

FINANCIAL LITERACY AND ITS IMPACT ON LOAN PERFORMANCE: SOME EVIDENCE FROM SAVING AND LOAN COOPERATIVES IN INDONESIA

Bambang Wahyudiono¹, Lia Dahlia Iryani²

^{1,2}Universitas Pakuan, Bogor, Indonesia

Corresponding author email: ¹bambang.wahyudiono@unpak.ac.id

Article history:

Submitted:

January 01, 2025

Revised:

February 19, 2025

Accepted:

June 29, 2025

JEL Classification:

G21, G32, G53

Keyword:

Empowerment; financial literacy; loan performance; saving and loan cooperative; small and microenterprise.

Kata kunci:

Literasi keuangan; kinerja pinjaman; koperasi simpan pinjam; pemberdayaan; usaha mikro dan kecil.

How to cite:

Wahyudiono, B., & Iryani, L. D. (2025). Financial literacy and its impact on loan performance: some evidence from saving and loan cooperatives in Indonesia. *JIMFE (Jurnal Ilmiah Manajemen Fakultas Ekonomi)*, 11(1), 111–124. <https://doi.org/10.34203/jimfe.v11i1.11381>.



ABSTRACT

The objective of this study is to examine whether the savings and loan cooperative (SLC), through financial literacy, to increase loan performance quality and the business capacity of members as institutional owners. The research sample was selected using questionnaires with five Likert scales. Research population and sample take location in five Java provinces in Indonesia, which represent 150 SLC or 15 percent of the total provinces in Indonesia. The research method was quantitative, and the analysis technique used SEM PLS. The results of this study indicate that saving and loan cooperative management innovations through the provision of business assistance, marketing consulting, and financial literacy affect the credit performance of their institution. Research findings can play a pivotal role of microfinance institutions (MFIs) to support members' businesses and strengthen literacy through institutional regulations. This research can assist microfinance institution management to strengthen the organization's strategic role in financial intermediation and empower micro and small entrepreneurs as members in line with the dual economic and social mission.

ABSTRAK

Tujuan dari penelitian ini adalah untuk mengkaji apakah koperasi simpan pinjam (KSP) melalui literasi keuangan dapat meningkatkan kualitas kinerja pinjaman dan kapasitas usaha anggota sebagai pemilik institusi. Sampel penelitian dipilih menggunakan kuesioner dengan skala Likert lima poin. Populasi dan sampel penelitian berlokasi di lima provinsi di Jawa, Indonesia, yang mewakili 150 KSP atau 15 persen dari total provinsi di Indonesia. Metode penelitian yang digunakan adalah kuantitatif dan teknik analisisnya menggunakan SEM PLS. Hasil penelitian ini menunjukkan bahwa inovasi manajemen koperasi simpan pinjam melalui penyediaan bantuan usaha, konsultasi pemasaran, dan literasi keuangan memengaruhi kinerja kredit institusi mereka. Temuan penelitian ini dapat memainkan peran penting bagi lembaga keuangan mikro (LKM) untuk mendukung usaha anggota dan memperkuat literasi sesuai dengan peraturan institusi. Penelitian ini dapat membantu manajemen lembaga keuangan mikro untuk memperkuat peran strategis organisasi dalam intermediasi keuangan dan pemberdayaan pengusaha mikro dan kecil sebagai anggota, sejalan dengan misi ganda ekonomi dan sosial.

INTRODUCTION

The post-crisis economic recovery, as experienced in previous years, is like the current post-COVID-19 incident, namely, again depending on the role of the micro and small business sector (SME) and cooperatives. These two factors have proven to play an important role in the economic activity of the community. SLC as part of microfinance institutions, as is the case in other countries, play a role in providing funds to members for productive activities. Financial cooperative plays an important role in the financial system of many countries. They act as a haven for deposits and are major sources of credit for household members, and micro and small-sized firms (McKillop et al., 2020). According to Loubere & Zhang (2020), local informal and semi-formal modes of co-operative organization and action have continued to be widespread across the country.

Data from the Ministry of Cooperatives and SMEs shows that in the 2019-2024 period, the government dissolved around 82,000 cooperatives that were no longer active. In 2014, there were around 209,488 cooperative units recorded, and this number will decrease to 130,119 units in 2023. With the phenomenon of so many inactive cooperatives in Indonesia, it is necessary to find out the reasons why they became inactive and were disbanded. The novelty of this research is that the literacy factor is one of the causes of threatened cooperative sustainability. So far, the member literacy factor has not been a concern in the analysis of financing or loans provided by cooperatives. The results of research so far, which is also a research gap, is that providing and strengthening financial literacy education for members is considered a non-financial factor that does not influence the sustainability of cooperatives.

