

## THE ROLE OF FINTECH IN MICRO, SMALL AND MEDIUM ENTERPRISES (MSMES)

Abdul Manap<sup>1</sup>, Rini Yulia Sasmiyati<sup>2</sup>, Norman Edy<sup>3</sup>, Nurhaifa Idris<sup>4</sup>, Saut Pan<sup>5</sup>  
<sup>1 2 3 4 5</sup> Universitas Jayabaya

### ARTICLE INFO

**Keywords:**  
*fintech,*  
*Inclusion,*  
*Literacy*

### E-mail:

[hamanap.joyo@gmail.com](mailto:hamanap.joyo@gmail.com)<sup>1</sup>  
[riniyulias@gmail.com](mailto:riniyulias@gmail.com)<sup>2</sup>  
[normanedy481@gmail.com](mailto:normanedy481@gmail.com)<sup>3</sup>  
[nonon.idris@gmail.com](mailto:nonon.idris@gmail.com)<sup>4</sup>  
[sautpane@yahoo.com](mailto:sautpane@yahoo.com)<sup>5</sup>

### ABSTRACT

Financial technology (Fintech) is a combination of technology with financial/financial services which eventually develops towards a business model from conventional to online, which initially pays face-to-face and carries a certain amount of cash, can now make remote transactions by making payments that can be done in seconds. This study discusses the role of Fintech in Micro, Small and Medium Enterprises. The case studies in this study are SMEs in Pekalongan, Batang and Pemalang districts. The role of Fintech when viewed from financial literacy and financial inclusion in MSMEs. From the results of the analysis that Fintech developments carried out by financial institutions, be it banking, savings and loan cooperatives and other finance can increase financial literacy and financial inclusion in MSMEs.

Copyright © 2023 Economic Journal. All rights reserved.  
 is Licensed under a [Creative Commons Attribution-NonCommercial 4.0 International License \(CC BY-NC 4.0\)](https://creativecommons.org/licenses/by-nc/4.0/)

### 1. INTRODUCTION

The development of the technology business in Indonesia has been followed by the emergence of many new start-ups [1]. The startup world is becoming a trend in Indonesia lately. Various success stories from local startups such as Gojek, BukaLapak, or Traveloka, have fueled enthusiasm for the emergence of new startups.

There are also many start-ups engaged in financial services, which are trying to provide financial services to the public. In addition, new innovations have sprung up in the financial sector from existing financial institutions, both of which can encourage economic growth in a better direction.

Currently, the financial sector is one of the sectors that has the impact of technological developments or it can be said that technology has entered the financial sector. Gradually the development is quite rapid and can change the financial industry to the digital era. The combination of technology and finance is often interpreted as financial technology (Fintech). With the emergence of Fintech, it is hoped that it can improve people's welfare.

Many financial institutions, especially banks and savings and credit cooperatives, have received programs from the government to help MSMEs in Indonesia to facilitate access to capital. Apart from that, to increase the total assets of the institution, what is being done is to develop Fintech to facilitate services to MSMEs.

The development of MSMEs which is an important factor in the country's economy that can create jobs in the province of Central Java which development continues to increase can be seen in the following table:

Table 1 Development of MSMEs in Central Java

Indicator	2013	2014	2015	2016	2017	2018
Number of MSMEs	90,339	99,681	108,937	115,751	133,679	143,738
GrowthMSMEs	12,11	10,34	9,29	6,25	15,49	7,52
Labor	480,508	608,893	740,740	791,767	918,455	1,043,320
Asset	9,634	13,947	19,046	22,891	26,249	29,824
Turnover	20,345	24,587	29,113	43,570	49,247	55,691

Source: [dinkop-umkm.jatengprov.go.id](http://dinkop-umkm.jatengprov.go.id)

The application of financial technology will create a disruptive environment in line with the rapid development of technology and digitization. With this situation, it is estimated that there will be many

changes that we will see or experience directly, for example in conducting financial transactions, utilizing financial products and services, or in seeking sources of funding for economic activities. For the financial industry, there is a demand to continue to adapt and make adjustments in its business processes, as the dynamics of the industry change rapidly[2].

If these dynamics and transformations are not managed properly, there should be concern that they will disrupt our financial system and economy. This includes the impact on MSMEs that have difficulty getting capital assistance. The aspect of stability remains important and should remain a major concern, including when the role of Fintech and digital financial services becomes increasingly significant in the economy. Therefore, strategies and breakthroughs are absolutely necessary so that these dynamics do not cause unexpected impacts.

