Development of Information Systems as a Means to Improve Sharia Cooperative Services

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Abstract. Increasing and empowering the economy of the community is an important thing that is a shared responsibility. This is the basis for the LAZ Al Azhar Empowerment “Sejuta Berdaya” program that makes Jampang Village as one of the target groups in the form of Kelompok Swadaya Masyarakat (KSM) which are named KSM Pelita Jampang Gemilang. The community in Jampang village has a variety of jobs with a low economic level. The foundation provides funding to the community through a sharia microfinance institution that collects and distributes public funds in accordance with Islamic law. The Jampang Sharia Cooperative is still operating manually. Registration process, member information, amount of funds and reports are still done manually and stored in a notebook. This causes the operational process not to run properly, because the data is not organized and stored neatly. Based on these conditions, a financial information system is needed, which is a web-based sharia cooperative, so that the operational processes and reports to members and administrators can run better and faster, so that they can help effectively and on target. Information systems are created using SDLC through the stages of user requirements, analysis and implementation.

Keywords: information system, web-based system, sharia, microfinance, cooperation

1. Introduction

The information system is one of the programs that is widely used by many agencies in the current era of globalization, both government and private agencies in carrying out daily activities related to the presentation of data quickly and accurately. Information systems (IS) are combinations of hardware, software, and telecommunications networks that people build and use to collect, create, and distribute useful data, typically in organizational settings [1]. Knowing the potential impact of information systems and having the ability to put this knowledge to work can result in a successful personal career and organizations that reach their goals [2]. Various studies on cooperative information systems have been carried out, but most of these studies still apply conventional financial systems, namely the percentage of interest. In Indonesia with a Muslim majority, it is in desperate need of a sharia-based financial system in accordance with Islamic Sharia. Islamic financial principles are premised on the general principle of providing for the welfare of the population by prohibiting practices considered unfair or exploitative [3]. The expected results with the implementation of information systems is that the data that has been stored and managed manually can begin to be computerized so as to increase the effectiveness of cooperative performance.

Sharia Cooperative in Jampang Village is an organization of Kelompok Swadaya Masyarakat (KSM) Pelita Jampang Gemilang with a profit-sharing system oriented to small and medium enterprises which is a combination of the concept of cooperatives with the concept of sharia based on Islamic sharia
economic system. This institution is one of the sharia-based microfinance institutions using sharia patterns to meet the needs of financial transactions. One of the activities carried out by the KSM Pelita Jampang Gemilang cooperative is to provide savings and loan facilities to its members. The savings and loan procedures that are carried out are still manual, such as the recording process, the document storage process, and the calculation process, so that it becomes a significant obstacle to the speed and accuracy of the data flowing.

In addition, the report presented is very slow because managed data often accumulates the consequences of the length of time needed in data management and data recording process. With a large number of members and a very limited number of cooperative administrators, it will lead to a length of performance which results in dissatisfaction among members of the KSM Community. Management techniques that are applied to KSM Pelita Jampang Gemilang are sharia management techniques that are able to adapt to the growth and development of the environment. Figure 1 and Figure 2 show the process of recording tabarru’ deposits and funds at KSM Jampang which is still done manually. Tabarru’ is one of the contracts in Islamic finance that does not take advantage in the transaction process [4].

KSM Jampang as a sharia microfinance institution under the auspices of LAZ Al Azhar must provide a report to LAZ Al Azhar regarding the economic development of the surrounding communities who are members. This is because LAZ Al Azhar has a basic scheme of economic empowerment programs called “Sejuta Berdaya”, by grouping into 4 stages, namely rescue, strengthening, development and resilience [5]. This stage is based on the level of basic needs and income of the community that is fostered. This program was a community economic empowerment program in groups and revolving with a strong mentoring process and rolled out was not large and not comparable to the prospective beneficiaries, the achievement targets that had been running were not maximized.

2. Methods

System development methods are carried out with SDLC with the stages of requirements, analysis, design, implementation and testing.