In this study, we empirically examine the effect an empowerment from SLCs to their member on (1) cost efficiency, (2) propensity/proclivity for loan repayment, and (3) loan cost. Specifically, we utilize the result of questionnaires from manager SLC found in 5 provinces di Indonesia in 2021 as a natural experiment. We examine how non-financial services in the form of management assistance, marketing services, and financial literacy have any impact on loan performance. It is well-known that asymmetric information leads to adverse selection and moral hazard problems in any financial institution (Behr & Sonnekalb, 2020). All mitigation efforts need to be continuously sought, to ensure that credit disbursement is safe for lenders and beneficial for borrowers.

If this empowerment mitigation is made available to lenders, information asymmetries decrease, which may affect the behavior of both borrowers and lenders. We therefore view the empowerment by SLC to their members in Indonesia to be an ideal setting for studying how improved empowerment impacts these three important loan outcomes. The capacity-building role of members is increasingly qualified when it involves management innovation, especially related to financial literacy. Enhanced financial literacy reduces monitoring costs and serves to optimize firms' capital structure which positively impacts SMEs' growth (Hussain et al., 2020). The performance of SLC and the efforts of its members will synergize towards the efficiency needed for business progress, which can be achieved through aspects related to financial literacy. This study aims to reflect on how to improve or revitalize the role of SLC so that it is more optimal in supporting the economic growth of the SME sector while still referring to the applicable SCL regulations.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Loan Performance

Microfinance institutions vary in terms of ownership form, comprising micro-banks, non-governmental organizations, cooperatives/credit unions and non-bank financial institutions (Liñares-Zegarra & Wilson, 2022). Microfinance institutions also vary by commercial orientation, some act as not-for-profit and other are organized as commercial for-profit financial institutions. Both entity types face the risk of bad credit. Delinquent credit is major problem, especially since the segment that is given a loan is a micro-entrepreneur who has weak financial and supporting aspects. SLC and other MFI pursue the double

bottom-line objectives of financial sustainability and social outreach and hence differ from commercial banks. Hence, credit risk potentially affects both financial performance and their ability to fulfil their social objective of reaching out to more low-income customers (Zamore et al., 2019). Besides, they mentioned credit risk can also be related to its high interest rates and heavy-handed collection methods. According to Nkundabanyanga et al. (2020), the concept of loan performance can refer to the ratio of non-performing advances (loans) to the total portfolio. Specifically, a non-performing loan is that part of loan whereby interest and principal installment are still outstanding for at least six months after they are due.

Many factors affect the performance of SLC or NPL loans. NPL can occur due to analysis influencing factors identified at the beginning of the loan processing or known as the underwriting process. However, it can also occur when post-disbursement monitoring is not carried out properly. Underwriting is mainly as a very decisive factor. Aspects of 5Cs, that is, character, capacity, capital, collateral, condition of economic, are generally recognized by all financial institutions, including SLCs themselves. Specifically, research related to the factors causing loan quality, among others, was conducted by Fianto et al. (2019). Fianto's study investigates the determining factors of non-performing financing in Islamic microfinance institutions (MFIs) in Indonesia. The results show that age, gender, occupation, and type of contract influence the non-performance of clients of Islamic MFIs in Indonesia. Besides, (Nkundabanyanga et al., 2020) mentioned three indicators of loan performance for microfinance entities, including cost efficiency, propensity/proclivity for loan repayment, and loan cost. However, based on our research, we can identify three additional indicators that contributed to determining credit quality, namely: management assistance, marketing services, and financial literacy.

Management Assistance

Business management approach focuses on the importance of business skills and the role of functional management, planning, control, and formal strategic planning (Gibb, 2020). (Kameyama et al., 2021), mentioned an incentive tool for SMEs' growth, including finance and non-finance, non-finance provided in the form of management reform, creation of new business, and creation of new technology. It was reported that the management system and structure of SME is very primitive stage or not modernized in many cases. There are three assistance components in the management reform of SME: technical assistance to introduce a modern management system, such as transferring from a family business to be more organized business as usual. The second scheme is assistance in creating a new business. We postulate that "management assistance" can also be a pushing factor in determining the loan performance of SLC as a financial intermediary.

