

Design of Service Information System as A Strategy for Implementing Knowledge Management in Zakat Management Organizations (A Case Study at Baitul Maal, Islamic University of Bandung)

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Abstract

The Baitul Maal Unisba (BMU) organization faces obstacles in the form of suboptimal service so that researchers have initiated improvements to the website-based information system and make the information system a knowledge management strategy at the BMU institution. This study aims to provide an overview of the design of a better information system and utilize the information system that has been designed as a knowledge management strategy. Qualitative methods with a case study approach have been used in this study. The results of the study indicate that the design of a better service information system with reference to the evaluation results is carried out using the WordPress service at the address www.baitulmaalunisba.wordpress.com. The design can then be utilized in the knowledge management (KM) implementation plan in the BMU organization, namely as a form of codification strategy and as a technology component at the combination stage. To realize this, the website manager uploads knowledge content, adds special KM features to the website content section, encourages organizational human resources to read and respond to the knowledge content that has been uploaded and improves the search feature on the website to make it easier for website visitors to access information and knowledge.

Keywords: information system, website, knowledge management.

INTRODUCTION

The wealth that a person has is not essentially a personal property right but is a trust from Allah alone that must be guarded as well as possible. Guarding wealth is done by using wealth for the benefit of the people with the aim of gaining Allah's pleasure. The ownership of wealth belongs entirely to Allah SWT, then Allah gives the right of ownership to humans in the form of control over the substance or benefits of the wealth. This is contained in the Qur'an, Surah Al Hadid, verse 7 (Harjana et al., 2025). Allah SWT says in Surah al-Hadid verse 7 which means: "Believe in Allah and His Messenger and spend (in the way of Allah) some of the wealth that He has made you rulers of (trust). So those who believe among you and spend (their wealth in the way of Allah) will get a great reward."

The use of wealth for the benefit of the community is carried out by paying zakat, infak and alms. In the fulfillment of zakat, infak and alms, Muslims are assisted by the zakat

management organization (OPZ). OPZ is an organization that is authorized or appointed by the government to manage public funds (Fadilah et al., 2017). In Indonesia, it is recognized that there are two types of zakat management organizations in Indonesia, namely the Zakat Collection Agency (BAZ) and the Zakat Collection Institution (LAZ). BAZ is an institution for collecting and utilizing zakat funds formed by the government from the central to regional levels, while LAZ is an OPZ formed from community self-help (Sudiana et al., 2022).

Based on information on the website of the Ministry of Religion and Finance of the Republic of Indonesia, it can be seen that the potential for Zakat, Infaq and Shadaqah funds that can be collected and managed in Indonesia is very large. The potential for Zakat, Infaq, and Shadaqah (ZIS) in Indonesia in 2024 is estimated to reach IDR 327 trillion. Meanwhile, the realization of ZIS collection in the same year only reached IDR 41 trillion or only 12.54% of the potential. This situation requires OPZ to improve its performance so that in the future public trust in paying zakat, infaq and alms through OPZ will grow.

To improve its performance, the organization can implement knowledge management. Knowledge management (KM) is the process of creating, storing, and using knowledge to improve organizational performance (Bassi, 1998). KM is also the process of identifying, selecting, managing, sending and disseminating information for problem solving, strategic planning and decision making (Efraim et al., 2005).

The implementation of KM consists of stages of socialization, externalization, combination and internalization (Nonaka et al., 1995). In the organizational environment, the socialization stage can be realized in meetings, seminars and coordination between individuals. The externalization stage is carried out by documenting activities at the socialization stage. The combination stage is realized by making the documentation created at the externalization stage to be developed into knowledge content that is ready to be used in the work process. While the internalization stage is realized by members of the organization by consuming and utilizing knowledge content as a guide in implementing organizational work (Yugowati, 2016).

There are three components in the implementation of KM in organizations, namely humans, processes and technology. Humans who have an important role in KM are individuals who clearly understand their roles and responsibilities in managing knowledge and running the KM process in the organization or company. Clear process components can facilitate the creation of innovation in knowledge and facilitate the distribution of knowledge. While technology can help in the flow of information and data that occurs in the KM process, including by capturing, storing, and facilitating the use of information in organizations or companies. The technology that is built can be in the form of: forums on the internet, websites and others (Godbout, 2000).

