SEWA~In Application as an Effort to Improve Financial Inclusion in Samarinda City Through Sharia Union

Ahmad Sirri[1], Mochamad Edman Syarief[2], Ira Novianty[3]
{ahmad.sirri.kps19@polban.ac.id[1]}

Politeknik Negeri Bandung, Indonesia[1, 2, 3]

Abstract. The main problem faced by sharia union is the lack of adequate IT and internet technology. This project aims to design and implement the system of SEWA~In App as an effort to improve financial inclusion in Samarinda City and to find out how Navigation, Performance, and Operational operate in SEWA~In App. The types of this research are qualitative research with descriptive method and modified action research with Test-Driven Development method. The data collection methods are interview, Focus Group Discussion (FGD), and questionnaire given to Samarinda society with random sampling technique using analysis tools namely Flowchart, Context Diagram, and Data Flow Diagram. The testing method used is black box testing. Black box testing was conducted in order to avoid errors or bugs in the application system. The test results show that (1) Based on black box testing in alpha and beta, the functionality of SEWA~In App can functionate properly without any bugs in the system, (2) In implementation stage, the value is 72% meanwhile in evolution stage, the value is 84% which is higher than the implementation stage, (3) Samarinda society has great interest in the use of SEWA~In App.

Keywords: Financial Inclusion, Digital Platform, Sharia Union, Ijarah Muntahiya Bittamlik

1 Introduction

Along with the rapid development of times and changes in people's lifestyles, Sharia Industry is finally required to be more prepared to make adjustments in order to improve its products and services. However, currently the epidemic causes unprecedented economic catastrophe [1], where it results in production decline and massive loss suffered by companies ranging from manufacturing companies, garment industries, to service companies [2].

One of sharia industries affected by this economic catastrophe is sharia union so that they have to make massive adjustments. They need applicable solution since they are very helpful in improving the economy of society especially union members. Therefore, a solution which can be implemented by both society and union is needed. One of the solutions is the use of digital platform. This is also recommended by Sulaeman's study that it is important to raise awareness in using digital platform in Indonesia because it will be useful and easy to use in the middle of the pandemic [3].

Based on the previous research, it is found that the income index and the financial literacy index of fintech have positive and significant impact on the user's financial inclusion index [4].

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However, another previous research stated that the implementation of fintech in small and medium industries has negative impact due to the limitations of technology infrastructure, data, and human resources [5].

2 Background

Nowadays the role of internet technology is more and more important in social and economic life. Every year internet technology rapidly develops in human life. Based on survey conducted by APJII in 2019 to the second quarter of 2020, the number of internet users reached 196.7 million or 73.7 percent of the total population in Indonesia [6].

Sharia industry is as same as other industries in which internet technology begins to penetrate and has become a common standard, with the rapid development of times and changes in people's lifestyles, finally sharia industry makes various adjustments to improve the quality of its products and services [7]. One of sharia industries that is currently making various adjustments in order to increase its market share is *Baitul Maal wat Tamwil* (Sharia Union). Sharia union itself has the potential as an icon of a region. However, with the development of other sharia industries such as sharia banks, the existence of sharia union eventually becomes more neglected.

The finding of previous survey indicates that the main problem faced by sharia union, besides the rapid development of other sharia industries, is the lack of adequate IT (Information and Technology) and internet technology in which they are very needed not only as business activity support, but also as an effort to increase the market share especially at this time where almost all institutions switch to online system in the midst of the negative impact of the pandemic on businesses in order to keep surviving [8].

Fintech or digital system becomes one of the solutions. Fintech can improve financial inclusion as well as increase the economy in the midst of the pandemic. Islamic fintech is also different from conventional fintech because the Islamic one is transparent, beneficial for both parties, and based on Islamic principles [9]. It means that the implementation of a system is currently required since it can optimize operational activities of sharia union as well as improve the capability of sharia union to be superior and competitive market player. Besides, fintech is closer to the spirit of sharia because it eliminates two main risks in sharia industry like banking, which are due date and unequal benefits [10]. Through digital platform that will be created, it is hoped that it can become the medium to do *muamalah* activities where indirectly it can improve sharia financial literacy of the society.

