

JCA: AN APPLICATION MODEL FOR ASNAF IDENTIFICATION AND REPORTING

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ABSTRACT

Proactive mechanism in identifying and reporting genuine asnaf cases is very crucial in contributing to effective zakat distribution. There were many viral cases which had portrayed badly the reputation of the zakat authority. All these have led to low trust from the public or zakat payer which consequently discourage them to pay the zakat properly. Jom Cari Asnaf (JCA) app is carefully designed to leverage the current available information technology in modernizing the asnaf identification and reporting, where public can involve in the processes. It has been equipped with tools for managing and monitoring the management of asnaf identification and reporting. It also takes consideration of the newly-creatively created zakat distribution structure where the involvement of "Penolong Amil". Penolong Amil are the zakat distribution agents appointed at region (kariah) level to become the front end where they are in better position to assess the genuineness of the case and be able to process or to propose it quickly. JCA has been successfully developed to enable community or concern individual to report immediately any potential asnaf and it has been linked with Penolong Amil and other division of of zakat distribution to increase efficiency and effectiveness of the zakat distribution.

Keywords: Asnaf Tracking System, Zakat Management, Rapid Application Development, Mobile Applications, Software Engineering

INTRODUCTION

Zakat is an important instrument in the economic management of Muslims in helping the “asnaf”. However, there were many viral cases regarding “asnaf” who were portrayed as unfortunate people, and Zakat institution were not be able to assist them in dire needed of requirements for living. Although some of the cases were not genuine or they were occurred without local Zakat institution knowledge, those viral cases had made a lot of damages to the reputation of the Zakat institution in particular and Islamic governance as a whole (Zainala, Bakara & Saada, 2016). This bad reputation has led towards losing trust from the zakat payers. Thus, providing an efficient and effective platform is very crucial in order to minimize optimally those uncontrolled cases. Zakat is a superb system from Allah Himself. However its beautiful system can only be realized when it is implemented accordingly to “syariah” perfectly. All importance processes in zakat especially in distribution and collection have to be managed professionally. Weaknesses in zakat distribution system, including in terms of “asnaf” identification and reporting need to allow involvement of various people and organization who are concern those in needy.

PROBLEM STATEMENT

Current study show that the main reasons for zakat payer’s dissatisfaction are because of the ineffective distribution methods and insufficient dissemination of information on zakat distribution (Wahid, Ahmad & Kader, 2009). Information of zakat distribution is quite related to the implementation of computer-based system, especially for the application of tracking asnaf. Currently, this type of applications are still in the process of research and development (Ismail & Hussain, 2017). Most of the authorities conducting asnaf searches in their respective areas use a manual method to identify an asnaf eligibility. Based on the observation of the current asnaf application system, there are many weaknesses identified, which among the weaknesses are as follows:

- i. No flow of the process of identifying and reporting a person accurately and effectively.
- ii. No function to revise the registration asnaf has been made.
- iii. No reports can be issued by users of the system including asnaf, “penolong amil” and zakat officer.

- iv. No clear procedure for registration and reporting of asnaf to the zakat office.
- v. No centralized monitoring that allows the zakat office to identify and provide zakat.
- vi. No system dedicated to “penolong amil” in the area that dedicated to the handling of asnaf validation.
- vii. No centralized maintenance to ensure that the applications used are constantly updated.

In order to overcome these problems, the new system of JCA needs to tackle these issues by using a comprehensive application development technology.

RESEARCH METHODOLOGY

This research will use a qualitative approach that identifies the need for users to develop JCA system through discussion and interviews with zakat management (especially with LZNK) and other domain experts such as “penolong amil”, and designing JCA application system to perform the asnaf tracking process effectively (Hamid, 2018). In order to achieve the specified objectives of this research, the research methodology is divided into three (3) phases as shown in Figure 1.

