

After The Emergence Of Peer-To-Peer Lending, Will Peer-To-Peer Lending Be Disrupted By The Transformation Of Other Lending Financial Institutions?

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ABSTRACT

This paper examines the development of conventional commercial lending banking, commercial Islamic lending banking, and rural credit banks on the emergence of financial technology peer-to-peer lending, which is said to disrupt financial institutions. This study aims to determine whether the transformation of commercial credit banks, both conventional - Sharia and rural credit banks, can interfere with the development of fintech p2pl. The author uses a mixed methods approach both qualitatively and quantitatively, using the philosophy of pragmatism. The authors see that the occurring phenomena can provide new knowledge, and different perspectives can help interpret the results. This study begins with the author using a qualitative method to explore the determinant factors that make fintech p2pl, conventional lending banks, sharia lending banks, and rural banks more successful in the market. And then, the authors confirmed the literature from the previous studies. The authors interviewed practitioners with at least fifteen years of work experience in the financial industry, with a minimum position of senior manager up to C-level. After conducting the interviews, the authors confirmed the results by referring to the literature from previous studies. Then, the qualitative results were described again using NVivo to obtain variables to be tested quantitatively, which aims to determine the relationship between variables that have been explored through interviews with practitioners. Surprising results were obtained in this study, where Islamic banking dramatically affects the market and can disrupt financial markets in Indonesia. Apart from that, the lack of financial literacy in the community has resulted in less financial growth, such as banking lending and fintech p2pl.

KEYWORDS: COMMERCIAL CONVENTIONAL BANKING, COMMERCIAL ISLAMIC BANKING, RURAL BANK, PEER-TO-PEER LENDING.

1. INTRODUCTION

Recently, the digital world is increasingly giving new colors in all business sectors, especially in the financial sector. Be it banking, rural credit banks (BPR), or technology-based financial technology (fintech) Peer-to-Peer Lending (P2PL). On the other hand, fast-growing Internet finance has been considered an essential tool. However, the Internet in the finance industry can undermine traditional finance's exclusivity and reduce asymmetries in investment and loan exclusion rates in traditional financial markets (Zhong & Jiang, 2020). Banking and rural banks are growing, and the growth of fintech P2PL is getting crazier. Fintech lending aims to bridge borrowers with lenders, namely transacting without meeting in person.

Starting in 1982, e-trade has taken fintech more advanced by allowing an electronic banking system for potential investors. In 1990, financial markets worldwide were heavily influenced by the internet revolution, with the emergence of several online stocks made it easier for potential investors to invest their capital. Furthermore, the significant impact is a reduction in the cost of financial transactions. Currently, many changes are occurring in the financial industry, such as banking lending, which is carried out through electronic or digital means (Lee & Shin, 2018). Financial institutions in the world today have a vital role because they are vital for daily life and are also vital for economies around the world. Many financial institutions have changed so that the impact is tremendous on the world economy (Acar & Çitak, 2019).

In a broad sense, the word fintech is formed from the abbreviation of two words: financial and technology. Fintech is an organization or company that provides and facilitates banking services using technology. The advantage of fintech p2pl is to provide online product services via mobile directly to end-users. Like other business fields, fintech is born from everyday financial problems and is expected to be a powerful solution to overcome them. The use of massive technology by today's society directly requires accessibility that is more effective and efficient on all fronts. This is where fintech comes in by providing ease and speed of accessibility, especially in economic transactions. As a result, shopping, transfers, and other monetary transactions can be completed efficiently, quickly, and without hassle. With the rapid development of technology in the financial services industry, such

as p2pl fintech, financial services continue to develop to reach all levels of society.

Moreover, it has become a trend in Indonesia. In addition, due to the development and rapid growth of the financial industry, such as fintech p2pl, it can disrupt banking, be it conventional bank lending, sharia lending, or rural banks. Moreover, seeing that banking lending, both conventional and sharia, which has many product services, does not stand still, they are ready and transformed into digital lending banks. Moreover, from that phenomenon, it is interesting to be studied by the authors.

2. LITERATURE REVIEW

2.1 Fintech P2PL

For the past few years, the Indonesian government has been actively promoting the Micro, Small, and Medium Enterprises (MSME) sector as well as start-up businesses and the development of the creative economy sector that generates new businesses and business ideas among the community. The driver of a nation's economic stimulus is derived from new business ideas that develop in the community, which can move the nation's economy. Therefore, the government is very concerned about the new business idea sector. MSMEs are one of the leading driving forces in economic development (Pinem et al., 2023). One of the problems MSMEs face is the limited capital and the means to obtain this capital. Of course, to get this capital, MSMEs will look for and want a fast and practical means or mechanism. The lack of role of financial intermediaries is the main factor inhibiting the growth of the creative economy sector. Banks and other financial institutions are considered less capable of acting as intermediaries because they are seen as less flexible regarding regulations and meeting needs. This is the background for the emergence of innovations, namely fintech p2pl.

The fintech p2pl industry in Indonesia has experienced significant growth from year to year. With the emergence of fintech p2pl, the community and government feel positive, namely helping the community and the government. (Adriana & Dhewanto, 2018). With the emergence of p2pl fintech through online-based platforms in the form of websites and mobile applications, it is very possible for people who have excess funds from their needs to lend these excess funds to people in need. In

addition, for borrowers who need capital or funds, they can choose the most suitable capital or fund lending platform for their needs. An online capital loan platform like this is very positive because it can bring together people who have excess funds with people who need funds (Pramesti et al., 2023). For those who need capital or funds, they only need to communicate directly with organizations or online loan platform companies through websites or mobile applications, at the same time they can get funds at lower costs. But on the other hand, lenders can get a higher return or interest rate than what they get by saving in the bank. For lenders, they are free to determine the desired interest rate based on the type of risk they take and also choose to whom they will lend the funds. This is different from conventional and sharia lending banking, which usually requires collateral in the form of physical goods or services (Pişkin & Kuş, 2019).

The following is processed data from the development of fintech p2pl in Indonesia, based on data obtained from data published by the financial services authority (hereinafter abbreviated as OJK), from June 2019 to August 2021:

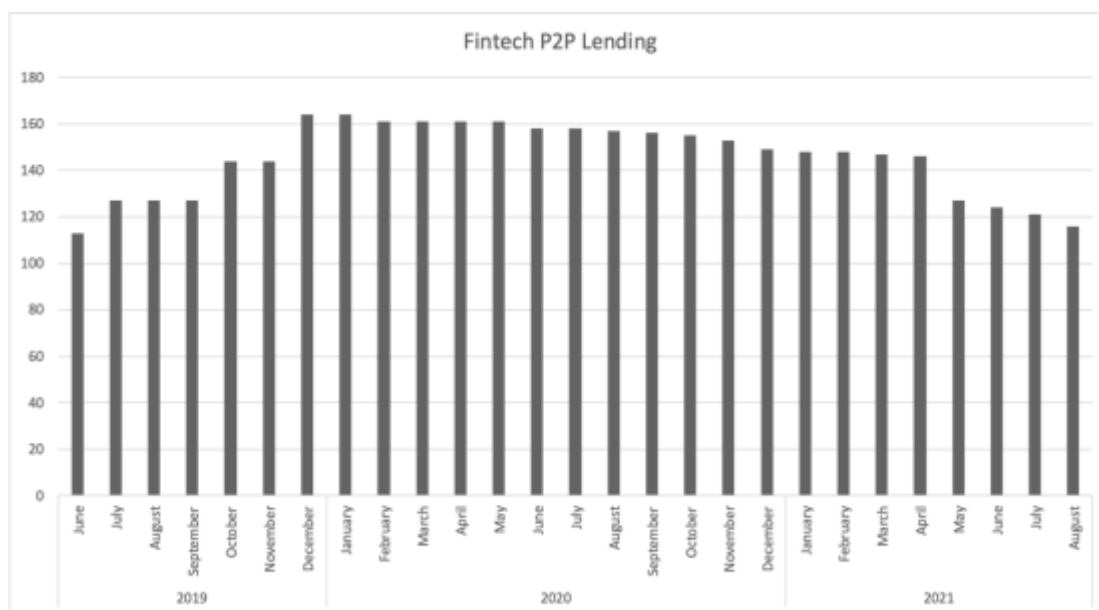


Figure 1. The development of P2PL from June 2019 to August 2021 based on the total number of registered and licensed organizers from OJK and based on available public data from OJK.

From figure 1 above, the development of P2PL from June 2019 to August 2021 tends to increase. Meanwhile, if we look at the development of p2pl based on assets, there has also been a significant increase, as seen in figure 2 below:

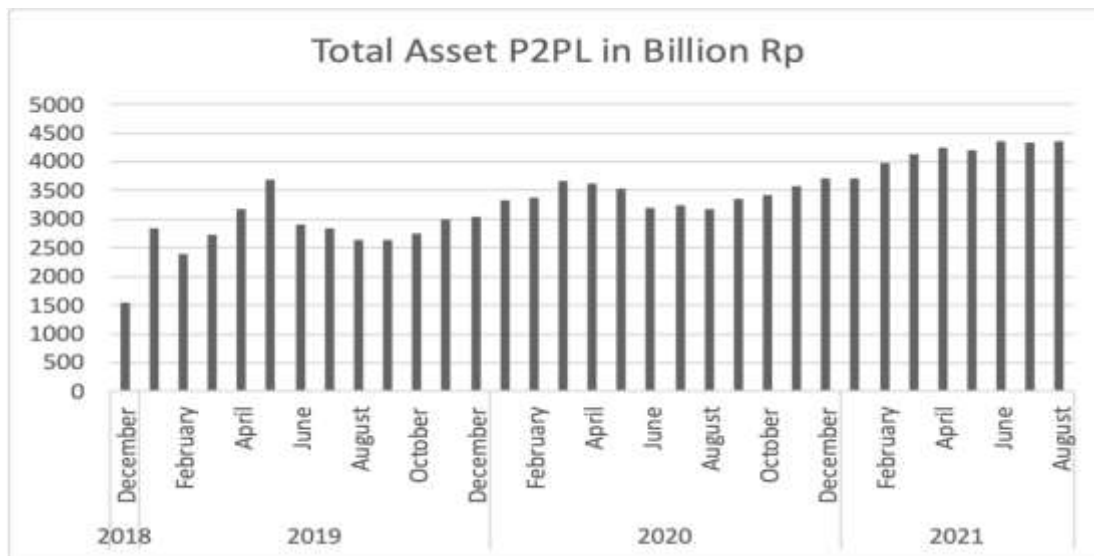


Figure 2. Total asset p2pl in billion rupiah based on available public data from OJK.

