The Influence of Risk and The Crowdfunding Ecosystem on Investment Decision Behavior: The Role of Financial Literacy

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Article Info

ABSTRACT

One way to support the government's smooth running of inclusive economic development is to help MSMEs (Micro, Small, and Medium Enterprises) gain access to funding. Along with technological developments, there is a new way for people to obtain external funding, namely through Crowdfunding Services. Crowdfunding has enormous potential in terms of helping people (especially MSMEs) to get external funds to develop their businesses. This research aims to analyze the influence of risk and the crowdfunding ecosystem on investment decision behavior in several crowdfunding companies in Indonesia with financial literacy as a moderating variable. The objectives of the research will be achieved using a problem-solving approach empirical and quantitative analysis. The research results show that risk and the crowdfunding ecosystem have a significant influence on investment decision behavior. The results of this research will be distributed to member companies of the Indonesian Sharia Fintech Association (AFSI) and it is hoped that it will provide information that helps them make decisions.

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1. INTRODUCTION

One way to support the government's smooth running of inclusive economic development is to help MSMEs (Micro, Small, and Medium Enterprises) gain access to funding. With wider access for MSMEs to funding, the Indonesian economy can further develop because MSMEs are the foundation of a country's economy due to the distribution and labor involved in it [1].

In recent years, along with technological developments, there has been a new way for people to obtain external funding, namely through Crowdfunding Services. Crowdfunding is a practice of raising funds for various purposes, especially for business capital and/or donations. The first online crowdfunding platform was born to raise digital donations for a band in England until finally in 2007 an equity-based crowdfunding platform called the Australian Small Scale Offerings Board (ASSOB) was launched in Australia [2]. Equity crowdfunding is a type of crowdfunding that has a concept like shares where the funds

deposited will become equity or ownership of the company in exchange for dividends [3].

The crowdfunding system in Indonesia entered in 2012 which operates in the non-profit social sector. Crowdfunding has enormous potential in terms of helping people (especially MSMEs) obtain external funds to develop their businesses. There are many parties involved in crowdfunding activities and the two important parties who use crowdfunding platforms are financiers and publishers. The decision to use a platform for investment purposes or project funding is a financial decision that will be considered carefully. This is because crowdfunding apart from opening-up interesting and good opportunities for many parties, crowdfunding also has various risks contained in it. Financiers and issuers will consider the possible returns that can be received/paid as well as the risks that may be borne.

However, the decision to use a crowdfunding platform is not always based on calculating the benefits and risks of a project but is influenced by many other things such as personal interests, financial goals, and knowledge of financial products. According to [4], things that can influence the decision behavior to use a platform are the number of projects that have been funded through the platform, the projects providing relevant and accurate information, the platform making investors feel comfortable and safe, and the value that the platform brings. Investors who are extraverted, open to experience, and confident tend to have high intentions to use the platform [5]. The main question in the concept of crowdfunding is "How can an idea or concept for a project from someone who has no reputation obtain funds from investors?"[6]. So one way to increase the amount of investment on the platform is to build an investment environment/ecosystem that supports and increases people's financial literacy.

Based on the explanation above, the author determined that this research aimed to analyze the influence of risk and the securities crowdfunding ecosystem on investment decision behavior in several crowdfunding companies in Indonesia with financial literacy as a moderating variable. The objectives of the research will be achieved using a problem-solving approach, namely the subject of study by making direct observations in the field [7] as well as descriptive-quantitative analysis. Statistical research results will be obtained through the use of structural equation modeling analysis methods.

2. LITERATURE REVIEW

There has not been much research related to crowdfunding in Indonesia. These are several research that related to crowdfunding investment in Indonesia.

2.1 Suryanto. 2021. Securities Crowdfunding: Transformation of Financing Of Small And Medium Enterprises In Indonesia) [8]

This study analyses the transformation of financing for Small and Medium Enterprises (SMEs) in Indonesia.

