

Conference Paper

Analysis Of Banking Service Financial Technology (Fintech) Risk Management in Islamic Banks (Case Study at Bank Syariah X in Jakarta)

Diana Hasan and Sunarti

Lecturer at the Faculty of Economics and Business Muhammadiyah University of Jakarta

Abstract

This research was conducted at Bank Syariah X. Primary data obtained from Interviews and Focus Group Discussion (FGD), was conducted by inviting several speakers to obtain information and discuss to obtain an explanation of how Financial Technology risk management in Banking services in Islamic Banks.

Furthermore, the results of the Risk Management Analysis of Murabahah Financing at Syariah X Bank were found to be the factors that caused the occurrence of financing risks including HR (Human Resources) risk and operational risk. First, Liquidity Risk. Second, operational risk. Third, Legal Risk and Fourth, Reputation Risk.

The findings indicate what factors occur and result in Risk in Financial Technology in Banking services and how to evaluate risk management in Syariah X Bank. Bank Syariah X implements several methods of Risk Management based on Bank Indonesia Regulation No. 13/23 / PBI / 2011 concerning the application of Risk Management. With such results, the author recommends that there is a need to prepare regulations relating to FinTech for more modern and safe Islamic banking services so that risks can be minimized and customers increase their understanding and knowledge for the convenience and security of transactions in Islamic banking.

Furthermore, more rigorous and good steps need to be taken to manage risk-related problems in an effort to maintain the performance and performance of Islamic banks in maintaining their professionalism and improving their quality to be superior to other banks.

Keywords: Management, Risk, Financial Technology,

Corresponding Author:

Diana Hasan

dianafarhanfaril@gmail.com

Received: 16 September 2019

Accepted: 28 September 2019

Published: 31 October 2019

Publishing services provided by
Knowledge E

© Diana Hasan and Sunarti. This article is distributed under the terms of the [Creative Commons Attribution License](#), which permits unrestricted use and redistribution provided that the original author and source are credited.

Selection and Peer-review under the responsibility of the ICEMA Conference Committee.

1. Introduction

The development of Islamic banking continues to grow rapidly to adjust to current market conditions. Where these developments can be seen from the ease of service in various transactions using increasingly widespread technology in the current digital era that has influenced patterns of human behavior in accessing various information and various features of electronic services. One of the technological developments that become the latest study material in Indonesia is Financial Technology (FinTech)

 OPEN ACCESS

in banking institutions. Financial Technology (FinTech) is one form of application of information technology in the financial sector.

FinTech or financial technology is a term used to indicate companies that offer modern technology in the financial sector. These companies have been a real trend since 2010. FinTech companies are mostly micro, small or medium enterprises that do not have much equity but have a clear idea of how to introduce new or how to improve existing services in the financial services market. Generally, this is a financial technology tech start-up, the number continues to increase (with various estimates, their number has exceeded ten thousand companies). As a rule, venture and crowdfunding investments are used to finance FinTech companies.

According to the bank's business model and technology infrastructure based on the digitalization era, in addition, the bank conducted a head to head competition with other banks in operational efficiency. If Islamic banks fail to adapt to Fintech, Islamic banks are likely to lose customers, especially long-term customer segments younger and bankable. Concrete actions must be taken to ensure the survival of banks in the FinTech era.

The potential of the digital economy in Indonesia is very large and important to develop. The pace of innovation has resulted in various changes in all aspects of life, in this case, the financial sector, including the payment system, where the changes are increasingly short, which has an impact on the narrower response time of the authority to make policies. FinTech globally illustrates rapidly that FinTech is developing in various sectors, ranging from payment startups, lending, financial planning (personal finance), retail investment, crowdfunding, remittances, financial research, and others.

Financial Technology (FinTech) is one form of application of information technology in the field of finance. A variety of new financial models have emerged that first began in 2004 by Zopa, namely financial institutions in the UK that run money lending services. Then, in 2008 it was announced by Satoshi Nakamoto, a financial model through Bitcoin software.

In Indonesia, financial technology has developed very rapidly. Fin Tech players grew by around 39% in 2017 (Daily Social Fintech Report 2017). The number of Start-up Fin Tech rose from around 140 in 2016 to around 190 companies in 2017.

