

Android Based Sharia Fintech Innovation in Indonesia to Increase Inclusive and Literate on Society's Finance

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Abstract

The purpose of this study is to explain and provide an understanding of the technical, procedures and benefits of the application, it is called Sharia FinTech. Then, it is also to contribute to the literature on the capacity of the latest technological and non-technological innovations. The research method used is descriptive research method with a qualitative approach. It is to describe and explore the phenomena in the form of engineering human innovation in the financial technology industry. It is done by taking into account the characteristics, quality, and interrelationships between activities. It has several aspects; they are: conducting the observation, having an interview session, creating the documentation, and the last one is doing the Literature review. The result of this study is to increase the knowledge, skills and confidence of the community in managing personal finances to be better and to provide access to be having convenient and accountable financial services. Afterwards, this study limits on explaining and providing an understanding of the technical, procedure and benefits of Sharia Fintech for all people in need. Thence, the limitation of the research only discusses the role of Islamic Fintech in increasing the public financial inclusion and literacy. As for the the next researchers, they can be even wider by adding the collaboration of fintech and the banking world. The novelty of this research is the use of the android application as a digital platform in financial inclusion and literacy.

Keywords: *Fintech, Syariah, Inclusive, Literacy, Android*



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INTRODUCTION

Technology has become the part of today's people life even when they don't realize it. The application of technology is stretching from basic things, such as electricity to the more sophisticated as in financial technology (fin-tech). The simplicity and speed of this technology have led people to adopt it in their everyday life. This has been augmented with the invention of the smartphone, allowing people to use applications of fin-tech (e.g. e-payment) directly from their own hand (Riskinanto, Kelana, and Hilmawan 2017).

P2P (Peer-to-Peer) lending, is an emerging online service that allows individual to borrow money from unrelated person without the intervention of traditional financial intermediaries. By these models, there are two worth noted by borrowers, are the interest rate and loaning limit, which directly impacts the benefit and costs, respectively (Li, Wu, and Tang 2018).

Financial technology, or FinTech, includes the structure and conveyance of budgetary items and administrations through technology. It impacts money related foundations, controllers, clients, and shippers over an extensive variety of enterprises. Inescapable advanced innovations are testing the basics of the exceedingly regulated budgetary sectors, prompting the development of non-conventional installment frameworks, distributed cash trades and expanded choppiness in money markets (Leong et al. 2017).

FinTech attracts regulators' interest in fast growing markets and progressive countries. The challenge in this sector is the way to resolve such tension between futuristic framework that requires innovation, and an adequate rigorous framework to keep the market confidence. There is a global approach which is prospective in FinTech era. However, in our point of view, innovation and extra experiments play significant role either to regulatory approaches and regulatory technology before seeking standardization.

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It is admitted that too early proposing harmonization in international regulatory (Mukhlisin 2018).

Disruption of financial sector with an emergence of technology that must be feared and shunned but a phenomenon that must be developed to improve economic growth and prosperity (Harefa and Kennedy 2018).

Financial technology (FinTech) collaboration with sharia financial institutions, especially Islamic banking, can increase inclusive finance for UMKM in Indonesia. This can happen because currently the development of technology is very rapid and has entered all sectors, one of which is the financial sector. So, with the entry of technology into the financial sector will transform the financial industry into the digital era. FinTech's implementation of the Islamic sharia banking industry will facilitate and bring business people closer, especially UMKM to access sharia financial service products offered and apply for financing directly without having to come directly to branch offices. Such a model, in addition to facilitating business in the UMKM sector in gaining access to finance, can also increase financial inclusion and can improve the performance of Islamic banks (Muzdalifa, Rahma, and Novalia 2018). The financial industry has been strongly influenced by the emergence of "FinTech," which represents the marriage of "finance" and "information technology." FinTech provides opportunities for the creation of new services and business models and poses challenges to traditional financial service providers (Zavolokina, Dolata, and Schwabe 2016).

One of the innovations in developing business and economy, especially in the banking sector, is now developing FinTech (Financial Technology) which can facilitate all types of buying and selling transactions, investment and fund raising. Among the effects of FinTech's development is the emergence of crowd-funding at internet network. Crowd-funding is a form of collective cooperation, attention and trust from people who are interconnected and collect money together in supporting businesses initiated by other people or an organization. This fundraising effort is usually done through the internet (Rasyid, Setyowati, and Islamiyati 2017).

Technological innovation that supports financial system is often referred to financial policies in effort to provide funds to enterprises to drive some technical improvements. This is admitted as a long problem to companies that unable to raise all the capital needed for doing innovation in technology. Therefore, the government in many countries tried hard to overcome these problems by taking the role of capital investor in order to support technological improvement of companies. The government sets three financial policies in supporting companies to do such technological innovation: loans, equities, and guarantee (Jang and Chang 2007).

Technology has mobilized many changes in the community and global economy. Also, the financial technology business or financial technology (FinTech) has changed the financial system, ranging from payments, loans, banking affairs, asset management, fraud detection to the regulatory stage. FinTech, which has been included in the conventional financial system, is slowly entering the sharia financial system. With this change, of course customers must learn more about sharia principles in the FinTech area, starting from contracts, conditions, principles, law, tax administration, accounting to auditing. In terms of contract, FinTech does not conflict with sharia as long as it follows the legal principles of a contract, as well as fulfilling the terms and conditions and applicable laws (Mukhlisin 2018).

According to Darsono as quoted by (Mukhlisin 2018), Basically FinTech must refer to one of the principles of muamalah, namely "antaradhin or the principle of willingness of parties in contracts. This principle emphasizes the existence of equal opportunities for parties to declare the process of consent and qabul. The requirement that must be fulfilled is that there must be an object (aqid), the subject (mu'qud alaihi) and the desire to do contracts (sighat) and principles must be manifested is the price / wages and benefits. The law must also be accompanied, for example in the form of laws, fatwa and halal certification

The purpose of this study is to explain and provide an understanding of the technical, procedures and benefits of sharia FinTech for all people in need. The benefit of this research is to contribute to the literature on the capacity of the latest technological and non-technological innovations, namely sharia FinTech using an android app.

Technical, procedures and benefits of sharia fintech are very important to be understood by the android application users and the public in general, so that they are able to understand how to use android applications. Then, it is to know the benefits of sharia fintech for improving the welfare. So, it is necessary to demonstrate the technical and procedure for using the android application. Thence, people are easily understanding it.

The contribution of this research is to provide education and understanding for the wider community; that, in Indonesia there is already a legal android-based sharia fintech. It has already received permission from the OJK as the first sharia fintech, it is PT. Sharia Fintech. In its operational activities, PT Ammana Fintek Syariah aims to assist and support the progress of business actors in a good and lawful way. Next, it is in accordance with the culture of the Indonesian community, which is predominantly Muslim. The public is able to access the funding easily through the android application anywhere and anytime. As the last, it can be accessed by people in rural areas and remote areas that have not been reached by banks.