Phase 1: Identify JCA model

Asnaf are those group who are given the right to receive alms (At-Taubah: 60). The eight (8) groups were *fakir*, *poor*, *amil*, *muallaf*, *riqab*, *gharimin*, *fisabilillah*, and *ibnus sabil*. This phase will identify all asnafs through the method of implementing asnaf, which has been carried out by the zakat authorities. The research method is based on literature review and discussion with domain experts, such as Islamic scholar and zakat center (e.g., LZNK). Based on the findings, the study will determine the most appropriate method of implementation of the asnaf trail. Finally, the study will produce a model of tracking asnaf for development JCA application.

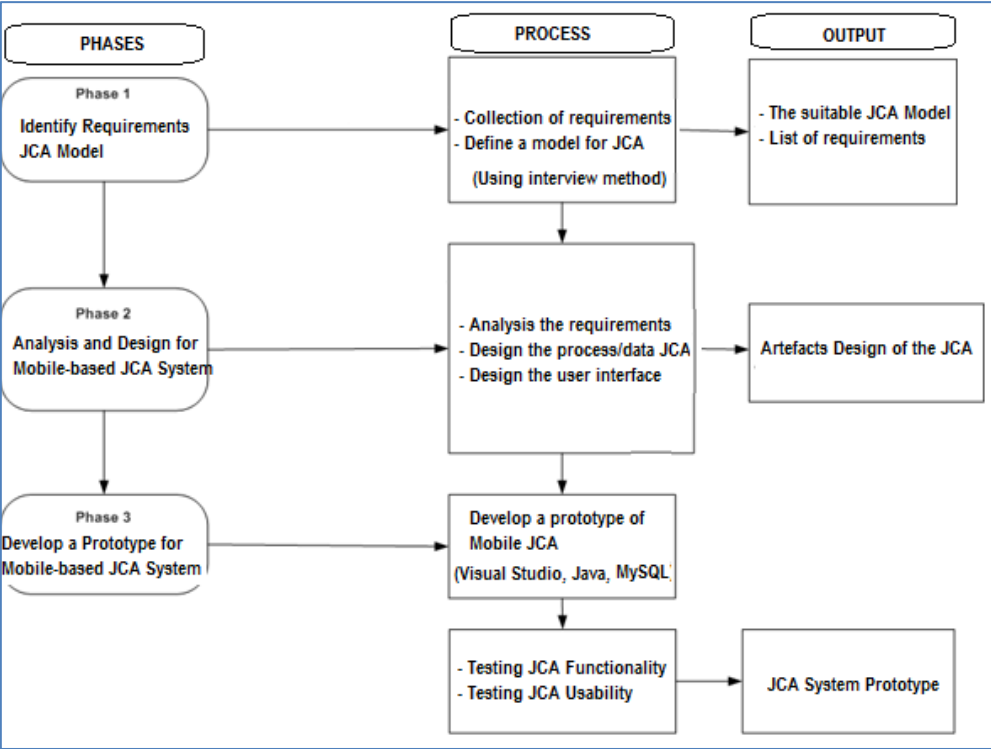


Figure 1
Research Methodology

Phase 2: Analysis and Design of Mobile-based JCA System

In phase 2, the study will determine the requirements and specifications for performing the task of tracking the most effective group through JCA application. Therefore, this study will collect, analyze, design, make specifications, and confirm the need for asnaf tracking. This research is tailored to the system requirements analysis methodology called Requirements Management Control (RMC) [6]. According to [6], RMC consists of three main tasks namely Management Planning Requirements, Specification Requirements and Verification Requirements. Methodology is a set of general principles that guides a system developer to choose the method that suits a specific task or project.

Phase 3: Assessing Consumer Needs

After completing all of phase 1 and phase 2, some misunderstandings about the effectiveness of the JCA should be reviewed. Occasionally, studies done are not enough to confirm the findings. During the review process, the necessary information as well as the specifications of the JCA requirements will be presented to all stakeholders for approval. This study will use

the expert review method to get feedback from the users. Subsequently improvements will be made to obtain effective implementation of the JCA system for implementation by the relevant authorities (e.g. Zakat office, mosque). Furthermore, tests on usability of mobile applications will be conducted through two (2) methods: 1) System function tests performed by developers, 2) Usability tests performed by users.