Now the FinTech concept adapts technological developments that are integrated with the financial sector in banking institutions, so that it is expected to facilitate a more practical, modern financial transaction process, including digital-based financial services that have now developed in Indonesia, namely payment channel systems, digital banking, online digital insurance, Peer to Peer (P2P) Lending, and crowdfunding.

Some Banks offer payment gateways between Mandiri Clickpay, BCA Clickpay, BSM Mobile, BNI M Banking and CIMB Clicks. There are also companies that offer payments through mobile payments, such as Go-pay from Gojek and T-Cash from Telkomsel. Peer to peer lending services provides capital loan services online. Some of the main players include Modalku, InvesTree, and Mekar. A financial aggregator is a Fintech company that provides comparative solutions for financial products. Some Fintech Financial Aggregators are Manage Duit.com; CekAja.com and Cermati.com

The application of financial technology to improve the efficiency of operational activities and the quality of bank services to its customers, because the utilization of financial technology is in line with the growing community needs for online based financial services and the use of internet media for digital data access.

This is certainly also a challenge for the existence of Islamic banking to be more competitive in the financial markets and also to help the banking service process in Islamic banks with easier, more efficient and effective applications with wider access by customers and Islamic banks. The Banking Transaction Process in funding, financing and payment transactions can be faster and measurable while still mitigating risks that can be done early with the FinTech system.

2. Literature Review

The FinTech definition as described by the National Digital Research Center (NDRC) is a term used to refer to an innovation in the field of financial services that refers to financial innovation with a touch of modern technology. FinTech is a form of information technology application in the field with the emergence of various new financial models, it began the first time in 2004 by Zopa, which is a financial institution in the UK that runs a lending service.¹³ FinTech has assisted Islamic banks in speeding and accuracy in processing business operations data and product marketing. The application of information systems is very influential in the banking industry, where the application of information systems in the banking industry has a tremendous impact considering the banking industry is one of the industries with the highest level of dependence on collection activities, processing, analyzing and delivering reports (information) needed to meet the needs of its customers.

Understanding of risk is the possibility that the outcome of the event deviates from the expectations that are detrimental (Sulhan and Siswanto, 2008: 105). Risk arises due to the uncertainty of the results achieved from a business. Often times the risk arises because there is more than one choice and the impact of each choice cannot be known

with certainty, as uncertain the future. Risk is defined as a consequence of choices that contain uncertainties that have the potential to result in unexpected results or other negative impacts (Wahyudi et al., 2013: 4).

The types of risk based on PBI Number 13/23 / PBI / 2011 concerning the Implementation of Risk Management for Sharia Commercial Banks and Sharia Business Units there are ten types of risks faced by Islamic banks, namely: credit risk, market risk, liquidity risk, operational risk, legal risk, reputation risk, strategic risk, compliance risk, yield risk, and investment risk. The first eight risks are common risks that are also faced by conventional banks. While the last two risks are unique risks specifically faced by Islamic banks.

2.1. Credit Risk

Credit risk arises due to the failure of customers or other parties to fulfill liabilities (obligations) to Islamic banks in accordance with the contract. This risk is also called default risk, financing risk (financing risk), downgrade risk (downgrading risk), and settlement risk.

2.2. Market Risk

Market risk arises due to the adverse movement of the asset portfolio owned by the bank and can harm the bank. This risk only arises if the bank holds assets, but not to be owned or held to maturity, but to be resold.

2.3. Liquidity Risk

Liquidity risk occurs due to the inability of Islamic banks to meet liabilities that are due. To meet its liquidity needs, banks can use cash flow funding sources and high-quality liquid assets that can be used without disrupting the activities and financial condition of the bank. This risk arises as a logical consequence of the inequality of maturity time between sources of bank funding, namely deposits and bank financing contracts to debtors. Especially if the financing made by the bank experiences a default.

Often, the main trigger for bankruptcy experienced by banks, large and small, is not due to the losses suffered, but rather to the inability of banks to meet their liquidity needs.

2.4. Operational Risk

Operational risk is the risk of loss caused by inadequate internal control, internal process failure, human error, system failure, and/or external events that affect the bank's operations. In addition, failure to comply with regulations is called compliance risk (compliance risk), and business risk is often included in the category of operational risk.

2.5. Legal Risk

Legal risk arises due to lawsuits and/or weaknesses in juridical aspects. This risk arises, among other things, due to legal demands and the absence of supporting laws or weaknesses in the engagement, such as the failure to fulfill the legal requirements of the contract or the binding of collateral that is not complete. This risk is not much different from that experienced by conventional banks.