LITERATURE REVIEW

FinTech is a word created by combining "finance" and "technology," and it is technology that applies IT to the financial world. FinTech as essentially something that has the potential to change the way that finance operates, a technology that can contribute to new forms of finance and that will give birth to novel financial services. Thus, FinTech has a wide range of transformational functions in the world. For example, new technologies which, in sharp contrast to the examples provided above, are intended to permit business operators, that are not financial institutions, or new technologies that will provide underprivileged classes, who are not only not affluent, but have been unable to access finance in the past, to gain the right to access finance (Nakashima 2018)

According to Lumpkins as quoted by (Riskianto, Kelana, and Hilmawan 2017) FinTech is an acronym for financial technology, which can be interpreted as a way of payment through an electronic or information technology. It is the convergence of financial services and information technology that provides innovative services offered to people. The two most known solutions in worldwide may be Apple Pay and Google Wallet.

Indonesia also has several solutions regarding the technology and one of them is Paytren, which was developed by PT. Veritra Sentosa Internasional. An Android based mobile application allows users to use different types of payments, such as electricity, cell phone, gas, etc. Paytren may be seen as an emerging solution as it provides alternative to the current complex way of paying bills. (Riskianto, Kelana, and Hilmawan 2017)

Companies that develop financial services and products by relying on more intense use of information technology (Varga 2017)

FinTechs are new businesses that convey financial providers while consolidating them with innovation competencies (Caria 2017) The initial term "FinTech" refers to the "Consortium on Financial Technology Services," a project initiated by Citigroup to stimulate technological collaboration and financial services. "FinTech", is by the word class is a noun, that closely refer to enterprises that apply innovative and modern technology (Djawahir 2018) Financial technology (FinTech) is the application of information technology in the field of financial services (Harefa & Kennedy, 2018)(Harefa and Kennedy 2018)

According to Amalia as quoted by (Luckandi 2018) FinTech, is a form of technology-based financial services that is currently a trend in the world both in the form of devices and businesses.

The word Sharia to its origin means road, which is a road that must be taken by a Muslim. According to the term, Sharia means rules or laws revealed by Allah SWT to regulate the relationship between man and his God, regulate relations between humans and the relationship between humans and the universe. (Zawawi 2004) (Ali 2006) (Gusfahmi 2007)

According to Qardhawi as quoted by (Gusfahmi 2007) Sharia is what Allah's provisions can be proven through the arguments of the Qur'an and Sunnah or also through other follow-up arguments such as Ijma, qiyas, and so forth.

Sharia is a law that regulates the pattern of human relations with God vertically and human relations with each other horizontally (Fathoni 2001)

According to Mukhlisin, as quoted by (Djawahir 2018) although there is no specific legal reference for Sharia FinTech, some startups have started to emerge. Approximately the rules for Sharia FinTech

states like this: "Services on Buying and Selling / Partnership / Financing / Leasing Renting Sharia" Based on Information Technology. The service for implementing sharia financial services is to bring together sellers / partners / capital owners / asset owners with buyers / partners / workers / tenants in order to make sale / partnership / financing / lease payments in sharia IDR currency directly through electronic systems with use the internet network.

METHODOLOGY

The research method used is descriptive research method with a qualitative approach to describe and explore existing phenomena in the form of human innovation manipulation in the financial technology industry by taking into account the characteristics, quality, and interrelationships between activities. Describing an actual condition and based on objective data and information without manipulation or alteration of the data studied, which is done through observation, interviews, and documentation based on an interpretive and constructive paradigm. The data collection technique is triangulation (combined), data analysis is inductive and extrapolated. Triangulation by combining the methods of interviews, observations, surveys, references and archives to check the validity of the data.

This research uses qualitative methods because researchers want to know and analyze in depth about the role of Islamic finance technology at PT. Ammana Fintek Syariah in relation to increasing public financial inclusion and literacy as an alternative source of financing and investment in Indonesia.

RESULT AND DISCUSSION

Financial inclusive is access to financial services that are convenient and accountable for everyone regarding their credit, investment and payment system. Financial service deepening is aimed specifically at the lower middle class community (Finansialku 2016).

Good financial literacy is needed to prevent financial difficulties as a result of errors in financial management (use of credit) and the absence of financial planning (Yushita 2017). Financial literacy education is a tool to overcome the low level of financial literacy (Akmal 2016). Education literacy and Financial inclusive can change for a better public financial management. (Desiyanti 2016). The implementation of financial inclusion is very important because there are still many people who are hampered in accessing financial institutions because of low income (Nengsih 2015). The key for inclusive growth is financial inclusion (Sharma and Kukreja 2013). One of the important conditions so that people can be involved in the economic system is the access to financial services (Indonesia 2014) There are three community groups become the targets of an inclusive financial strategy, namely: poor low-income, poor working, and remote residents (Indonesia 2014) Good coordination is needed between Bank Indonesia, relevant ministries and institutions so that inclusive goals and financial literacy can be achieved. (Indonesia 2014). Of contribution could include policies focused on enhancing digital access to finance (Arun and Kamath 2015). Modern Information and communication technology (ICT) can act as a tool to develop a platform which helps us to extend the financial services in remote areas (Bansal 2014) .Digital finance through Fintech providers has positive effects for financial inclusion in emerging and advanced economies, and the convenience that digital finance provides to individuals with low income (Ozili 2018).

The procedure for using Android-based fintech is as follows:

To facilitate investors joining Ammana partners, there are guidelines as follows:

1. Downloading the application.

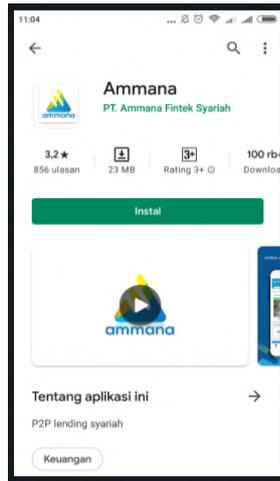


Figure 1: Download / install the Ammana application

Source: (Ammana, 2018)

Users download the Ammana application on the play store. After the Ammana application is installed and opened, the On Boarding application will appear. Click the skip button to enter the application, or the Sign Up button to directly register as an Ammana investor.

2. Registration Stage.

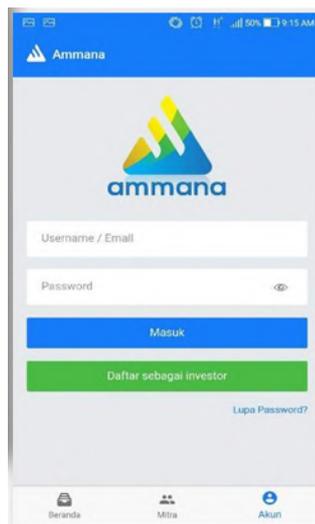


Figure 2: Registration
Source: (Ammana, 2018)

After opening the Ammana application for the first time and not yet registering as an Investor, you must first register. To register, click on the Account menu. Once registered, you can directly log in to the application by entering your Username / Email and Password.