H₁: Management assistance has a direct positive effect on cost efficiency

H₂: Management assistance has a direct positive effect on propensity/proclivity for loan repayment

H₃: Management assistance has a direct positive effect on loan cost

Marketing Services

Still based on experience in giving SMEs incentives in Japan, Kameyama et al. (2021) explained how to provide marketing services through the strengthening of management infrastructure. They mentioned nine incentives for this aspect: management resources, cooperative, industry integration, commerce integration, distribution industry, fair trade, support industry, and government procurement. Inekwe (2019) said these non-financial services can include access to basic literacy, professional training, marketing, and health. In line with Kameyama et al. (2021), cooperation was a choice for SME empowerment. Establishing a cooperative unit by SME is another scheme for strengthening SME organizations. The stakeholder should assist in establishing the cooperative unit by integrating the SME and then transforming it into a normal cooperative. Jointly, these reviewed works suggest that support

business member in a form of marketing service and loan performance are typically correlated, implying marketing services support is higher, the level of loan performance quality will also be higher.

H₄: Marketing service has a direct positive effect on cost efficiency.

H₅: Marketing service has a direct positive effect on propensity/proclivity for loan repayment.

H₆: Marketing service has a direct positive effect on loan cost.

Financial Literacy

Lusardi & Tufano (2020) defined the need for financial competence as financial literacy. The study of (Garg & Singh, 2020) shows financial literacy as it equips individuals to make quality financial decisions to enhance their financial well-being. The existing literature provides some guidance in formulating hypotheses about how the capacity-building role of an SME impacts loan performance. For instance, some researchers have shown that literacy enhancement can have a disciplinary effect on borrowers' business. Pramono et al. (2021) reveals that the progress of business does have an association and is dependent on the source of capital and education, needs for achievement, and locus of control. The explanation of locus of control includes self-efficacy, needs for achievement, personal traits, and barriers to business progress. Other studies on non-financial services, such as business training and financial literacy, are explored (Ivar et al., 2011).

H₇: Financial literacy has a direct positive effect on cost efficiency.

H₈: Financial literacy has a direct positive effect on propensity/proclivity for loan repayment.

H₉: Financial literacy has a direct positive effect on loan cost.

RESEARCH METHOD

A questionnaire from December 2020 to June 2021, 165 certified saving and loan cooperatives managers in Jakarta, West Java, Banten, Yogyakarta, and Central Java provinces, who will respond to 16 questions and select the answer. Back 150 sheets were obtained from 160 questionnaires, with a recovery of 93.75 percent. The research was a quantitative method and used SEM PLS analysis. The research sample came from five provinces out of 38 total provinces in Indonesia, with a total of 10,400 savings and loan cooperatives, so the sampling population represents 13.16 percent of the number of provinces consisting of 350 cooperative units or 3.4% of the sample of the total number of savings and loan cooperatives in Indonesia. The sample criteria are savings and loan cooperatives that have a NIK or cooperative registration number, managers who have taken part in certification as respondents, and have held annual member meetings. The variable indicators show in Table 1.

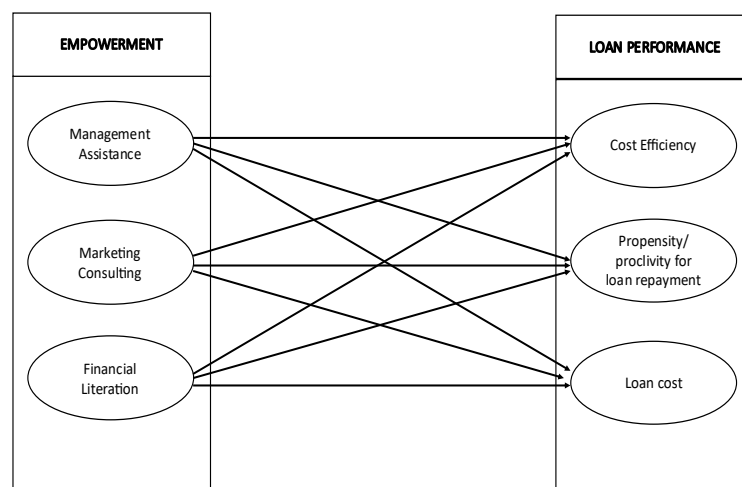


Figure 1. Proposed Literacy for Loan Performance

The population of savings and loan cooperatives in the provinces of Java Island, from the aspect of number, is dominant. The difficulty of maintaining a healthy loan performance is even more difficult with the impact of the COVID-19 pandemic. The dual role of SLC members as owners and customers creates a special relationship between the success of members' businesses and the success rate of SLC in maintaining a healthy level of NPL (non-performing loans). SLC managers who already have a SLC manager position certification are seen as the parties who know best how to manage loan quality so they are used as respondents to represent SLC as the unit of analysis. From the results of this research survey to selected SLCs, the average NPL level is above 10 percent that it can be an indication of management difficulties in managing the entity. The dominance of the number of SLCs in five provinces is expected to describe 14 percent of the overall condition of the province, or 26.43 percent of the total SLCs that have a NIK identity. The number of SLCs with NIK identities in 34 provinces in Indonesia is 35.761 units from a total of 123.048 units. Table 2 shows the samples of the SLC selected.