When viewed from the p2pl source of funds, it can be seen in figure 3 below, both from the total lender's account and the number of lender's funds, the island of Java that dominates is then continued by lenders from abroad finally from outside Java.

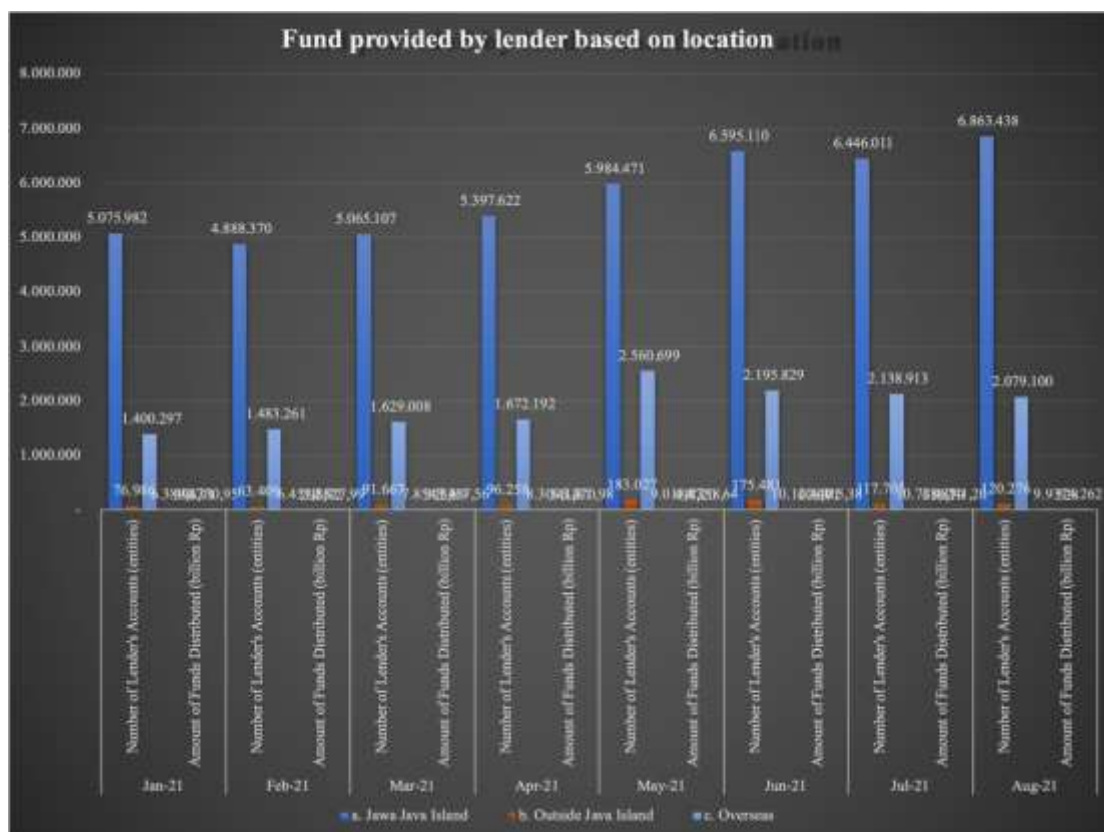


Figure 3. The P2PL source of funds based on location

Meanwhile, based on data obtained from OJK publication data related to the distribution of loan p2pl has also increased, as shown in figure 4 below:

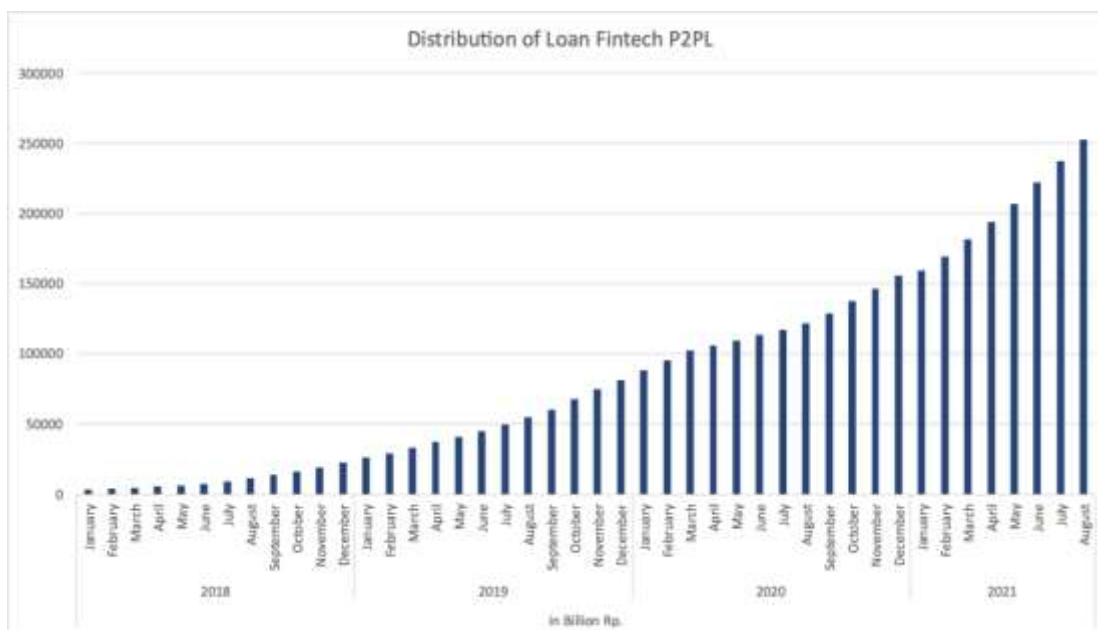


Figure 4. Distribution of loan fintech p2pl.

2.2 Bank Lending

Banking is an organization that cannot be separated from providing facilities for accepting deposits and granting credit (Sendjaja et al., 2022). The history of banking in Indonesia is inseparable from the Dutch East Indies colonial era. The first bank in the archipelago that was established to support trading activities in 1746 was Bank van Courant. This bank must provide loans secured by gold, silver, jewelry, and other valuables (Bank Indonesia, 2021). Furthermore, when viewed from the development of banks and also bank market competition will be able to trigger the creation of new businesses (González, 2020). The role of banking financial institutions in the world of finance is a major sector in the economic growth of a nation (Tuna & Almahadin, 2021).

In carrying out their operations, both commercial and Islamic banks must have core capital, where the paid-up capital is added to the profits earned by the Bank after deducting taxes. Banking is required to have core capital because it is to maintain the security and strength of the bank to face operational risk. In addition, the difference in the amount of core capital determines the difference in the group of business activities (known as BUKU) which was started by Bank Indonesia (BI) in 2012. Apart from that, Bank Indonesia also groups banks into four categories of business

activity groups (Bank Indonesia, 2012). The definition of BUKU according to Bank Indonesia in brief is as follows: The first BUKU is a Bank with a Core Capital of less than one trillion rupiah, the second BUKU is a bank with a Core Capital of between one trillion rupiah and five trillion rupiah, while the third BUKU is a bank with a Core Capital of five trillion rupiah to thirty trillion rupiah. And the fourth BUKU is banking with Core Capital greater than or equal to thirty trillion rupiah.

In the following, the authors have summarized the development of conventional and sharia banking in terms of distribution of loans, source of funds, assets, and total companies. Figure 5 shows that the development of banking in the group of business activities 1 has decreased from year to year, while in the group of business activities 2 has increased. Meanwhile, group of business activities 3 and 4 experienced a slight increase.

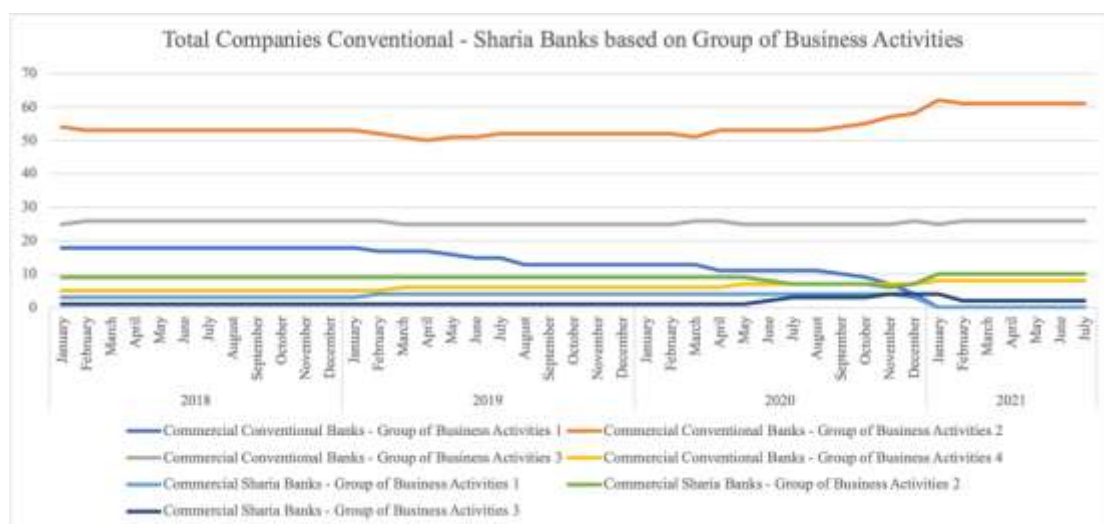


Figure 5. Total the banks (sharia and conventional) based on BUKU.