For MSMEs, Fintech helps MSMEs to get convenience and efficiency in the financial area. Fintech provides many financial solutions, especially for small and medium businesses that want to grow. Fintech developments are expected to be more inclusive.

With so many service features from Fintech applications, it will have an impact on the development of MSMEs, so this research will examine the role of Fintech in MSMEs[3].

## 2. LITERATURE REVIEW

### 2.1. Fintech

In realizing the creation of services to the public by using a computer is no stranger. The computer already has a role important in the financial sector. The term Fintech or financial technology is a combination of financial management using a technology system. Fintech has become a public concern because this service provides many service features to make it easier from a financial perspective, such as being used in cooperative financial institutions, banking and insurance[11].

Fintech is defined as an innovative step towards financial services according to the National Digital Research Center (NDRC). In the sense of financial services that Fintech is an innovation in the financial sector combined with a touch of modern technologies. For example, Fintech service transactions include various kinds of transactions such as payments, investments, online credit, transfers and financial plans.

Financial technology(Fintech) is also an innovative step from the financial sector that is integrated with technology to produce facilities without intermediaries, changing company methods in providing services and products, while also providing privacy, regulatory and legal challenges and possibly providing inclusive growth ( Seom and Dhar, 2017)[4]

World Economic Forum explained that Fintech is the use of technology and an innovative business in the financial sector. This financial innovation is in the form of utilizing technology to be able to produce new ways as is the case in financial institutions such as loan deposits, investments and e-payments[5]. The Fintech industry can develop due to several factors including:

- a. There is a change in consumer mindset  
This change is marked by the need for more and more in society, but people want to get it in a practical and easy way. This encourages people to use Fintech services to fulfill their life needs in an instant way and start leaving the conventional system that has to come to the seller.
- b. Digital progress  
Digitalization is a change from the old system which is not yet modern. In this era, digitization has been used in many products for community needs. As is the case with smartphones that are increasingly sophisticated and have spread in society, it will make it easier for people to help their activities and needs.
- c. Trend change  
Developments and innovations that are carried out quickly and continuously encourage change and acceleration in a trend in society.
- d. Decreased loyalty to brands and institutions  
The potential to make a decision to buy a product in this period is no longer influenced by a brand and an institution but for millennials to make buying decisions more quickly and be careful about product and service offerings.
- e. Easier access  
Openness of services and information systems will increasingly provide easy access in transactions. The development of this access was preceded by technological developments that would open up new market shares.
- f. Profitable product offerings

If the product offered provides benefits and is profitable, it will change and attract consumers to buy a product offered.

g. Policy support from the government

In this case the government provides policies in supervision which are important to help advance the Fintech industry and provide encouragement to continue to develop. In Indonesia, the institution that is given authority over Fintech supervision in financial institutions is the Financial Services Authority (OJK).

## 2.2. Financial Inclusion

In Presidential Regulation Number 82 of 2016 contains steps regarding financial inclusion strategy. This strategy is a condition in which every community has access to a variety of quality, smooth, timely and safe financial services. In addition, affordable costs can be obtained according to needs and abilities.

In Indonesia, groups of people who are specifically given access to finance include low-income people. Namely, such as migrant workers, women, disabilities, neglected children, elderly residents of disadvantaged areas as well as students, youth and MSMEs. Financial inclusion is a situation where there is a lack of people who have access to banking. Communities tend to own immovable property so that it can be used and cashed on a daily basis. [6]

Financial inclusion is defined as an effort to reduce obstacles in the form of assets and non-assets in utilizing service facilities in terms of financial services. Financial inclusion in this case is the condition of an individual or a person in utilizing existing financial services and taking advantage of groups who are not yet aware of the benefits of using a financial access network through existing access at low costs.

In order to increase financial inclusion, the government supports it online loan products by financial institutions, both banks and other institutions engaged in financial services, so that it is hoped that they will reach the entire community that cannot be reached by financial institutions.

## 2.3. Financial Literacy

According to [1] financial literacy is a set of knowledge and skills that enable a person to make effective decisions with all their financial resources.