Several studies have shown that the implementation of knowledge management can improve organizational performance. As shown by the Knowledge Management Report in 2008, which reported that the implementation of knowledge management can increase profits by 51%, maintain market share by 42%, reduce costs by 39%, and grow revenue by 32%. Research conducted by Allee, 2007, Davenport, 2008, Alavi & Leidner, 2010, also stated that the implementation of knowledge management can improve organizational performance and create value. Furthermore, Scarborough's research, 2003, showed that the implementation of knowledge management in organizations can improve learning and performance in organizations (Suwarsi, 2016).

Baitul Maal Universitas Islam Bandung (BMU) is an OPZ within the Bandung Islamic University (Unisba) environment. Established in 2006, BMU is expected to be the main choice for Unisba Academic Community in fulfilling ZIS and it is also expected that BMU will be one

of the solutions for Unisba Academic Community, especially students, in obtaining financial assistance, especially when they encounter difficulties in their academic activities. In socializing its role, BMU relies on the use of a website-based service information system and also uses social media.

More than 15 years since its establishment, BMU has not been able to optimize its performance. This can be seen from the low percentage of academicians who are donors. Namely only 15% from lecturers and education staff and less than 1% from alumni and active students. In the field of service, BMU also faces several obstacles. In terms of service to those in need of assistance, information on the types of BMU services has not been widely disseminated so that parties often feel late in accessing assistance services. Complaints about the suboptimal socialization of services were also conveyed by several Unisba academicians when an audience visit was conducted to several faculties in June 2024.

To improve the performance of the BMU organization, the author initiated the implementation of knowledge management, especially since BMU is part of the higher education entity of Bandung Islamic University, so the implementation of knowledge management in it is very important because higher education as a collector of knowledge transfers the knowledge of each individual as an intangible asset into an organizational asset.

Previous studies have discussed the literature review on the implementation of the waterfall method in the knowledge management information system for digital marketing which is useful in fostering innovation related to digital marketing in organizations (Chasanah et al., 2021). Implementation of knowledge management in the library information system that makes it easier for visitors to explore knowledge managed by the National Library of the Republic of Indonesia (Fauziah, 2019). An intellectual asset information system based on a knowledge management system in a university environment that produces a knowledge management system application with discussion group forum features, student achievement archives, archives (Ishari et al., 2020).

Discussion related to the implementation of knowledge management with a focus on the use of website-based information systems as an implementation strategy in non-profit institutions in the form of zakat management organizations is still very limited, so researchers are interested in studying how the application of knowledge management can be implemented effectively in zakat management organizations. This study aims to describe the steps for implementing knowledge management with a focus on the use of website-based information systems in zakat management organizations. The results of this study are expected to provide an overview of how knowledge management can support improvements in organizational performance, as well as become a reference for zakat management practitioners, academics, and policy makers in encouraging the application of knowledge management in the zakat management organization environment. That way, zakat management organizations can improve the efficiency of processes and work methods, strengthen organizational commitment and build sustainable competitive advantages (Davenport et al, 1998; Darudiato, 2013).

As an effort to implement knowledge management in the BMU organization, it is necessary to redesign the website-based service information system that has been used by BMU. This is done because the results of the evaluation of the website that has been used by BMU revealed its weaknesses, namely the design is considered outdated, unattractive, unprofessional and does not accommodate users to share website content to the user's social media platform.