Meanwhile, based on the number of assets, both commercial conventional banks based on business activities 1, 2, 3, and 4 all experienced an increase. However, a significant increase in the commercial conventional bank based on business activities 4, which can be seen in figure 6 below:

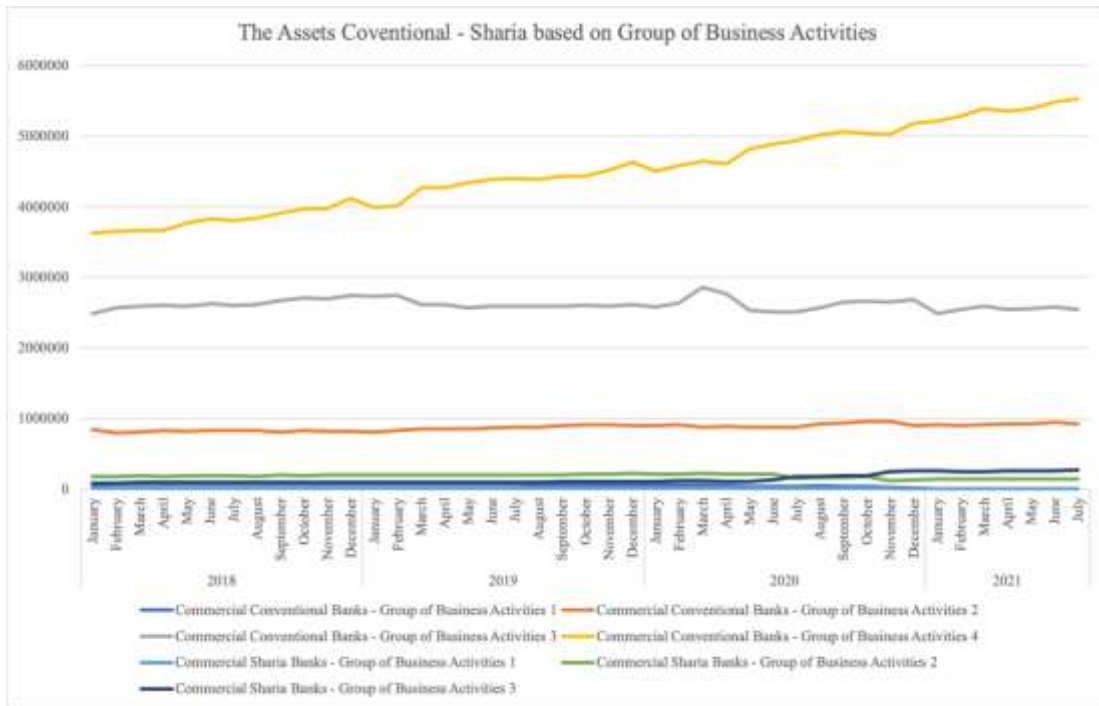


Figure 6. The assets of the banks (Sharia and conventional) based on BUKU.

From Figure 7 below, regarding the source of funds in commercial conventional and sharia banks based on the group of business activities 4, there has been a significant increase.

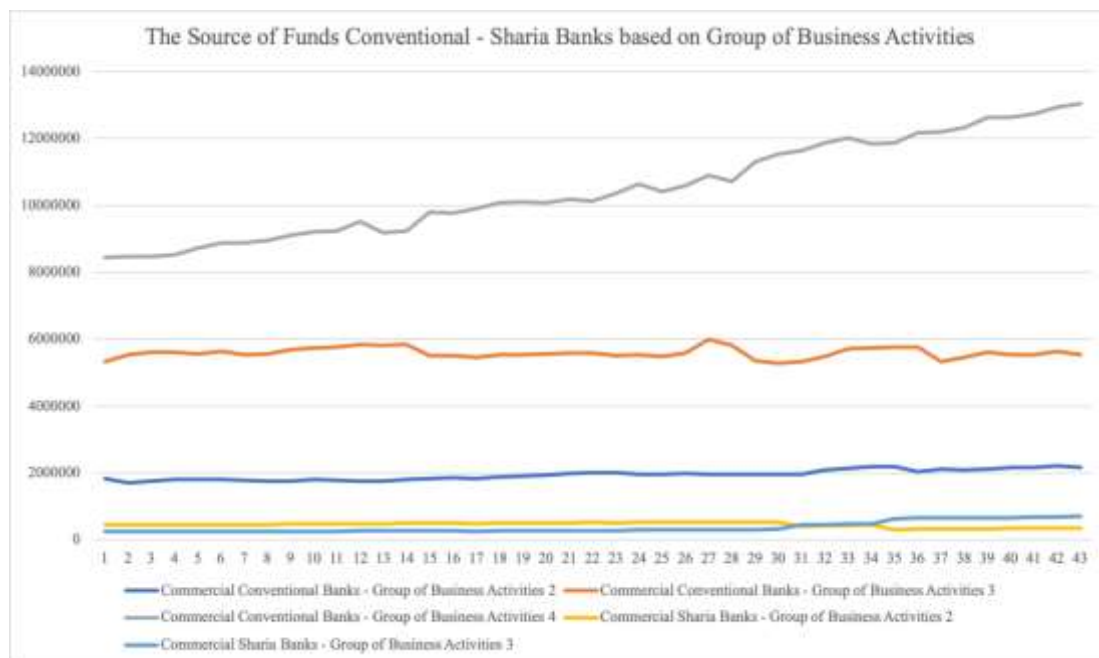


Figure 7. Source of funds the banks (sharia and conventional) based on BUKU.

In Figure 8 below, related to the distribution of loan commercial conventional and sharia banks based on the group of business activities which experienced a significant increase was a group of business activities 4.

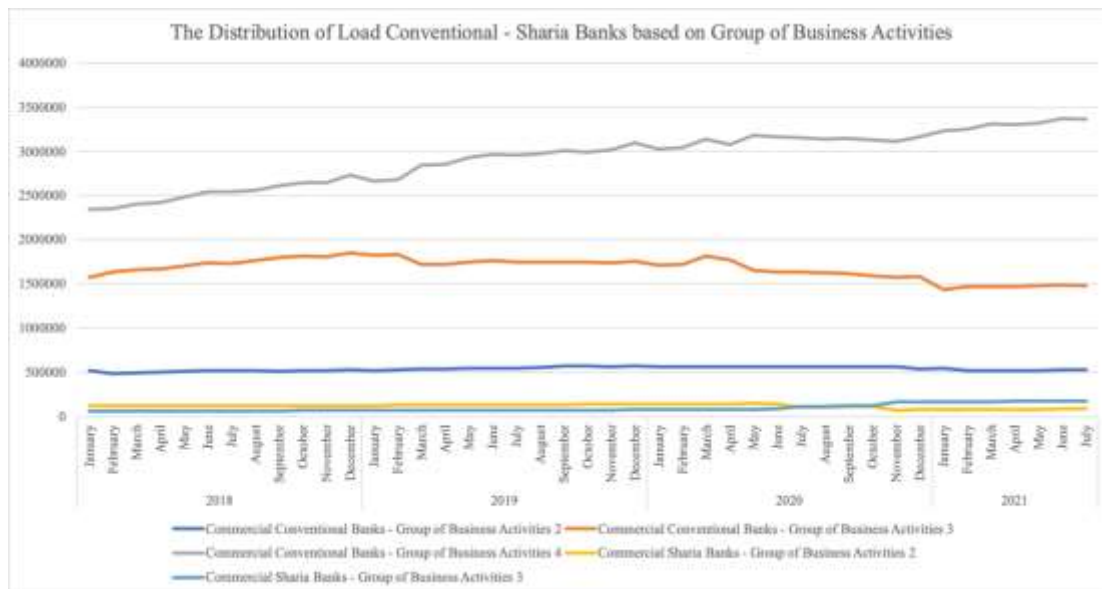


Figure 8. The distribution of loan the banks (sharia and conventional) based on BUKU.

2.3 Rural Bank

Furthermore, the next object of this study is rural banks. By definition, rural bank is a bank that conducts business activities conventionally, does not provide services in payment traffic, and does not carry out foreign exchange activities, accepts demand deposits, and guarantees (Otoritas Jasa Keuangan, 2020). In Indonesia's development of rural banks in Indonesia, there has been a significant decline from year to year, as shown in figure 9 below:

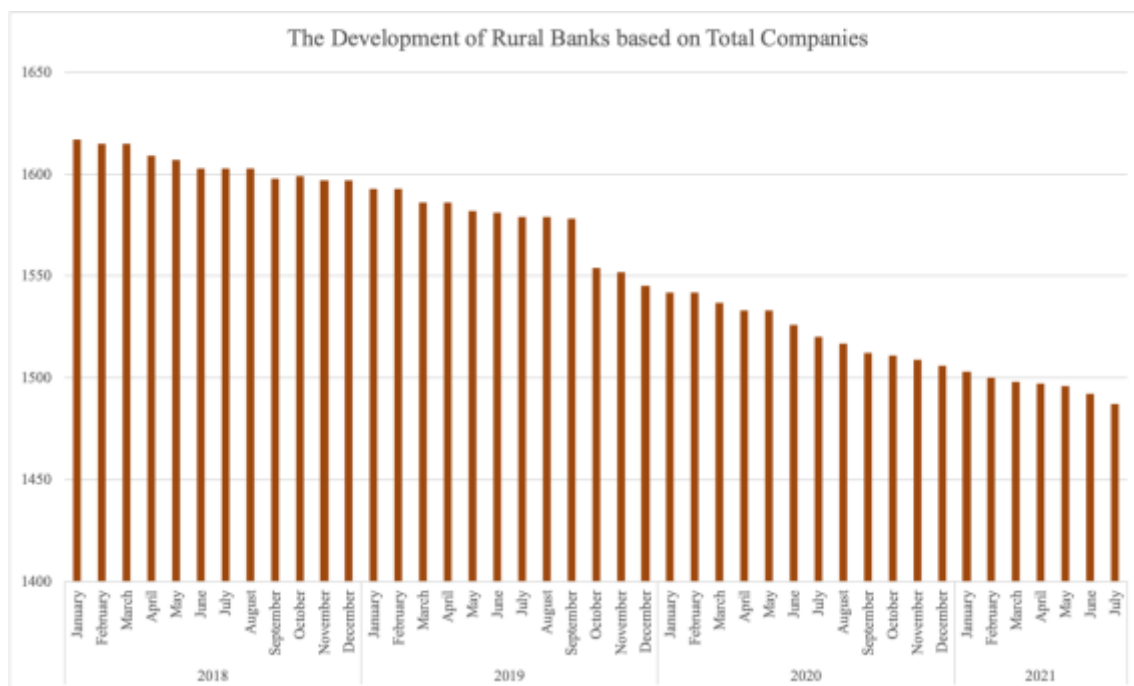


Figure 9. The development of rural banks based on total companies.