2.1. System Analyst

Information systems for financial institutions are very important and have been developed. In a study, information technology in the field of financial loans is used to store and process data, and make it easier for the administration to correct existing and new customers' data [6]. The cooperative information system created is based on the needs of Jampang village in managing finances to develop the potential and economy of the community. The system is made of web-based, so that the survey process, member
registration can be done correctly and real-time. System requirements are based on system business processes that will be built as follows:

- Prospective Members come to the cooperative to register as members of the cooperative.
- Prospective Members get information from admin requirements to become members and requirements for making loans.
- If the registration form has been filled in completely, the admin copies the member data.
- Then prospective members pay a principal deposit of Rp.50,000 to the treasurer.
- Treasurer submits a deposit book to members.
- Members who make savings transactions or withdraw deposits directly to the treasurer, then the treasurer records transactions in the passbook and the cooperative cashbook.
- Members who apply for loans must complete the requirements that have been informed.
- Admin submits member loan submission data to the survey team.
- The survey team surveyed members’ homes and assets.
- Submit data from the survey conducted by the survey team.
- The chairman of the cooperative considers the loan proposed.
- Admin confirmation of loan approval from the chairman of the cooperative to the treasurer.
- Treasurer submits loan disbursement to members.
- Members make loans to repay loans to the treasurer.

2.2. System Design

KSM Jampang cooperative information system design is made using UML Language. The Unified Modelling Language (UML) is a general-purpose visual modelling language for systems. Although UML is most often associated with modelling Object Oriented software systems, it has a much wider application than this due to its in-built extensibility mechanisms [7]. UML notation is also used as a visual tool for graphical representation component model [8]. UML notation can simplify the process
and adjust the system model to be built, so that complex problems can be well presented. The Use Case Diagram of this information system can be seen in Figure 3.

The design of the system database is made in the form of Entity Relationship Diagram (ERD). ERD is a modelling of data in a diagram based on data (entities) in the real world and the relationships between the data [8]. ERD of the system can be seen in Figure 4.

Figure 4. Entity Relationship Diagram

The development of this management information system certainly requires a variety of tools as support. There are also several configurations proposed to support the completion of the development of the system.

**Hardware**
- Processor: 2.5GHz Intel Core i5-6200U
- Memory: 4 GB
- Hard drive: 1 TB

**Software**
- Operating System: Windows 10
- Framework: CodeIgniter
- Programming Language: PHP 5
- DBMS: MySQL phpMyAdmin
- PHP Engine: XAMPP v3.2.2
3. Result and Discussion

Islamic cooperative of KSM Jampang information system is built in several main menus, namely admin menu, members, savings, loans and reports. The home menu display can be seen in Figure 5.

Figure 5. Home menu display

To improve KSM services to members, there are two special menus, namely members and reports. on the members menu, for member registration beforehand a survey was conducted to see the economic level of members so that they can be grouped based on level of basic needs and income.

Figure 6. Member Registration menu display

When members have joined and get loans to increase business capital and make deposits, it is expected that there will be an increase in members’ assets and income. This data can be seen in the member assets sub menu as shown in Figure 7.
Weekly meetings are mandatory activities for cooperative members. In this meeting education will be
given to members regarding the importance of joining a sharia cooperative and avoiding usury culture
and moneylenders. In this meeting also carried out collection of compulsory members whose amount
has been determined. Attendance at weekly meetings will be a consideration in helping and savings to
each member.

As a cooperative that is based on Islamic values, providing loans to members is divided into two types
of loan contracts. The first loan was Qordhul Hasan, on this loan there was no profit sharing and
additional costs. Qordhul Hasan's loans were solely intended for social assistance. This loan is given to
new members who join and consider the members 'economy through data on members' assets and
income. The second loan agreement is profits sharing. In this loan, the value of profit sharing must be
allowed by the member, whose value is determined based on the agreement of the members and
cooperatives.
On the report menu, the admin can view the savings and loan reports of each member, so that KSM can view and supervise member history. KSM Jampang as a care institution from LAZ Al Azhar was given a report to KSM Jampang every 6 months.

The report will later group the KSM members based on their economy, namely on assets owned before and after joining. The information system built provides convenience to Jampang cooperatives in managing data and financial transactions in the cooperative. Besides this system also helps cooperatives to provide good and fast service to members. This is in accordance with the benefits of the Information System in a company, namely be more productive, competitive gain advantage, reach more customers and improve service to their customers [9].

4. Conclusion
Based on the development and implementation that has been carried out, it can be concluded as follows:

- The information system built is an information system for the Shariah-compliant Islamic microfinance institution KSM Jampang with SDLC development
- Sharia cooperative information systems apply the concept of Islamic finance with high flexibility for loan methods and instalment payments
With the KSM Jampang sharia information system, the management of cooperatives is better organized and computerized, the data of members and the history of members are recorded in a systematic and

With this Sharia cooperative information system, KSM can manage members by grouping based on the level of income and assets owned by members.

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