

The Role of Financial Literacy in Enhancing Financial Inclusion and Rational Decision: Implications for MSMEs' Financial Performance

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Abstract: *The study of the influence of financial literacy on financial inclusion and rational financial decisions and their impact on the MSME's financial performance is needed to obtain a more comprehensive understanding. The research aim is: 1) Analyze the direct influence of financial literacy on financial inclusion, the rationality of financial decisions, and the financial performance of MSMEs; 2) Analyze the two path indirect influence of financial literacy on financial performance through financial inclusion or rational financial decisions in MSMEs; and 3) Analyze the three path indirect influence of financial literacy on financial performance through financial inclusion and rational financial decisions in MSMEs. This research design is explanatory research, explaining the causal relationship between several variables through hypothesis testing. The instruments used were financial literacy questionnaires, financial inclusion, rational financial decisions, and MSME financial performance. The techniques used inferential analysis using Structural Equation Modeling- Partial Least Square (SEM PLS). The research result shows that financial literacy influences the financial inclusion, rationality of financial decisions, and financial performance of MSMEs. The results of this study indicate that financial inclusion and financial decisions can mediate the effect of financial literacy on MSME performance in parallel and serially.*

Keywords: financial literacy, financial inclusion, financial decisions; financial performance, MSMEs

I. INTRODUCTION

MSMEs (Micro, Small, and Medium Enterprises) are important in Bali's economy. MSMEs in Bali contribute to regional income and employment. MSMEs as business units need to improve financial performance to ensure business continuity. Financial performance is one of the general components to evaluate the performance of a business unit. Financial performance describes the company's success in obtaining results from various activities[1], [2]. The MSME's financial performance is influenced by some factors. The right financial decisions will improve financial performance. Rational financial decision-making requires relevant information. Financial literacy allows the availability of information for rational decision-making. Financial literacy is essentially financial knowledge that can improve financial inclusion and financial performance[3][4], [5]and [6].

Financial literacy means having the knowledge, skills, and confidence to make responsible financial decisions. The conceptual definition of financial literacy talks about abilities, knowledge, and skills but does not attempt to articulate what aspects of money management shape one's financial literacy[7]. Financial literacy is knowledge, skills, and beliefs that influence attitudes and behavior to improve the quality of decision-making and financial management to achieve prosperity[8]. Literacy is a crucial instrument for growing financial awareness, knowledge, skills, attitudes, and behaviors required for individuals to access and use these services effectively [10].Financial literacy is a combination of financial knowledge, attitudes, and financial behaviors that must be possessed to make effective financial decisions. Financial literacy (FL) consists of three dimensions, namely financial knowledge (FLK), financial attitudes (FLA), and financial behavior (FLB)[9], [10]. According to the Financial literacy theory of financial inclusion, financial literacy can increase financial inclusion[6]. Financial literacy enables the availability of relevant information required for rational financial decision-making. Financial literacy also has an impact on financial performance.

Financial inclusion is the process of ensuring timely access to adequate financial and credit services. Financial inclusion is the availability of access to various institutions, products, and financial services according to the needs and capabilities of the community to improve people's welfare [8]. Financial inclusion involves providing access and formal

financial services to underserved populations[11]. Financial inclusion is the availability of access to various formal financial institutions, products, and services to the needs and capabilities of the community to improve people's welfare. Financial inclusion is crucial and has a beneficial effect on poverty. This effect is more pronounced in poorer economies than in richer ones [12]. Financial inclusion is the availability, ownership, and use of formal financial products/services that suit the needs and capabilities of MSMEs. Financial inclusion (FI) includes three indicators [10]. Financial inclusion allows for a wider range of funding sources as a choice in financial decisions. Financial inclusion should have a positive effect on financial performance, but high financial inclusion without adequate financial literacy can hurt financial resilience[13], [40].

A decision is an action chosen from alternatives to achieve organizational goals[14]. Financial decision is process for all decisions related to the company's liabilities and shareholders' equity. Financial strategy consists of three interrelated decisions, namely investment, financing, and working capital decisions [15]. The element of rationality in the decision-making process is a crucial prerequisite for managerial functions. Rational decision-making is acting in the best way by considering objectives and constraints. Rational decisions must be consistent, comparative, conscious, and flexible[16].