As in figure 10 below, the development of rural bank assets has increased even though the number of companies has decreased.

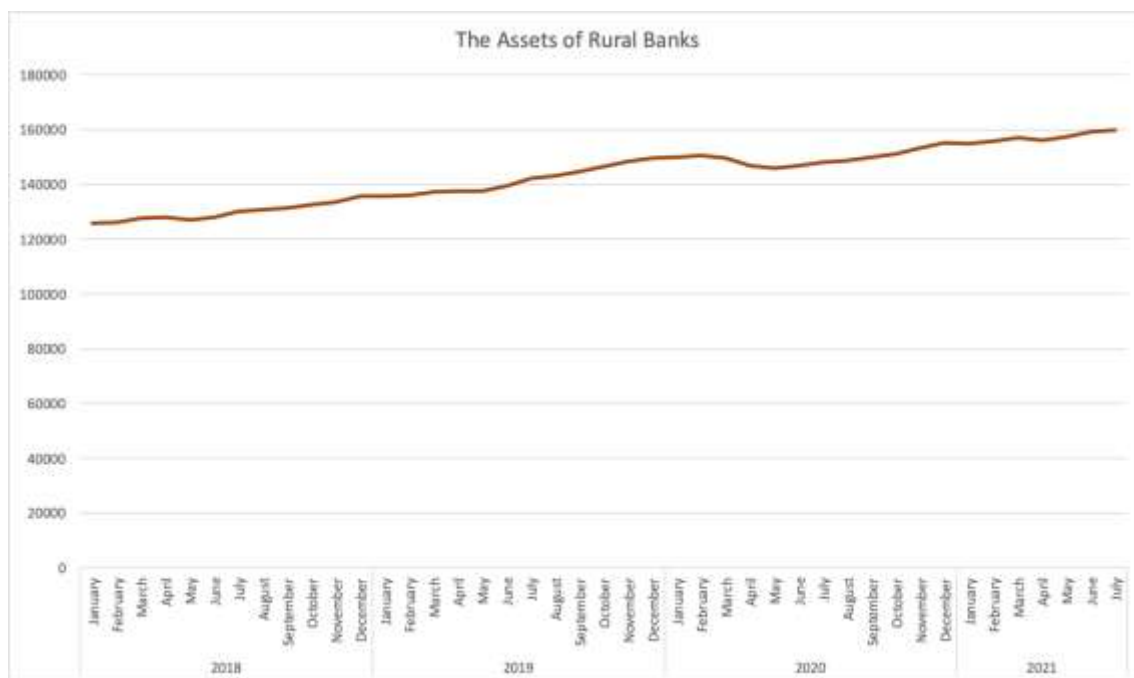


Figure 10. The assets of rural banks.

3. METHODOLOGY/MATERIALS

In this study, the authors carried out a mixed-method approach both qualitatively and quantitatively, using the philosophy of pragmatism. Where the author focuses on reality as an external view and was chosen to get the best answer for this research paper. In addition, the more different perspectives it can help interpret the data obtained (Saunders et al., 2019). This research begins with the authors using the qualitative method to explore what determinant factors make p2pl, conventional bank lending, sharia bank lending, and rural banks more successful in the market. And then, the authors confirmed the literature from previous studies. The authors conducted interviews with practitioners with a minimum of more than fifteen years of working experience in the financial industry, with a minimum position of senior manager up to C-level. Furthermore, the research was carried out quantitatively, which aims to find the relationship between the variables that have been explored through interviews with practitioners. This study aims to examine whether the development of p2pl can be disrupted by the transformation of conventional bank lending, sharia bank lending, and rural banks.

Table 1. List of respondents

No.	Position Level	Org.	Data Coll. Type	Total Experience (in Years)	Work (in)	Meeting Type
1	COO (Director)	Conventional Bank	Semi-Structure Depth Interview	In- ≥ 15		Online
2	Vice President (Director)	Conventional Bank	Semi-Structure Depth Interview	In- ≥ 15		Online
3	Vice President (Director)	Conventional Bank	Semi-Structure Depth Interview	In- ≥ 15		Online
4	Senior-Manager	Conventional Bank	Semi-Structure Depth Interview	In- ≥ 15		Online
5	Director	Sharia Bank	Semi-Structure Depth Interview	In- ≥ 15		Online
6	Senior-Manager	Sharia Bank	Semi-Structure Depth Interview	In- ≥ 15		Online

7	Director	Fintech P2PL	Semi-Structure Depth Interview	In- ≥ 15	Online
8	Director	Fintech P2PL	Semi-Structure Depth Interview	In- ≥ 15	Online
9	Director	Fintech P2PL	Semi-Structure Depth Interview	In- ≥ 15	Online
10	Senior-Manager	Fintech P2PL	Semi-Structure Depth Interview	In- ≥ 15	Online
11	General Manager (Director)	Rural Bank	Semi-Structure Depth Interview	In- ≥ 15	Face to Face
12	Director Level	Vendor	Focus Group	Discussion -	Online

From table 1 above, the authors focus on interviewing all respondents from practitioners who have at least fifteen years of experience, both practitioners from conventional banks, sharia banks, p2pl, and rural banks. This data collection was carried out in a semi-structured in-depth interview and focus group discussion, using online and face-to-face interviews. The results obtained are as follows:

Table 2. Confirmed variables from the literature of previous studies

No	Financial Institution	Variables
1	Conventional Bank Lending	Distribution of loan (Ayberk & Önder, 2022; Chen et al., 2019; Mkhaiber & Werner, 2021; Vo et al., 2021; Zhan et al., 2021; Çolak & Öztekin, 2021) Source of funds (Li et al., 2019; Mkhaiber & Werner, 2021; Sclip et al., 2021; Takáts & Temesvary, 2021) Total assets (Abdul Karim et al., 2014; Çolak & Şenol, 2021) Total companies (Catalán et al., 2020; Hasan et al., 2021; Phung et al., 2021; Wilcox & Yasuda, 2019)
2	Sharia Bank Lending	Distribution of loan (Azad et al., 2019; Farook et al., 2014; Shaban et al., 2014)

		Source of funds (Abdul Karim et al., 2014; Asmild et al., 2019; Ibrahim & Rizvi, 2018; Smaoui & Ghouma, 2020)
		Total assets (Almansour & Ongena, 2018; Bilgin et al., 2021; Bitar et al., 2018; Bitar & Tarazi, 2019; Rahman, 2019; Smaoui & Ghouma, 2020)
		Total companies (Alqahtani & Boulanouar, 2017; Alzahrani, 2019; Biancone & Radwan, 2018; Caporale et al., 2020; Jabari & Muhamad, 2021)
<hr/>		
		Distribution of loan (Oliphant & Ma, 2021; PENG et al., 2021)
		Source of funds (Cyree & Spurlin, 2012; Fatmawati et al., 2019)
3	Rural Bank	Total assets (Bawa & Basu, 2020; Fatmawati et al., 2019; Oladokun et al., 2018)
		Total companies (Fatmawati et al., 2019; Petach et al., 2021; Suesse & Wolf, 2020)
<hr/>		
		Distribution of loan (Nigmonov et al., 2022; B. Wang et al., 2021; C. Wang et al., 2022; Wu & Zhang, 2021; Xia et al., 2021)
		Source of funds (Galema, 2020; Gao et al., 2020; Huang et al., 2021; Yu & Shen, 2019; Zhang et al., 2017)
4	Peer-to-peer Lending (P2PL)	Total assets (Gao et al., 2020; Guo et al., 2016; Liu et al., 2020; Piscicelli et al., 2018; Setiawan et al., 2019)
		Total companies (Adriana & Dhewanto, 2018; Anagnostopoulos, 2018; Bollaert et al., 2021; Li et al., 2017)

Furthermore, the authors configure the results of this qualitative study using the NVivo software and then confirm again with the literature of previous studies. Then the authors describe the determinant factors of conventional bank lending, sharia bank lending, rural banks, and p2pl as shown below:

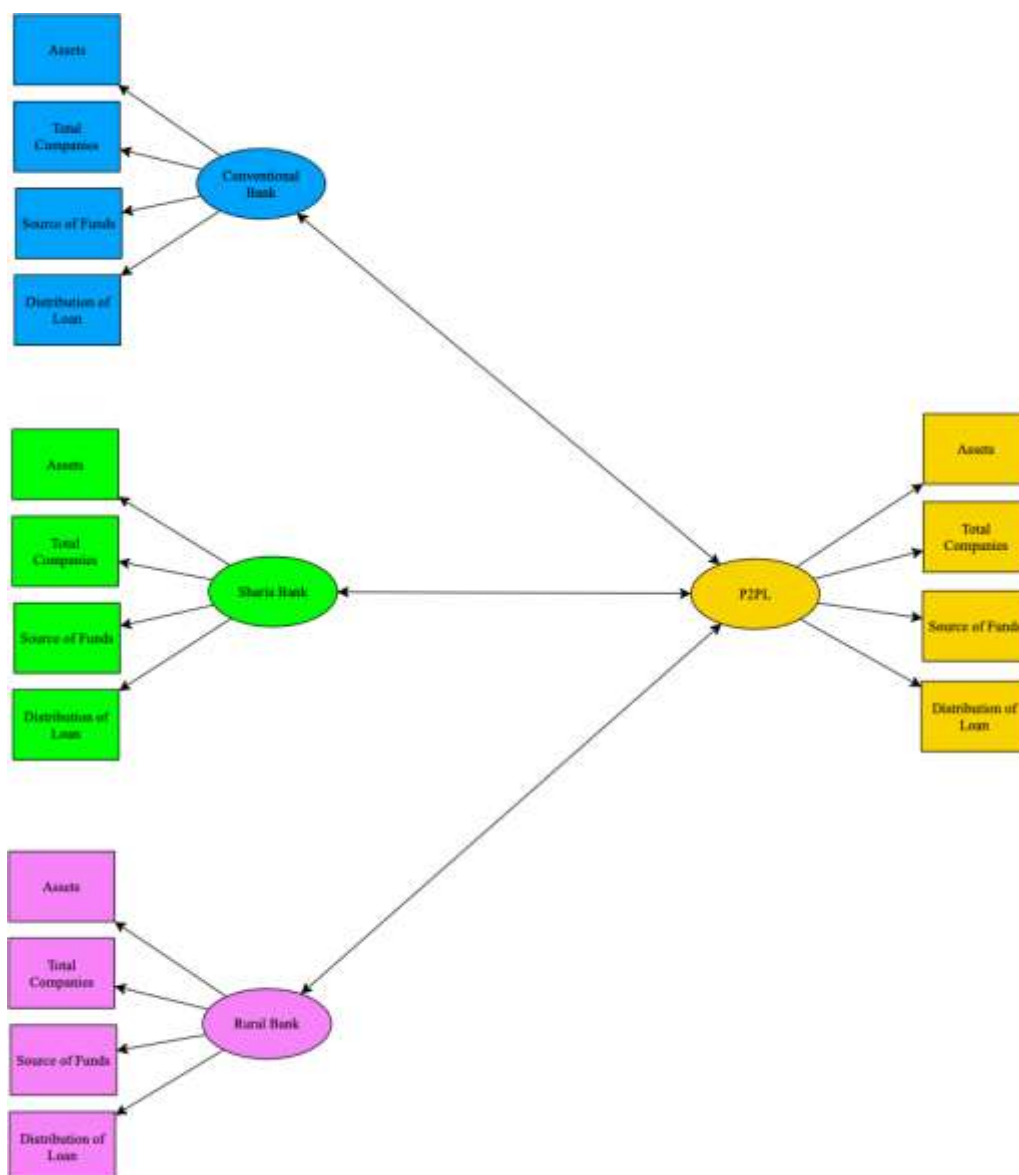


Figure 11. Determinant factors obtained from qualitative and confirmed from the literature of previous studies

Furthermore, the authors will process data based on publicly available data, the variables in this study are Commercial Conventional Business Activities (hereinafter abbreviated to CC-BA) 2, CC-BA 3, CC-BA 4, Commercial Sharia Business Activities (hereinafter abbreviated as CS-BA) 2, CS -BA 3, Rural Banks (hereinafter abbreviated as RB), and P2PL.

Meanwhile, the constructs in this study are the distribution of loans, total assets, total companies, and source of funds. Then the Variable selection is carried out to find an excellent construct to form the variable selection using correlation values. If the correlation value between constructs is positive, then the

constructs forming the variable are good in forming a variable. In other words, the construct has a positive contribution to the variable that is formed.

Variable CC-BA2

Correlations

[DataSet1] C:\Users\User\Downloads\SEM_data.sav

		Correlations			
		CC-BA2-Loan	CC-BA2-Asset	CC-BA2-Total Companies	CC-BA2-Fund
CC-BA2-Loan	Pearson Correlation	1	.661**	-.239	.479**
	Sig. (2-tailed)		.000	.123	.001
	N	43	43	43	43
CC-BA2-Asset	Pearson Correlation	.661**	1	.485**	.966**
	Sig. (2-tailed)	.000		.001	.000
	N	43	43	43	43
CC-BA2-Total Companies	Pearson Correlation	-.239	.485**	1	.668**
	Sig. (2-tailed)	.123	.001		.000
	N	43	43	43	43
CC-BA2-Fund	Pearson Correlation	.479**	.966**	.668**	1
	Sig. (2-tailed)	.001	.000	.000	
	N	43	43	43	43

** . Correlation is significant at the 0.01 level (2-tailed).

Figure 12. Variable CC-BA 2.

From the output above, total companies have a correlation of -0.239 to Loans. It can be said that Total Companies and Loans are not in the same direction in forming Variable CC-BA2. Next Variable CC-BA3, is not suitable because it is negative. Because of the output above, the total companies negatively correlate with Loans, Funds, and Assets. As shown in figure 13 below:

Correlations

		Correlations			
		CC-BA3-Loan	CC-BA3-Fund	CC-BA3-Asset	CC-BA4-Total Companies
CC-BA3-Loan	Pearson Correlation	1	.433**	.623**	-.821**
	Sig. (2-tailed)		.004	.000	.000
	N	43	43	43	43
CC-BA3-Fund	Pearson Correlation	.433**	1	.942**	-.302*
	Sig. (2-tailed)	.004		.000	.049
	N	43	43	43	43
CC-BA3-Asset	Pearson Correlation	.623**	.942**	1	-.414**
	Sig. (2-tailed)	.000	.000		.006
	N	43	43	43	43
CC-BA4-Total Companies	Pearson Correlation	-.821**	-.302*	-.414**	1
	Sig. (2-tailed)	.000	.049	.006	
	N	43	43	43	43

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Figure 13. The CC-BA 3 variable.

Furthermore, on the CC-BA 4 variable, as shown in figure 14 below, it is stated that all constructs have a positive relationship.

Correlations

		CC-BA4-Loan	CC-BA4-Fund	CC-BA4-Asset	CC-BA4-Total Companies
CC-BA4-Loan	Pearson Correlation	1	.952**	.966**	.912**
	Sig. (2-tailed)		.000	.000	.000
	N	43	43	43	43
CC-BA4-Fund	Pearson Correlation	.952**	1	.998**	.971**
	Sig. (2-tailed)	.000		.000	.000
	N	43	43	43	43
CC-BA4-Asset	Pearson Correlation	.966**	.998**	1	.971**
	Sig. (2-tailed)	.000	.000		.000
	N	43	43	43	43
CC-BA4-Total Companies	Pearson Correlation	.912**	.971**	.971**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	43	43	43	43

** . Correlation is significant at the 0.01 level (2-tailed).

Figure 14. The CC-BA 4 variable.

Next is the CS-BA 2 variable. As shown in figure 15 below, the total companies have a positive correlation with other constructs. However, the value is close to 0 (0.024, 0.049 and 0.104), which means that the total companies variable has a positive but not significant correlation. This can be seen from the value of Sig > 0.05.

Correlations

Correlations

		CS-BA2-Loan	CS-BA2-Fund	CS-BA2-Asset	CS-BA2-Total Companies
CS-BA2-Loan	Pearson Correlation	1	.993**	.987**	.024
	Sig. (2-tailed)		.000	.000	.880
	N	43	43	43	43
CS-BA2-Fund	Pearson Correlation	.993**	1	.996**	.049
	Sig. (2-tailed)	.000		.000	.753
	N	43	43	43	43
CS-BA2-Asset	Pearson Correlation	.987**	.996**	1	.104
	Sig. (2-tailed)	.000	.000		.507
	N	43	43	43	43
CS-BA2-Total Companies	Pearson Correlation	.024	.049	.104	1
	Sig. (2-tailed)	.880	.753	.507	
	N	43	43	43	43

** . Correlation is significant at the 0.01 level (2-tailed).

Figure 15. The CS-BA 2 variable.

Furthermore, in the CS-BA 3 variable, as shown in Figure 16 below, all constructs have a positive correlation with each other.

Correlations

		Correlations			
		CS-BA3-Loan	CS-BA3-Fund	CS-BA3	CS-BA3-Total Companies
CS-BA3-Loan	Pearson Correlation	1	.998**	.999**	.790**
	Sig. (2-tailed)		.000	.000	.000
	N	43	43	43	43
CS-BA3-Fund	Pearson Correlation	.998**	1	1.000**	.792**
	Sig. (2-tailed)	.000		.000	.000
	N	43	43	43	43
CS-BA3	Pearson Correlation	.999**	1.000**	1	.795**
	Sig. (2-tailed)	.000	.000		.000
	N	43	43	43	43
CS-BA3-Total Companies	Pearson Correlation	.790**	.792**	.795**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	43	43	43	43

** Correlation is significant at the 0.01 level (2-tailed).

Figure 16. The CS-BA3 variable.

Next is the RB variable, as shown in figure 17 below. The total companies negatively correlate with other constructs.

		Correlations			
		RB-Loan	RB-Fund	RB-Asset	RB-Total Companies
RB-Loan	Pearson Correlation	1	.999**	1.000**	-.959**
	Sig. (2-tailed)		.000	.000	.000
	N	43	43	43	43
RB-Fund	Pearson Correlation	.999**	1	.999**	-.959**
	Sig. (2-tailed)	.000		.000	.000
	N	43	43	43	43
RB-Asset	Pearson Correlation	1.000**	.999**	1	-.963**
	Sig. (2-tailed)	.000	.000		.000
	N	43	43	43	43
RB-Total Companies	Pearson Correlation	-.959**	-.959**	-.963**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	43	43	43	43

** Correlation is significant at the 0.01 level (2-tailed).

Figure 17. The RB variable.