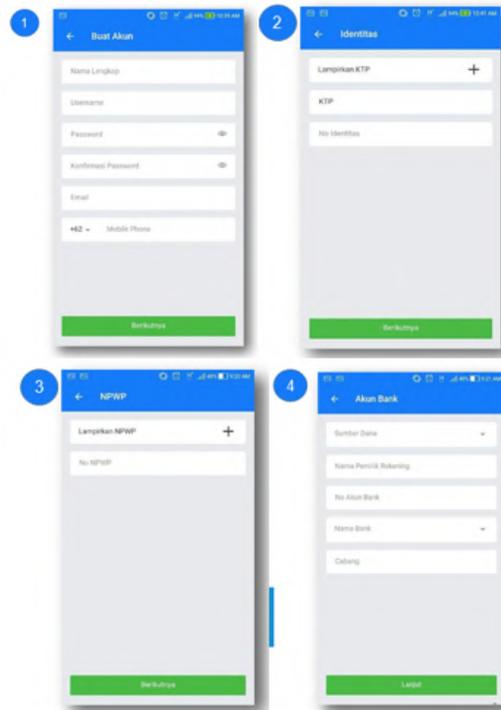


Figure 2: Process of Registration
Source: (Ammana, 2018)

To register as an Investor, needs to be prepared:

a. Personal data

Fill in the Create Account Form, when finished press the next button for the next registration process. Remember the Username, Email and Password, because it will be used to Login to the Application. Make sure the data entered is correct.

b. Photo of Identity

Attach ID and input NIK (Population Registration Number)

c. Photo of NPWP (optional)

Attach NPWP and input NPWP Number (optional). If you don't have an NPWP, directly click the Next button.

d. Prospective Investor Signature

Fill in the Bank Account Form. Information entered on this page is needed for withdrawal.

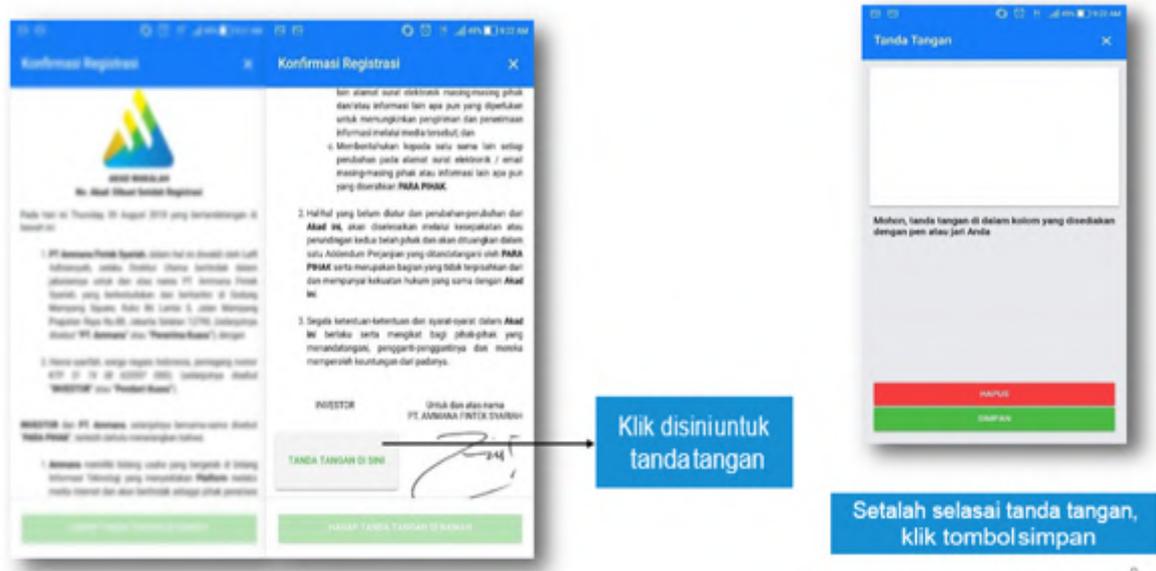


Figure 3: Signature
Source: (Ammana, 2018)

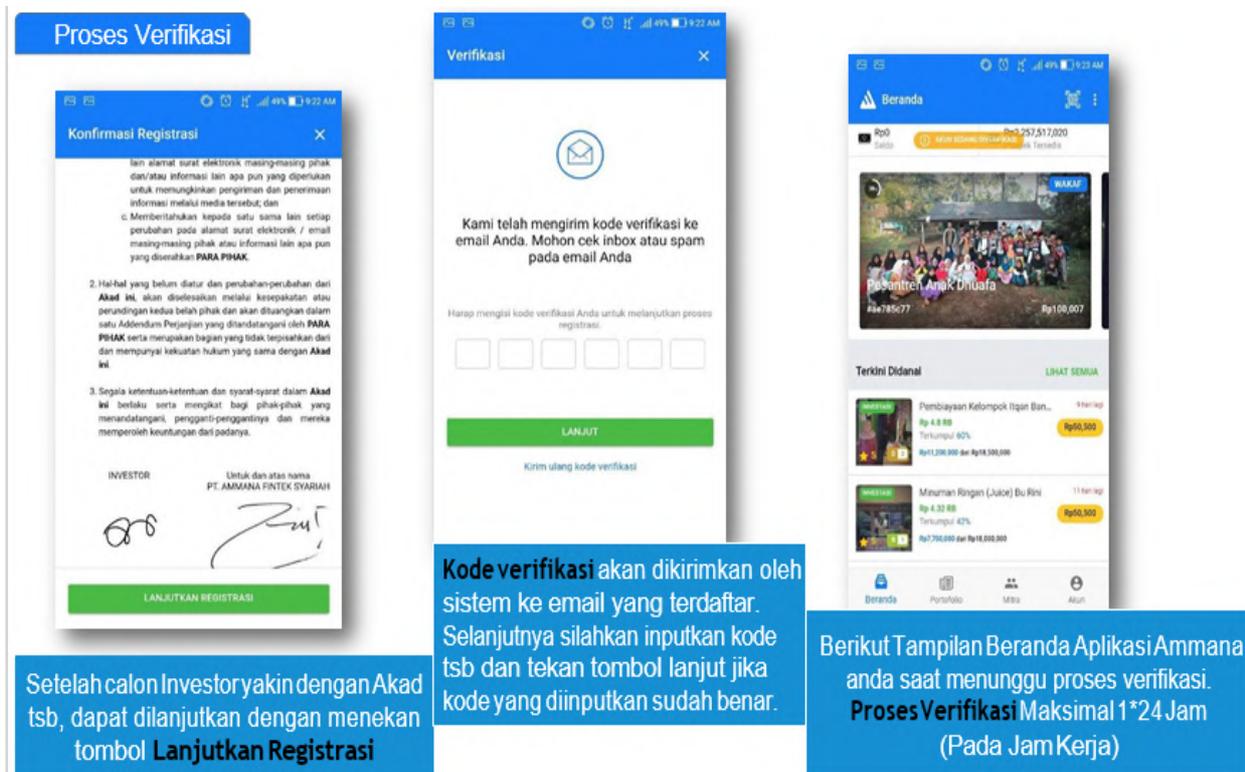
After the required data is complete, the Wakalah Agreement page will appear. If the prospective investor has finished reading it, then please sign the contract. After completing the signature, click the save button.

3. Verification.

Figure 4: Verification
 Source: (Ammana, 2018)

After the prospective investor understands the agreement, click Continue Registration button. The verification code will be sent by the system to the registered email. Next, please input the code and press the advanced button if the code entered is correct. Maximum Verification Process 1 * 24 Hours (In Business Hours).