2.2 Soemarsono AA & Sofianti UD. Perspektif Hukum Mengenai Penggunaan Securities Crowdfunding pada Masa Pemulihan Ekonomi Akibat Pandemi. [9]

Discusses the legal perspective regarding the use of crowdfunding securities during the economic recovery period due to the pandemic.

2.3 Majid R, Nugraha RA. Crowdfunding and Islamic Securities: the Role of Financial Literacy [10]

Researching the role of financial literacy in crowdfunding and sharia securities.

3. METHODS

The research method that used in this article is *Structural equation modeling* (SEM). The data used in this research is primary data. Primary data was obtained from the results of questionnaires to investors on several crowdfunding platforms in Indonesia. The data and information that will be used in the analysis are obtained and explored using

questionnaires to the respondents. The questionnaire distributed to respondents is based on self-reported questionnaire. To eliminate biased answers from respondents due to confusion, the questions in the questionnaire are made short, concise, clear, and avoid repetition of meaning. In this research, the author used a purposive sampling approach to determine respondents by forming a series of criteria. The criteria set for respondents are as follows:

1. Indonesian citizen
2. Investors in the crowdfunding company

According to [11] the effective number of samples in Structural Equation Modeling (SEM) is 150 to 400. The number of samples is also determined with 5-10 samples per parameter/indicator. In this research there are two independent variables, one moderating variable and one dependent variable. Each of these variables has 6-7 questions in the questionnaire, so the total is 27 indicators. Based on the number of indicators, the minimum number of samples is 27 x 5 = 135 respondents.

The question indicators in the questionnaire were measured using a 5-level Likert scale, where 1 indicates 'strongly disagree' and 5 indicates 'strongly agree'. Before the questionnaire was distributed, the researcher conducted a pilot study by sending questionnaire questions to the initial 30 respondents, then the results were analyzed together with research fellows to evaluate the reliability and validity of each question indicator. After conducting a trial study and evaluating the survey instrument, the questionnaire was then distributed to respondents. In the SEM model, it will be tested using the outer test, inner test, and bootstrapping.

4. RESULTS AND DISCUSSION

SEM-PLS analysis is carried out through 2 analyses, namely measurement model analysis (outer model) and structural model analysis (inner model). The following are the results of the outer model analysis:

1. The Cronchbach's Alpha value for each variable is >0.70, it can be said that the level of reliability of all variables is high and declared reliable.
2. All variables have Composite Reliability which is more than 0.70, so it can be said that all the variables above are reliable.
3. Discriminant validity in a model it can be seen from the cross-loading value. The construct correlation of all loading values has a value greater than cross loading. The correlation of Risk to its indicators is higher than the correlation of Risk indicators to other constructs. The correlation of the Crowdfunding Ecosystem with its indicators is higher than the correlation of the Crowdfunding Ecosystem with other constructs. The correlation of Financial Literacy with the indicators is higher than the correlation of Financial Literacy indicators with other constructs. The correlation of investment decision behavior with the indicators is higher than the correlation of investment decision behavior indicators with other constructs.

Table 1. Outer Loading Values in SEM-PLS data processing

	Risk	Ecosystem Crowdfunding	Financial Literacy	Investment decision behavior
RI1	0.860			
RI2	0.890			
RI3	0.793			
RI4	0.868			
RI5	0.908			
RI6	0.821			
RI7	0.814			
EC1		0.820		
EC2		0.825		
EC3		0.758		
EC4		0.833		

