

MODEL FOR INCREASING THE DIGITALIZATION OF ISLAMIC MICRO FINANCE INSTITUTIONS (IMFIS) AS ECONOMIC DEVELOPMENT OF ISLAMIC BOARDING SCHOOLS

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ABSTRACT

This study aims to determine the model for increasing the digitalization of Islamic microfinance institutions as the economic development of Islamic boarding schools. Determination of the model for increasing digitalization as the economic development of Islamic boarding schools in this study uses the Analytical Network Process (ANP) method with decision making by considering and validating empirical experience. Data collection techniques using questionnaire distribution techniques and interviews. The results of this study indicate that the most appropriate model is the development of SMFI. This model focuses on the development of SMFIs by providing financing to the business units of Islamic boarding schools so that they can develop the economy of Islamic boarding schools independently. Alternatives to develop financial digitalization and economic development of Islamic boarding schools are carried out by conducting training for managers, adding quality human resources and collaborating with other parties.

Keywords: Model; Digitalization; IMFIs; Islamic Boarding School Economy

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INTRODUCTION

Indonesia is one of the countries known for its very large population, based on information from the statistics agency, in 2024 the population of Indonesia reached around 281.6 million people. (Permata, 2017). On the other hand, more than 200 million people are connected to the internet, a digital technology that is a fundamental component of Indonesian life. The existence of this technology is developing very quickly in various aspects of human life and almost all sectors are already digital-based. In addition, President Joko Widodo has launched a digital transformation plan centered on strengthening development in four pillars: digital infrastructure, digital economy, digital society and digital government. (Lebang *et al.*, 2023). These changes require individuals, organizations, and institutions to adopt digital technologies, driven by the increasing use of smartphones and internet-based devices that continue to surge every day. According to Perry Warjiyo, in his keynote speech at the 13th International Conference and Call for Papers Bulletin of Monetary Economics and Banking in Bali, digitalization has become one of the main indicators of global change. This can be seen from the increasing number of sectors integrated with digital technology, especially in the economy. An example is the rapid growth of an e-commerce startup, which is living proof of how digitalization is changing the way business is done in the modern era. (Rofiki, 2022).

Islamic boarding schools play a strategic and important role in shaping the character of the nation's children through Islamic education as well as supporting the economic empowerment of the community around the boarding school environment (Fiandi & Ilmi, 2022) As an institution that grows from the roots of local culture, pesantren has the advantage of building economic independence through the management of funds based on sharia

values (Bafadhol & K, 2022). However, in the era of rapid modernization, pesantren face great challenges in managing their finances, especially with the development of digital financial technology that is increasingly complex (Takdir, 2018). Sharia Microfinance Institutions (MFIs) as intermediary institutions are present as drivers and supporters of micro-enterprises through the financial services offered. Islamic financial institutions are also experiencing a technological change, marked by the digitalization of finance. (Nurzianti, 2021).

Financial digitization is one solution that can improve efficiency and transparency in the management of pesantren funds. Technology-based systems, such as e-money, financial management applications, and payment gateways, provide convenience not only for managers, but also for santri and santri guardians (Nurfalah & Rusydiana, 2019). The use of this technology has been proven to help pesantren in conducting accurate financial records and reducing the risk of misuse of funds. In the research conducted Fatimah & Suib (2019) with the title "Transformation of the Pesantren Payment System Through E-Money in the Digital Era", shows that Islamic boarding schools can adapt to current technology or digitalization, where one of the medians, namely e-money, is one of the payment media carried out. boarding schools, pesantren are also able to implement e-money transactions as a payment medium for pesantren by utilizing technology to help support pesantren activities to run optimally (Hamzah *et al.*, 2022). Recently, many Islamic microfinance institutions have collaborated with Islamic boarding schools in terms of financial digitization. The participation of this pesantren is by involving students and parents as managers and users of digital financial services. The participation of Islamic boarding schools is supported by Islamic microfinance institutions with partner cooperation and the provision of digital

financial services in Islamic boarding schools. (Paper, n.d.).

On the other hand, there are still significant gaps in the application of digital financial technology in various pesantren in Indonesia (Niswa, 2021). The main barriers include limited access to technological infrastructure, lack of digital literacy among pesantren managers, as well as conservative perspectives that still view technology adoption as something less relevant to Islamic traditions. In order to digitize pesantren finance, the infrastructure of Islamic financial literacy and inclusion needs to be strengthened (Sutarsih, 2023).