4. Stage of Fund Deposit.



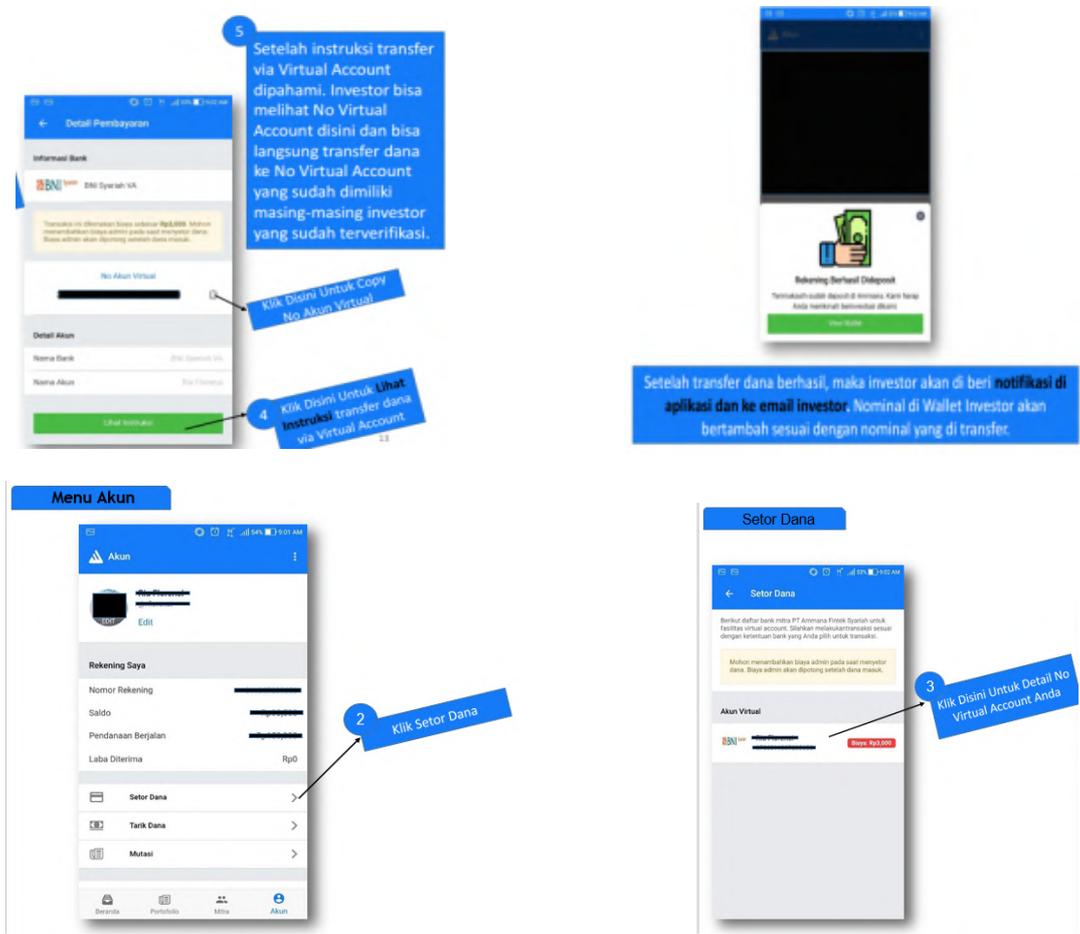


Figure 5: Process of Deposit Fund
 Source: (Ammana, 2018)

The following is the appearance of your Home Page when the account has been verified.

- a. Balance: Total balance in each Virtual Account
 - b. Prospects Available: Total of Investment and Waqf prospects is depositing funds into each Investor's Virtual Account by:
 - 1) Click Account Menu
 - 2) Click Deposit Funds
 - 3) Click here for the details of the virtual account number.
 - 4) Click here to copy the virtual account number. Then Click Here to see fund transfer instructions via the virtual account
 - 5) After the transfer instructions via Virtual Account are understood. Investors can see Virtual Account number and can transfer funds directly to the Virtual Account number that has been owned by each of the verified investors. After the funds transfer is successful, the investor will be notified in the application and to the investor's email. The nominal in the Investor Wallet will increase according to the nominal transferred.
5. Investment / Waqf Stage by choosing an investment program or waqf in accordance with the expectations and needs of investors / wakif.

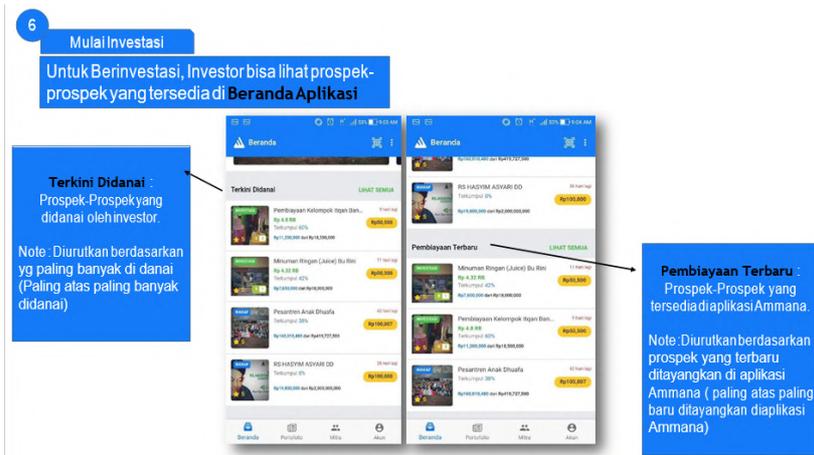


Figure 6: Process of Investment
 Source: (Ammana, 2018)

To Invest, Investors can see the prospects available on the Application Home

Current Funded: Prospects funded by investors. Note: Sorted by the most funded (Most top most funded)

The Latest Financing: Prospects available in the Ammana application. Note: Sorted by prospect, the latest one is displayed in the Ammana application (the most recent one is aired on the Ammana application).

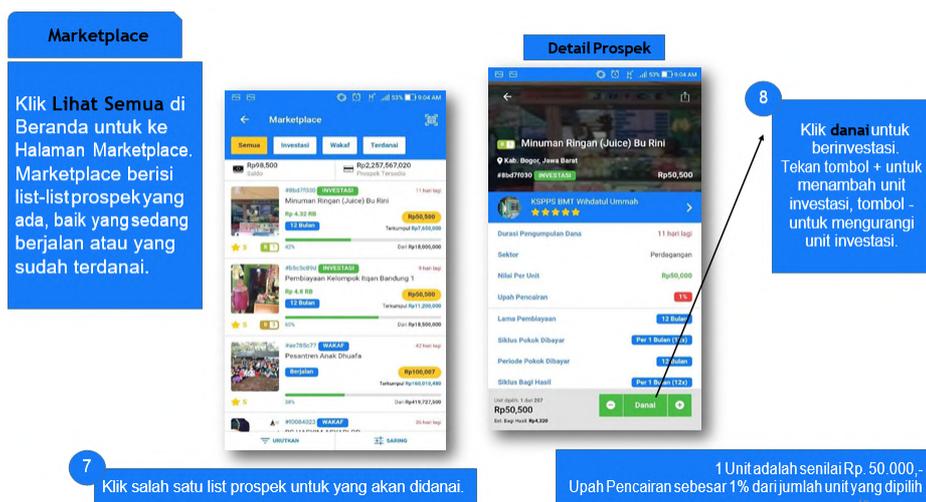


Figure 7: Process of Investment (Continued)
 Source: (Ammana, 2018)

6) Click View All on the Home to go to the Marketplace Page. Marketplace contains lists of prospects that exist, whether they are running or funded.

