Analysis of Factors Affecting Funding Decisions at Fintech Peer-to-Peer Lending in Indonesia

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Abstract:

This study analyzes the influence of Interest Offered, Credit Class, Business Turnover, and Loan Amount on Lenders' Fund Distribution Decisions in Fintech Peer to Peer Lending in Indonesia. This is the first empirical study using business financing submitted through the Peer-to-Peer Lending website. In this study, the data were obtained from the Koinworks.com website, a dominant Peer to Peer Lending service provider in Indonesia. Using the purposive sampling method, the sample used in this study was 88 SMEs. This study uses logistic regression using SPSS 26. The results of this study state that: (1) the interest rate offered has a significant positive effect on the decision to distribute funds; (2) credit class has a significant negative effect on the decision to distribute funds; (3) business turnover has no significant effect on the decision to distribute funds; and (4) the amount of the loan has a significant positive effect on the decision to distribute funds

Keywords: *Peer to Peer Lending; Lenders; MSMEs*

1. Introduction

Indonesia's economy experienced a slowdown in 2020 due to the pandemic COVID-19, with a decline in Gross Domestic Product of 3.49% in the third quarter. Micro, Small, and Medium Enterprises (MSMEs) greatly contribute to the Indonesian economy, reaching 65% of GDP in 2019. However, access to easy and not burdensome financing is needed by MSMEs to grow. Fintech lending, especially peer-to-peer lending services, has emerged as a solution to meet the capital needs of MSMEs. These services offer access to finance, fast processing, and easier requirements than traditional banking. The higher rate

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of return on investment is also an attraction for investors, especially millennials.

Funding through peer-to-peer lending services has many benefits such as measurable risk management due to the absence of price fluctuations like stocks or bonds, very easy investment, and a fairly high rate of return. Although fintech lending offers many benefits, some risks need to be considered. One of the main risks is the risk of default, where borrowers are unable to fulfill their loan repayment obligations. The default rate above 90 days (TWP90) in the fintech lending industry in Indonesia has reached 2.24%as of November 2021, indicating the financial risk that lenders have to bear.

Therefore, lenders must pay attention to the borrower's business feasibility. To minimize the risk and maximize return, lenders require some information from borrowers, particularly in the case of UMKM. However, lenders need to consider various factors before providing funding to borrowers, including assessing the offered interest rates, evaluating the credit classification, analyzing business turnover, and determining the loan amount requested by the borrowers. And the borrowers also need to consider the following factors before getting a loan.

In accordance with research previously conducted by Feng et. al (2015), and Cai et. al (2016) about the main aspect that sets fintech lending apart from traditional banking: the interest rates they offer on their loans tend to provide higher numbers. So it piques the interest of lenders. Other previous research by Emekter et.al (2014), and Hau et. al (2021) about the understanding of peer-to-peer lending and its connection to general loans, specifically exploring the determining factors of loan decisions based on credit classstated as the credit class increases, the potential benefits, and advantages associated with loan also rise. However, this is accompanied by a heightened level of risk (high risk). Accordingly, lenders tend to avoid funding the highercredit class. The business turnover depicts one's financial strength taking into account the business turnover, it is possible to determine the amount ofincome derived from total sales, which can be used to fulfill debt obligations. Thus, it assists the lender in determining whether or not to provide funding. (Emekter et.al's, 2014). Following the statement, the big amount of loan enhances the possibility of funding and attracts more lenders to funding in peer-to-peer lending platforms. (Feng et.al's, 2015).

While previous research has explored the factors that affect funding decisions in fintech lending, it is important to examine whether there are any significant research gaps in the impact of fintech lending including assessing the offered interest rates, evaluating the credit classification, analyzing business turnover, and determining the loan amount requested by the borrowers. Therefore, this research was conducted with a case study on oneof the fintech peer to peer lending companies in Indonesia, Koinworks. Koinworks is a peer-to-peer lending platform that has the most number of users in Indonesia according to Katadata Insight Center (KIC, 2022) Notably 34,1% of respondents utilize Koinworks as their peer-to-peer (P2P) lending investment platform.