Through digital platform that will be created, it is expected that it can become the medium to do *muamalah* activities where indirectly it can improve sharia financial inclusion of the society. However, the researcher will focus on application system which will be created by implementing lease principle *(Ijarah)* since this kind of *muamalah* provides the privilege to the customers in establishing their business, they are not required to have capital to start their business [11].

Table 1. Number of Customers Using *Ijarah* Account

In Billion Rupiah				
Year	2016	2017	2018	2019
Number of *Ijarah* Accounts	24,034	11,290	8,598	11,573

(SPS OJK 2019)

Table 1 shows that the number of customers who use lease financing account in sharia banks tends to be unstable or still not optimal. With the implementation of renewable technology innovation in sharia union, it is hoped that it can become a breakthrough, considering the potential loss caused by shifting customers to sharia institution services which are more modern and easy to access. Thus, the need to maintain customers and increase market share has forced them to compete in digital competition. One thing that certainly happens, if a company does not follow the trend, it will be disrupted [13].

This research emphasizes the transformation of *Ijarah* contract namely *Ijarah Muntahiya Bittamlik (IMBT).* The reason why *Ijarah* principle discussed is IMBT product, can be seen from the result of questionnaires distributed to Samarinda society for measuring their understanding on IMBT product, as figure 1.

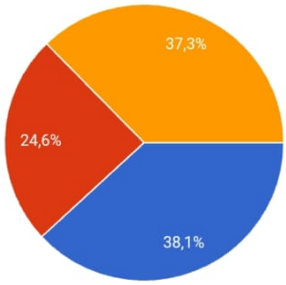

Fig 1. The Chart of Interest in sharia lease and purchase contract

The chart above shows that Samarinda society has interest in using sharia lease and buy contract called as IMBT with the percentage 38.1% or 48 of 126 respondents, it indicates that even though Samarinda society still has low literacy, they have great interest in using sharia products especially sharia lease and buy contract because it makes the society and sharia union easier to meet the capital or urgent need where nowadays either society or sharia union face difficulty to obtain funds. The creation of this lease application is expected to overcome that problem.

Based on the explanation above, the researcher is interested in conducting a research entitled "SEWA-In Application as An Effort to Improve Financial Inclusion in Samarinda City through Sharia Union".

3 Method

3.1 Research Design

In this project, the researcher used descriptive research and modified action research methods. Descriptive research is defined as a research method used to describe existing phenomena as accurately as possible [14]. Meanwhile, modified action research method is a research focusing on simplification of action research stage and it becomes the ideas used to develop new skills, new approaches, or new knowledge products and to solve problems with direct implementation in the actual environment, so there must be a deal with the research object to propose researcher's ideas [15][16].

3.2 System Development Method

The resulting product is a digital platform which is sharia contract-based namely *Ijarah Muntahiya Bittamlik* that will be used by Samarinda society. This product is created by using software development model approach namely Test-Driven Development (TDD).

TDD is software development technique which utilizes unit test to result functionality stage based on the need with expectation that the program created can fulfill the test [17]. In TFD method, usually the code that is resulted is less organized. Refactoring is conducted in order to make the coding easier to maintain and understood by other researchers [18]. Refactoring stage is done through calculation test, so it can always pass meaning that the application consistently works properly. In other words, TTD is a combination between TFD and refactoring.