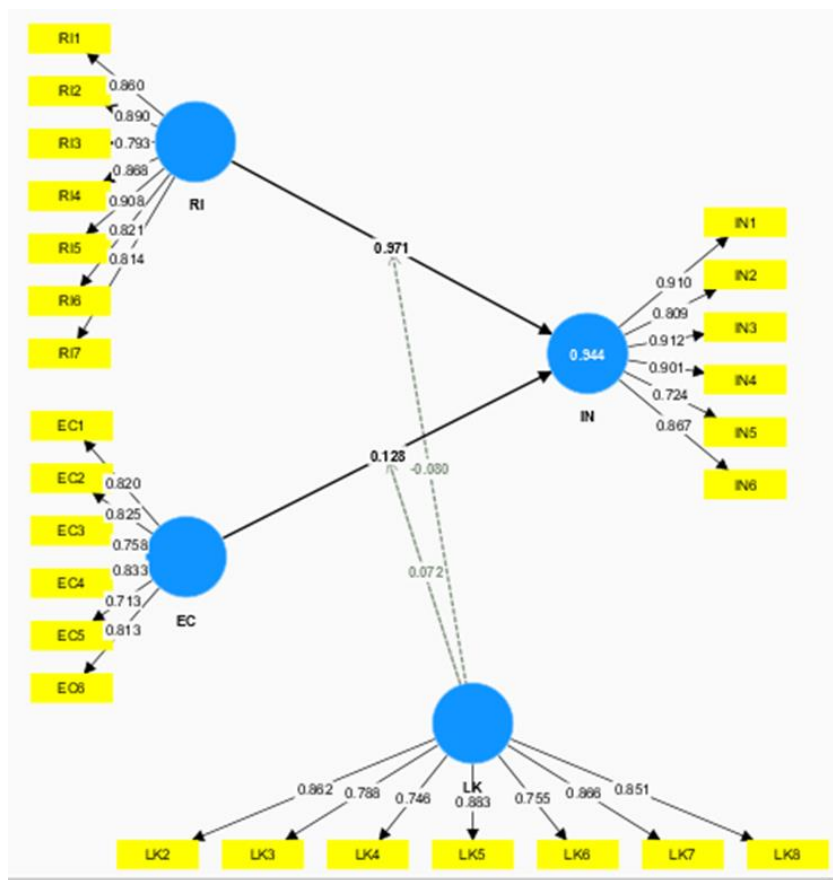|			
EC5		0.713	
EC6		0.813	
LK2			0.862	
LK3			0.788	
LK4			0.746	
LK5			0.883	
LK6			0.755	
LK7			0.866	
LK8			0.851	
IN1				0.910
IN2				0.809
IN3				0.912
IN4				0.901
IN5				0.724
IN6				0.867

Source: Processed primary data (2023)

Figure 1. SEM_PLS Results Diagram

The convergent validity test results data for the remaining 26 indicators are in table 10 and it can be concluded that the indicators have been declared valid because the loading factor value exceeds 0.70. The following are the results of the inner model analysis:

1. R Square Test

Investment Decision Behavior (IN) construct can be explained by the Risk (RI) and Crowdfunding Ecosystem (EC) variables of 0.944 or 94.4%, while 5.6% of the Investment Decision Behavior variable is explained by other variables outside Research Model.

2. F square Test

At this stage, an examination will be carried out regarding the influence of endogenous variables on exogenous variables which are known based on the effect size value f^2 which is presented in the following table.

Tabel 2. F Square

	IN	Information
EC	0,069	Weak
LK	0,026	Weak
RI	0,080	Weak
LK x EC	0,036	Weak
LK x RI	0,051	Weak

From the results above variables Risk, Crowdfunding Ecosystem, Financial Literacy has a weak/small effect on investment decision behavior [12].

3. Q-Square analysis

The Geisser Q^2 stone test was carried out to find out the model's prediction capability. If value $Q^2 > 0$ means the research model has predictive relevance. Here are the results.

$$Q^2 = 1 - (1 - R^2)$$
$$= 1 - (1 - 0,944)$$
$$= 0,944$$

The calculation results *Q-Square* in this study it was 0.944 or 94.4%, it can be concluded that the model in this study has a relevant predictive value, where the model used can explain the information contained in the research data by 94.4%.

4. Goodness of Fit (GoF)

Goodness of Fit (GoF) Index, used in evaluating the overall structural and measurement model. The GoF value ranges between 0 to 1 with the interpretation of the values: 0.1 (small GoF), 0.25 (moderate GoF), and 0.36 (large GoF). Here are the results.