Referring to the above problems, the researcher initiated to conduct research on the model of increasing the digitalization of Islamic microfinance institutions (Ikms) as the economic development of Islamic boarding schools. This research is carried out by looking for sources and data that refer to the problem of digitalization.

MATERIALS AND METHODS

Boarding School

The word pesantren is a word that is divided into two, namely "message" and "trend". The meaning of pesantren is messages that are trending. So pesantren is not only a place to seek religious knowledge, but in pesantren students also learn contemporary sciences, such as digitalization, economics and other sectors. Some scientists argue that boarding school is a combination of two words that have the same meaning, pondok, which means a place to study or a dormitory where students live (Kahfi & Kasanova, 2020).

Some scholars argue that boarding school is a combination of two words that have the same meaning, namely pondok which means a place of learning or a dormitory where students live. According to the Asian Development Bank (ADB), a microfinance institution (MFI) is a place that provides a variety of financial services.

Among the services provided are savings, financing, and payment services.

Islamic Micro Finance Institutions (IMFIs)

Islamic Micro Finance Institutions (IMFIs) are dynamic institutions, where these financial institutions are non-bank institutions in terms of their activities adjusted to the surrounding environment. This institution has a role as an economic supporter that has a small scale, such as micro and MSMEs. (Siskawati et al., 2019). IMFIs have unique and distinctive characteristics because they are established with a broad base and involve the micro sector (Nusantari, 2024). So, Islamic microfinance institutions oversee many small businesses owned by the people. now Islamic microfinance institutions have begun to oversee Islamic boarding schools to assist in building the economy of students through a relevant system and supported by advances in digitalization. Thus, Islamic boarding schools can now have great potential to become agents of movement in the economy.

Digitization

The development of technology has led to the era of digitalization in the economic world. Digitalization of this economy can provide convenience and provide wider space for economic actors. Where with the existence of digitalization, it can make it easier for production actors to offer their services through social media with relatively low time and cost (Edo Parpadma Nagri, 2021).

Financial digitalization is also an alternative means for people to conduct financial transactions, shop and develop their business. Supported by technological sophistication and a very wide internet network. There are several things that are prepared before conducting this research, where the researcher determines the theme of the research, namely the digitization of finance at the boarding school, the researcher also determines the research object. The object of research is

Ummul Quro Islamic boarding school, besides that the researcher prepared questionnaires and interview texts, determined the research time which was held on Tuesday, November 19, 2024.

The results of the data from the study will be processed using the Analytical Network Process (ANP) data collection model which helps researchers in determining decisions on many criteria or choices. (Thakkar, 2021). The data management of this research uses quantitative methods, the data population taken is pesantren that have worked with Sharia Financial Institutions (LKMS), with research samples of several managers and students at Ummul Quro Islamic Boarding School.

RESULTS AND DISCUSSION

This descriptive analysis is an explanation of questions regarding gender and status information at the boarding school. This analysis was carried out to determine the description of the respondents who were given the questionnaire. The number of respondents in this study were 30 respondents who were students and student financial managers (treasurers) at the Ulumul Quro Al-Islami boarding school.

1. By gender

The question regarding gender is part of the question to find out the demographics of the respondent which aims to explore information that is directly related to the respondent's personal characteristics. Based on the results of the questionnaire that has been distributed, it illustrates that the gender of the respondents can be seen based on the following figure:

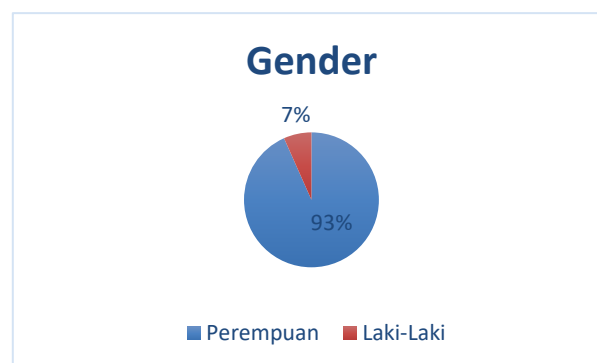


Figure 1. Gender of Respondents

The figure above shows that of the 30 respondents who were male, 7% or as many as 2 people. Meanwhile, the female gender is 93% or as many as 28 people. The results of the distributed questionnaires show that the respondents in this study were dominated by women.

2. Based on Status

Questions regarding status at the boarding school are part of the questionnaire questions to find out the respondent's status at the boarding school.