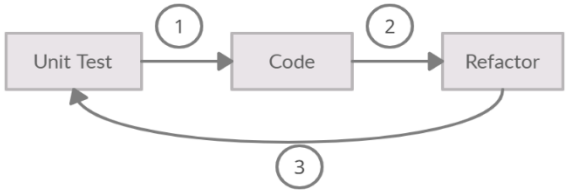

Fig 2. Workflow of TDD

Explanations of Figure 2 are as follows:

a) Developer firstly inputs unit test that users want.
b) Then build unit test, the researcher conducts application coding to finish unit test until no error occurs.
c) Developer inputs refactoring code that is changing the application model for easier modification.

3.3 Research Process

The research carried out by the researcher includes various stages to clarify the aims and objectives of the research. The project stages can be seen in Figure 6.

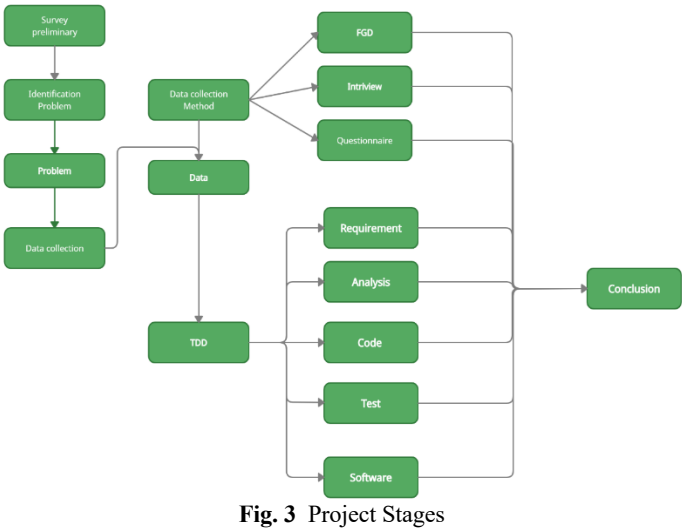

Fig. 3 Project Stages

Below are the explanations of the above project stages:

a) Preliminary Survey, is a process before a research is conducted by researcher to find out industrial problems through questionnaire, interview, and observation.
b) Case Determination, is a process to determine certain cases to be further identified and what stages that will be conducted.
c) Research Question, is a process which formulates the cases that have been determined.
d) Information Collection, is collecting information obtained through literature review, field study, and literature study. In other words, it is a process of compiling information that has been collected after conducting interview and questionnaire.
e) Platform Development Method, platform development method used is TDD. TDD has five (5) stages.

- Requirement, is the stage of determining features, obstacles and project results through consultation with the users. This will be determined in detail and specifically.
- Analysis, is the first stage consisting of analyzing problems and collecting data.
- Code Generation, in this stage, developer creates the result through design in the form of command in the application.
- Test, finished application must be tested to make sure that all programs are running well.
- Software, is a process where all stages and activities are combined and the software will be provided to the users.

f) Conclusion, is the last stage conducted by the researcher by concluding or defining research result so that it creates an idea.

3.4 Testing Method

In testing, the black box testing method is used to find errors in the system and make sure the system works as designated. Black box testing technique is also called as functional testing technique. As the name implies, the application tester gets no insight about the code of the tested application [19]. This testing is conducted in order to avoid errors or bugs in this application. Therefore, all systems are running properly.

3.5 Technique of Data Collection

3.5.1 Questionnaire

This part explains that an answer must represent the majority opinion using the product which has been made in this research, it is not based on the opinion of small number of respondents [20].

3.5.2 Interview

Interview is communication process between two persons based on availability where the conversation has predetermined goal in understanding process as the main basis in which the interviewer asks questions to the speaker [21].

3.5.3 Focus group discussion

Focus group discussion is a structured discussion that is used to obtain in-depth information (qualitative data insight) from a group of people concerning certain topic. The goal of FGD is to learn a topic deeply and intensively [22].

4 Result and Discussion

4.1 Black Box Testing Analysis

The test is conducted in SEWA~In App in order to understand the existing shortcomings in the system before the application is utilized by the users. The test is conducted to make sure that the code can run in the platform by applying black box testing method which focuses on software functionality in alpha and beta. Alpha test is a testing which is independently conducted by the researcher.