7) Click one of the list of prospects to be funded.

8) Click fund to invest. Press the + button to add the investment unit; - button to reduce the investment unit. 1 unit is worth Rp. 50,000, - Disbursement fee of 1% of the number of selected units.

9) The following is a summary of funding. If you have agreed with the details of the investment made, click the continue button.

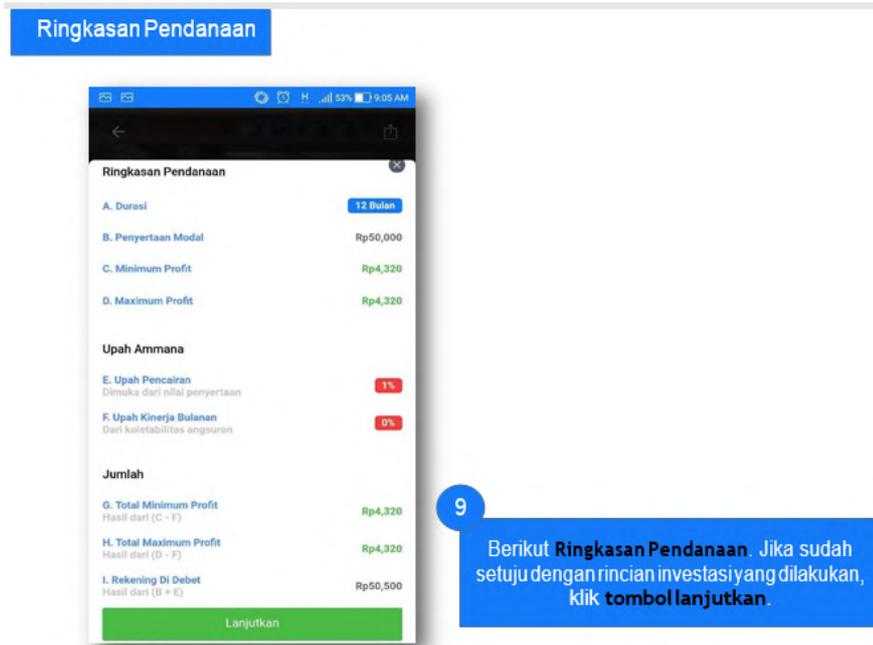


Figure 8: Process of Investment (Continued)
 Source: (Ammana, 2018)

In figure 8 it can be seen that:

- a) The funding summary consists of: duration (12 months), equity participation (Rp. 50,000), minimum profit (Rp. 4,320) and maximum profit (Rp. 4,320).
 - b) Ammana wages consist of: disbursement wages (1%), monthly performance wages (0%)
 - c) The sum consists of: a minimum total profit of Rp. 4,320 (obtained from the minimum profit - monthly performance wages), the maximum total profit is Rp. 4,320 (obtained from the maximum profit - monthly performance wage) and the account debited is Rp. 50,500 (obtained from equity participation + disbursement wages)
- 10) If you agree, Click the Agree button and Continue in the Funding Agreement.



Figure 9: Process of Investment (Continued)
 Source: (Ammana, 2018)

11) Investment Process completed, click View portfolio to see portfolio details.

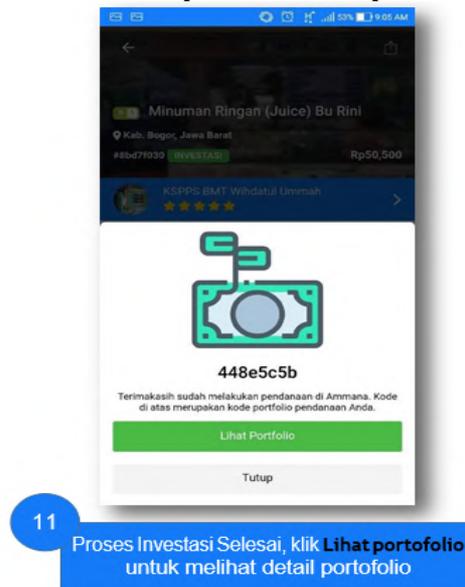


Figure 10: Process of Investment (Completed)
 Source: (Ammana, 2018)

12) Portfolio

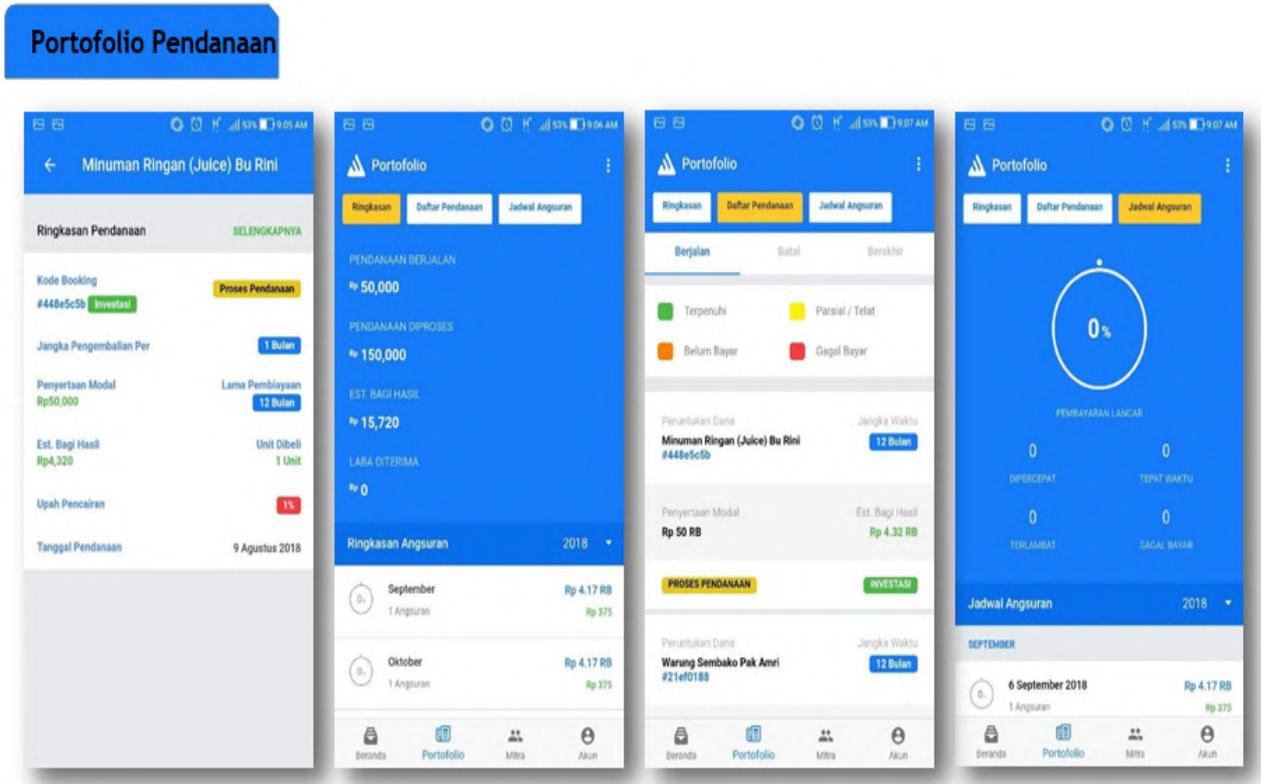


Figure 11: Funding Portfolio
 Source: (Ammana, 2018)

In the figure 11 funding portfolio, it can be seen that the list of funding carried out by investors consists of several funded objects such as the juice of Mom's Rini and Pak Amri's food stall which has been funded for 12 months.