The Indonesian population according to the OJK survey in 2013 has a level of financial literacy, namely:

- a. *Well literate*(21.84%) are those who have knowledge of financial institutions and their products and have skills in using financial products and services.
- b. *Sufficient literate*(75.69%) are those who have knowledge of financial institutions and their products.
- c. *Less literate*(2.06%) tend to have knowledge of financial service institutions, products and financial services
- d. *Not literate*(0.41) are those who do not have knowledge and confidence in financial service institutions and financial service products.

After six years of developing financial literacy according to an OJK survey in the third National Financial Literacy Survey (SNLIK) activity in 2019. From the survey, OJK noted that the financial inclusion index reached 76.19 percent, or an increase of 8.39 percent from the previous 67.8 percent in 2016 also noted that the financial literacy index had also increased. According to the survey results, the financial literacy index reached 38.03 percent, up 8.33 percent from the position in 2016 which reached 29.7 percent.[7]

Member of the OJK Board of Commissioners for Consumer Education and Protection, Tirta Segara, said that the survey showed that over the last 3 years, there has been an increase in financial literacy or understanding in society. As well as increasing public access to financial products and services or financial inclusion.

## 3. METHODS

### 3.1. Place and time of research

This research was conducted in the Batang district, Pekalongan district and Pemasang district, the time of research was November 1 to November 30, 2019.

### 3.2. Types of research

Based on the data collected, this research is a quantitative research in the form of a questionnaire survey.

### 3.3. Population and Sample

The population in this study were SMEs in Batang district, Pekalongan district and Pemalang district, the sample in this study was 150 respondents.

### 3.4. Data analysis method

Data is analyzed directly and presented in the form of diagrams to obtain an overview of the role of Fintech in Micro, Small and Medium Enterprises (MSMEs)

## 4. RESULTS AND DISCUSSION

### 4.1. Respondent Category

From the results of research that has been conducted on the role of Fintech in MSMEs in Batang district, Pekalongan district and Pemalang district using indicators of financial inclusion and financial literacy, the following information is available:

- Of the 150 respondents or questionnaires distributed, 127 respondents were filled out.
- Respondent categories can be seen in the following figure and table:

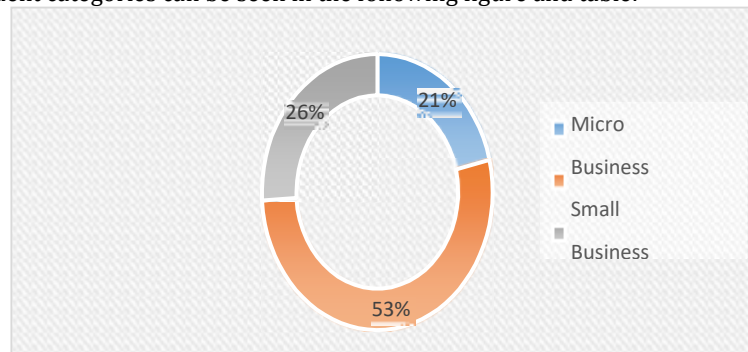


Figure 1. MSME categories that are respondents

Table 2 Respondent Category

	Net worth	Sales results	Respondents
Micro business	Maximum 50 Million	Maximum 300 million	27
Small business	50 Million -500 Million	300 million – 2.5 billion	67
Medium Business	500 Million – 10 Billion	2.5 Billion – 50 Billion	33

- The MSME Age Category can be seen in the following figure:

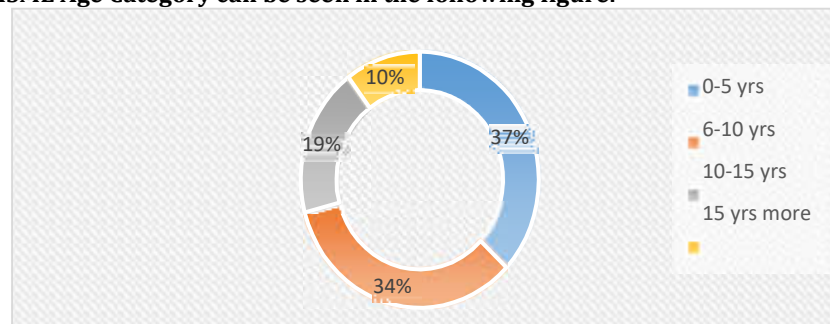


Figure 2. Age category of SMEs who are respondents

### 4.2. The Role of Fintech in MSME Financial Inclusion

Fintech is always innovating, such as developing flexible products and better ways to overcome the problems faced by MSMEs, these problems include difficulty getting access. Fintech is also making financial services more affordable and accessible, enhancing customer experience and accelerating uptake and engagement, building foundations including easier digital identity verification, collaborative customer due diligence, data sharing, and payment schemes that can accelerate financial services. . In 2019 Central Java's inclusion rate was 66.23%, an increase from the previous OJK survey year of 12.33%. From the results of surveys and interviews, it was found that the role of Fintech in realizing MSME financial inclusion is as follows:

**a. Fintech provides easy access to various types of financial services as shown in the following figure:**

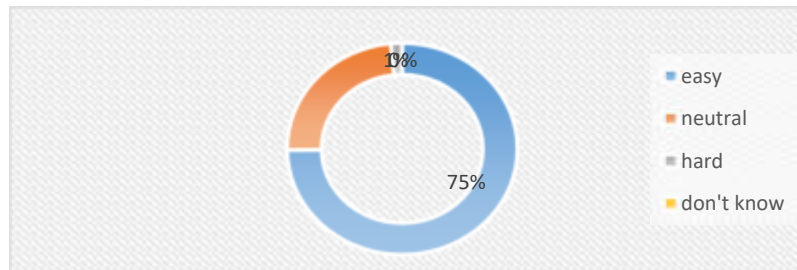


Figure 3. Ease of financial services for MSMEs

From the data from the respondent's questionnaire, it was found that 75% of MSMEs stated that Fintech made it easier to provide access to financial services, while 24% stated that it was neutral and 1% stated that it was difficult. This convenience is due to the fact that there are various types of Fintech applications today so that many MSMEs in the Pekalongan district, Batang Regency and Balang Regency can get easy access to services using only cellphones that have mobile applications installed from banks and savings and loan cooperatives. Through features ranging from mobile money and electronic wallets, peer-to-peer (P2P) lending and crowdfunding, credit scoring alternatives, payment technology using digital KYC processes, to regulatory technologies such as digital signatures[8].

**b. Able to reach all MSMEs to remote areas**

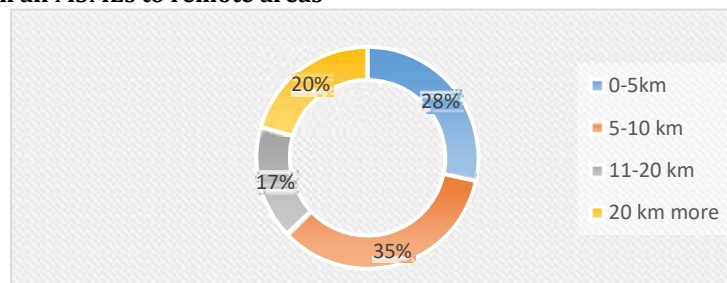


Figure 4. MSME area coverage through Fintech

The financial difficulties faced by MSMEs due to the distance from the financial services office are now starting to be resolved, as evidenced by the distribution of the distance of respondents with financial access, the distance from the nearest to the farthest from offices of around 24 km has been served. So with the presence of Fintech, it will make it easier for MSMEs in terms of access to services, especially in the areas of Pekalongan Regency, Batang Regency and Pematang Regency which were not previously served (underserved) by

**c. financial services are now starting to be served.**

According to many MSMEs, the domicile area is no longer an excuse for having difficulty getting financial access, because the most important thing is gadgets and internet access. It's called financial technology, aka Fintech, all activities must be based online. There are MSMEs whose businesses are located on the outskirts of the district, which can be provided with funding through the website of a financial institution which is then followed up by the financial institution for a site survey. No need to come to the service office and so on, just click, click, click your financial goals are achieved.

**c. Fintech has opened access to business financing that is easier and faster as shown in the following figure:**



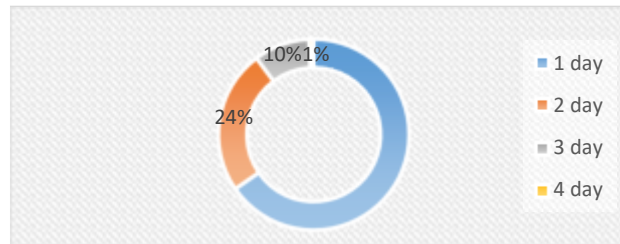


Figure 5. Access to financing is easier and faster

From the data obtained, more than 60% of MSMEs in Pekalongan, Batang and Pematang districts do not have access to finance. One type of Fintech from bank financial institutions and savings and loan cooperatives is MSME loans which are integrated online to overcome this. Become the biggest contribution to increasing financial inclusion in terms of access to financing for MSMEs that have not been served before by banks. From the data from the survey results, the average access to financing for MSMEs is less than 4 days after getting the funds disbursed. This can help MSMEs in terms of capital.