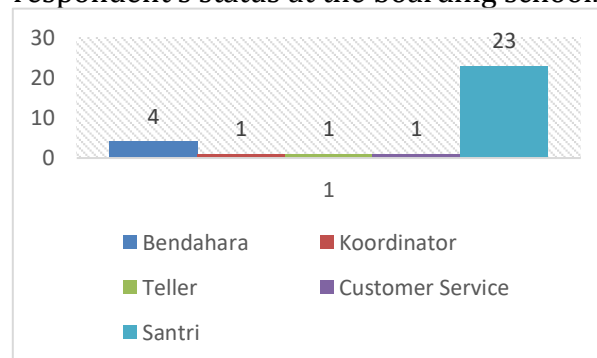


Figure 2. Respondent Status

The figure above shows that of the 30 respondents, most of them are students with a total of 23 people or 76.6%, 4 treasurers or 13.3% tellers as many as 1 person or 3.33%, financial coordinators as many as 1 person or 3.33% and customer service as many as 1 person or 3.33%.

Analytic Network Process (ANP) Cluster Comparison

1. LKMS Cluster Comparison

Islamic microfinance institutions are financial unit institutions that serve and offer sharia products based on micro, small and medium transactions. In function, MFIs are institutions that function to raise funds

and channel them back in the form of financing that can develop assets through profit sharing, margins and others. (Ahwal dan Ibnu 2019).

The formation of the model on LKMS indicators in this study has 3 criteria determined based on theories related to the economic development objectives of Islamic boarding schools as shown in the table below:

Table 1. Comparison of LKMS Cluster Criteria

No.	LKMS	Value
1.	Financing & Savings Products	0,549066907
2.	Access to financing/savings for customer needs	0,212566648
3.	Operational Payment System	0,203186501

Source: Data processed, 2024

Based on the results of data processing in this LKMS is around 0.54. Based on the results of interviews conducted on November 19, 2024 by one of the managers of the boarding school treasurer, it was stated that for financing/savings products, they already have several savings products especially for students. Where the savings product is used as a means to facilitate students in making transactions such as student savings that are directly transferred by parents to the student's savings account to buy needs at the cottage or needs for learning activities. As for student financing is not yet available, and will only develop financing products for students. For financing, Islamic Micro Finance Institutions (IMFIs) collaborates with third parties, namely Islamic banks to finance houses for boarding school teachers.

2. Comparison of Student Income

The source of income for these students is pocket money given by parents or relatives who provide to support the lives and needs of students while at the boarding school, the results of the comparison of santri income are in the following table:

Table 2. Income Clusters

No.	Income	Value
1.	Relatives	0,128383774
2.	Parents	0,871398474

Source: Data processed, 2024

Based on the results of the data above, it states that the majority of students are still financed by parents for living expenses and meeting the needs of students while in boarding schools with a weight value of 0.871 and the lowest is the income provided by santri relatives such as grandmothers / grandfathers or santri siblings with a weight value of 0.128.

3. Comparison of Cottage Economic Development

This source of income comes from the main income of the boarding school from the Education Development Contribution (SPP) and building fees. And other income comes from the pesantren's business units such as uqi mart, agriculture, partner cooperation farming and book sales. This is in accordance with the results listed in the table below:

Table 3. Cluster Comparison of Income Sources

No.	Source of Income	Value
1.	Partner Cooperation	0,085576372
2.	Laundry Business	0,086683688
3.	Canteen sales	0,182729898
4.	Agriculture	0,10199679
5.	Farm	0,07549157
6.	SPP	0,217615633
7.	SPS	0,173339513

Source: Data processed, 2024

Based on data processing, SPP has the highest weight value with a value of 0.217615633 and the lowest laundry business with a value of 0.086683688. The laundry business with a small value is due to the fact that not all students use the laundry services of the boarding school based on the results of an interview with one of the students stated that the reason students use laundry is because of the cost,

waiting a long time for clothes in the laundry and the frequent swapping of laundry clothes and this is also in accordance with the results of interviews with the manager.

4. Comparison of Transaction Digitization

Electronic payment transactions based on digital in Indonesia are contained in Bank Indonesia regulation No. 11/12/PBI/2009 concerning electronic money with the characteristics of money deposited in advance and stored in certain chip-based or server-based media stored in the server. (Syafih *et al.*, 2022). The comparison of transaction digitization in this study is listed in the table below:

Table 4. Cluster Comparison of Transaction Digitalization Comparison

No.	Digital	Value
1.	Student ATM card	0,318488079
2.	QRIS	0,066208536
3.	Transfer	0,185819781
4.	Cash	0,292936736

Source: Data processed, 2024

Based on the results above, it can be seen that the highest value is the santri atm card used as a means of payment. This is also justified by one of the ustdaz as the treasurer of the boarding school who stated that all transactions carried out by students in making payments for buying and selling where all transactions carried out at the Ulumul Quro Al-Islami boarding school already use a card that functions as a store (savings) connected to the boarding school server.