2.6. Reputation Risk

Reputation risk occurs due to a decrease in the level of trust of stakeholders (stakeholders) originating from negative perceptions of the bank. Bank stakeholders include customers, debtors, investors, regulators, and the general public, even though they are not yet bank customers.

The things that really affect the bank's reputation are management, service, adherence to rules, competencies and so on. This risk arises, among other things, because of media releases and/or rumors about banks that are negative and the existence of a bank communication strategy that is less effective.

2.7. Strategic Risk

Strategic risk occurs due to inaccuracies in making and/or implementing a strategic decision and failure to anticipate changes in the business environment.

This risk arises, among others, because the bank sets a strategy that is not in line with the bank's vision and mission, conducts a strategic analysis that is not comprehensive, and/or there is a mismatch of strategic plans between strategic levels.

In addition, strategic risks can also arise due to bank failures in anticipating changes in the business environment, such as technological changes, changes in macroeconomic

conditions, the dynamics of competition in the market, and changes in the policies of the relevant authorities.

2.8. Compliance Risk

Compliance risk arises from banks not complying with and/or not implementing laws and regulations, applicable regulations, and sharia principles. In addition to having to fulfill all the regulations and laws and regulations that apply to conventional banks, Islamic banks are required to fulfill sharia principles in their business activities. This is what should characterize Islamic banks. Islamic banks must really operate purely based on Islamic law.

2.9. Risk of Returns

Return risk occurs due to changes in the rate of return paid by the bank to customers and influences customer behavior. This risk arises as a result of changes in the rate of return received by the bank from channeling funds to the debtor.

2.10. Investment Risk

Investment risk arises as a result of banks taking responsibility for the loss of debtor businesses financed in profit-based financing. Based on the MUI DSN fatwa, the calculation of profit sharing is not only based on the amount of income or sales obtained by the debtor but has been reduced by the basic costs. This investment risk is greater if the basis for the results is based on the operating profit or net profit of the debtor's business. Even if the debtor's business goes bankrupt, the bank can lose the financing principal given to the debtor.

Management is a special activity concerning leadership, direction, personal development, planning, and supervision of jobs relating to the main elements of a project (Muhammad, 2002: 148).

Risk management can be interpreted as the application of management functions in overcoming the risks faced by organizations so, organizational risk management is a system of risk management that is faced comprehensively by the organization for the purpose of increasing company value (Sulhan and Siswanto, 2008: 109).

Risk management in Islamic banks should be an ongoing process of how the bank manages the risks it faces. Minimizing the potential for the occurrence and the impact

caused by various unwanted risks. On the other hand, accept and operate with these risks. Even at a higher level, if possible Islamic banks can convert risk into profitable business opportunities.

An organization's risk management program can be classified into several activities including:

2.11. Risk Identification

Risk identification is the process by which a company systematically and continuously identifies, property, liability, and exposure personnel, etc. before it happens. In order for the risk to be managed, it must be measured. In order for the risk to be measured, it must be identified first.

This is the main reason why risks must be identified. Identifying is the process of tracing the source of risk, tabulating the amount or number of risks that threaten and simultaneously dividing and classifying each risk based on the priority scale. Techniques that can be used to identify risks include:

- 1) Analyze the financial statements of a company
- 2) Analyze flow charts of company activities and operations to see the risks of a production and operation process
- 3) Analyzing contracts that have been and are being made by the company with its clients
- 4) View records of loss statistics and reports of Company losses
- 5) Surveys and interviews with managers in connection with the risks that are commonly faced daily.

2.12. Risk Measurement and Evaluation (Risk Assessment)

Risk measurement and evaluation is a systematic process carried out by the company to measure the high and low risk faced by the company through risk quantification.

The goal is to understand the characteristics of risk so that risks will be easier to control. Some examples of techniques for measuring risk include probability (to make priorities), duration techniques (to measure the risk of changes in interest rates) and VAR (value at risk) that are used to measure market risk.