Tabel 3. Goodness of Fit (GoF)

	Saturated model	Estimated model
SRMR	0,092	0,092

The SRMR value is 0.092 < 0.1, referring to Schermelleh et al (2003), if the value is less than 0.10, it is still acceptable, meaning that the proposed model is suitable/close to the empirical data.

5. Hypothesis test

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
EC→ IN	0.128	0.131	0.048	2,675	0.007
LK→IN	-0.115	-0.114	0.067	1,718	0.086
RI→ IN	0.971	0.967	0.040	24,312	0,000
LK x EC→ IN	0.072	0.075	0.024	2,968	0.003
LK x RI→ IN	-0.080	-0.082	0.029	2,759	0.006

If the t-statistic value is > 1.977 (t table significance 5%) then the effect is declared significant. H0 is rejected because all variables have P values that are > 0.05. Based on Table 12, the parameter coefficient value for the influence of the risk variable on financial literacy is 0.971, which means there is a positive influence between the two variables. In the t-statistic test, the effect of risk variables on financial literacy was 24,312 > 1,977 and p-values < 0.05 (5%), which means that risk (RI) has a significant effect on investment decision behavior (IN).

The parameter coefficient value of the influence of the Crowdfunding Ecosystem variable on financial literacy is 0.128, which means there is a positive influence between these two variables. In the t-statistic test the effect of risk variables on financial literacy was 82,675

> 1.977 and the p-values < 0.05 (5%), namely 0.007, which means the Crowdfunding Ecosystem (EC) has a significant effect on Investment Decision Behavior (IN). The results of this research are in line with research from [4] which states that factors related to crowdfunding platforms will influence the willingness to invest.

The parameter coefficient value data in table 13 shows that the influence of the Financial Literacy (LK) variable moderates the relationship between Risk (RI) and Investment Decision Behavior (IN) of -0.080, which means there is a negative influence. In other words, it can be interpreted that the higher the financial literacy, the less favorable the influence of risk considering financial literacy on investment decision behavior. Then the t-statistic test on the influence of risk variables on investment decision behavior is 2,759 < 1.977 and p-values > 0.05 (5%), namely 0.006, which means that financial literacy (LK) is able to moderate the relationship between risk and investment decision behavior (IN).

Based on Table 13, the parameter coefficient value for the influence of the financial literacy (LK) variable moderating the relationship between the Crowdfunding Ecosystem (EC) and Investment Decision Behavior (IN) is 0.072, which means there is a positive influence. In other words, it can be interpreted that the higher the level of financial literacy, the better the influence of the crowdfunding ecosystem considering financial literacy on investment decision behavior. The t-statistic test on the influence of risk variables on Investment Decision Behavior (IN) is 2.968 < 1.977 and p-values > 0.05 (5%), namely 0.003, which means that financial literacy (LK) is able to moderate the relationship between the Crowdfunding Ecosystem (EC) and Investment Decision Behavior (IN).

The parameter coefficient value in table 13 shows that the influence of the Financial Literacy (LK) variable on Investment Decision Behavior (IN) is -0.115, which means there is a negative influence between the two variables; or it can be interpreted that the higher the financial literacy, the less good investment decision behavior will be. In the t-statistic test, the influence of the Financial Literacy (LK) variable on Investment Decision Behavior (IN) was 1,718 < 1.977 and the p-values were > 0.05 (5%), namely 0.086, which means that Financial Literacy (LK) had no significant effect on Investment Decision Behavior (IN). The results of this research are at odds with research from [10] which states that financial literacy will increase intentions to invest.

5. CONCLUSION

Based on the results of the data analysis described in the results and discussion section, it can be concluded that the risks and ecosystem of crowdfunding companies have a significant influence on the investment decision behavior made by investors. On the other hand, financial literacy is able to moderate the relationship between risk and the crowdfunding ecosystem on investment decision behavior. Suggestions for further research are to research conventional crowdfunding companies and add other variables that might influence investment decision behavior.

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