The prospective borrower are MSMEs using online loan application services because the fees charged are friendly and do not have to come to the service office. Competitive interest rates and fees are applied based on modern credit risk analysis so that the process is relatively easier and faster. Online loans also do not ask for collateral in the form of assets. So that developing MSMEs can be greatly assisted in carrying out their business operational activities so that they become empowered entities.

**d. Fintech's major contribution to empowering MSMEs and the local economy can be seen in the following figure:**

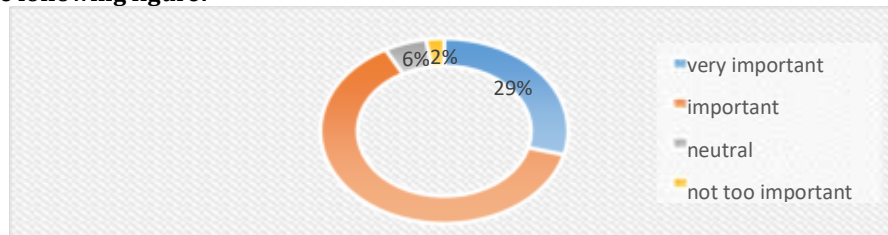


Figure 6. Fintech's contribution to empowering MSMEs

From the data it was found that demanding MSMEs in the Pekalongan district, Batang district and Pematang Regency Fintech had a positive impact on empowering MSMEs. It can be seen that 29% said it was very important, 63% said it was important and 6% said it was neutral. So it can be said that there is a role for Fintech in empowering MSMEs.

From the results of the analysis above, there is a role for Fintech for Micro, Small and Medium Enterprises in the districts of Pekalongan, Batang and Pematang districts in increasing MSME Financial Inclusion.

**4.3. The Role of Fintech in Increasing Financial Literacy**

Based on research data on MSMEs on financial literacy in Pekalongan district, Batang district and Pematang district, it can be illustrated that the classification of the number of products in each MSME is as follows:

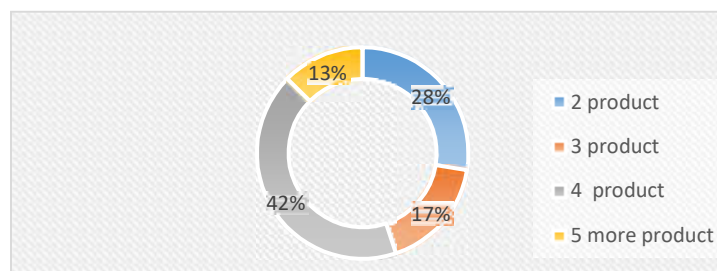


Figure 7. Number of financial service products owned by MSMEs

From these data above that MSME owners have more than 1 (one) financial service product both in banks and other financial institutions. To see the development of MSME owners before and after the entry of Fintech into MSME, it can be seen in the following table:

Table 3. Average ownership of financial products and services

	Before the development of Fintech Before 2013 (Number of Products)	Fintech development period After 2016 (Number of Products)
Banking	3.3	6.1
Saving and loan cooperative	2.3	5.0
Insurance	0.5	0.7
Other Financing Institutions	1.0	1.3
Pawnshop	1.5	1.9

In the table above, it can be seen that the average ownership of MSME financial products and services has increased from 2013, as an example of banking products in 2013 which increased from 3.3 to 6.1 as well as in other financial institutions. This increase in ownership of financial products and services is a reflection of the increase in financial literacy caused by the development of Fintech.