There are two dimensions in measuring risk, namely the frequency of loss and the significance and severity (severity) of an event/risk. The frequency of an event can be grouped into several levels such as:

- 1) Almost impossible (almost nil)
- 2) Minor possibility
- 3) Possible (moderate)
- 4) Very likely (definite)

While the level of significance of an event risk can be divided into:

- 1) Normal loss expectancy, if losses can still be managed alone
- 2) Probably a maximum loss, loss if the security does not work
- 3) Maximum foreseeable loss, losses that cannot be overcome alone
- 4) Maximum possible loss, losses that cannot be secured (both personally and through insurance)

2.13. Risk Management

After the risks are identified and measured and evaluated, then we can manage risk. Some alternative management of risk is carried out by including avoidance, retention, diversification, risk transfer and risk funding.

Risk avoidance is carried out if the frequency of occurrence of risk is very large and the significance/level of emergency if the risk occurs is very large and the company will not be able to manage it or bear the risk, even the insurance company will not be able to hold it. The next management alternative is to resist risk.

Withholding risk is to face risks with one's own abilities and available resources without asking for help from others, such as insurance companies. Risks are held if the frequency and significance of the occurrence of the risk can still be overcome by itself with its own capabilities, and the company is estimated to still be able to manage it themselves.

Diversification is the placement of wealth on several different assets in order to minimize risk. Diversification can be done by companies that have sufficient resources. The greater the diversification, or the more types of assets you have, the smaller the risk of total losses due to the investment.

Risk transfer is the process of transferring part or all of the risk borne by the other party (guarantor) who is usually an insurance company. Risk transfer can only be done on a type of risk that is purely pure. Risk transfer can be carried out at a small part of

the risk until all risks depend on the retention of the insurance company and depend on the amount of premium paid.

While risk funding is done by allocating a portion of the company's funds as compensation and reserves if the risks really occur. Risk funding can only be done at small risks to moderate risks. If the risk is too high, then the most appropriate treatment is to transfer risk.

Legal Basis of the Qur'an

In the Qur'an Al-Baqarah verses 282-283

"O ye who believe, if you are not in cash for a specified time, you should write it down. And let an author among you write it correctly. And let the writer among you write correctly".

Previous research

1. Risk Mitigation in Fintech Companies: a Case study of Fintech Company, Agus Tarmo, IAIN, Ponorogo, 2017.
2. Transaction Analysis of Payments Using Fintech for MSMEs in Indonesia, Diardo Lukardi, Indonesian Islamic University, 2018.
3. SWOT Analysis of Financial Technology (Fintech) in Islamic Banking Financing in Indonesia (Case Study of 4 Sharia Banks in Medan City), Ridwan Muchlis, CIMB Niaga Syariah Unit, 2018.
4. The urgency of Personal Data Protection Regulations in the Fintech Business Era, Ana Sofa Yukung S.H., M.H., Journal of Law and Capital Markets, 2018.
5. Risk Management of Islamic Banking in Indonesia, Muhammad Iqbal Fasa, Islamic Economy UIN Sunan Kalijaga, Yogyakarta, Journal of Islamic Economics and Business Studies, 2016.

3. Research Methods

3.1. Method Approach

The research method used in this study is descriptive research with a qualitative approach. This research was conducted at PT. Bank Syariah X by conducting Focus Group Discussion (FGD) and from several competent resource persons. The data needed in this study include primary data and secondary data. The data analysis method uses the Descriptive Statistics Method.

The primary data in this study refers to the speakers of the Head of Division, Manager, Head of Operations, and other related sections. While secondary data is obtained from literature studies through books, journals, research, company monthly financial reports, as well as those taken from the company's annual report.

3.2. Data and Data Sources

The data needed in this study include primary data and secondary data. Primary data is obtained from direct observation in the field. Direct observation is carried out to obtain information and an overview of companies that can support this research. Focus Group Discussion (FGD) was conducted by inviting several speakers to discuss the risk analysis of Murabahah Financing in Islamic Banks.

While secondary data is obtained from literature studies through books, journals, research is taken from the company's annual report and Bank Indonesia publications

3.3. Data Collection Procedures and Data Recording

Qualitative Research Data Collection Procedures used to obtain primary data (data obtained directly from the source) and secondary data (data obtained indirectly from the source) are as follows:

3.3.1. Literature Study

A literature study is a technique for collecting secondary data from various books, documents, and writings that are relevant to formulate research concepts and uncover the object of research. Literature studies are carried out by conducting many studies and quotations of various relevant theories to compile research.

3.3.2. Interview Technique

The interview technique is the primary data collection technique from the parties that are used as research informants. The interview technique is done by preparing in advance the Interview Guidelines. The interview guide contains open questions to be submitted to the research informants.