5. Benefit comparison

The benefits of digitalization in the economic development of Islamic boarding schools are several elements in the benefits cluster including administrative efficiency, ease of financial transactions, income and increased financial security. These are listed in the table below:

Table 6. Benefit Cluster Comparison

No.	Benefits	Value
1.	Administrative Efficiency	0,068740458
2.	Ease of Financial Transactions	0,332325443
3.	Income	0,28366125
4.	Improved Financial Security	0,229877832

Source: Data Processed, 2024

Based on the results above, it can be seen that the benefit of this cashless payment is the ease of financial transactions with a value of 0.33, this is because with this digitization (1) it can prevent cases of losing cash pocket money, (2) there is transparency of santri financial data that can be known by santri guardians, (3) educating students to be able to manage personal finances properly and practically, (4) and as an increase in boarding school services to students. (Nur Mu'alina, 2023)

6. Constraint Comparison

The obstacles referred to in this research are the obstacles faced in implementing financial digitalization in Islamic boarding schools which include access to technology, costs, lack of SM and minimal literacy. The results of the comparison of the constraints subcriteria are in the following table:

Table 6. Comparison of Constraint Clusters

No.	Obstacles	Value
1.	Technology Access	0,268675812
2.	Cost	0,188095874
3.	Lack of human resources	0,0545685
4.	Minimal Literacy	0,229877832

Source: Processed Data, 2024

Based on the comparison results table above, respondents experienced problems with access to technology with a value of 0.268. From the results of interviews conducted with the manager and one of them stated that this was because first, there were still santri

guardians who did not understand technology, so that santri guardians who had difficulty accessing still gave pocket money in cash. Second, problems related to the system if there is an error in the system and only a few officers can repair the system and officers are still students or active students.

7. Comparison of Alternatives

To deal with the obstacles faced by Islamic boarding schools regarding the digitalization of LKMS, other alternatives are needed so as not to hamper the movement of existing transactions. So the elements of this alternative include collaboration with other parties, increasing access to more sophisticated technology, adding quality human resources and training.

Table 7. Comparison of Alternative Clusters

No.	Alternatif	Value
1.	Increasing Collaboration	0,247200412
2.	Increasing Technology Access	0,257950234
3.	Adding quality human resources	0,269431352
4.	Training	0,402404142

Source: Processed Data, 2024

Based on the questionnaire given, it can be seen that the alternative most needed by pesantren managers is training with a value of 0.402 and the second is quality human resources with a value of 0.206. This is because training and human resource development are very important in developing the skills and knowledge of pesantren managers.

Network Analytic Network Process (ANP)

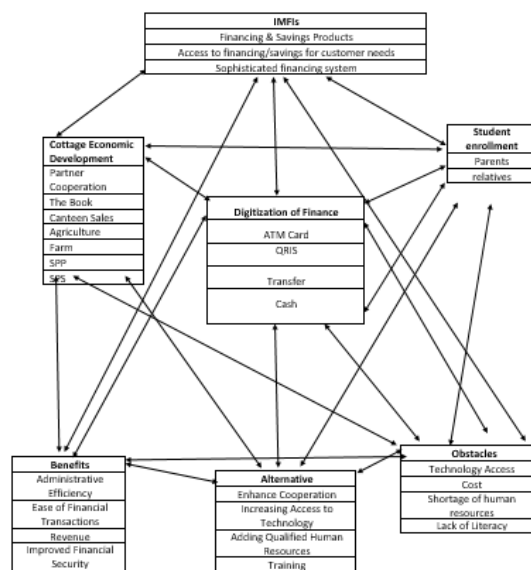


Figure 3. ANP Network Model for Increasing Digitalization of LKMS as Economic Development for Islamic Boarding Schools

The image above shows the relationship between IMFIs and criteria and sub-criteria. This network has 7 clusters, namely IMFIs, sources of income, sources of income, financial digitalization, benefits, constraints and alternatives. Each cluster contains all elements with interacting functions. The network is composed into various criteria and sub-criteria that are connected to each other. The structure of the ANP network is depicted with arrows that show the interdependence between groups or, if at the same factor level, loops are formed. Arrows are directed based on the relationship between criteria and sub-criteria.