Table 1. Indicator

No	Measures	Source
	Management assistance:	
1	Field visits to members should be carried out before and after loan disbursement.	(Wediawati, 2019)
2	Technical assistance to members' businesses must be carried out.	(Wediawati, 2019)
	Marketing services:	
3	The opportunity for members to consult is always available.	(Zeller & Meyer, 2020)
4	Member business marketing services are always provided.	(Zeller & Meyer, 2020)
	Financial literacy:	
5	Member education is always carried out periodically.	(Inekwe, 2019)
6	Financial information and socialization of activities are easy for members to obtain.	(Inekwe, 2019)
	Cost efficiency:	
7	Our institutional cost of delivering loans and other services is low	(Nkundabanyanga et al., 2020)
8	Our SLC controls its administrative cost.	(Nkundabanyanga et al., 2020)
9	We use credit policies to approve the clients.	(Nkundabanyanga et al., 2020)
10	The percentage of loan income is higher than the loan operating expense	(Nkundabanyanga et al., 2020)
11	Our rates of efficiency are much higher than those of our benchmark.	(Nkundabanyanga et al., 2020)
	Component propensity for repayment:	
12	Our charges are lower compared to the industry benchmark.	(Nkundabanyanga et al., 2020)
13	We received fewer complaints about our interest rates.	(Nkundabanyanga et al., 2020)
14	We have healthy repayment rates.	(Nkundabanyanga et al., 2020)
	Loan cost:	
15	The cost per client is usually very low.	(Nkundabanyanga et al., 2020)
16	The interest rate that is in effect at the time the loan is made remains in effect until the loan is paid in full.	(Nkundabanyanga et al., 2020)

RESULTS AND DISCUSSIONS

Measurement Model

This quantitative study uses a two-stage approach to analyze data. Firstly, the approach considers the measurement model or outer loading for data purification and the avoidance of cross-loading in factor analysis. The analysis included factor loadings, reliability tests, and composite reliability, to mention some. If all items meet this analysis, all of them will be retained for the second stage. In the second stage, a structural analysis displays the relationship between the variables tested and the criterion variable. This stage is useful to examine whether the null hypothesis needs to be rejected or not, and later inferences can be documented accordingly. Table 3 presents the results obtained from factor analysis. All items were statistically significant in representing the variables that they were supposed to measure. All items were loaded beyond the recommended value of 0,707, and for that, the discriminant validity is not an issue (Table 4). Besides factor analysis, we examine the data obtained using the average variance extracted (AVE), composite reliability (CR), and Cronbach's alpha. The details are presented in Table 3. As for AVE, the results obtained indicate that all variables under contemplation were greater than the threshold value of 0.5, meeting the convergent validity. As for CR, the results also indicate that the reliability for all constructs was beyond the recommended value, implying the convergent validity for the said construct (Lee & Kozar, 2021). Cronbach's alpha values for the variables were greater than the required value.

Moreover, a discriminant validity analysis is conducted to examine whether variables are distinct compared with others. Table 4 shows that the square root of AVE for each variable was greater than the correlation with other constructs (bold values), meeting the test for discriminant validity (Fornell & Larcker, 2020). This means that each variable is different compared with other variables, implying the discriminant validity result is acceptable.

Structural Model Analysis

This study ran one's estimation that included all variables under consideration. Their analyses were conducted simultaneously. The model proposed has three dependent variables to take up, namely the cost efficiency of the loan, component propensity for repayment of the loan, and loan cost. The three dependent variables were the components of the loan performance commonly used.