3.3.3. Focus Group Discussion (FGD)

Focus Group Discussion (FGD), conducted by inviting several speakers to discuss to obtain information and explanations about the condition of the company.

Primary data in this study refers to the resource person

- a. Head of MIS Division / Product Development / Business Development
- b. Head of Operations / Risk Management
- c. Processing Staff
- d. Marketing Staff
- e. Customer

The FGD involves the Head of Division, Head of Operations and Processing Staff. Whereas the party interviewed as the resource person is the Head of Product Development Division, IT Manager, Operational Manager / Risk Management and Customer.

While secondary data is obtained from literature studies through books, journals, research is taken from the company's annual report.

3.4. Data Analysis

The data analysis step will go through several stages:

1. Reduction data at this stage is chosen between the relevance of the data and the purpose of the study. Information in the field as raw material is summarized.
2. Presentation of data Display data, to be able to see the overall picture or parts - certain parts of the overall picture. At this stage, the researcher seeks to clarify and review the data in accordance with the subject matter.
3. Comparative / Comparative analysis in this technique the writer examines the data obtained from the field systematically also deeply then compares the data with each other.
4. Draw conclusions and verify data. This activity is intended to find relationships, similarities or differences.

3.5. Checking and checking the validity of data

1. Careful observation
2. Comparing observational data with the results of interview data

3. Use sufficient references
4. Hold a member check

4. Research Findings and Discussion

4.1. Financial Technology Opportunities and Challenges in Islamic Banking

At present the good IT infrastructure can only be felt by the people in big cities, while the internet network cannot be spread evenly into remote areas, this is one of the biggest obstacles to the spread of FinTech and is the solution offered by FinTech.

1. Human Resources (SDI) The limited ability of rural communities to apply financial technology in their regions, makes the spread of financial technology hampered. This condition makes it difficult for the government to develop FinTech in the area due to a lack of labor that can support the sustainability of the modern economy. Supposedly the provision of human resources (HR).

2. Legislation Regarding the legal vacuum, the FinTech industry currently refers to the law on civil law. However, currently there are no specific rules regarding financial technology, making this problem one of the obstacles to the spread of FinTech in the wider world. As a government, it should be able to issue special regulations related to FinTech so that public interest in using FinTech increases

4.2. Analysis of Banking Service Financial Technology (Fintech) Risk Management in Islamic Banks

Financing Process Analysis in Sharia Banking in this study was conducted to analyze the financing process in Islamic banking which is currently still operational through a manual process and then developed through the FinTech system which will accelerate the financing process in Islamic banking. As is known that the financing process in this study was obtained by analyzing three Islamic banks in Jakarta, namely PT. Bank Muamalat Indonesia; PT. Bank BNI Syariah; and PT. CIMB Niaga Bank Sharia Business Unit. Basically the financing process of each Islamic banking has its own standardization, but essentially every Islamic banking still prioritizes effectiveness and efficiency in the process. Of course this must be supported from every acceleration system for example by creating an online application path and its own characteristics. Such support is inseparable from technology that is so fast developing, facilitating sharia

banking practitioners, and providing optimal services for customers. Therefore, each different opinion can emerge from the customer who compares each of these financing processes, and through this research before discussion through risk management analysis on FinTech Islamic banking financing, will be explained in advance the financing processes that have been lasted from 3 sharia banks in the case study of this study with various paradigms from every sharia banking where the emergence of a paradigm that responded that the Islamic banking must innovate for the financing process with FinTech.

4.3. Application of Financing Risk Management in Islamic Banks

In the process of applying Bank X Syariah made various efforts in handling financing risks. The part in charge of doing so is the processing unit. The task is to analyze the financing previously carried out by the marketing unit to be analyzed again in more detail in order to avoid Marketing Financing Processing Remedial Recovery Branch Internal Control unwanted risks. In addition, his job is to keep the customer from getting bogged down at the time the loan is due.