There is a gap in the development of financial literacy and financial inclusion. The research is needed to analyze the direct effect, two-way indirect effect, and three-way indirect effect in the model of the financial literacy effect on financial inclusion and rational financial decisions and financial performance of MSMEs. This research develops a more comprehensive model to provide a more comprehensive picture and understanding of financial literacy, financial inclusion, rational financial decisions, and financial performance of MSMEs.

II. LITERATUR REVIEW

2.1 Theory

The Knowledge-Based View (KBV) is a view from research on the firm's Resource View (RBV), evolutionary economics, organizational learning, technology management, management cognition, and systems theory. KBV identifies knowledge as essential to creating and sustaining competitive advantage and implementing strategy through management structures and systems [17]. KBV plays a role in building human resource involvement to adapt to various problems more effectively and efficiently so that human resource development is more dominant and structured. Human capital produces something unique and difficult to imitate as an organizational characteristic[18].

According to Ozili (2020), the financial literacy theory of financial inclusion is one of the theories of financial inclusion delivery. The financial literacy theory of financial inclusion states that financial inclusion is achieved through education that improves financial literacy. This theory argues that financial literacy will increase people's willingness to participate in the formal financial sector. Financial literacy can make people aware of available financial products and services and make them willing to participate in the formal financial sector by having a bank account. Through improved financial literacy, people can utilize other benefits in the formal financial sector, such as investment and credit products. Financial literacy can help people become self-reliant and can help maintain personal financial stability. Financial literacy helps differentiate between needs and wants, helps create and manage budgets, and saves money to pay bills when they are due, and retirement plans [6].

Rational Choice Theory (RCT) assumes that individuals make rational and logical choices based on their preferences, goals, and available information [5]. According to RCT, individual actions lead to goals determined by values or preferences. RCT has two main elements: actors and resources. Actors are individuals who act to make good use of resources. Actors are individuals who have goals and value the option to make choices. Actors also have the power to determine choices and actions. Resources are any potential that exists or is owned. Resources can be natural resources and human resources. Coleman also explains the interaction between actors and resources at the social system level. The minimal basis of a social system is the action of two actors. Each actor controls resources that attract the attention of the other. Actors always have goals and maximize their interests, which characterizes the interdependence of actors' actions. Coleman recognizes that individuals do not always act or behave rationally[5].

2.2 Previous Study

Several studies researched the effect of financial literacy on financial decisions. Research [19] states that the level of financial literacy of rural residents will influence financial decisions and financial well-being. Research [20] clarifies the contribution of numeracy and financial literacy to the quality of decision-making in the financial context. The research results show that numeracy and financial literacy affect decision-making differently. Several studies have researched the effect of financial literacy on financial inclusion. Research[21] shows the relationship between financial literacy and financial inclusion. The study results of[22] show that recipients of financial literacy training are more likely to intensify their financial inclusion and have a higher intensity of inclusion. The study results show that financial literacy has a positive and significant effect on financial inclusion. Research[23]shows that higher financial literacy has a positive

impact on financial inclusion. Several studies on the effect of financial inclusion on financial decisions are still limited. The study results of [24] show that financial inclusion has a positive effect on financial decisions. Research [13] shows that financial inclusion has a positive effect and significant effect on financial decisions. Further research is needed to obtain a better description and better understanding of the effect of financial literacy on financial inclusion and rational financial decisions in MSMEs (Micro, Small, and Medium Enterprises).

2.4 Hypothesis

Based on the literature review, the research hypothesis is as follows:

- H1: Financial literacy has a positive effect on financial inclusion.
- H2: Financial literacy has a positive effect on financial decisions.
- H3: Financial literacy has a positive effect on financial performance.
- H4: Financial inclusion has a positive effect on financial decisions.
- H5: Financial inclusion has a positive effect on financial performance.
- H6: Financial decisions have a positive effect on financial performance.
- H7: Financial literacy has a positive effect on financial decisions through financial inclusion.
- H8: Financial literacy has a positive effect on financial performance through financial inclusion/financial decisions.
- H9: Financial inclusion has a positive effect on financial performance through financial decisions.
- H10: Financial literacy has a positive effect on financial performance through financial decisions and financial decisions.