Koinworks also conducts strict credit classification and selection of borrowers. Borrowers at Koinworks are categorized into credit classes based on the risk associated with the loan. The higher the credit class, the higher thepromised profit and the higher the risk that the lender must bear. With this classification, lenders can choose the level of risk that suits their preference and risk tolerance. Business turnover is also an important factor in the funding process at Koinworks. A borrower's business turnover gives an idea of their financial strength. By considering this business turnover, lenders can assess the ability of borrowers to repay the loan. The loan amount proposedby the borrower also affects the likelihood of funding and the lender's interestin funding the loan.

2. Theoretical Background

Financial Technology

Fintech or financial technology is a technology utilized to provide financial solutions. The term also refers to financial sector companies that offer advanced technology. According to Bank Indonesia's definition, fintech derives from a merger between financial services and technology that changes from a conventional business model to a moderate business model. Previously, payments and financial transactions were made in person bycarrying cash, but with fintech, payments can be made in seconds. In accordance with the National Digital Research Center (NDRC) in Dublin, Ireland defines fintech as an innovation in financial services supported by modern technology in the financial sector.

Peer-to-Peer (P2P) lending is a financial service that facilitates lending between borrowers and lenders through online platforms without the

involvement of conventional financial intermediaries such as banks. It allows individuals to borrow money directly from other individuals through an online platform. The Financial Services Authority in Indonesia regulates P2P lending.

P2P lending offers several advantages for borrowers, such as a simplified and less time-consuming borrowing process than traditional banks. It provides opportunities for individuals with poor credit scores to access loans by providing reasonable and logical explanations. Additionally, borrowers do not need to provide collateral or guarantees. However, disadvantages for borrowers include the possibility of higher interest rates when their creditworthiness is weak. Late payments can significantly increase outstanding balances due to high penalties. Long-term loans are not recommended as they accumulate higher interest over time.

In the P2P lending process, there are two main parties involved:
1. Lenders

    Lenders have access to loan applications and borrower data on the provided dashboard. They can review relevant information about borrowers, such as income, financial history, loan purpose, etc. Lenders deciding to invest in a loan can deposit funds according to their investmentgoals. Borrowers repay the loan in monthly installments, and lenders earn profits through principal and interest. The interest rate depends on the loan's invested interest rate.

2. Borrowers

    Borrowers need to upload the required documents online to apply for a loan. These documents may include financial reports for a specific period and the loan's objective. Business borrowers may also need to provide identification documents, proof of company legality, and financial reports. Loan applications can be accepted or rejected based on various aspects. If rejected, borrowers must address the reasons for rejection. Once approved, the interest rate of the loan is applied, then the loan request is listed on the available marketplace for potential lenders to view.

The mechanism of P2P lending involves the following steps:

1. Borrower Process

    After registration, borrowers submit loan applications. The P2P lending platform analyzes their creditworthiness, loan history, and income and assigns an interest rate and borrower score.

2. Lender Process
   Lenders provide personal information to the P2P lending platform, such as name, ID number, bank account details, and contact information. After registration, lenders can review borrower profiles and decide to whom they want to lend money.

3. P2P Platform Process
   The P2P lending platform manages personal data and funds from lenders. They also conduct credit analyses on borrowers to provide an overview to potential investors. This analysis helps lenders make informed investment decisions.

Investment

Investment is a capital investment activity, which has an important role in the economy of a country. Therefore, the size of investment in a country can affect the country's economy. Meanwhile, in the macroeconomic definition, investment is a flow of expenditure that adds to the physical capital stock (Dornbusch et. al., 2008). In research conducted by (Gustika & Yaspita, 2021) five factors influence investment decision-making namely: Investment security, Investment risk, Investment rate of return, Time value of money, and Liquidity level.

Investment Theory

Keynes Theory

John Maynard Keynes based his theory of investment demand on the concept of Marginal Efficiency of Capital (MEC). MEC is the expected net rate of return, where the discount rate is equal to the stream of expected future returns and the present cost of additional capital. Mathematically, MEC can be expressed in the following equation:

$$Ck = \frac{R1}{(1+MEC)^1} + \frac{R2}{(1+MEC)^2} + \cdots + \frac{Rn}{(1+MEC)^n}$$