Jom Cari Asnaf (JCA) Model

The JCA model has been developed to explain the process of identifying and reporting asnaf in the negeri Kedah Darul Aman. This model has been adopted by the Zakat Office Negeri Kedah (LNZK) in managing and processing complaints and reports from the asnaf with the involvement of four parties: 1) Reporters, Regional Zakat offices, 3) Regional “Penolong Amil”, and 4) Zakat Office Kedah (LNZK). The JCA model is shown in Figure 2.

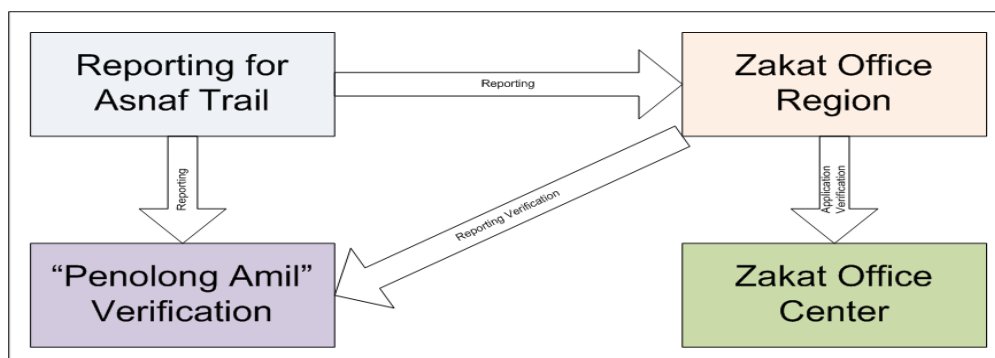


Figure 2
Model JCA

Based on Figure 2, the reporter (normally is public people) will report about the asnaf through the system with basic information of the asnaf profile. Then, the asnaf information will be channeled to the “penolong amil” for further clarification and validation. After verification, the asnaf information will be channeled to region zakat office for further checking and determine for suitable zakat contribution. After clearance at the region zakat office, the application will be forwarded to the LNZK for further actions. At the LNZK office, the Zakat contribution will be determined and distributed accordingly.

JCA Prototype Development

The development of the JCA prototype was conducted using Rapid Application Development

(RAD) approach, which consist of these steps: requirements analysis, process design, database design, interface design (reports or query), testing, and implementation (Williams & Cockburn, 2003; Shahbani & Ta'a, 2014). In the requirements analysis, the requirements were identified as asnaf profile, reporter profile, “penolong amil” profile, asnaf reporting, reporting status, and others.

Requirement Analysis

Requirement for JCA is collected from LZNK. The analysis of the requirements has been carried out with the respected officer of LNZNK, which have well information and knowledge about the collection and distribution of zakat. A part of the detailed requirements of JCA implementation is shown in Table 1.

Table 1

Detail Requirements for JCA

Category	Attribute	Data Description	Analysis Description
Asnaf Profile	Name ID TelNo_Asnaf TelNo_Reporter Type_Zakat Region ID_Penolong Amil	Full name of Asnaf ID number of Asnaf Telephone number of Asnaf Telephone number reporter Type of zakat contribution Region Who is the “Penolong Amil”	Discussion with Zakat Officer and Islamic Scholar about the Asnaf definition.
Reporter Profile	Name ID TelNo_Reporter Organization Email Password	Full name of Reporter ID number of Reporter Telephone number reporter Name of organization for reporter Email address Password reporter for login	Discussion with Zakat Officer about the Reporter Profile.

Based on Table 1, the database was designed and developed to store and process the data for JCA system. However, the data types need to be analyzed as a function, which only focuses on the functions of the mobile-based JCA.

Database Design

Based on requirement analysis, database design starts with identifying the entities, attributes and relationships with other entities. The representation of entities and their relationship is presented in class diagram as shown in Figure 3. The data structures required to support JCA

system is needed by LZNK. The main entities are Asnaf Profile, Reporter Profile, Asnaf Reporting, Approve Reporting, “Penolong Amil” Profile and LZNK Officer. The design strategy is based on the attributes that exist for every entity generated from the requirements analysis. It is ready to be adjusted at any time according to the requirement changes. The relationship between entities was normalized to ensure the database design was in optimal condition. The database design can be shown in Figure 3.