Along with the development of financial technology, this has an impact on the use of Fintech to assist business activities by MSME owners. Factors that require MSME owners to use Fintech are due to:

- a. Fintech developments  
 Advances in technology encourage the development of Fintech in financial institutions, be it banking, savings and loan cooperatives and other financial institutions to improve service features. This increase will make it easier for application users, namely MSME owners.
- b. Consumer  
 Current consumer behavior is due to technological developments changing people's habits that used to be conventional to online, in addition to facilitating transactions, they can also be practically carried out without coming in person. This affects product sales so that business owners are required to use Fintech as a transaction tool.
- c. Convenience and Security.  
 Fintech developments are equipped with sophistication of security in applications so that the level of security and convenience is better than manual transactions. MSME owners are encouraged to be able to transact without having to worry about security[8]-

Collaboration between banking and financial technology (Fintech) can contribute to increasing MSME financial literacy. Moreover, so far the government has been intensively campaigning for a national non-cash transaction movement. So that a less-cash society is formed in transactions. Use of Fintech services by users smartphones can be the answer to the government's efforts to build a less-cash society. This is because the number of mobile phone users in Indonesia is very large. "Smartphone penetration in Indonesia has exceeded bank account penetration in Indonesia. It can be concluded that there is a role for Fintech in increasing Financial Literacy in MSMEs.

## 5. CONCLUSION

The role of Fintech in financial inclusion in MSMEs in Pekalongan district, Batang district and Pemalang district. It can be seen that many MSME owners have used applications and collaborated with banks and Savings and Loans Cooperatives so that they can provide easy access to various types of bank and savings and loan cooperative financial services, now financial institutions are able to reach all MSMEs to remote areas, Fintech has opened easier and faster access to business financing from banking institutions and savings and loan cooperatives. And finally, the role of Fintech in financial inclusion in MSMEs is that Fintech makes a major contribution to empowering MSMEs and the local economy.

The role of Fintech in financial literacy in MSMEs in Pekalongan district, Batang district and Pemalang district. It can be seen from the average increase in the use of banking products and services, savings and loan cooperatives and other financial institutions by 6.40% from before the development of Fintech.

## REFERENCES

- [1] W. Pinem, "Semua yang Perlu Anda Ketahui Tentang Peer to Peer Lending (P2P Lending)." Diakses pada, 2016.

- [2] S. E. Thamrin Abduh, *Strategi Internasionalisasi UMKM*, vol. 1. SAH MEDIA, 2018.
- [3] R. Indonesia, "Undang-Undang No. 20 Tahun 2008 tentang Usaha Mikro, Kecil, dan Menengah," *Jakarta Sekr. Negara*, 2008.
- [4] D. S. F. Akbar, "Mendorong Crowdfunding untuk Peningkatan Investasi di Indonesia," *Kementeri. Keuang. Republik Indones. Dalam www.kemenkeu.go.id, diakses*, vol. 5, 2019.
- [5] O. J. Keuangan, "Penyelenggara Fintech yang Terdaftar di OJK per Agustus 2018." 2018.
- [6] C. I. Burhanuddin and M. N. Abdi, "Tingkat pemahaman dan minat masyarakat dalam penggunaan fintech," *Own. Ris. dan J. Akunt.*, vol. 3, no. 1, pp. 21–27, 2019.
- [7] S. Azwar, "Sikap manusia: Teori dan pengukurannya," 2007.
- [8] D. Luckandi, "Analisis Transaksi Pembayaran Menggunakan Fintech Pada UMKM di Indonesia." Universitas Islam Indonesia, 2018.
- [9] M. Yusuf and K. Aprianti, "Manajemen Sumber Daya Manusia di Dinas Tenaga Kerja dan Transmigrasi Kabupaten Bima: Dapatkah Meningkatkan Semangat Kerja Pegawai," *J. Ilm. Ekon. dan Bisnis*, 2020, [Online]. Available: <http://journal.unilak.ac.id/index.php/JIEB/article/view/3498>
- [10] B. Rosadi, M. Yusuf, A. Saepudin, and T. Asmala, "The Effect of Company Reputation and Customer Experience on Customer Loyal Behavior Citylink Indonesia," vol. 5, no. 2, pp. 381–385, 2022.
- [11] F. Sampe, M. Yusuf, D. L. Pakiding, A. Haryono, and S. Sutrisno, "APPLICATION OF DIGITAL MARKETING IN MAINTAINING MSMES DURING THE COVID-19 PANDEMIC," *J. Darma Agung*, vol. 30, no. 2, pp. 663–676, 2022.
- [12] M. A. Yusuf, *Dampak Pengembangan Sumber Daya Manusia Terhadap Kualitas Pelayanan Bank Pembiayaan Rakyat Syariah Mitra Mentari Sejahtera Ponorogo*. etheses.iainponorogo.ac.id, 2022. [Online]. Available: <http://etheses.iainponorogo.ac.id/18684/>