III. METHOD

This research design is explanatory research, which explains the causal relationship between several variables through hypothesis testing. The research procedure consists of 1) observation and initial data collection, hypothesis exploration, and research procedure design; 2) methodology design; 3) data collection and processing; and 4) data analysis and research report. The objects of this research are financial literacy, financial inclusion, rational financial decisions, and financial performance. This research was on MSMEs located in Badung Regency, Bali.

The data used is quantitative. Data include financial literacy, financial inclusion, rational financial decisions, and financial performance. The research data were from primary sources and secondary sources. Data was collected using several methods (interview technique, questionnaire, and documentation). The instruments used were financial literacy questionnaires, financial inclusion, rational financial decisions, and financial performance. The instrument uses 4 Likert scales, from 1 (very unfavorable) to 4 (very favorable). The sampling technique used is purposive sampling. The population was MSMEs located in Badung, Bali. The sample consisted of micro, small, and medium enterprises. The selected sample was 150 businesses following the objectives and needs of the study. Activities in the study included data collection, data processing and analysis, and research reporting. The techniques used were descriptive and inferential analysis with SEM Pls using the warpPls 7.0 program.

IV. RESULT AND DISCUSSION

The research sample is micro-businesses, small businesses, and medium businesses in Badung Regency. Most samples were micro-businesses (51.33%) and operating in the trade sector (79.33%). The research respondents were mostly women (52.67%) and aged 26 to 45 years (47.33%), with the highest level of education being high school (48.67%).

4.1 Descriptive Analysis

The financial literacy of MSMEs is good knowledge, financial attitudes, and financial behavior. MSMEs have good knowledge of financial inflation and the time value of money (2.95), loan interest (3.23), and business risk (2.23). MSMEs have good financial attitudes toward financial goals (3.29), business funding (2.95), and financial planning (3.08). MSMEs have good financial behavior in separation of accounts (2.83), selection of financial products (2.92), and financial record keeping (2.71). It is necessary to increase the knowledge of MSME players about business risks and behavior in keeping financial records.

The financial inclusion of MSMEs is good. Availability of financial products and services for MSMEs (3.26), MSMEs have financial products and services (3.09), and MSMEs utilize financial products and services (2.88). MSMEs make financial decisions rationally. MSME players double-check information sources before making financial decisions (3.04), make MSME financial decisions logically and systematically (3.04), and financial decisions provide satisfactory results (2.83). The financial performance of MSMEs is good. MSMEs can achieve a profit (2.93), growth rate (3.18), and liquidity target (3.21).

4.2 Inferential Analysis

The path model consists of two elements: the structural or inner model and the measurement or outer model. The structural model describes the relationship between constructs. The measurement model describes the relationship between the research construct and its measuring indicators (indicators/items). Financial literacy (FL) has three dimensions, namely financial knowledge (FLK), financial attitude (FLA), and financial behavior (FLB). The financial inclusion (FI) construct is a reflective construct measured using three indicators: availability of financial products/services, ownership of financial products/services, and use of financial products/services. The rational financial decision (FD) construct is a reflective construct measured by three indicators: sources of information, logical and systematic, and careful thought. Financial performance is a reflective construct measured by three indicators: profit rate, growth rate, and liquidity level. The research path model is in Figure 4.1.