Table 2. Alpha Test Results

No.	Testing	Expected Results	Results	Conclusion
1.	"Login"	The system displays notice "Success" and shows the home page	The system displays notice "Success" and shows the home page	Successful
2.	Data entry before "Login"	The system shows notice "Login success"	The system shows notice "Login success"	Successful
3.	No data entry before "Login"	The system displays notice "Login failed"	The system displays notice "Login failed"	Successful
4.	Input the total products that will be ordered then click button "Add to chart"	The system shows notice "Product Added!"	The system shows notice "Product Added!"	Successful
5.	The number of products ordered are out of stock then click button "Add to chart"	The system displays notice "Empty!"	The system displays notice "Empty!"	Successful
6.	Identity entry	The system shows notice "Identity Added!"	The system shows notice "Identity Added!"	Successful

(Processed data)

The above table provides information on how the scenario stages are tested to get the expected value. It is found that the testing of 6 scenarios results 6 successful testing. The testing results above detect that functionally platform can produce expected output.

Beta test is a test that is carried out objectively and directly in the actual environment. This test is conducted by using questionnaires to figure out respondents' opinion on SEWA~In App, the questionnaires are distributed to the users to be filled out in which later on they will be used as samples.

Table 3. Beta Questionnaire Results

No	Questions	VA	A	D	VD
1.	Does the interface of SEWA~In App look interesting?	44	64	13	0
2.	Is SEWA~In App easy to use?	42	53	21	5
3.	Is SEWA~In App ready to use everytime?	47	72	2	0

4.	Is SEWA~In App easy to understand?	44	70	7	0
5.	Is SEWA~In App beneficial?	57	60	4	0

(Processed data)

The test above involved 121 respondents who filled out the questionnaires. The results of the test are the interface of SEWA~In App is interesting, SEWA~In App is easy to use, ready to use everytime, easy to understand, and beneficial for the society.

4.1.1 Data Analysis

The data analysis was conducted after the application was tested during implementation developing and evolution developing.

a) Implementation Developing Test

After conducting black box testing, users were requested to fill out the questionnaire and input for the application improvement. Below is the summary of valuation results of the application by users in limited test.

Table 4. The Results of Implementation Developing Test (Limited)

No	Main Questions	Observation Score	Expected Score	Percentage
1	Application Interface	457	656	70%
2	Theory Implementation	349	492	71%
3	Interest	246	328	75%
	Total	1052	1476	72%

(Processed data)

After media test, students were requested to filled out the questionnaire and input for the application improvement and they give score 72%; therefore, the application is considered as effective.

b) Evaluation Developing Test

The application improvement is continuously conducted, whether there is still input from the validator and the user candidates for resulting effective application such as the evaluation summary from expert validator and the response given by the researcher. The input from users in limited test is: The interface still looks plain and the application cannot log in via Google or Facebook. In the evolution developing test, users have given positive response to the revised application. They are satisfied with the application development through the interface changing and the addition of several features.

Table 5. The Results of Evaluation Developing Test

No	Main Questions	Observation Score	Expected Score	Percentage
1	Application Interface	548	656	84%
2	Theory Implementation	404	492	82%
3	Interest	286	328	87%
	Total	1238	1476	84%

(Processed data)

The results of evolution developing test obtain data percentage 84% (high criteria) so that the test results are considered as effective.

4.2 Result

This stage explains the Implementation and Evaluation of the product, as follows.

a) Implementation and Evaluation

In this stage, application is implemented in the actual environment. The real environment refers to Samarinda society. The experts' input on conducted actions: (1) The interface is plain; thus, it could be considered as mediocre application, (2) Login feature in the application remains limited, (3) Several texts on the interface are failed to pop up. The application is implemented to Samarinda society with total 41 respondents chosen as samples. While this evaluation is intended to determine the effectiveness of the application developed in the testing process by comparing the results of implementation and evolution. The result of application implementation and evaluation is as follows:

- The Result of Implementation and Evaluation

Implementation and evaluation developing test was conducted by the users using SEWA~In App.