Next is the correlation on the P2PL variable, where the total companies negatively correlate with funds, as in figure 17 below:

Correlations

		P2P-Loan	P2P-Fund	P2P-Asset	P2P-Total Companies
P2P-Loan	Pearson Correlation	1	-.158	.890**	.481**
	Sig. (2-tailed)		.311	.000	.001
	N	43	43	43	43
P2P-Fund	Pearson Correlation	-.158	1	-.175	-.112
	Sig. (2-tailed)	.311		.262	.473
	N	43	43	43	43
P2P-Asset	Pearson Correlation	.890**	-.175	1	.454**
	Sig. (2-tailed)	.000	.262		.002
	N	43	43	43	43
P2P-Total Companies	Pearson Correlation	.481**	-.112	.454**	1
	Sig. (2-tailed)	.001	.473	.002	
	N	43	43	43	43

** . Correlation is significant at the 0.01 level (2-tailed).

Figure 18. The P2P Variable.

4. RESULTS AND DISCUSSIONS

One of the requirements that must be met by measuring instruments is validity. The validity of the measuring instrument is related to the extent to which it can measure what it is supposed to measure. From the results above, total companies are constructs with many negative correlations in certain variables. This construct selection analysis compares the constructs between conventional and Sharia lending banks, rural banks, and people. Furthermore, we agree that in the study, the names of financial institutions are grouped. The constructs owned by each type of financial institution must be the same so that the comparison results are valid.

Furthermore, the authors performed a confirmatory factor analysis to see the indicators that could be used to establish the latent variables of this study that could not be measured directly. This analysis is carried out to determine which indicators are not feasible or not valid to be included in the model.

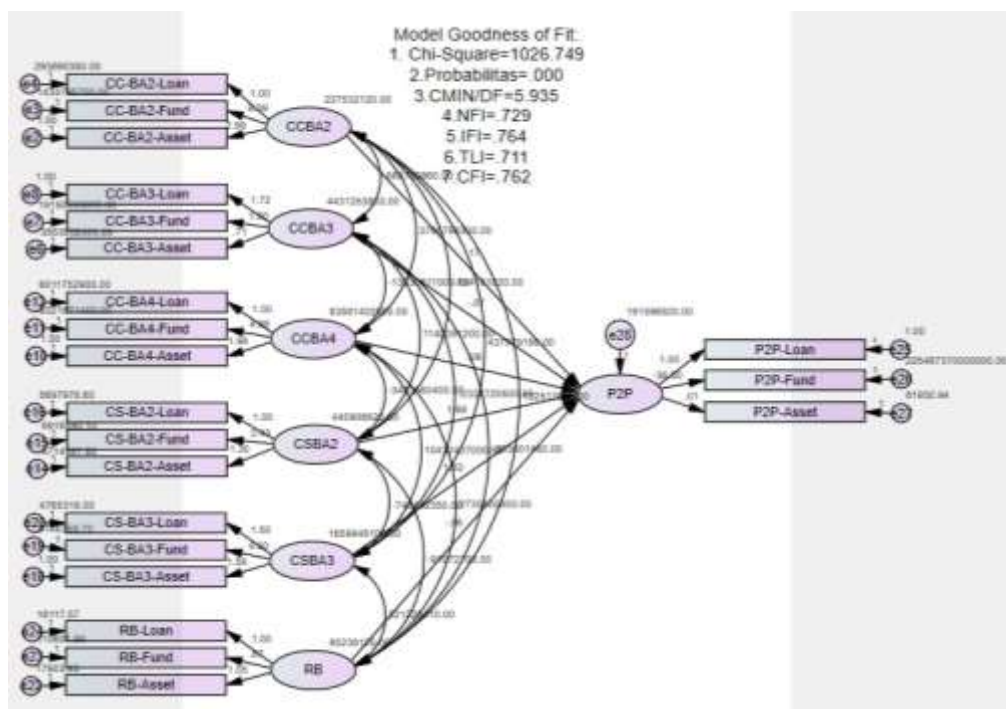


Figure 19. Confirmatory factor analysis.

Table 3. Construct-indicator validation test

Variable	Construct	Factor Loading	Decision
CCBA2	Loan	0,66	VALID
	Asset	0,97	VALID
	Fund	1	VALID
CCBA3	Loan	0,43	VALID
	Asset	0,6	VALID
	Fund	1	VALID
CCBA4	Loan	0,97	VALID
	Asset	1	VALID
	Fund	1	VALID
CSBA2	Loan	0,97	VALID
	Asset	1	VALID
	Fund	1	VALID
CSBA3	Loan	0,99	VALID

	Asset	1	VALID
	Fund	1	VALID
RB	Loan	1	VALID
	Asset	1	VALID
	Fund	1	VALID
P2P	Loan	1	VALID
	Asset	0,92	VALID
	Fund	0,86	VALID

Ferdinand (2014: 284) said that if the value of 0.4, the indicator is already valid in explaining or measuring the construct it measures. Of all the constructs above, all are valid. In modeling this suitability test is very important because it is to test the suitability or goodness of fit between the observations and the frequency obtained based on the expected value (theoretical frequency). Furthermore, the results of model testing can be seen in Figure 19.

Table 4. Evaluation of Criteria for Goodness of Fit Indices Overall Full Model

Criteria	<i>Cut-of value</i>	Model Results	Information
Chi Quadrat	Big = 1026.8	0,000	Not Good Model
p-value	$\geq 0,05$		
CMIN/DF	$\leq 2,00$	5,935	Not Good Model
NFI	$> 0,90$	0,729	Good Model
IFI	$> 0,90$	0,764	Good Model
TLI	$> 0,90$	0,711	Good Model
CFI	$> 0,90$	0,762	Good Model

The results of the fit of the model in the fourth table above show that there are six criteria. And of the six criteria, four criteria indicate a good model, while the two criteria are not good. The four good criteria mean that the model has fulfilled the goodness of fit. Furthermore, to test the effect between variables, the SEM coefficient test was used. The decision of the hypothesis that is relevant to the sample data is obtained from comparing the calculated probability value with a t-value of more than 1.60.

Path analysis in this study consists of two, namely the direct path and the indirect path. The analysis of the direct relationship between the constructs of the model can be compared with the direct relationship with the construct, which is nothing but the coefficients of all coefficient lines with arrows one. (Ferdinand, 2014:55) whose test results are presented in Table 5 below.

Table 5. Path Analysis

	Estimate	S.E.	C.R.	P	Label
P2P <--- CCBA2	.167	.348	.478	.633	
P2P <--- CCBA3	-.073	.076	-.964	.335	
P2P <--- CCBA4	.060	.045	1.343	.179	
P2P <--- CSBA2	1.657	.630	2.632	.009	
P2P <--- CSBA3	1.822	.575	3.167	.002	
P2P <--- RB	-.562	1.321	-.426	.670	

From table 3 above, the following conclusions are obtained:

- a. The path coefficient value between CCBA2 and P2P is 0.633. The probability value is greater than the specified level of significance ($p=0.663 > =0.05$). Thus, CCBA2 has no significant effect on P2P.
- b. The path coefficient value between CCBA3 and P2P is 0.335. The probability value is greater than the specified level of significance ($p=0.335 > =0.05$). Thus, CCB3 has no significant effect on P2P.
- c. The path coefficient value between CCBA4 and P2P is 0.179. The probability value is greater than the specified level of significance ($p=0.179 > =0.05$). Thus, CCBA4 has no significant effect on P2P.
- d. The path coefficient value between CSBA2 and P2P is 0.009. The probability value is smaller than the specified level of significance ($p=0.000 < =0.05$). Thus, CSBA2 has a significant effect on P2P.
- e. The path coefficient value between CSBA3 and P2P is 0.02. The probability value is smaller than the specified level of

significance ($p=0.000 < =0.05$). Thus, CSBA3 has a significant effect on P2P.

- f. The path coefficient value between RB and P2P is 0.670. The probability value is greater than the specified level of significance ($p=0.670 > =0.05$). Thus, RB has no significant effect on P2P.

5. CONCLUSION

This study aims to determine whether the development of both conventional - sharia and BPR of credit commercial banks can interfere with the development of fintech P2PL. In this study, the author uses a mixed methods approach both qualitatively and quantitatively, using the philosophy of pragmatism. Before conducting qualitative research, the authors examined the phenomenon of previous studies through a literature review study. Then the authors interviewed practitioners from conventional banking lending, Sharia bank lending, rural bank lending, and fintech P2PL with more than fifteen years of experience from these experts. Furthermore, the authors found the factors that can make the institution more developed: the distribution of loans, sources of funds, total assets, and the number of companies. Furthermore, the authors conducted quantitative research, with data published by the Financial Services Authority and the Central Bank of Indonesia. From our research, CCBA 2, CCBA 3, CCBA 4, and RB, or in this case, commercial conventional banks and rural banks, do not indicate disrupting fintech P2PL. While CSBA 2 and CSBA 3, meaning Islamic banks are classified as business activities 2 and 3, indicate or influence developments that can disrupt P2PL fintech. Furthermore, further research is needed on how it is best for Islamic banking and p2pl to collaborate so that they do not disrupt each other in the future. Apart from that, it is better for Islamic bank lending, especially in Indonesia, to maximize their financial literacy because many people in Indonesia still need more financial literacy about Islamic bank lending. Regarding financial literacy, especially in Indonesia, after many financial institutions have transformed both collaboratively and digitally, it is necessary for further research for future research.