The ANP network consists of interconnected clusters where the network in this study involves linkages between different elements or called outer defense. The clusters in this model are the goal criteria to be achieved including IMFIs, sources of cottage income, sources of santri income, transactions, financial digitization, benefits of using digitalization, obstacles faced and alternatives to these obstacles.

The following is a general network image formed from various criteria that are most related to each other:

Results of the Analytic Network Process (ANP) on the Model for Increasing Digitalization of Islamic Micro Finance Institutions (IMFIs) as Economic Development for Islamic Boarding Schools

The following are the results of analytic network process data processing which can be used to describe a model for increasing the digitalization of sharia microfinance institutions as an economic development for Islamic boarding schools.

Table 8. Analytical Network Process Results

Cluster/ Criteria/ Subcriteria	Results	Value Weight
LKMS	Financing and Savings Products	0,549
Student Income	Parents	0,871
Source of Income	SPP	0,217
Transaction Digitization	Santri ATM Card	0,318
Benefit	Ease of Transaction	0,332
Constraint	Technology Access	0,268
Alternatif	Training	0,402

Source: Processed data, 2024

The aim of this research is to propose a model for increasing the digitalization of sharia microfinance institutions as an economic development for Islamic boarding schools. The objectives related to IMFIs can be viewed from 3 things, namely the products available, both financing and savings products, financing access and systems. The results show that the thing that respondents said was the coldest thing was the development of products available at IMFIs Pondok, this is because the products available at IMFIs are only limited to savings products for students and teachers, there are no financing products for students. This financing product can be developed by the manager collaborating with business units to develop the cottage economy so that the role of IMFIs as an

intermediation medium can be interconnected. The chosen alternative is training for IMFIs managers and digitalization development, this is because training is very important for the continuity of development. This is in line with research conducted by (Meranti & Yazid, 2021) which states that sharia financial institutions must use sharia contracts in their operations, such as profit sharing, pure deposit principles, and capital provision. Profit sharing can occur because IMFIs does not implement an interest system in its business activities. Meanwhile, for pure savings, the facility provided is to provide an opportunity for parties with excess funds in the form of al-wadiah which is usually given for investment purposes to obtain savings product facilities. Capital providers provide convenience facilities for members regarding requirements, low profit sharing and financing in accordance with the time period, fast financing application process using the mudharabah scheme.

This training can be carried out in 3 aspects, namely training for IMFIs managers, Islamic boarding school business units and training for the information and technology sector. Another obstacle found was in the human resources (HR) aspect. There are still Islamic boarding school managers who do not fully understand or are skilled in operating digital devices. The lack of continuous training makes it difficult for some managers to adapt to new technology. The limited number of management staff also makes the workload uneven, so that the digitalization process does not run optimally. This condition shows that although financial digitalization has provided many benefits, strategic steps are needed to overcome existing challenges. Apart from technical challenges, human resources (HR) aspects are also a concern. Many Islamic boarding school managers still lack skills in operating digital technology. The lack of ongoing training exacerbates this situation,

especially for managers who do not have a technology background. Research underlines the importance of regular training that suits the needs of Islamic boarding schools so that the digitalization process can run more optimally. Subagya (2024) stated that digital literacy, understanding of programming, and data analysis skills are the main skills that managers must have to support the success of this transformation (Subagya, 2024).

This necessary digitization training not only facilitates the management of internal pesantren funds, but also increases public trust in the management of funds. Cashless technology has helped pesantren in recording transactions in real-time, minimizing manual recording errors, speeding up administrative processes and can overcome or keep students from consumptive behavior through cashless programs (Nur Mu'alina, 2023). Improving facilities, providing adequate hardware, and ongoing human resource training are urgent solutions to support the continued implementation of financial digitalization at the Ummul Quro Al-Islami Islamic Boarding School. This IMFIs management training is carried out to develop operational systems and product development in IMFIs so that existing operational systems and products can be more varied. For the business unit side, training can be developed by providing training in the form of developing digital-based business innovation, this is because there are so many digital-based sales media that can increase market share for existing products in the Islamic boarding school business unit. Training in the field of financial digitalization is needed so that when a system error occurs, managers can resolve it directly and students can carry out transactions quickly.

CONCLUSIONS AND IMPLICATIONS

The model of increasing the digitalization of Islamic microfinance institutions as an increase in the economy of Islamic boarding schools can be done by

synergizing between IMFIs, developing financial digitalization and Islamic boarding school business units. In this model, the main focus is to improve the quality of IMFIs services by providing more varied product services by providing training for managers so that boarding schools have great potential to develop the boarding school economy.

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