The scheme for the application of financing risk management in Islamic Banks can be described as follows:

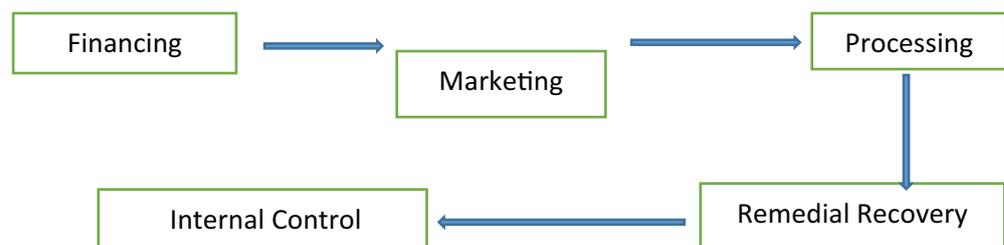


Figure 1: Scheme of Implementation of Financing Risk Management.

4.4. Risks commonly occur in Islamic Bank X

Factors that cause the risk of banking services related to Fintech

a. HR risk consists of banks / employees, namely risks caused by employees because they are wrong in analyzing the character of the customer prior to financing. The purpose of using FinTech is actually efficiency, that is, by not requiring a lot of human resources, large buildings are not needed, but have wide opportunities and opportunities. FinTech is more efficient because it can reduce operational costs so that it can channel financing with a faster and more precise process. The emergence of technology-based financial

companies or Financial Technology (FinTech) forced the Islamic banking industry to improve itself. FinTech not only serves payments, financing or other financial services as well as traditional banking businesses. With technological sophistication and relentless innovation, with FinTech, Islamic banks can reach customers who have not had access to the Islamic banking system.

b. Operational risk is the risk resulting from the lack of an information system or internal control system that will result in unexpected losses or risks that include how the bank is in administering customer files. confidentiality of service user data. This problem is related to confidential service users. Liquidity Risk

c. Risk of Liquidity due to failure to pay banking service providers. The fintech system in Islamic Banking sometimes attracts customers using low reciprocity instruments, such as low interest or income for lenders. This is very vulnerable when the policy of using fintech requires considerable investment costs while not being able to cover operational costs and promotion costs.

d. Legal Risk

Regarding legal risk, the FinTech industry currently refers to the law on civil law. However, currently there are no specific rules regarding financial technology, making this problem one of the obstacles to the spread of FinTech in the wider world. The hope is that the government will issue specific regulations related to FinTech so that the public's interest in using FinTech will increase,

Problems such as the validity of fintech providers are related to fraud cases that occur in non-bank financial institutions such as cooperatives and others.

e. Reputation and other risks.

Indonesia's internet system is still unstable. From the State of Internet data (2016) written by Akaai, Internet speed in Indonesia is still ranked 92. This risk is at risk if there is a disruption of internet access when the transaction occurs.

5. Discussion

Before the systemic impacts of these risks occur in Indonesia, fintech risk mitigation measures are needed, namely

1. The application of financing risk management in Bank Syariah X related to Fintech remains the responsibility of the relevant bank operational supervisors, namely unit processing, remedial recovery unit and Internal control, which is the operational supervisor

of the bank whose task is to oversee the financing process from the beginning to the end.

2. FinTech which will be implemented in Islamic banking institutions in Indonesia has weakness analysis such as supporting internet connections, both in terms of access speed and a stable server in sending data files, because FinTech transactions will run smoothly when internet access is not interrupted. Furthermore, the emergence of online crime such as wiretapping, burglary, and cybercrime in FinTech sharia banking transactions, has made people hesitant to conduct online transactions, so customers still hope that a branch office of Islamic banking will be present in their area. Another reason is that not all financial technology service providers have licenses to collaborate with Islamic banking institutions or conduct financial transactions systematically and legally, so that practices of abuse of power or transactional irregularities are possible, which will harm the Islamic banking institutions themselves.

The weakness of the community is also a weakness factor FinTech is optimally socialized as in rural areas most do not know the term FinTech as a whole about how to use it, what are the benefits, benefits and objectives that can be obtained from their use due to lack of government literacy in introducing financial systems well. Therefore, socialization steps and discussions through social media networks are needed both to get public attention and as an effort to seek input to improve the existing system, due to the low level of financial literacy knowledge, making the community not having a good financial management plan.