Table 6 The Result of Implementation and evolution

No	Respondent	Implementation Developing	Evaluation Developing
1	A1	30	33
2	A2	27	32
3	A3	26	29
4	A4	23	32
5	A5	25	28
6	A6	27	34
7	A7	26	28
8	A8	33	36
9	A9	24	25
10	A10	27	34
11	A11	25	30
12	A12	23	31
13	A13	27	28
14	A14	30	36
15	A15	27	29
16	A16	24	36
17	A17	27	28
18	A18	19	33
20	A20	17	20
21	A21	27	35
22	A22	22	26
23	A23	27	30
24	A24	29	31
25	A25	23	26

26	A26	27	28
27	A27	25	28
28	A28	28	30
29	A29	25	29
30	A30	23	29
31	A31	27	36
32	A32	25	36
33	A33	30	32
34	A34	33	35
35	A35	27	29
36	A36	18	23
37	A37	23	36
38	A38	27	27
39	A39	31	35
40	A40	27	29
41	A41	21	22

(Processed data)

The results of comparison show that there is significant increase of the product. The increase is between before and after getting the treatment in the form of functionality in SEWA~In App. It indicates that SEWA~In App which is developed is effective to improve financial inclusion of Samarinda society. Below is the explanation on implementation and evaluation results.

Table 7. Description of Statistical Data Implementation

	N	Range	Minimum	Maximum	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
Implementation	41	16	17	33	25.66	.564	3.610	13.030
Valid N (listwise)	41							

(Processed data)

The above table describes the range of minimum and maximum value of data which is from 17 to 33, and the mean of hypothetical is 25.66. It is to reveal the depiction how the product is implemented to Samarinda society.

Table 8. Description of Statistical Data Evaluation

	N	Range	Minimum	Maximum	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
Evaluation	41	16	20	36	30.20	.653	4.179	17.461
Valid N (listwise)	41							

(Processed data)

The above table explains the range of minimum and maximum value of data which is from 20 to 36, and the mean of hypothetical is 30.20. It is to reveal the illustration how the product is further developed by the researcher then retested to Samarinda society.

Table 9. Description of Implementation and Evaluation Results

			Statistic	Std. Error
Implementation	Mean		25.66	.564
	95% Confidence Interval for Mean	Lower Bound	24.52	
		Upper Bound	26.80	
	5% Trimmed Mean		25.70	
	Median		27.00	
	Variance		13.030	
	Std. Deviation		3.610	
	Minimum		17	
	Maximum		33	
	Range		16	
	Interquartile Range		4	
	Skewness		-.312	.369
	Kurtosis		.329	.724
Evaluation	Mean		30.20	.653
	95% Confidence Interval for Mean	Lower Bound	28.88	
		Upper Bound	31.51	
	5% Trimmed Mean		30.38	
	Median		30.00	
	Variance		17.461	
	Std. Deviation		4.179	
	Minimum		20	
	Maximum		36	
	Range		16	
	Interquartile Range		6	
	Skewness		-.337	.369
	Kurtosis		-.375	.724

(Processed data)

Implementation and evolution results can be seen in Saphiro-Wilk Normality Test using SPSS 28.0 application. The results are as table 10.

Table 10. The Results of Saphiro-Wilk Normality Testk

	Shapiro-Wilk		
	Statistic	df	Sig.
Implementation	.958	41	.138
Evaluation	.950	41	.068

(Processed data)

The result of SPSS test shows that the data tested using Shapiro-Wilk Normality Test has sig value > 0.05 seen in the asymp. Sig. column, so it can be concluded that the samples are normally distributed.