Description :
Ck: Current cost
R: Expected return

Wealth Selection Portfolio Theory

Wealth selection theory is choosing a combination of various types/forms of wealth (assets). Forms of wealth are distinguished based on risk. High-risk assets include bonds and stocks, while low-risk assets are cash. (Nopirin, 2014). Widayatsari and Mayes (2012) explained that in making decisions for wealth selection, it is essential to give more concern to several factors, including wealth, expected return, risk, and liquidity. Wealth Selection Theory involves the selection of different asset combinations, taking into account the level of risk. High-risk assets such as bonds and stocks, while cash has a lower risk (Nopirin, 2014). In choosing wealth, the factors that need to be considered are wealth, expected return, risk, and liquidity. Wealth refers to a person's overall assets that reflect his or her level of prosperity. Expected return relates to the expected gain from holding that asset compared to other assets. Risk refers to the uncertainty associated with the asset and usually, people prefer assets with lower risk. Liquidity refers to the ease of cashing out the asset without cost. These factors affect the demand for assets in terms of quantity and cost (Widayatsari & Mayes, 2012).

Credit

The principles of credit assessment, as outlined by Kasmir (2016), involve the application of the 5 C analysis. Firstly, the character of prospective debtors is evaluated to establish trustworthiness in repaying credit. Secondly, the capacity or capability of the customer to repay credit is assessed, considering their ability to manage the business and generate profits. Thirdly, the capital sources available to the customer for the intended business are examined. Fourthly, collateral is evaluated, both in physical and non-physical forms, with the requirement that it exceeds the amount of credit granted. Lastly, the current and future economic conditions relevant to each sector are taken into account. By adhering to these principles, creditors can conduct a comprehensive assessment of prospective customers to ensure the appropriate granting of credit.

3. Methodology

This study uses a research design in the form of descriptive research to describe and analyze credit allocation on the Koinworks.com peer-to-peer lending fintech platform for Micro, Small, and Medium Enterprises (MSMEs). The study is aimed to gain a deeper understanding of loan allocation patterns and the factors that influence them. The data collection methods used include direct observation and analysis of loan allocation information and activities on the Koinworks.com website and secondary data

from sources such as the Koinworks website, the Financial Services Authority, and Bank Indonesia.

The population of this research is MSMEs that apply for loans through the Koinworks.com platform, and the research sample is selected using purposive sampling techniques based on certain criteria. The variables studied include the decision to disburse funds (dependent variable) as well as interest rates, credit class, business turnover, and the number of loans applied for (independent variables). The data analysis includes descriptive analysis to describe the data collected and logistic regression to analyze the factors that influence the distribution of funds. With this research design, it is expected that researchers can produce a comprehensive understanding of credit allocation on the Koinworks.com peer-to-peer lending fintech platform and contribute knowledge in this field.

The data were analyzed by using descriptive analysis and logistic regression. Descriptive analysis is used to describe the data that has been collected, using measures such as frequency and average. Frequency distribution is used to group data into certain classes, while the calculated average is used to show the center value of a set of data. In addition, logistic regression analysis is carried out to explain the factors that influence the distribution of funds inthis study.

Hypothesis

The hypothesis in the study is as follows:

1) It is suspected that the Interest Rate Offered has a significant positive effect on the Decision to Distribute Funds for Micro, Small, and Medium Enterprises (MSMEs) by Lenders at Fintech Peer to Peer Lending.

2) It is suspected that the Class of Credit has a significant negative effect on the Decision to Distribute Funds for Micro, Small, and MediumEnterprises (MSMEs) by Lenders at Fintech Peer to Peer Lending.

3) It is suspected that the Business Turnover has a significant positive effect on the Decision to Distribute Funds for Micro, Small, and Medium Enterprises (MSMEs) by Lenders at Fintech Peer to Peer Lending.

4) It is suspected that the Loan Amount has a significant positive effect on the Decision to Distribute Funds for Micro, Small, and MediumEnterprises (MSMEs) by Lenders at Fintech Peer to Peer Lending.

4. Empirical Findings/Result

This study discusses the factors that influence the decision to channel funds by lenders to Micro, Small, and, Medium Enterprises (MSMEs) when viewed from the factors of Interest Rates Offered, Credit Class, Business Turnover, and Loan Amount in the Peer-to-Peer Lending financing model on the Koinworks.com website. In this current study, data processing was carried out using Microsoft Excel 2010 software and IBM SPSS Statistics 26.