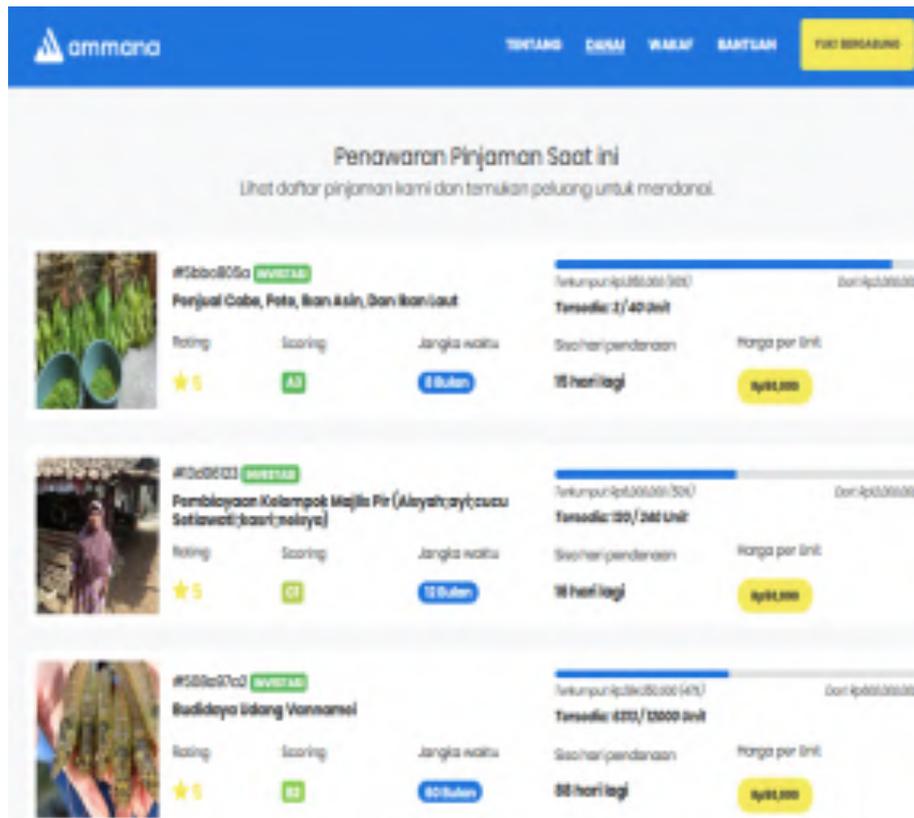


Figure 12: Loan Offers (Financing) & Investment
 Source: (Adhiansyah, Supriyono, Basri, & Hoessein, 2018)

In figure 12 you can see the loan offer for financing by interested investors.

The cultivation of vannamei shrimp as an example is with an investment of Rp. 600,000,000 and details of the data are as follows:

- 1) Period of Registration for unit capital participation = September 2018
- 2) Period of Cultivation development = 1 September 2018 - 30 September 2023 (for 5 years or 60 months)
- 3) Principal returns and profit sharing = 31 December 2018 (principal)
- 4) Cultivator = PT. Mina Ceria Nusantara
- 5) Number of cultivation ponds = 4 ponds
- 6) Period of Cultivation = 6 months
- 7) Capital =

Table 2 Details of Equity Participation

No.	Description	Cultivation Agent	Capital Owners
1.	The cost of renting land	-	Rp. 87.500.000
2.	Asset investment costs	-	Rp. 410.960.100
3.	Production and operational costs	-	Rp. 338.070.000
4.	Total costs	-	Rp. 836.530.100
5.	Total capital participation *	-	Rp. 600.000.000
6.	Percentage of equity participation	-	100 %

Source: (Ammana, 2018)

* because PT. Mina Ceria works with several feed suppliers, feed payments can be deferred so that the total capital participation can be reduced not as much as the total cost needed at the outset.

8) Projection Cost

No	Description	Quantity	Price	Total Cost	Sub Total
A	COST OF ASSET INVESTMENT				
1	Land Preparation				73,750,000
	Reconstruction of land	30.000 /4	7,833	58,750,00 0	
	freshwater drill well	2/4	30,000,00 0	15,000,00 0	
2	Lighting and Electricity				134,981,300
	PLNElectricity Installation (82.5 kVA)	1/4	167,725,2 00	41,931,30 0	
	Generator (150 kVA)	1/4	185,000,0 00	46,250,00 0	
	Cable + panel	64/4	2,550,000	40,800,00 0	
	lights	100/4	60,000	1,500,000	
	CCTV	10/4	1,800,000	4,500,000	
3	Supporting Facilities				88,000,000
	Construction of warehouse	80/4	1,250,000	25,000,00 0	
	toilet construction	1/4	24,000,00 0	6,000,000	
	Construction of shelters	60/4	3,000,000	45,000,00 0	
	Operational motor	1/4	16,000,00 0	4,000,000	
	Shelter Procurement	1/4	20,000,00 0	5,000,000	
	warehouse Procurement	1/4	12,000,00 0	3,000,000	
4	Pond Production Facilities				108,978,800
	Mill	64/4	5,650,000	90,400,00 0	
	Fence	520/4	39,067	5,078,800	
	Alcon pump 3"	4/4	4,500,000	4,500,000	
	water quality measuring instruments	2/4	9,000,000	4,500,000	
	Submersible pump 6"	1/4	10,000,00 0	2,500,000	
	Submersible pump 4"	1/4	8,000,000	2,000,000	
5	Supporting Facilities				5,250,000
	Small net	8/4	1,000,000	2,000,000	
	Large net	1/4	8,000,000	2,000,000	
	Scales	1/4	2,400,000	600,000	
	Small scales	4/4	650,000	650,000	
6	Land Leases				87,500,000
	Land rent of 5 years projection cost	30.000 /4	11,667	87,500,00 0	
B	PRODUCTION COSTS, OPERATIONAL & GENERAL COSTS				
1	Production Costs				179,658,100

	Seed	480,000	50	24,000,000	
	Feed	9,336	14,900	139,106,400	
	Additional Nutrition	364	45,471	16,551,700	
2	Operational Costs				106,161,900
	Mulch & lime	4,000	5,800	23,200,000	
	Electricity	4	10,927,425	43,709,700	
	Diesel	4	1,388,900	5,555,600	
	Gasoline	4	1,055,575	4,222,300	
	Water treatment	1	7,374,300	7,374,300	
No	Description	Quantity	Price	Total Cost	Sub Total
	Harvest costs	6,800	3,250	22,100,000	
3	General and Administrative Costs				53,500,000
	Workforce	1	51.000.000	51,000,000	
	Legality and notoriety	1	1,250,000	1,250,000	
	TOTAL PRODUCTION COSTS				338,070,000
C	INCOME				
	Partial harvest 1 (Assuming average size of 100 tails / kg)	1,020	56,000	57,120,000	57,120,000
	Partial harvest 2 (Assumption of average size 54 tails / kg)	1,380	75,000	103,500,000	103,500,000
	Great harvest (Assuming average size 35 tails / kg)	4,400	95,000	418,000,000	418,000,000
	TOTAL	6.800			
	TOTAL INCOME / OMZET				578,620,000
	COST OF PRODUCTION, OPERATIONAL AND GENERAL COSTS				338,070,000
D	NET PROFIT				240,550,000