To answer research questions, the hypothesis test used is Paired T-Test. Paired T-Test is conducted to find out the difference in the impact of application results when first tested and after revision. The data processing of Paired T-Test can be seen as table 12.

Table 12. The Result of Paired T-Test

		Paired Differences					t	df	Significance	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				One-Sided p	Two-Sided p
					Lower	Upper				
Pair 1	Implementation - Evaluation	-4.537	3.515	.549	-5.646	-3.427	-8.264	40	<,001	<,001

(Processed data)

From the table above, the significance obtained = 0.001 less than significant level = 0.05. It means that there is significant difference when the application is firstly implemented and when the application has been implemented and revised. In table t, t value is negative which is – 8,264 meaning that when the application is firstly used, the impact is lower than when the application has been implemented and revised. Therefore, it can be concluded that there is an increase in results when the application is upgraded.

4.2.1 System Interface

The interface has passed a series of production code test. When the test is successfully done, it can be ensured that the expected features can functionate properly.

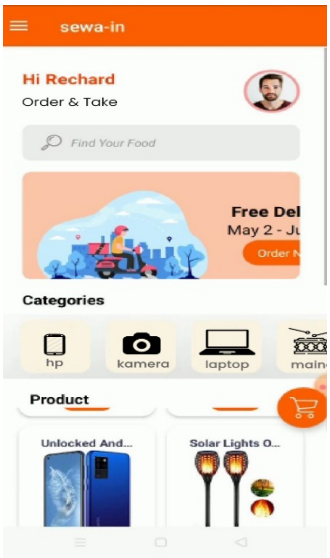

Fig 4. Home Interface

The above figure shows the interface of SEWA~In App. In the home page, users can see the list of products inputted by the administrator.

4.3 Discussion

This research is utilized to align with Islamic Finance Institution context. This study aims to explore the architecture building of SEWA~In App as an effort to improve financial inclusion at Samarinda City and to find out the functionality of the mentioned application whenever it is used by business partners or general users. This research is designated for the Sharia Union at Samarinda City. Based on the Alpha and Beta Black Box test that has been conducted, we can see the android-based SEWA~In App works properly without any bugs in the system. Meanwhile, in order to find out of how far is the degree of inclusivity in the Sewa-IN Application usage offered by researcher can be seen at below interview:

"*This application is obviously helping the financial inclusivity, since in the reality we can't find any platform that explicitly targeting Sharia transaction. So normally, even though we are running Sharia-based business, yet in the daily basis we are still benefiting conventional transaction platforms*" (Basit, penanngung jawab KUS cabang Juanda dilakukan pada tanggal 18/06/2021).

We can summarize from mentioned interview that Islamic Finance Institution (LKS) ideally should be an institution with a main role to elevate accessibility of *Muamalah* related activities, as well as the stakeholders are expected to formulate such regulation to aid LKS's inclusivity. Supported by a research from Sha'ban et al. (2020) that express the necessity of technology usage for financial inclusivity, and recommend related parties to cooperate in the building of a way to narrow down digital disparity in the modern society. Although ideally, financial literacy program also needs to have sufficient technology to facilitate digital literation in the bigger sphere.

SEWA~In App also has a significant influence amid the COVID-19 pandemic at Samarinda city, moreover in general nowadays E-commerce is growing rapidly due to the Virus Pandemic (Bhatti et al., 2020). COVID-19 forces customers to utilize internet and various other technologies in their daily activities (Abiad & Dagli, 2020). Additionally, there are a lot of challenges faced by online shop enterpreneurs, such as extension of delivery time, difficulties in confronting lockdown policy, and social distancing (Hasanat et al., 2020). Therefore, Samarinda society has given such possitive vibe to SEWA~In App, either in its functionality or its proposed facilities, such as expression from an informan below:

"*Applications similar to SEWA~In App will be very helpful amid the pandemic because it can be a factor to revive current economic condition. Because in present, either firms, Small and Medium Enterprises (SME), and people in general have limited activities to do. By the availability of SEWA~In App that allow obtaining additional working capitals or emergency funds, therefore it will be accurate for its implementation on current pandemic situation*" (Diki Suganda, Taxation officer at KAP Samarinda City, interview was conducted on 12//08/2021).