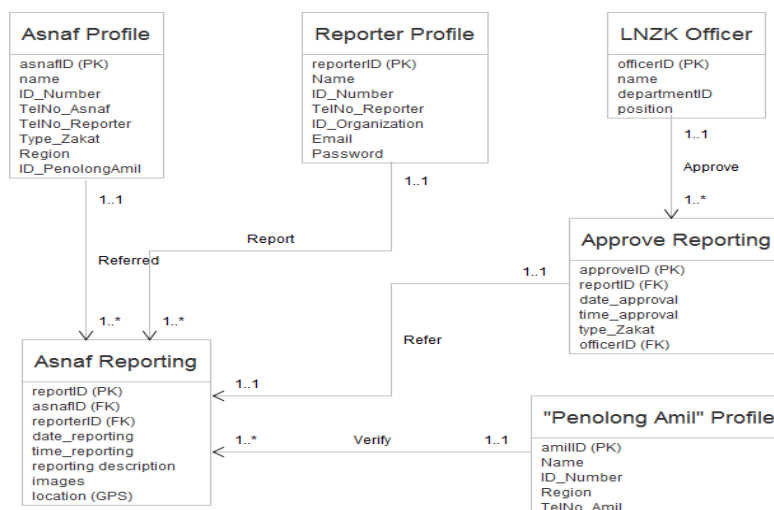


Figure 3
Database Design for JCA

Interface and Report Design

The interface design is based on the flow of reporting process until application submitted to the LZNK office. Additionally, the data structures that support each transaction executed in the system will determine the complexity of the interfaces. The interface design strategy classifies the design into four parts: i) main/login interface; ii) reporting interface; iii) profile interface; and iv) verification interfaces. The reports or views are vary according to user types. The types of reports can be classified as public or official. The main user like LZNK, requires information that focuses on detail application for asnaf. The “penolong amil” needs more information about the asnaf in complete. While public user like the asnaf itself needs information about application status. Examples of these design interfaces and reports are shown in Figure 4, Figure 5, Figure 6, and Figure 7.



Figure 4. Skrin 1



Figure 5. Skrin 2

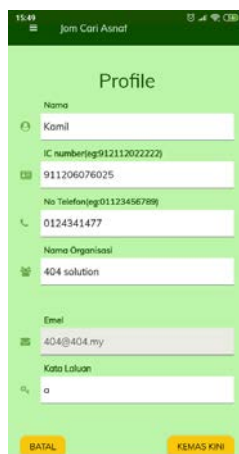


Figure 6. Skrin 3



Figure 7. Skrin 4

FINDINGS AND DISCUSSION

The success of the JCA system implementation depends on the flow of the process from the reporting to the submission of application to the LNZK. The basics effectiveness of the JCA system are transparency in identifying the true potential of asnaf through “penolong amil” review and verification. The findings of this study show that the JCA system has been able to function accordingly based on the asnaf trail model. Examination of system function by system developer found that asnaf reports were successfully transmitted to LZNK after verification process by the “penolong amil”. Verification from a “penolong amil” is essential to assure the authenticity of the confidential information that may be tempered by irresponsible reporters.

A significant challenge is to determine the type of zakat contribution that can be determined by the reporter. This is because the reporters are civilians who do not understand the form of zakat contribution provided by the LZNK. The JCA system does not have the ability to automatically determine the type of zakat contribution. Moreover, the internet facilities and mobile networks that may be limited to certain areas will discourage the implementation of the JCA systems that rely entirely on mobile devices and the internet. However, tests on user usefulness and usability need to be done to ensure that the system's functions and processes flow run smoothly.

ACKNOWLEDGMENTS

This work was supported by the Institut Penyelidikan dan Inovasi Zakat (IPIZ), Universiti Utara Malaysia (UUM). The authors wish to thank the Lembaga Zakat Negeri Kedah (LZNK) for providing the opportunities to perform this interesting research.

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