LIST OF ABBREVIATIONS

BPR: Rural Credit Bank, BI: Bank Indonesia, BUKU: Commercial Banks Business Activities or Bank in the group of business activities, CCBA: Commercial Conventional Business Activities, CSBA: Commercial Sharia Business Activities, Fintech: Financial

Technology, MSME: Micro, Small, and Medium Enterprises, OJK: Financial Services Authority, P2PL: Peer-to-Peer Lending, RB: Rural Banks.

DECLARATIONS

AVAILABILITY OF DATA AND MATERIALS

The data is collected from the online science direct database and the web of science, while other data is from the published data collection from OJK and BI. All data is stored as a file in Microsoft excel and remains with the author. Data is available upon request.

Competing interest

The authors state that they have no business or financial interests associated with the research described in this paper.

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AUTHORS' CONTRIBUTIONS

YAA: he contributed to the conceptualization, methodology, software, curation, data writing, and original draft preparation; SKW: he contributes to supervision, review writing, editing, and approved the manuscript; SS: he contributes to supervision, review writing, editing, and approved the manuscript.

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REFERENCES

Abdul Karim, M., Hassan, M. K., Hassan, T., & Mohamad, S. (2014).

Capital adequacy and lending and deposit behaviors of conventional and Islamic banks. *Pacific-Basin Finance Journal*, 28, 58–75.

<https://doi.org/https://doi.org/10.1016/j.pacfin.2013.11.002>

Acar, O., & Çitak, Y. E. (2019). Fintech Integration Process Suggestion for Banks. *Procedia Computer Science*, 158, 971–978.

<https://doi.org/10.1016/j.procs.2019.09.138>

Adriana, D., & Dhewanto, W. (2018). Regulating P2P lending in Indonesia_Lessons learned from the case of China and India.

Journal of Internet Banking and Commerce, 23(1), 1–19.

Almansour, A., & Ongena, S. (2018). Bank loan announcements and religious investors: Empirical evidence from Saudi Arabia. *Journal of Empirical Finance*, 47, 78–89.

<https://doi.org/https://doi.org/10.1016/j.jempfin.2018.02.002>

Alqahtani, F., & Boulanouar, Z. (2017). Sharia compliance status & investor demand for IPOs: Evidence from Saudi Arabia. *Pacific-Basin Finance Journal*, 46, 258–268.

<https://doi.org/https://doi.org/10.1016/j.pacfin.2017.09.012>

Alzahrani, M. (2019). Islamic corporate finance, financial markets, and institutions: An overview. *Journal of Corporate Finance*, 55, 1–5.

<https://doi.org/https://doi.org/10.1016/j.jcorpfin.2018.11.008>

Anagnostopoulos, I. (2018). Fintech and regtech: Impact on regulators and banks. *Journal of Economics and Business*, 100(June 2017), 7–

25. <https://doi.org/10.1016/j.jeconbus.2018.07.003>

Asmild, M., Kronborg, D., Mahbub, T., & Matthews, K. (2019). The efficiency patterns of Islamic banks during the global financial crisis: The case of Bangladesh. *The Quarterly Review of Economics and Finance*, 74, 67–74.

<https://doi.org/https://doi.org/10.1016/j.qref.2018.04.004>

Ayberk, İ., & Önder, Z. (2022). House prices and bank loan portfolios in an emerging market: The role of bank ownership. *Economic Modelling*, 106, 105683.

<https://doi.org/https://doi.org/10.1016/j.econmod.2021.105683>

- Azad, A. S. M. S., Azmat, S., & Hayat, A. (2019). What determines the profitability of Islamic banks: Lending or fee? *International Review of Economics & Finance*.
<https://doi.org/https://doi.org/10.1016/j.iref.2019.05.015>
- Bank Indonesia. (2012). Peraturan Bank Indonesia Nomor: 14/26/PBI/2012 Tentang Kegiatan Usaha dan Jaringan Kantor Berdasarkan Modal Inti Bank. *Bank Indonesia*, 1(1), 24.
- Bank Indonesia. (2021). Sejarah Bank Indonesia.
- Bawa, J. K., & Basu, S. (2020). Restructuring assets reform, 2013: Impact of operational ability, liquidity, bank capital, profitability and capital on bank credit risk. *IIMB Management Review*, 32(3), 267–279. <https://doi.org/https://doi.org/10.1016/j.iimb.2019.10.009>
- Biancone, P. Pietro, & Radwan, M. (2018). Sharia-Compliant financing for public utility infrastructure. *Utilities Policy*, 52, 88–94.
<https://doi.org/https://doi.org/10.1016/j.jup.2018.03.006>
- Bilgin, M. H., Danisman, G. O., Demir, E., & Tarazi, A. (2021). Economic uncertainty and bank stability: Conventional vs. Islamic banking. *Journal of Financial Stability*, 56, 100911.
<https://doi.org/https://doi.org/10.1016/j.jfs.2021.100911>
- Bitar, M., Kabir Hassan, M., & Hippler, W. J. (2018). The determinants of Islamic bank capital decisions. *Emerging Markets Review*, 35, 48–68.
<https://doi.org/https://doi.org/10.1016/j.ememar.2017.12.002>
- Bitar, M., & Tarazi, A. (2019). Creditor rights and bank capital decisions: Conventional vs. Islamic banking. *Journal of Corporate Finance*, 55, 69–104.
<https://doi.org/https://doi.org/10.1016/j.jcorpfin.2018.11.007>

- Bollaert, H., Lopez-de-Silanes, F., & Schwienbacher, A. (2021). Fintech and access to finance. *Journal of Corporate Finance*, 68, 101941. <https://doi.org/https://doi.org/10.1016/j.jcorpfin.2021.101941>
- Caporale, G. M., Çatık, A. N., Helmi, M. H., Menla Ali, F., & Tajik, M. (2020). The bank lending channel in the Malaysian Islamic and conventional banking system. *Global Finance Journal*, 45, 100478. <https://doi.org/https://doi.org/10.1016/j.gfj.2019.100478>
- Catalán, M., Hoffmaister, A. W., & Harun, C. A. (2020). Bank capital and lending: Evidence of nonlinearity from Indonesia. *Journal of Asian Economics*, 68, 101199. <https://doi.org/https://doi.org/10.1016/j.asieco.2020.101199>
- Chen, X., Li, W., Hu, S., & Liu, X. (2019). Quality of information disclosure, property rights, and bank loans: A bank heterogeneity perspective. *China Journal of Accounting Research*, 12(1), 63–92. <https://doi.org/https://doi.org/10.1016/j.cjar.2019.01.001>
- Çolak, M. S., & Şenol, A. (2021). Bank ownership and lending dynamics: Evidence from Turkish banking sector. *International Review of Economics & Finance*, 72, 583–605. <https://doi.org/https://doi.org/10.1016/j.iref.2020.11.014>
- Cyree, K. B., & Spurlin, W. P. (2012). The effects of big-bank presence on the profit efficiency of small banks in rural markets. *Journal of Banking & Finance*, 36(9), 2593–2603. <https://doi.org/https://doi.org/10.1016/j.jbankfin.2012.05.015>
- Farook, S., Hassan, M. K., & Clinch, G. (2014). Islamic bank incentives and discretionary loan loss provisions. *Pacific-Basin Finance Journal*, 28, 152–174. <https://doi.org/https://doi.org/10.1016/j.pacfin.2013.12.006>
- Fatmawati, Khan, M. A., Azizah, M., Windarto, & Ullah, S. (2019). A fractional model for the dynamics of competition between

commercial and rural banks in Indonesia. *Chaos, Solitons & Fractals*, 122, 32–46.

<https://doi.org/https://doi.org/10.1016/j.chaos.2019.02.009>

Galema, R. (2020). Credit rationing in P2P lending to SMEs: Do lender-borrower relationships matter? *Journal of Corporate Finance*, 101742. <https://doi.org/10.1016/j.jcorpfin.2020.101742>

Gao, Y., Yu, S. H., Chen, M., & Shiue, Y. C. (2020). A 2020 perspective on “The performance of the P2P finance industry in China.” *Electronic Commerce Research and Applications*, 40(January), 100940. <https://doi.org/10.1016/j.elerap.2020.100940>

González, F. (2020). Bank development, competition, and entrepreneurship: International evidence. *Journal of Multinational Financial Management*, 56. <https://doi.org/10.1016/j.mulfin.2020.100642>

Guo, Y., Zhou, W., Luo, C., Liu, C., & Xiong, H. (2016). Instance-based credit risk assessment for investment decisions in P2P lending. *European Journal of Operational Research*, 249(2), 417–426. <https://doi.org/10.1016/j.ejor.2015.05.050>

Hasan, I., Shen, Y., & Yuan, X. (2021). Local product market competition and bank loans. *Journal of Corporate Finance*, 70, 102054. <https://doi.org/https://doi.org/10.1016/j.jcorpfin.2021.102054>

Huang, J., Sena, V., Li, J., & Ozdemir, S. (2021). Message framing in P2P lending relationships. *Journal of Business Research*, 122, 761–773. <https://doi.org/https://doi.org/10.1016/j.jbusres.2020.06.065>

Ibrahim, M. H., & Rizvi, S. A. R. (2018). Bank lending, deposits and risk-taking in times of crisis: A panel analysis of Islamic and conventional banks. *Emerging Markets Review*, 35, 31–47. <https://doi.org/https://doi.org/10.1016/j.ememar.2017.12.003>