Yunita and Kapti (2020) mentioned that society is satisfied with the Sharia principles that can be implemented via mobile application, started from the transparent agreement, ensure the product given is the self-owned product, product with *Riba'* status, transparent payment process, product delivery in accordance with the contract and product's information suitability with the

terms. It is in line with the result of Black Box Test that SEWA~In App is easy to be adapted and benefiting society.

SEWA~In App is a platform that is used to ease society to conduct *Ijarah Muntahiya Bittamlik* transaction which is developed become a digital platform with wider access to users. Nevertheless, this application is not widely implemented or only countable parties that can conduct similar test, for instance Sharia Union Institution and its members. The accomplishment of this project yet still containing flaws, therefore it is necessary to carry another extension of research and further development. This research is limited to illuminate *Ijarah Muntahiya Bittamlik*-related transactions.

5 Conclusion

According to the results of research and explanation, we can summarize that the implementation of SEWA~In App has more effective influence and be able to elevate financial inclusivity. The detail of the research's results can be described as below:

a) According to the Black Box test in alpha and beta we can find the functionality of SEWA~In App that it can work properly without any bugs in the system.
b) Implementation of SEWA~In App using *Ijarah Muntahiya Bittamlik* principle has been conducted appropriately and may improve financial inclusivity for Samarinda society. In the stage of the implementation we can get value 72% meanwhile in the evaluation stage we can obtain as big as 84%, which is higher than previous stage.
c) Samarinda society has great interest to the impelementation of SEWA~In App.

References

[1] A. Atalan, "Is the lockdown important to prevent the COVID-9 pandemic? Effects on psychology, environment and economy-perspective," *Ann. Med. Surg.*, vol. 56, no. June, pp. 38–42, 2020, doi: 10.1016/j.amsu.2020.06.010.

[2] R. E. Caraka *et al.*, "Impact of COVID-19 large scale restriction on environment and economy in Indonesia," *Glob. J. Environ. Sci. Manag.*, vol. 6, no. Special Issue, pp. 65–84, 2020, doi: 10.22034/GJESM.2019.06.SI.07.

[3] S. Sulaeman, "The development of Islamic donation-based crowdfunding platform model for micro small and medium-sized enterprises (MSMEs) during COVID-19 pandemic in …," *Asian J. Islam. Manag.*, vol. 2, no. 2, pp. 71–86, 2020, doi: 10.1108/AJIM.vol2.iss1.art1.

[4] F. F. R. Pambudianti, B. Purwanto, and T. N. A. Maulana, "The implementation of fintech: Efficiency of MSMEs loans distribution and users' financial inclusion index," *J. Keuang. dan Perbank.*, vol. 24, no. 1, 2020, doi: 10.26905/jkdp.v24i1.3218.

[5] A. S. Hamdani, N. A., Herlianti, A. O., & Amin, "Society 5 . 0 : Feasibilities and challenges of the implementation of fintech in small and medium industries Society 5 . 0 : Feasibilities and challenges of the implementation of fintech in small and medium industries," pp. 5–10, 2019, doi: 10.1088/1742-6596/1402/7/077053.

[6] APJII, "Laporan Survei Internet APJII 2019 – 2020," *Asos. Penyelenggara Jasa Internet Indones.*, vol. 2020, pp. 1–146, 2020.

[7] A. M. Ayedh, W. A. Mahyudin, M. S. Abdul Samat, and H. H. Muhamad Isa, "The integration of Shariah compliance in information system of Islamic financial institutions: Qualitative evidence of Malaysia," *Qual. Res. Financ. Mark.*, vol. 13, no. 1, pp. 37–49, 2019, doi: 10.1108/QRFM-05-2017-0042.