Source: (Ammana, 2018)

9) Projection on Principal Returns and Revenue Sharing

Table 4 Projection of Principal Returns and Revenue Sharing

Activity	Schedule	Net Profit	Capital Owner	Capital Owner	Ammana	Cultivator
			(investor) Principal	30%(investor) After Principal*	20%	50%
		(Rp)	(Rp)	(Rp)	(Rp)	(Rp)
Cycle 1	Des-18	240,550,000	240,550,000			-
Cycle 2	Jun-18	240,550,000	240,550,000			-
Cycle 3	Des-19	240,550,000	118,900,000	36,495,000	24,330,000	60,825,000

Cycle 4	Jun-19	240,550,000	72,165,000	48,110,000	120,275,000
Cycle 5	Des-20	240,550,000	72,165,000	48,110,000	120,275,000
Cycle 6	Jul-20	240,550,000	72,165,000	48,110,000	120,275,000
Cycle 7	Des-21	240,550,000	72,165,000	48,110,000	120,275,000
Cycle 8	Jul-21	240,550,000	72,165,000	48,110,000	120,275,000
Cycle 9	Des-22	240,550,000	72,165,000	48,110,000	120,275,000
Cycle 10	Jun-23	240,550,000	72,165,000	48,110,000	120,275,000
TOTAL		600,000,000	541,650,000	361,100,000	902,750,000

Source: (Ammana, 2018)

* after deducting the costs of management and business assistance from Ammana 30%

investor rights of total operating profit / business results equal to 60% of the portion of 50% of total operating profit. Example: 30% X Total Profit (1,805,500,000) = 541,650,000 / 60% X Operating profit for investor portion (902,750,000)

Descriptions:

- The productive land area is 4,000 m² which is divided into 4 1,000 m² sized ponds
- Shrimp farming uses intensive-lining technology, namely the way to produce shrimp by relying on shrimp growth in artificial feed inputs, with pond water depths of at least 100 cm with high stocking densities using the means of an aerator and pond bottom coated with plastic mulch linings.
- The amount of solid shrimp stocking is 80-120 tails / m²
- Assumption of shrimp survival rate is 81%
- The cultivation period (cultivation cycle) lasts for 4-6 months.
- The assumption of shrimp prices uses the average price of shrimp in 2017. Shrimp prices can change at any time according to market conditions with a change in range of +/- IDR 15,000.00
- The percentage of profit sharing between capital owners and cultivators is 100%: 0% up to return on capital then becomes 50%: 50% after return on investment until the cultivation development period is complete

10) Estimated Calculation

a) BEP for production volume

BEP = Total production costs / Average price of BEP = 3,856

The turning point is reached if the total production reaches 3,856 kg

b) BEP for the price of production

BEP = Total production costs / BEP average volume = 49,716

The turning point is reached if the selling price is Rp. 49,716.00 / kg assuming a harvest of 6,800 kg

c) Ratio of income per cost (R / C ratio)

R / C Ratio = Gross income / Total cost

R / C Ratio = 1.71

This means that every Rp. 1.00 obtains revenue of Rp. 1.71

Through Ammana, the excess assets of investors can be distributed in the form of funding to business people in Sharia. Not only getting the fund growth, but at the same time giving a blessing to the excess assets of investors because it has been beneficial for other parties to develop their business without usury.

There are 2 (two) types of funding, namely musyarakah (the parties contribute to each other's capital) and mudharabah (100% capital from the Investor). Musyarakah funding means investors together with LKMS contribute to each other's capital to finance business actors that are fostered by LKMS. Whereas mudharabah funding means that investors contribute 100% capital to finance business actors managed by LKMS (Ammana 2018)

The following are data on financing and investment that have occurred in March 2018 to September 2018.

Table 1 Data on Financing and Investment
 PT. Ammana Sharia FinTech
 Year 2018

No.	Month	Funding	Investment
1.	March	Rp. 154.000.000	Rp. 244.797.500
2.	April	Rp. 363.050.000	Rp. 385.593.252

3.	May	Rp. 268.000.000	Rp. 202.367.935
4.	June	Rp. 370.730.000	Rp. 535.984.155
5.	July	Rp. 837.201.000	Rp. 960.784.498
6.	Augustus	Rp. 894.595.000	Rp. 685.877.385
7.	September	Rp. 597.000.000	Rp. 688.348.894
	Amount	Rp.3.484.596.000	Rp. .703.753.619

Source: (Ammama, 2018)

In the above table, it can be seen that the value of financing and investment has increased very high despite a decline in funding in September 2018 and investment in August 2018.

Sharia fintech application is very useful and makes it easier for the wider community to be investing and fund the business. Then at last, they are able to improve the welfare of the community as well.

CONCLUSION

Currently there are 10 countries with the largest number of Muslims in the world, namely: Indonesia (222 million), Pakistan (195 million), India (183 million), Bangladesh (149 million), Egypt (82 million), Turkey (79 million), Iran (78 million), Nigeria (74 million), Algeria (40 million) and Sudan (39 million). Indonesia as the country with the largest number of Muslims in the world has a very large influence on the development of Sharia FinTech because the majority of its business activities are based on sharia principles and Sharia FinTech also provides convenience in conducting financial transactions such as payment, investment, financing and other transactions. This is in accordance with the benefits of Sharia FinTech, namely: its nature is transparent (open), mutually beneficial, using a profit sharing system so as to avoid usury / interest according to sharia principles so as to improve the economic welfare of the community. This result coincides with the results of the research conducted by (Harefa and Kennedy 2018) The increasing understanding and needs of the community towards the economy in accordance with sharia principles has led to the formation of the Sharia FinTech Indonesia Association (AFSI), one of which is to guide and oversee Sharia FinTech business activities. Although it was only recently established, the number of its members has reached 47 institutions with 27 being Sharia FinTech and the other being media companies, law offices, consultants and Islamic banking.

AFSI is a member of the Islamic Finance

Technology Alliance (IFTA) as a world FinTech association that has 13 members from seven countries. There are 2 types of Sharia FinTech that are included in the Indonesian economy, namely peer to peer (P2P) lending and crowd funding. Sharia P2P lending brings together lenders (investors) with loan seekers (borrowers). Therefore, P2P will filter and analyze quality borrowers according to sharia principles so that investors feel comfortable. Whereas, crowd-funding facilitates fundraising for a project. Briefly, the differences between P2P and crowd funding, namely P2P, are similar to debt, while crowd-funding is like a donation. The similarity is that both of them get funding online facilitated by platform providers. Whatever the type, Sharia FinTech has made the community more productive in improving the economy of the region. These results coincide with those obtained by (Muzdalifa, Rahma, and Novalia 2018).