- Jabari, H. N., & Muhamad, R. (2021). Diversity and risk taking in Islamic banks: Does public listing matter? *Borsa Istanbul Review*.
<https://doi.org/https://doi.org/10.1016/j.bir.2021.07.003>
- Lee, I., & Shin, Y. J. (2018). Fintech: Ecosystem, business models, investment decisions, and challenges. *Business Horizons*, 61(1), 35–46. <https://doi.org/10.1016/j.bushor.2017.09.003>
- Li, H., Tao, Q., Xiao, H., & Li, G. (2019). Money market funds, bank loans and interest rate liberalization: Evidence from an emerging market. *Finance Research Letters*, 30, 426–435.
<https://doi.org/https://doi.org/10.1016/j.frl.2019.04.020>
- Li, H., Zhang, Y., & Zhang, N. (2017). Evaluating the well-qualified borrowers from PaiPaiDai. *Procedia Computer Science*, 122, 775–779. <https://doi.org/https://doi.org/10.1016/j.procs.2017.11.436>
- Liu, Z., Shang, J., Wu, S. yi, & Chen, P. yu. (2020). Social collateral, soft information and online peer-to-peer lending: A theoretical model. *European Journal of Operational Research*, 281(2), 428–438.
<https://doi.org/10.1016/j.ejor.2019.08.038>
- Mkhaiber, A., & Werner, R. A. (2021). The relationship between bank size and the propensity to lend to small firms: New empirical evidence from a large sample. *Journal of International Money and Finance*, 110, 102281.
<https://doi.org/https://doi.org/10.1016/j.jimonfin.2020.102281>
- Nigmonov, A., Shams, S., & Alam, K. (2022). Macroeconomic determinants of loan defaults: Evidence from the U.S. peer-to-peer lending market. *Research in International Business and Finance*, 59, 101516.
<https://doi.org/https://doi.org/10.1016/j.ribaf.2021.101516>
- Oladokun, Y. O. M., Adenegan, K. O., Salman, K. K., & Alawode, O. O. (2018). Level of asset ownership by women in rural North-East

and South-East Nigeria. *Women's Studies International Forum*, 70, 68–78.

<https://doi.org/https://doi.org/10.1016/j.wsif.2018.07.014>

Oliphant, W., & Ma, H. (2021). Applying Behavioral Economics to microcredit in China's rural areas. *Journal of Behavioral and Experimental Finance*, 31, 100555.

<https://doi.org/https://doi.org/10.1016/j.jbef.2021.100555>

Otoritas Jasa Keuangan. (2020). Peraturan Otoritas Jasa Keuangan Nomor 62/POJK.03/2020 tentang Bank Perkreditan Rakyat. Peraturan OJK.

PENG, Y., REN, Y., & LI, H. (2021). Do credit constraints affect households' economic vulnerability? Empirical evidence from rural China. *Journal of Integrative Agriculture*, 20(9), 2552–2568.

[https://doi.org/https://doi.org/10.1016/S2095-3119\(20\)63557-2](https://doi.org/https://doi.org/10.1016/S2095-3119(20)63557-2)

Petach, L., Weiler, S., & Conroy, T. (2021). It's a wonderful loan: local financial composition, community banks, and economic resilience. *Journal of Banking & Finance*, 126, 106077.

<https://doi.org/https://doi.org/10.1016/j.jbankfin.2021.106077>

Phung, Q. T., Van Vu, H., & Tran, H. P. (2021). Do non-performing loans impact bank efficiency? *Finance Research Letters*, 102393.

<https://doi.org/https://doi.org/10.1016/j.frl.2021.102393>

Pinem, N. A., Sulistyawati, F., & Gulo, E. N. P. (2023). Analysis Of Business Implementation on Shopeepay Digital Wallet using Business Model Canvas (BMC) and Swot Analysis. *Jurnal Impresi Indonesia*, 2(1), 71–82.

Piscicelli, L., Ludden, G. D. S., & Cooper, T. (2018). What makes a sustainable business model successful? An empirical comparison of two peer-to-peer goods-sharing platforms. *Journal of Cleaner*

Production, 172, 4580–4591.

<https://doi.org/https://doi.org/10.1016/j.jclepro.2017.08.170>

Pişkin, M., & Kuş, M. C. (2019). Islamic Online P2P Lending Platform.

Procedia Computer Science, 158, 415–419.

<https://doi.org/10.1016/j.procs.2019.09.070>

Pramesti, R., Rafidah, R., & Fusfita, N. (2023). Pengaruh Pengetahuan

Investasi, Modal Minimal dan Persepsi Risiko Terhadap Minat

Pengusaha Sawit Berinvestasi di Pasar Modal Syariah. *Journal of*

Economics and Business UBS, 12(2), 937–956.

Rahman, M. (2019). Islamic banks with mutuality and neutrality: A

balance-sheet-based theoretical framework. *The Quarterly*

Review of Economics and Finance, 74, 3–8.

<https://doi.org/https://doi.org/10.1016/j.qref.2018.02.001>

Saunders, M. N. K., Lewis, P., & Thornhill, A. (2019). Research Methods

for Business Students - Eight Edition. In *Qualitative Market*

Research: An International Journal (Eight Edit, Vol. 8, Issue 4).

Pearson Education. <https://doi.org/10.1108/qmr.2000.3.4.215.2>

Sclip, A., Girardone, C., Beltrame, F., & Paltrinieri, A. (2021). Bank risks

and lending outcomes: Evidence from QE. *Journal of International*

Money and Finance, 118, 102475.

<https://doi.org/https://doi.org/10.1016/j.jimonfin.2021.102475>

Sendjaja, T., Zainal, V. R., Imaningsih, E. S., Nawangsari, L. C., & Lo, S. J.

(2022). Digital Bank Transformation: Sustainable Innovation in

Financial Institutions. *Journal of World Science*, 1(12), 1118–1131.

Setiawan, N., Suharjito, & Diana. (2019). A comparison of prediction

methods for credit default on peer to peer lending using machine

learning. *Procedia Computer Science*, 157, 38–45.

<https://doi.org/10.1016/j.procs.2019.08.139>

Shaban, M., Duygun, M., Anwar, M., & Akbar, B. (2014). Diversification and banks' willingness to lend to small businesses: Evidence from Islamic and conventional banks in Indonesia. *Journal of Economic Behavior & Organization*, 103, S39–S55.

<https://doi.org/https://doi.org/10.1016/j.jebo.2014.03.021>

Smaoui, H., & Ghouma, H. (2020). Sukuk market development and Islamic banks' capital ratios. *Research in International Business and Finance*, 51, 101064.

<https://doi.org/https://doi.org/10.1016/j.ribaf.2019.101064>

Suesse, M., & Wolf, N. (2020). Rural transformation, inequality, and the origins of microfinance. *Journal of Development Economics*, 143, 102429.

<https://doi.org/https://doi.org/10.1016/j.jdeveco.2019.102429>

Takáts, E., & Temesvary, J. (2021). How does the interaction of macroprudential and monetary policies affect cross-border bank lending? *Journal of International Economics*, 132, 103521.

<https://doi.org/https://doi.org/10.1016/j.jinteco.2021.103521>

Tuna, G., & Almahadin, H. A. (2021). Does interest rate and its volatility affect banking sector development? Empirical evidence from emerging market economies. *Research in International Business and Finance*, 58(February 2019), 101436.

<https://doi.org/10.1016/j.ribaf.2021.101436>

Vo, X. V., Pham, T. H. A., Doan, T. N., & Luu, H. N. (2021). Managerial Ability and Bank Lending Behavior. *Finance Research Letters*, 39, 101585.

<https://doi.org/https://doi.org/10.1016/j.frl.2020.101585>

Wang, B., Yu, Y., Yang, Z., & Zhang, X. (2021). Microfinance institutions and Peer-to-Peer lending: What does microfinance competition bring? *Pacific-Basin Finance Journal*, 67, 101557.

<https://doi.org/https://doi.org/10.1016/j.pacfin.2021.101557>

- Wang, C., Chen, X., Jin, W., & Fan, X. (2022). Credit guarantee types for financing retailers through online peer-to-peer lending: Equilibrium and coordinating strategy. *European Journal of Operational Research*, 297(1), 380–392.
<https://doi.org/https://doi.org/10.1016/j.ejor.2021.05.054>
- Wilcox, J. A., & Yasuda, Y. (2019). Government guarantees of loans to small businesses: Effects on banks' risk-taking and non-guaranteed lending. *Journal of Financial Intermediation*, 37, 45–57. <https://doi.org/https://doi.org/10.1016/j.jfi.2018.05.003>
- Wu, Y., & Zhang, T. (2021). Can credit ratings predict defaults in peer-to-peer online lending? Evidence from a Chinese platform. *Finance Research Letters*, 40, 101724.
<https://doi.org/https://doi.org/10.1016/j.frl.2020.101724>
- Xia, Y., Zhao, J., He, L., Li, Y., & Yang, X. (2021). Forecasting loss given default for peer-to-peer loans via heterogeneous stacking ensemble approach. *International Journal of Forecasting*, 37(4), 1590–1613.
<https://doi.org/https://doi.org/10.1016/j.ijforecast.2021.03.002>
- Yu, T., & Shen, W. (2019). Funds sharing regulation in the context of the sharing economy: Understanding the logic of China's P2P lending regulation. *Computer Law and Security Review*, 35(1), 42–58.
<https://doi.org/10.1016/j.clsr.2018.10.001>
- Zhan, S., Tang, Y., Li, S., Yao, Y., & Zhan, M. (2021). How does the money market development impact the bank lending channel of emerging Countries? A case from China. *The North American Journal of Economics and Finance*, 57, 101381.
<https://doi.org/https://doi.org/10.1016/j.najef.2021.101381>
- Zhang, Y., Li, H., Hai, M., Li, J., & Li, A. (2017). Determinants of loan funded successful in online P2P Lending. *Procedia Computer*

Science, 122, 896–901.

<https://doi.org/10.1016/j.procs.2017.11.452>

Zhong, W., & Jiang, T. (2020). Can internet finance alleviate the exclusiveness of traditional finance? evidence from Chinese P2P lending markets. *Finance Research Letters*.

<https://doi.org/10.1016/j.frl.2020.101731>

Çolak, G., & Öztekin, Ö. (2021). The impact of COVID-19 pandemic on bank lending around the world. *Journal of Banking & Finance*, 133, 106207.

<https://doi.org/https://doi.org/10.1016/j.jbankfin.2021.106207>