is an ongoing assessment throughout the development of the system and will be at the value of its availability by experts. If there are errors or errors in the development of the system, improvements will be made so that the products can be used by the user. The most challenging thing in this system development process is the data manipulation process. For example, the process of storing and deleting data according to the applicant's identity card number is challenging. This is because the program code that needs to be used is quite difficult to understand. At last phase, the maintenance phase, developer need to maintain the remaining system so that the system can run in a long way of time.

### **2.1 Population and Sample**

The selected expert is made up of two lecturers from the Faculty Education of Technical and Vocational (FPTV), which have expertise in programming and Multimedia Creative. The assessment of the content in the Online Zakat Application System, it is done by a person consisting of a senior Islamic Affairs officer from Universiti Tun Hussein Onn Malaysia Islamic Centre.

## 2.2 Research instrument

The analysis is made in frequency scale and feedback form. The instrument used the qualitative method. In addition, one of the advantages of this instrument for data collection is that it helps researchers to reach respondents who are located far away and that it costs less than collecting data by other methods.

There is seven (7) question to the assessment of the content. For the design, there is three separate part which is part A (Design content) which have five (5) question. On part B (interface design and multimedia elements) which have seven (7) question and for the part C (interface interaction design with users) which have seven (7) question. All this evaluation using in frequency and feedback format. The instrument of the questionnaire was the expert opinion of each item provided based on the testing of the system.

## 2.3 Data Analysis

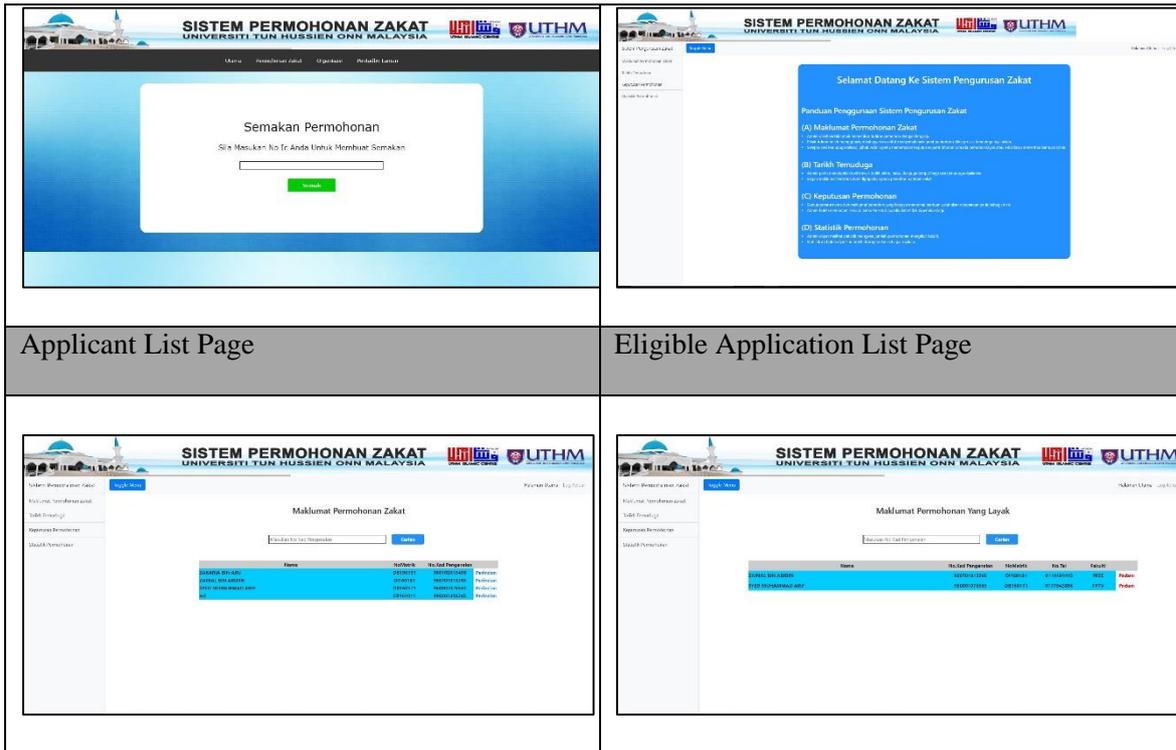
The data analysis method used is the percentage calculation of each item tested by the expert. These percentages are based on expert selection through a frequency scale. Besides, the data also were collected from the feedback from the expert.

## 2.4 Content Interface

There are several main pages on the system such as the Homepage, Application Form Page, Checking Application Status Page, Admin’s Home Page, Applicant List Page, and Eligible Application List Page. Table 1 is an example of the main page found in this system.