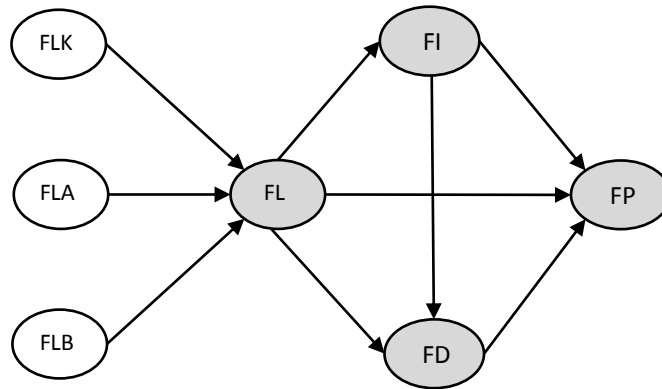


Fig. 4.1 Path Model

Measurement evaluation shows that the instrument validity test showed that the research instrument is valid. The convergent validity test used the outer loading. Outer loading of indicator greater than or equal to 0.70 except for the FLB 0.688 dan FD1 0.678, which are smaller than 0.70 but still acceptable. The average variance extracted (AVE) is greater than or equal to 0.50. The discriminant validity test using cross-loadings shows that the loading factor for each indicator that measures its latent variable is greater than the cross-loading value (correlation of indicators with other latent variables), the AVE root of each construct on the diagonal elements is higher than the correlation between constructs on non-diagonal elements in the same column, and meet the heterotrait-monotrait ratio (HTMT) limit of 0.90[25],[26]. The results of the research instrument reliability test showed that the research instrument was reliable because the results of the internal consistency reliability test showed that the value of composite reliability was greater or equal to 0.70, Cronbach alpha was greater or equal to 0.70, except for FL (0.614) and FD (0.640), which were less than 0.70, but still acceptable.

Table 4. 1Assessment of the significance

Hypothesis	Path Coefficient	p Value
H1: Financial literacy has a positive effect on financial inclusion.	0.662	<0.001
H2: Financial literacy has a positive effect on financial decisions.	0.451	<0.001
H3: Financial literacy has a positive effect on financial performance.	0.231	0.002
H4: Financial inclusion has a positive effect on financial decisions.	0.310	<0.001
H5: Financial inclusion has a positive effect on financial performance.	0.053	0.257
H6: Financial decision has a positive effect on financial performance.	0.457	<0.001
H7: Financial literacy has a positive effect on financial decisions through financial inclusion.	0.206	<0.001
H8: Financial literacy has a positive effect on financial performance through financial inclusion/ financial decisions.	0.241	0.001
H9: Financial inclusion has a positive effect on financial performancethrough financial decisions.	0.142	0.006
H10: Financial literacy has a positive effect on financial performance throughfinancial inclusion and financial decision.	0.094	0.022

The structural model evaluation consists of path coefficient values and p values, explanatory power test, prediction power test, and the goodness of fit model. Assessment of the significance and relevance of the structural model relationship by using the path coefficient and p-value. The significance assessment shows that all direct effects, the two-path indirect effects, and the three-path indirect effects are positive and significant, except that the effect of financial inclusion on financial performance is not significant.

The assessment of the coefficient of determination (R^2) is a measure of the model's predictive power. This coefficient indicates the amount of variation of the endogenous latent variables that can be explained by all the exogenous latent variables that have arrows on these variables, as well as the combined effect of the exogenous latent variables on the endogenous latent variables. The coefficient of determination (R^2) of the effect of financial literacy on financial inclusion is 0.44, indicating that financial literacy can explain variations in financial inclusion of 44%. The coefficient of determination (R^2) of the effect of financial literacy on financial decisions is 0.30, indicating that financial literacy can explain variations in financial decisions of 30%. The coefficient of determination (R^2) of the effect of financial literacy on financial performance is 0.12, indicating that financial literacy can explain variations in financial performance of 12%. The coefficient of determination (R^2) of the effect of financial inclusion on financial decisions is 0.19, indicating that financial inclusion can explain variations in financial decisions of 19%. The coefficient of determination (R^2) of the effect of financial inclusion on financial performance is 0.03, indicating that financial inclusion can explain variations in financial performance of 3%. The coefficient of determination (R^2) of the effect of financial literacy and financial inclusion on financial decisions is 0.49, indicating that financial decisions can explain variations in financial decisions of 49%. The coefficient of determination (R^2) of the effect of financial literacy, financial inclusion, and financial decisions on financial performance is 0.44, indicating that financial decisions can explain variations in the financial performance of 44%. Assessment of predictive power examines the value of Q-squared. Q-squared is an indicator of out-of-sample predictive power.

Q-squared values for financial inclusion, financial decisions, and financial performance, respectively 0.443, 0.485, and 0.434. Value is greater than zero, so the model has good predictive relevance. Evaluation of the goodness of fit model uses the main fit indicators, namely: average path coefficient (0.361), average R-squared (0.453), average adjusted R-squared (0.446), average block VIF (1.892), average full collinearity VIF (1.982). The goodness of fit criteria has been fulfilled. The research model matches the research data in explaining, predicting, or analyzing the relationship between the constructs studied.