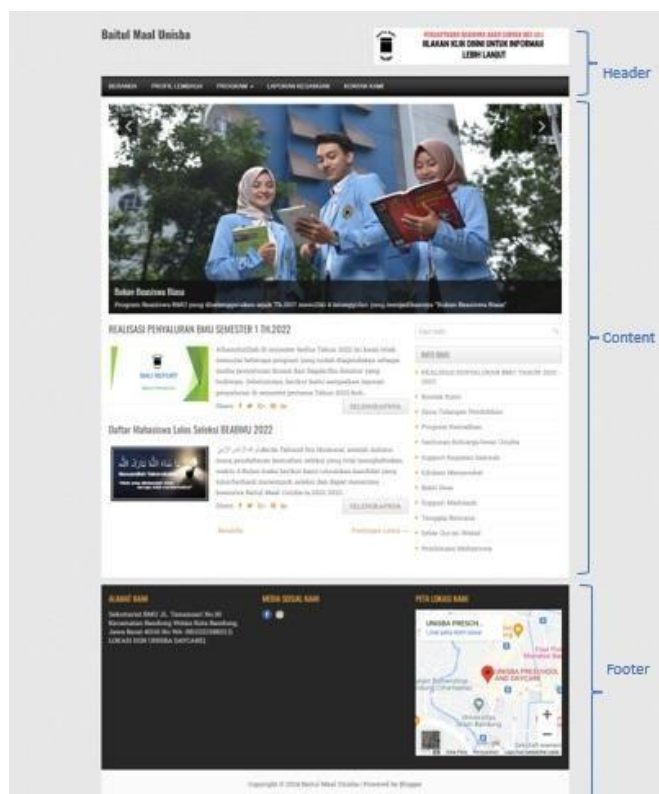


Figure 1. Initial View of BMU Website

METHOD

The research method used in this study is qualitative research with a case study approach, namely an approach that is carried out intensively, in detail and in depth regarding a matter being studied, whether in the form of a program, event, activity and others to obtain in-depth knowledge/information about it. The purpose of this study is to create a better service information system design based on an evaluation of the previous information system and then utilize it as a strategy for implementing knowledge management in the organization.

RESULT AND DISCUSSION

This study took respondents of 2 website design practitioners and 9 BMU managers and volunteers. The focus of the study was on the description and evaluation of the service information system currently operating at BMU, a description of the design of a better service information system based on an evaluation of the previous information system and a description of the strategy for utilizing the service information system that had been designed as a knowledge management strategy. The data analysis method in this study used inductive qualitative analysis, namely an analysis based on the data obtained, then a certain relationship pattern was developed.

Information System Design Based on Evaluation Results

Referring to the evaluation results of the website-based service information system that has been used since 2017, a website-based BMU service information system was designed at www.baitulmaalunisba.wordpress.com. The WordPress service was chosen for the potential use of better website procurement services in terms of design and security. The design uses the waterfall method which consists of the following stages: needs analysis, system design, implementation, testing and maintenance. The appearance of the designed website is shown

in the following image:

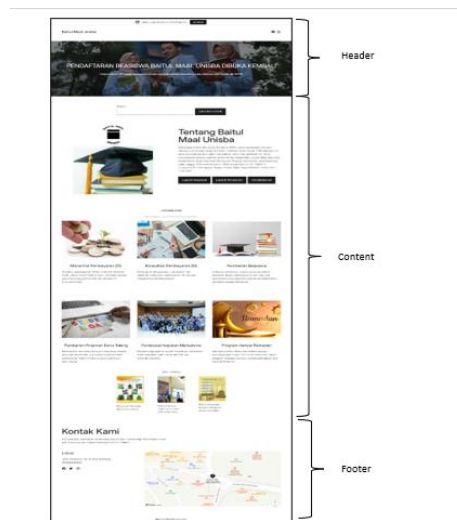


Figure 2. Results of the Latest BMU Information System Design

The different design from the previous website refers to the evaluation and based on the waterfall method design, testing needs to be done to ensure the design meets the expected function. One method that is often used is BlackBox, which is a behavioral test that is more focused on the functional needs of the software (Pressman, 2005). The results of the BlackBox test on the BMU website design are shown in the following table which shows that the BMU website design has met the expected function.

No	Aktifitas	Status		
		Baik	Cukup	Sedang
1	Admin login akun wordpress	✓		
2	Admin menerbitkan postingan blog dan halaman	✓		
3	Admin melakukan perubahan pada tampilan website	✓		
4	Admin mengunggah gambar	✓		
5	Admin menggunggah tautan agar user dapat mengakses file	✓		
6	Admin memasukkan fitur tak berbayar yang disediakan wordpress ke dalam website	✓		
7	Admin dapat memoderasi komentar	✓		
8	Admin logout akun wordpress	✓		
9	User mengakses website dan dapat mengakses semua tombol pada menu yang tersedia	✓		
10	User yang memiliki akun wordpress dapat berkomentar pada kolom komentar yang tersedia di setiap postingan blog atau halaman	✓		
11	User calon donatur dapat mengirimkan form konsultasi perhitungan zakat, infak dan sedekah	✓		
12	User calon penerima manfaat dapat membuka tautan untuk mengakses dokumen untuk keperluan pengajuan beasiswa atau dana talang	✓		
13	User calon penerima manfaat dapat mengisi formulir untuk keperluan pengajuan program partisipasi kegiatan mahasiswa	✓		
14	User dapat melakukan pencarian informasi menggunakan kata kunci pada fitur kotak pencarian	✓		
15	User dapat mengakses akun media sosial BMU dengan menekan logo media sosial yang tersedia	✓		
16	User dapat membagikan informasi melalui akun media sosial pribadinya	✓		
17	User dapat mengakses googlemaps yang dapat memberikan pedoman rute menuju sekretariat BMU	✓		