Table 1. Descriptive Statistics of Dependent and Independent Variables

	N	Minimum	Maximum	Mean	Std. Deviation
Interest Rate Offered	88	1.00	5.00	2.6477	1.87151
Class of Credit	88	1.00	5.00	.8750	1.16276
Business Turnover	88	1.00	4.00	1.5568	1.86911
Loan Amount	88	1.00	5.00	.9318	.68697
Fund Disbursement Decision	88	.00	1.00	.8750	.33261
Valid N (listwise)	88				

Source: Research Data Processing Results (2022)

According to the previous table, it can be seen that the dependent variable on the Fund Disbursement Decision at koinworks.com has an average (mean) of 0.87 and a standard deviation of 0.33261. This implies that of the 88 MSMEs as the sample of this research whose loan applications were successfully accepted and fully funded 87% and the remaining 13% were not fully funded. The lowest value (minimum) of 0 depicts the Fund Disbursement Decision that is not fully funded and the largest value (maximum) of 1 represents the Fund Disbursement Decision that is fully funded or by the loan amount submitted by the applicant. This is because the loan decision variable is included in the binary variable.

Table 2. Frequency of Interest Rate Variable Offered

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	12%-14.99%	3	3,4	3,4	54,5
	15%-17.99%	8	9,1	9,1	86,4
	18%-20.99%	48	54,5	54,5	95,5
	21%-23.99%	28	31,8	31,8	98,59
	>24%	1	1,1	1,1	100,0
	Total	88	100,0	100,0	

Source: Research Data Processing Results (2022)

The variable interest rate offered in the koinworks platform is defined as the maximum interest rate offered by the borrower when requesting a loan (Offer interest rate). The interest rates offered in koinworks are categorized into the

lowest interest rates, which range from 12% - 14.99% to the highest interest rates of more than 24%. High-interest rates indicate a high level of profit as well, this will increase the attractiveness of loans for creditors and stimulate them to bid on loan requests, so that the possibility of full funding from the listing increases. Based on Table 5.2, the variable interest rates offered on the Koinworks platform show that the largest percentage is in the third category with a percentage of 54.5%, meaning that on average MSMEs that apply for loans on the Koinworks platform offer interest rates in the third category, namely between the levels of 18% to 20.99%.

Table 3. Credit Variable Frequency

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	A	45	51,1	51,1	51,1
	B	24	27,3	27,3	78,4
	C	9	10,2	10,2	88,6
	D	5	5,7	5,7	94,3
	E	5	5,7	5,7	100,0
	Total	88	100,0	100,0	

Source: Research Data Processing Results (2022)

According to the table above, the credit class variable from the Koinworks platform Credit class is a value or credit score determined by the platform for disclosing information related to the borrower which describes the risk level of the credit, so that the credit class becomes an indicator of the risk assessment of a loan. The credit class in this study is categorized into numbers 1 to 5 where the credit class has been determined by Koinworks in the classification of borrowers according to the data and track record when applying for a loan in accordance with the credit class ranking. The statistical results show that the largest frequency is in the first category with a percentage of 51.1%. which means that the average MSME applying for a loan on the Koinworks platform is in the first category credit class or rating with the lowest risk, namely between A1 to A5.

Table 4. Koinworks Processing Summary Test Results

Unweighted Cases[a]		N	Percent
Selected Cases	Included in Analysis	88	100.0
	Missing Cases	0	.0
	Total	88	100.0
Unselected Cases		0	.0
Total		88	100.0

a. If weight is in effect, see the classification table for the total number of cases.

Source: Research Data Processing Results (2022)

The table above illustrates the dependent variable, namely loans that are not disbursed in accordance with the application with code "0". Meanwhile, loans that are fully disbursed or successfully funded in accordance with what was submitted are coded "1".

Table 5. Variables in The Equation

		B	S.E.	Wald	Df	Sig.	Exp(B)
Step 1a	Interest Rate Offered	1.867	0.947	3.89	1	0.049	6.469
	Class of Credit	-0.745	0.349	-4.555	1	0.033	0.475
	Business Turnover	1.288	0.718	3.214	1	0.073	3.626
	Loan Amount	1.033	0.479	4.648	1	0.031	2.809
	Constant	-3.87	2.093	-3.417	1	0.035	0.021

a. Variable (s) entered on step 1: Interest Rate Offered, Class of Credit, Business Turnover, Loan Amount.