Financial literacy (financial knowledge, attitude, and behavior) has a positive and significant effect on financial inclusion. Good financial literacy helps MSMEs understand the various financial products available. Good understanding will help MSMEs access, choose, and utilize financial products optimally. Increased financial knowledge, financial attitudes, and financial behavior will improve financial inclusion. A good financial literacy will encourage MSME actors to participate in the formal financial system. The results of this study support the results of previous studies, which show that financial literacy has a positive effect on financial inclusion. Research [27] shows the relationship between financial literacy and financial inclusion. The study results of [22] show that recipients of financial literacy training are more likely to intensify their financial inclusion and have a higher intensity of inclusion. The study results show that financial literacy has a positive and significant effect on financial inclusion. Research [23] shows that higher financial literacy has a positive impact on financial inclusion.

Financial literacy (financial knowledge, attitude, and behavior) has a positive and significant effect on rational financial decisions. Increased financial knowledge, attitudes, and behavior will increase rational financial decisions. Financial literacy enables more rational decision-making. Financially literate MSMEs can evaluate alternative financial decisions, understand the consequences of financial decisions, and avoid the trap of uncontrolled debt. The study results support the results of previous studies, which show that financial literacy has a positive effect on rational- financial decisions. Research [20] clarifies the contribution of numeracy and financial literacy to the quality of decision-making in the financial context. Research [19] states that the level of financial literacy of rural residents will influence financial decisions and financial well-being. The research results show that numeracy and financial literacy affect decision-making differently.

Financial literacy has a positive and significant effect on financial performance. Increased financial literacy will increase rational financial performance. Good financial literacy enables MSMEs to manage financial resources more effectively, avoid mistakes, and take advantage of growth opportunities. The study results support the previous studies, which show that financial literacy has a positive effect on rational- financial decisions. Research on the influence of financial literacy on financial performance by [28],[29], [30], [31],[32] shows that financial literacy has a positive effect on financial decisions.

Financial inclusion has a positive and significant effect on rational financial decisions. Increased financial inclusion will increase rational financial decisions. The study results support the previous studies, which show that financial

inclusion has a positive effect on rational- financial decisions. Research [24] shows that financial inclusion has a positive impact on financial decisions. Research [13], [33] shows that financial inclusion has a positive and significant effect on financial decisions.

Financial inclusion has a positive effect on financial performance, but not significant. The results of this study are in accordance with the previous studies, which showed that increasing financial inclusion did not significantly improve MSME performance [34], [35]. The study results are different from the findings of research conducted by Pandin et al. (2021), which shows that financial inclusion has a negative and significant effect on financial resilience. Pandin et al. (2021) conducted research during the Covid-19 pandemic, while this research was after the Covid-19 pandemic.

Financial decisions have a positive and significant effect on financial performance. Increasing the rationality of decision-making improves the performance of MSMEs. There is a causal relationship between financial decisions and their impact on financial performance [4]. The investment decision impacts the financial performance and firm value [36]. Financing decisions as a mediating variable between capital structure and firm performance [37]. Financing decisions influence the firm performance [38] and [39].

Financial literacy has a positive significant effect on financial decisions through financial inclusion. Financial literacy has a positive significant effect on financial performance through financial inclusion/financial decisions. Financial inclusion has a positive significant effect on financial performance through financial decisions. Financial literacy has a positive and significant effect on financial performance through financial decisions and financial decisions. The results of this study indicate that financial inclusion and financial decisions can mediate the effect of financial literacy on MSME performance in parallel and serially.

V. CONCLUSION

The research results show that all direct effects are positive and significant, except the impact of financial inclusion on financial performance is not significant. The two-path indirect effects and the three-path indirect effects are positive and significant. Financial literacy has a positive significant impact on financial decisions through financial inclusion. Financial literacy has a positive significant impact on financial performance through financial inclusion/financial decisions. Financial inclusion has a positive significant effect on financial performance through financial decisions. Financial literacy has a positive and significant impact on financial performance through financial decisions and financial decisions. The results of this study indicate that financial inclusion and financial decisions can mediate the effect of financial literacy on MSME performance in parallel and serially. MSMEs should make efforts to increase the knowledge of MSME actors about business risks and behavior in keeping financial records by holding technical training as needed. MSMEs should make efforts to improve financial literacy to increase financial inclusion and rational financial decisions to improve the financial performance of MSMEs.

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