Figure 3. Results of Website Design Testing Using the Blackbox Method

Implementation of Knowledge Management in Organizations

The implementation of knowledge management begins with encouraging members of the organization to be able to share knowledge and insights through internal meetings such as meetings. Through meetings, direct communication occurs between one another so that members of the organization can exchange ideas and experiences. On a wider scale, members of the organization are also scheduled to become contributors in seminars and discussions with parties who interact directly with the organization. The next process is to document the activities of sharing knowledge and insights so that it produces documentation in the form of writing containing meeting or seminar materials and can also be in the form of images and video recordings during the meeting or seminar.

The implementation of knowledge management in an organization begins with the interaction of members of the organization through face-to-face meetings, meetings and seminars where there is a process of sharing and exchanging knowledge insights. This is part of the socialization stage and is the main implementation of the personalization strategy. The focus of this strategy is on people and direct communication between one another. Especially in organizations, following a flat organizational structure, internal communication is very important. Encouraging employees to exchange ideas and experiences is a key principle. Thus employees continue to build and improve social networks within the organization, which they use to localize the desired knowledge in terms of needs (Hansen et al, 1999).

The socialization stage is continued with the externalization, combination and internalization stages. At the externalization stage, documentation of activities at the stage is carried out. In business environment this externalization stage can be in the form of making work reports (Yugowati, 2016). While in the educational environment it can be in the form of scientific work (Sopandi, 2016). This externalization stage is a process that aims to articulate tacit knowledge (hidden knowledge) into a clear or explicit concept.

Utilization of Websites as A Knowledge Management Strategy for BMU Organization

The next stage is to present the form of explicit knowledge which is the result of processing several forms of documentation to then be uploaded into an information system. Therefore, the use of information technology is very important at this stage. The use of a website-based information system is an option for organizations in disseminating knowledge to their members.

The processed documentation results are uploaded to the BMU website-based service information system that has previously been evaluated and redesigned to make it easier for members of the organization to access knowledge anywhere and anytime as long as they are connected to the internet. Members of the organization can also then review and then provide responses to the knowledge that has been uploaded through the available comment feature. Responses can be in the form of additional information and sharing experiences that reflect the application of the uploaded knowledge in life.

The next process is that each individual in the organization, both volunteers and administrators, is encouraged to be able to access the knowledge content that has been uploaded to the website. The knowledge content that has been read is then expected to be understood and applied in life. In practice, to find out whether there is a process of implementing knowledge in life, an interview will be conducted after discussing a knowledge with members of the organization. The results of the interview will be used to evaluate the extent to which documented knowledge can influence the expected behavioral attitudes.

The presentation of explicit knowledge forms that are the result of processing several forms of documentation to be uploaded into an information system is an implementation of

the combination stage. The use of websites as a component of technology in the application of knowledge management is also called a codification strategy. The purpose of the codification strategy is to provide a reference that leads to the standard report, the step is to be collected in a knowledge base. This standardization makes it easier to search for documents from previous results, if similar enough, this can help in any situation (Hansen et al, 1999).

Websites can be optimized in building knowledge management support in organizations by making them a vehicle for exchanging knowledge between members. On the website, every organizational activist can access and organize various folders and appropriate knowledge menus. The contents can include articles on practical management; results of studies on the dynamics of activities and organizations being worked on; internal training materials; or also in the form of articles on experiences from organizational activists in handle their work programs (Suparyo, 2018).

CONCLUSION

The website-based Baitul Maal service information system of Bandung Islamic University (BMU) with the address www.baitulmaalunisba.or.id which has been operating since 2018 is included in the static website type. The results of the evaluation of the BMU website gave rise to a strategic recommendation, namely that managers can utilize paid hosting and paid WordPress provider services at the address www.baitulmaalunisba.wordpress.com so that the appearance and performance of the website can be maximized and change the appearance of the website to be contemporary and not outdated.

BMU uses two knowledge management strategies, namely: personalization strategy and codification strategy. Personalization strategy occurs in the socialization process while the codification strategy occurs in the combination process. The service information system that has been designed will be used in the combination process by: uploading knowledge content, adding special features to the website content section, encouraging readers to respond to the knowledge content that has been uploaded, improving the search feature on the website to make it easier for website visitors to access information and knowledge.

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