**Table 1: Example of the main page in this system**

Home page	Application Form Page
	
Checking Application Status Page	Admin’s Home Page



### 3. Results and Discussion

As a result of the analysis, experts have provided 100% percent value in the agreement that the content is easy for users to understand. According to O'Hara and Fleger (2020), a good interface design reflected to the easiness of user to understand the content. Whereas for content level content items with zakat application information get 100% agreed-upon percentage from the expert. In addition, experts also provide a 100% percent agree that the content in this system is compact and simple. The brief content of zakat online system triggered the more user to use the online payment zakat (Canggih et al. 2017). The level of suitability for this system used by students has been 100% agreed upon by the expert. For items of information required to apply for zakat is fully 100% agreed upon by the expert. For the level of required information when applying for zakat has been obtained 100% of the agreed from the expert. The level of conformity to the information contained in this system has also been 100% appreciated by experts. For the last item, the content provided to meet the system development objectives was 100% agreed upon by the evaluating expert.

### 4. Conclusion

Overall, this study has been well-implemented and successful and achieves the goals that the developers are aiming for as all experts provide good feedback. Positive advice from expert can make this system more effective and more innovative. Developer hope to make improvements and further studies in the development of this system in the future.

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### References

Abdul Rahim Zakarta. 2007. Perkembangan dan sistem pentadbiran zakat kontemporari. Kertas kerja dibentangkan dalam Konvensyen Zakat dan Cukai Peringkat Kebangsaan di PwTC, Kuala Lumpur, 22-24 Mei 2007.

- Allmer, Thomas. 2011. "A Critical Contribution to Theoretical Foundations of Privacy Studies." *Journal of Information, Communication and Ethics in Society* 9(2):83–101. doi: 10.1108/14779961111148613.
- Bandsuch, M., Pate, L. & Thies, J. 2008. Rebuilding stakeholder trust in business: An examination of principle-centered leadership and organizational transparency in corporate governance. *Business & Society Review* 113(1): 99-127.
- Canggih, Clarashinta, Khusnul Fikriyah, and Ach Yasin. 2017. "Inklusi Pembayaran Zakat Di Indonesia, Jurnal Ekonomi Dan Bisnis Islam." *Jurnal Ekonomi Dan Bisnis Islam* Vol.3(No.1):1–11.
- Chen, W.-P., Chung, H., Lee, C. & Liao, W.-L. 2007. Corporate governance and equity liquidity: Analysis of S&P transparency and disclosure rankings. *Corporate Governance* 15(4): 644-660.
- Chiang, H.-t. 2005. An empirical study of corporate governance and corporate performance. *The Journal of American Academy of Business* 6(1): 95-101.
- Edmondson, Duncan L., Florian Kern, and Karoline S. Rogge. 2019. "The Co-Evolution of Policy Mixes and Socio-Technical Systems: Towards a Conceptual Framework of Policy Mix Feedback in Sustainability Transitions." *Research Policy* 48(10):103555. doi: 10.1016/j.respol.2018.03.010.
- Huat, T. K., Shariffudin, R. S., & Mislán, N. (2011). The Development of the Web-based My Discipline and Counseling Online Management System. 5th International Conference on Distance Learning and Education (IPCSIT), 12, 105–109.
- Mohd Faisol Ibrahim, Mohd Yahya Mohd Hussein & Suhaina Musani. 2005. Peranan institusi bank sebagai agen kutipan dalam aktiviti bayaran zakat: Kajian ke atas Pusat Zakat Selangor. Dlm. Kertas Kerja Seminar Ekonomi dan Kewangan Islam, 29-30 Ogos. Selangor: ESSET Bangi.
- Md. Shahnur Azad, Chowdhury, Md Musa Khan & Ms Sultana Akter. (2013). Corruption in Islamic perspective and the roles of Information and Communication Technology (ICT) to control it. *Journal of Islamic Management and Business*, 5(11): 36-43.
- Ngafifi, M. (2014). Kemajuan Teknologi Dan Pola Hidup Manusia Dalam Perspektif Sosial Budaya. *Jurnal Pembangunan Pendidikan: Fondasi Dan Aplikasi*, 2(1).
- O'Hara, BNL, and Fleger, S. NRC. 2020. *Human-System Interface Design Review Guidelines Nuclear Science and Technology Department Nuclear Regulatory Commission/NUREG/CR Only*. Brookhaven National Laboratory.
- Shafie, Noor Fadzilah, Ruhanita Maelah, and Norida Basnan. 2016. "Keperluan Pemegang Kepentingan Institusi Zakat Terhadap Item Maklumat Pelaporan Prestasi." *International Journal of Management Studies* 23(2):97–124. doi: 10.32890/ijms.23.2.2016.10473.
- Shawal Kaslam. (2009). *The Advancement of e-Zakat for Delivering Better Quality Service and Enhancing Governance Sphere of Zakat Institution in Malaysia*.