6. Conclusions And Recommendations

Fintech has and will help Islamic banks in speed and accuracy in processing business operations data and product marketing. There are still many sharia bank financing processes that are done manually, with limited HR skills and the manual financing process makes the time needed long and less efficient. Based on the analysis of risk management on FinTech in Islamic banking it is known that the development of product development will be better, where FinTech will always be able to keep up with existing developments and be easy to adjust, in accordance with the development of customer needs. In the end, the presence of FinTech financing will be able to increase the sharia banking financing portfolio nationally. Based on the findings above, the researcher recommends that from the outset prepare regulations relating to FinTech financing so that it develops along with the progress of existing Fintech financing, so that from the outset all the gaps and opportunities for risk can be analyzed from the start and

eliminated so that minimum possible. And customers to increase their understanding and knowledge of the development of FinTech financing, both independently and educated by regulators and sharia banks themselves, so that as soon as possible the knowledge and understanding of the community will improve which will ultimately improve the security of customers' transactions in Islamic banking.

In addition, it is recommended to implement measures that are effective in mitigating the risk of fintech. The main step is government support in making detailed fintech regulations.

Currently the Financial Services Authority (OJK) has prepared a Special Team to handle fintech, but in the future it is expected not to be limited to collaboration with banking financial institutions. But this regulation also includes Bank Indonesia in terms of its payment field. The steps are first, tightening the registration system that aims to minimize fraud and increase user trust. Secondly, the guarantee of transactions related to the failure of the payment system caused by the management and its supporters, such as internet access, and thirdly, good cooperation between other Fintech companies and banking financial institutions will certainly make OJK arrangements easier.

References

- [1] A.Karim, Adiwarmar. (2006) *Islamic Bank Fiqh and Financial Analysis*. Jakarta: Rajagrafindo Persada,
- [2] Ade Syafei, Wirman, and Sisca Debyola, and Kuncoro Hadi. (2013). Application of Islamic-Based (System) Technology to Islamic Banks in Indonesia. *Al-Azhar Indonesia Journal of Pranata Sosial* Volume.2, Number 1, March 2013
- [3] Adhitya, Imanuel Wulanata. (2017). SWOT Analysis Implementation of Financial Technology on Banking Service Quality in Indonesia, *Journal of Economics and Business* Volume 20 Number 1, April 2017.
- [4] Arikunto, S. (2010). *Research procedure: An Practice Approach*. (Revised Edition). Jakarta: Rineka Cipta
- [5] Agus Tarmo (2017) Risk Mitigation in Fintech Companies: *a Case study of Fintech Company*, IAIN, Ponorogo,
- [6] Ana Sofa Yuking S.H., M.H (2018) The Urgency of Personal Data Protection Regulations in the Fintech Business Era,, *Journal of Law and Capital Markets*,.
- [7] Bank Indonesia Sharia Banking Bureau (2001). *Islam and Islamic Banking*. Jakarta: Karim Business Consulting,.

- [8] Diardo Lukardi (2018) *Transaction Analysis of Payments Using Fintech for MSMEs in Indonesia*, Indonesian Islamic University,
- [9] Gunawan, Faith.(2013), *Qualitative Research Methods, Theory and Practice*. Jakarta: PT Bumi Aksara
- [10] Khan, and Habib Ahmed.(2008). *Risk Management of Islamic Financial Institutions*. Jakarta: Bumi Aksara
- [11] Muhammad Iqbal Fasa, (2016).Risk Management of Islamic Banking in Indonesia,, Islamic Economy UIN Sunan Kalijaga, Yogyakarta, *Journal of Islamic Economics and Business Studies*,
- [12] Nursiana, A. (2015). Effect of internet banking, service quality, product reputation, location, on customer loyalty with intermediation of customer satisfaction. *Journal of Finance and Banking*
- [13] N. Idroes, Ferry.(2008) *Banking Risk Management: Understanding the Base II Approach to the Pillar Agreement regarding the Application of Regulations and their implementation in Indonesia*, Ed.1. Jakarta: Rajawali Press,.
- [14] Ridwan Muchlis (2018) *SWOT Analysis of Financial Technology (Fintech) Financing of Islamic Banking in Indonesia (Case Study of 4 Sharia Banks in Medan City)*, CIMB Niaga Syariah Unit.
- [15] RI Ministry of Religion. *Al-quran and the translation*. Bandung: Syamsil Citra Media, 1428/2007 M.
- [16] Tariqullah Khan, Syariah and Habib Ahmed.(2008) *Financial Institution Risk Management*. Jakarta: Bumi Aksara,.
- [17] Zulkifli, Sunarto.(2007) *Practical Guide to Sharia Banking Transactions*. Jakarta: Zikrul Hakim.