Source: Research Data Processing Results (2022)

Variables in The Equation were used to discover whether the independent variable primarily affects the dependent variable and whether the effect is positive or otherwise and provides a range of odds or odds ratio values from the lower limit (lower) to the upper limit (upper). The partial test is performed by comparing the probability value to α; if the probability value is < α and H0 is rejected, indicating that the independent variable affects the dependent variable; if the probability value is > α and H0 is accepted, indicating that the independent variable does not affect the dependent variable. Then the magnitude of the influence of the independent variable on the dependent variable is indicated by the coefficient β. Based on the interpretation results from the table above, the logistic regression modelequation is obtained as follows: α

$$Y' = -3.870 + 1.867 \text{ IRO} -0.745 \text{ CC} + 1.288 \text{ BT} + I.033 \text{ LA}$$

Based on the results of the logistic regression analysis, several important findings were found. First, the constant value (a) has a negative value of -3,870, which indicates that if all independent variables (interest rate offered, credit class, business turnover, and loan amount) are zero, then the decision to disburse funds by lenders will decrease. This is because, in the decision-making process to fund, lenders must consider the return and risk factors associated with the distribution of funds.

5.   Discussion

The Effect of Interest Rates Offered on Fund Distribution Decisions

The interest rate variable offered has a regression coefficient of 1.867 with a positive value that is significant at the 5% significance level. This shows that if the interest rate offered increases by 1% with the assumption that the other independent variables are constant, the decision to disburse funds will increase by 1.867%. This indicates that if the interest rate offered is high, it ispossible to get full funding. The Interest Rate Offered can represent theprofit/return that will be obtained by lenders and is a consideration for some lenders in maximizing return/profit.

The results of this study are in accordance with previous research conducted by Weiß et al, 2012, Feng et al., 2015 and Cai et al., 2016, which state that the interest rate offered has a significant effect on lending decisions on Peer to Peer Lending in China. However, the research concurs that higher interest rates on listed offers are more attractive to lenders. higher interest rates on listed offers are more attractive to lenders in providing funds, as indicated by the positive coefficient B value on the variable. However, while the effect is positive, lenders also do not fully consider the interest rate of the offering in making their investment decision and tend to choose an interest rate that is neither too low nor too high. low and also not too high.

The Effect of Class of Credit on Fund Distribution Decisions

The class of credit variable has a reg. coefficient of -0.745 with a significant negative value at the 5% sig. level. This indicates that if the credit class increases by 1% with the premise that all of the other independent variables remain constant, the decision to channel funds will decrease by 0.745%.

The level of risk represented will provide an overview of the company's business profile, the risk of the level of profit offered, and the sustainability of the business which is a consideration for lenders. If the risk is high, there will be more considerations made by lenders and less possibility for lenders to provide loans to the business. In other words, if the risk is high, the possibility of the loan application being fully funded will be less.

The results of this research are in accordance with the research of Emekter et al. (2011) that if the credit class is high, the return is also high but with a higher level of risk. Therefore, lenders tend to avoid funding higher credit classes.

The Effect of Business Turnover on Fund Distribution Decisions

The business turnover variable has a reg. coefficient of 0.073 with a positive value but is not significant at the 5% significance level. This shows that an increase in business turnover with the premise that other independent variables remain constant will not affect the decision to distribute funds.

In broad terms, business turnover is one of the most important factors of financial consideration to see how much sales in the business is running. But not always a business experiences an increase in sales and there will be a phase of ups and downs in sales in a business. So in this research, business turnover does not affect the decision to distribute funds.

The Effect of Loan Amount on Fund Distribution Decisions

The loan amount variable has a reg. coefficient of 1.033 with a positive value that is significant at the 5% sig. level. This indicates that if the number of loans increases by 1% with the premise that the other independent variables remain constant, the decision to channel funds will increase by 1.033%.

The results of this study are in accordance with the results of research conducted by Feng et al., (2015) & Cai et al., (2016), which state that a larger loan amount will increase the possibility of funding and attract more lenders. The theory used by these two is based on the assumption that a larger loan amount will generate higher profits, so profit-oriented investors will be interested in providing loans.

6. Conclusions

This current study analyzes the factors influencing the determination to disburse funds in the Peer to Peer Lending financing model for MSMEs through the Koinworks.com platform. Based on descriptive statistical analysis and logistic regression, the interest rate offered was discovered to have a positive and significant influence on the decision to disburse funds by lenders. Credit class has a negative and significant effect, while business turnover has no significant effect. In addition, the loan amount has a positive and significant effect on the lending decision. These findings support the research hypothesis linking these factors to lending decisions on Peer to Peer Lending platforms.

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