[8] W. Matli, "The changing work landscape as a result of the Covid-19 pandemic: insights from remote workers life situations in South Africa," *Int. J. Sociol. Soc. Policy*, vol. 40, no. 9–10, pp. 1237–1256, 2020, doi: 10.1108/IJSSP-08-2020-0386.

[9] E. A. Firmansyah and M. Anwar, "Islamic Financial Technology (Fintech): Its Challenges and Prospect," vol. 216, no. Assdg 2018, pp. 52–58, 2019, doi: 10.2991/assdg-18.2019.5.

[10] H. B. Firmansyah and A. L. Ramdani, "The Role of Islamic Financial Technology (FinTech) Start-Up in Improving Financial Inclusion in Indonesia Case: Angsur," *SSRN Electron. J.*, no. April, 2018, doi: 10.2139/ssrn.3194546.

[11] J. Agama, S. Budaya, and C. Pudin, "Islamika Application of Akad Ijarah Islamic Law in The Al-Qur ' an Islamika," vol. 14, no. 1, 2020.

[12] otoritas jasa keuangan, "Statistik Perbankan Syariah - Desember," *J. Chem. Inf. Model.*, vol. 53, no. 9, pp. 1689–1699, 2019.

[13] W. Theodore, R. Kasali, T. E. Balqiah, and L. Sudhartio, "The Role of Perceived Managerial Discretion on Strategy Implementation and Its Implication on Organizational Performance: A Conceptual Model," vol. 36, no. Icbmr, pp. 358–368, 2017, doi: 10.2991/icbmr-17.2017.33.

[14] H. Atmowardoyo, "Research Methods in TEFL Studies : Descriptive," *J. Lang. Teach. Res.*, vol. 9, no. 1, pp. 197–204, 2018.

[15] A. Farhan and D. F. Najib, "Calculating Cost Of Production At Umkm (Msmes) Ud Murni Through Modified Action Research Approach," pp. 116–121, 2017.

[16] J. Mckay and P. Marshall, "The dual imperatives of action research," *Inf. Technol. People*, vol. 14, no. 1, pp. 46–59, 2001, doi: 10.1108/09593840110384771.

[17] D. Fucci *et al.*, "A longitudinal cohort study on the retainment of test-driven development," *arXiv*, 2018.

[18] D. Fucci, H. Erdogmus, B. Turhan, M. Oivo, and N. Juristo, "A Dissection of the Test-Driven Development Process: Does It Really Matter to Test-First or to Test-Last?," *IEEE Trans. Softw. Eng.*, vol. 43, no. 7, pp. 597–614, 2017, doi: 10.1109/TSE.2016.2616877.

[19] N. Honest, "Role of Testing in Software Development Life Cycle," *Int. J. Comput. Sci. Eng.*, vol. 7, no. 5, pp. 886–889, 2019, doi: 10.26438/ijcse/v7i5.886889.

[20] B. Goodfellow *et al.*, "International study of definitions of english-language terms for suicidal behaviours: Protocol of an opinion survey," *BMJ Open*, vol. 9, no. 7, 2019, doi: 10.1136/bmjopen-2018-025770.

[21] A. Khatony, A. Soroush, B. Andayeshgar, N. Saedpanah, and A. Abdi, "Attitude of primiparous women towards their preference for delivery method: A qualitative content analysis," *Arch. Public Heal.*, vol. 77, no. 1, pp. 1–9, 2019, doi: 10.1186/s13690-019-0364-y.

[22] D. Omar, "Focus group discussion in built environment qualitative research practice," *IOP Conf. Ser. Earth Environ. Sci.*, vol. 117, no. 1, 2018, doi: 10.1088/1755-1315/117/1/012050.