

DATA VISUALISATION OF ZAKAT DISTRIBUTION IN UITM PERLIS

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ABSTRACT - The Zakat Unit of UiTM Perlis plays a crucial role in supporting students who require financial assistance. In an effort to enhance their services, the unit has developed a website that provides information and facilitates zakat applications for students. However, the existing system has certain limitations, including a limited section for calculating the kifayah limit rate and a lack of comprehensive information on zakat distribution. This has led to the study's motivation to create an interactive system to check the eligibility status and a dashboard that allows user to view every zakat distribution record to improve UiTM Perlis zakat management. This study aims to analyze the requirement of data analysis for zakat application eligibility of students in UiTM Perlis, develop a system to facilitate the eligibility process and dashboard for zakat distribution. The method used for evaluation was Technology Acceptance Model (TAM). The methodology adopted was an agile model divided into 6 phases: planning, design, development, testing, evaluation and documentation. The Agile methodology was mainly created to assist a project in fast adapting to change requests (Gurung et al., 2020). Finally, the finding shows that the system and dashboard are well-accepted as they facilitate the eligibility checking process and provide information about zakat distribution in UiTM Perlis.

Keywords: Dashboard, zakat, zakat distribution, data visualization

1. INTRODUCTION

Zakat promotes tolerance and altruistic behaviors, which can help reduce societal and economic disparities, accelerate economic development, and achieve purchasing power parity, all of which could lead to alleviating poverty (Canggih et al., 2017). Universities are responsible for addressing students' financial challenges and supporting their overall well-being. The objective of this study is to simplify the zakat eligibility process and provide a user-friendly platform for displaying valuable information. This platform aims to assist the Unit Zakat in effectively managing zakat application, allocation, and distribution to eligible applicants. The web-based system comes with Had Kifayah Calculator to calculate the had kifayah limit based on the input inserted by applicants. The result will appear after all the data is successfully entered. The dashboard can be found on the website, where users can see all the details information on zakat distribution among students in UiTM Perlis by year, semester and faculty when users explore the dashboard.

2. METHODOLOGY

The Software Development Life Cycle (SDLC) with the agile model was implemented in this study as the methodology. This methodology included 6 phases which are planning, design, development, testing, evaluation and documentation. Data collection of zakat applications, allocation and distribution was from the interview with Unit Zakat of UiTM Perlis. The dataset will undergo a transformation and cleaning process before being loaded into a data warehouse for visualization purposes. The development of the website and dashboard will be using 000Webhost and Power Bi, respectively. The testing phase starts when the questionnaire is distributed to the target user through the Google Form platform.

3. RESULTS AND DISCUSSION

The evaluation of the website and dashboard has been done with usability testing among the students and Unit Zakat staff. Technology Acceptance Model (TAM) was selected in conducting the evaluation among the users. It is essential to involve users in the design and development process to ensure the requirements and expectations are met when developing a new system. There are a total of 41 participants who contributed to the testing phase. Based on the result obtained from the usability test, most of the respondents are satisfied with the website and dashboard. The participants found the website and dashboard easy to navigate and could integrate with the UiTM Perlis Official website. Recommendations and suggestions provided by the participants are valuable inputs for future improvements and can

serve as references for developers in the same field of study.

4. NOVELTY OF RESEARCH / PRODUCT

There have been a number of research that have studied the requirement and development of the Zakat website and dashboard using various models. Previous research (Nizal et al., 2019) developed a Zakat Fund Distribution Dashboard to provide interactive and real-time information for Zakat distribution. The dashboard was developed to provide added value to the Zakat management body in assisting in managing the Zakat distribution process in a better way. (Khairi et al., 2022) developed a newly developed demo backend blockchain zakat that is able to track and monitor zakat transactions using a dashboard, which is believed to be able to increase the level of confidence of zakat payers and receivers. In addition, there is research that has developed a web-based that embeds a dashboard with objectives to help monitor and manage the data of dropout students in a specific location. All of the studies stated above were used as references during the development phase of this study.

5. CONCLUSION

This study has successfully achieved its objectives through a comprehensive and systematic approach. The development of the zakat eligibility system and UiTM Perlis Zakat Distribution Dashboard can be a valuable tool for University's Unit Zakat or organization in the same fields. The web system and dashboard developed effectively helps simplify the selection of eligible zakat recipients and display an easy-to-understand form of information to all levels of computer literacy ability.

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