Not all small and medium micro enterprises (UMKM) in Indonesia have access to banks and can easily obtain financing, especially those in remote areas. For this reason, the role of Sharia FinTech is needed to channel the financing of community business activities so that income and welfare of the community can increase. With the increasing number of people who have internet access via mobile phones to remote areas, the role of Android-based Sharia FinTech can overcome these obstacles well. For this reason, infrastructure, government support, socialization and education are needed. This study aims to provide information and education to the public so that they can understand and enjoy the benefits of Sharia FinTech. There are many benefits that can be felt by the community with the formation of Sharia FinTech, such as being able to continue school for the sons and daughters of the borrower because their parents' income or welfare increases. Sharia FinTech business agent must always pay attention and follow the applicable terms and conditions of sharia in order to avoid the elements of usury and gharar. Like giving discounts and cashback to investors to fit the scheme. Before entering into the principle of contract, Sharia FinTech must clarify in advance the underline of the transaction from the beginning so that public trust can be maintained so that all parties benefit and the business is increasingly blessed. The novelty of this research is the evolution of sharia-based financial

technology by using interactive and solutive android applications that make it easier for people to access and understand it in improving their welfare.

Improving the standard of welfare of the community, which is the duty and responsibility of the government, can be carried out jointly with the assistance from various parties. One of them is from the private sector as an official partner of the government from the world of banking, industry, financing, sharia fintech and others. PT Ammana Fintek Syariah is one of the national private companies that helps the government in improving the welfare of the community; both in the city and in remote areas with its company activities. It is engaged in investment and sharia funding based on android applications, so that it can be reached by the wider community.

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REFERENCES

- Adhiansyah, L., Supriyono, Basri, I. A., & Hoessein, M. (2018). About Ammana as the First Sharia Fintech in Indonesia. Time to get to know us better! Retrieved October 1, 2018, from <https://www.ammana.id/>
- Akmal, Huriyatul. 2016. "Analysis Of Financial Literation Levels." *JEBI (Jurnal Ekonomi dan Bisnis Islam)* 1(2): 236-44.
- Ali, Mohammad Daud. 2006. *Islamic Education*. Jakarta: PT RajaGrafindo Persada.
- Ammana. 2018. *Prospektus Pengembangan Budidaya Udang Vannamei*. Jakarta.
- Arun, Thankom, and Rajalaxmi Kamath. 2015. "Financial Inclusion: Policies and Practices." *IIMB Management Review* 27: 267-87.
- Bansal, Shashank. 2014. "Perspective of Technology in Achieving Financial Inclusion in Rural India." *Procedia Economics dan Finance* 11: 472-80.
- Caria, Pedro da Cruz. 2017. "FinTech: An Explorative Study into the Characteristics of Their Business Models."
- Desiyanti, Rika. 2016. "Literation And Financial Inclusion And Index Utility Of Smes In Padang." *BISMAN Jurnal Bisnis & Manajemen* 2(2): 122-34.
- Djawahir, Abdillah Ubaidi. 2018. "Annual Conference for Muslim Scholars." In *Teknologi-Layanan Keuangan, Literasi-Inklusi Keuangan, Dan Value Pada Fintech Syariah Di Indonesia: Perspektif S-O-R (Stimulus-Organism-Response) Model*, Surabaya: Annual Conference for Muslim Scholars Kopertis Wilayah IV Surabaya, 439-48.
- Fathoni, Miftah Ahmad. 2001. *Introduction to Islamic Studies*. Semarang: Gunung Jati.
- Finansialku. 2016. "What Is Financial Inclusion and Financial Literacy?" www.finansialku.com.
- Gusfahmi. 2007. *Tax According to Sharia*. Jakarta: PT RajaGrafindo Persada.
- Harefa, Alvani Amaerita, and Pasma Sariguna Johnson Kennedy. 2018. "Financial Technology, Banking Regulation and Adaptation in Indonesia." *Fundamental Management Journal* 3(1): 1-11.
- Indonesia, Bank. 2014. *Booklet of Inclusive Finance*. Jakarta: Bank Indonesia's Financial Access and MSME Development Department.
- Jang, Woo-Seok, and Woojin Chang. 2007. "The Impact of Fiancial Support System on Technology Innovation: A Case of Technology Guarantee System in Korea." *Journal of Technology Management & Innovation* 3(1): 10-16.
- Leong, Carmen et al. 2017. "Nurturing a FinTech Ecosystem: The Case of a Youth Microloan Startup in China." *International Journal of Information Management*: 92-97.
- Li, Zhihong, Lanteng Wu, and Hongting Tang. 2018. "Optimizing the Borrowing Limit and Interest Rate in P2P System: From Borrowers' Perspective." *Hindawi Scientific Programming*: 1-2.
- Luckandi, Diardo. 2018. "Analysis of Payment Transactions Using FinTech in UMKM in Indonesia: Adaptive Structural Theory Approach."
- Mukhlisin, Murniati. 2018. "Sharia Fintech and Our Family Finance." *Kompas.com*.
- Muzdalifa, Irma, Inayah Aulia Rahma, and Bella Gita Novalia. 2018. "FinTech's Role in Enhancing Inclusive Finance in UMKM in Indonesia (Sharia Financial Approach)." *Masharif al-Syariah: Jurnal Ekonomi dan Perbankan Syariah* 3.

- Nakashima, Tokushi. 2018. "Creating Credit by Making Use of Mobility with FinTech and IoT." *International Association of Traffic and Safety Sciences, IATSS Research* 42: 61-66.
- Nengsih, Novia. 2015. "The Role Of Sharia Banking In Implementing Inclusive Finance In Indonesia." *Etikonomi* 14(2): 221-40.
- Ozili, Peterson K. 2018. "Impact of Digital Finance on Financial Inclusion and Stability." *Borsa Istanbul Review* 18(4): 329-40.
- Rasyid, Muthiah Az-Zahra, Ro`fah Setyowati, and Islamiyati. 2017. "Sharia Crowdfunding for Sharia Banking Product Development from the Shariah Compliance Perspective." *Dliponegoro Law Journal* 6: 1-16.
- Riskinanto, Anggar, Bayu Kelana, and Deliar Rifda Hilmawan. 2017. "The Moderation Effect of Age on Adopting E-Payment Technology'." In *In 4th Information Systems International Conference*, Bali: Procedia Computer Science, 536-543.
- Sharma, Anupama, and Sumita Kukreja. 2013. "An Analytical Study:Relevance of Financial Inclusion For Developing Nations." *Research Inventy: International Journal Of Engineering And Science* 2(6): 15-20.
- Varga, David. 2017. "Fintech, the New Era of Financial Services." *Budapest Management Review* XLVIII(22-32).
- Yushita, Amanita Novi. 2017. "Importance Of Financial Literation For Personal Financial Management." *Nominal* 6(1): 11-26.
- Zavolokina, Liudmila, Mateusz Dolata, and Gerhard Schwabe. 2016. "The FinTech Phenomenon: Antecedents of Financial Innovation Perceived by the Popular Press." *Financial Innovation: 2-16*.
- Zawawi, H.Somad. 2004. *Islamic Education*. Jakarta: Trisakti University.