Table 2. Cooperative profile

	Criteria	Frequency	(%)
Number of members	< 100	58	29
	101 s/d 500	121	49
	501 s/d 1000	12	7
	> 1.000	39	15
	<i>Total</i>	150	100%
Cooperative age (year)	≤ 5	50	23
	6 - 10	45	29
	11 - 15	38	12
	> 15	97	36
	> IDR 5 billion	71	38
<i>Asset</i>	< IDR 5 billion	159	62
	always increasing	131	63
Income achievement	does not always increase	99	37
	non-sharia system	183	74
Scheme	sharia system	47	16

Table 3. Factor analysis

Items	MA	MS	FL	CE	CP	LC
MA1	0,897	0,103	0,071	0,002	0,012	0,041
MA2	0,906	0,098	0,068	0,002	0,012	0,0779
MS1	0,006	0,884	0,014	0,038	0,098	0,045
MS2	0,005	0,908	0,013	0,034	0,088	0,04
FL1	0,031	0,222	0,833	0,174	0,005	0,091
FL2	0,024	0,174	0,901	0,136	0,004	0,071
CE1	0,173	0,068	0,06	0,755	0,008	0,14
CE2	0,294	0	0,095	0,495	0,068	0,129
CE3	0,199	0,015	0,004	0,807	0,129	0,04
CE4	0,093	0,146	0,129	0,776	0,084	0,181
CE5	0,001	0,148	0,009	0,829	0,03	0,058
CP1	0,25	0,091	0,2	0,053	0,658	0,304
CP2	0,043	0,189	0,119	0,073	0,731	0,143
CP3	0,079	0,198	0,19	0,085	0,762	0,021
LC1	0,064	0,111	0,157	0,228	0,72	0,218
LC2	0,007	0,013	0,018	0,026	0,082	0,994
AVE	0,812	0,803	0,753	0,551	0,516	0,518
Composite reliability	0,896	0,891	0,859	0,857	0,761	0,603
Cronbach's alpha	0,769	0,755	0,676	0,791	0,563	n/a

Notes: MA = management assistance, MS = marketing services, FL = financial literacy, CE= cost efficiency, CP= component propensity for repayment, LC= loan cost.

Source: Primary data processed (2024)

Composite reliability measures the true reliability value of a variable, while Cronbach's alpha measures the lowest value of the reliability of a variable, so that the composite reliability value is > 0.6 and the Cronbach's Alpha value is > 0.60. For example, Composite Reliability for all constructs is above 0.60. Average Variance Extracted (AVE) in PLS SEM is a measurement of the average variance extracted, which is used to assess convergent and discriminant validity. Explanation. AVE is used to assess convergent validity. If the AVE value is more than 0.5, then the model is considered convergently valid. AVE is used to determine whether discriminant validity requirements are achieved.

Table 4. Discriminant validity

Variable	MA	MS	FL	CE	CP	LC
MA	0,901					
MS	0,593	0,896				
FL	0,517	0,646	0,868			
CE	0,38	0,573	0,598	0,742		
CP	0,222	0,333	0,36	0,314	0,718	
LC	0,41	0,3	0,427	0,418	0,352	0,719

Notes: MA = management assistance, MS = marketing services, FL = financial literacy, CE= cost efficiency, CP= component propensity for repayment, LC= loan cost.

Source: Primary data processed (2024)

Table 5. Structural analysis

Pathway	Beta (β)	Hypothesis	p value	Supported
MA \rightarrow CE	-0,019	H1	0,43	No
MA \rightarrow CP	-0,095	H2	0,446	No
MA \rightarrow LC	0,288	H3	0,004	Yes
MS \rightarrow CE	0,328	H4	0,002	Yes
MS \rightarrow CP	0,179	H5	0,06	No
MS \rightarrow LC	-0,086	H6	0,226	No
FL \rightarrow CE	0,396	H7	< 0,001	Yes
FL \rightarrow CP	0,253	H8	0,014	Yes
FL \rightarrow LC	0,333	H9	0,007	Yes

Notes: MA = management assistance, MS = marketing services, FL = financial literacy, CE cost efficiency, CP component propensity for repayment, LC loan cost.

Source: Primary data processed (2024)

Hypothesis testing is a decision-making method based on data analysis, both from controlled experiments and (uncontrolled) observations. In statistics, a result can be said to be statistically significant if the event is almost impossible to be caused by chance factors, according to predetermined probability limits. This study ran one's estimation that included all variables under consideration. Their analyses were conducted simultaneously. The model proposed has three dependent variables to take up, namely the cost efficiency of the loan, the component propensity for repayment of the loan, and the loan cost. The three dependent variables were the components of the loan performance commonly used. As for the former, management assistance, marketing services, and financial literacy explain the cost efficiency of about 41.8 percent and explain the component propensity for repayment of about 14.7 percent. While management assistance, marketing services, and financial literacy explain the loan cost about 23,4 percent. Two of three R2 values exceeded the threshold value of 20 percent, inferring that the model satisfactorily explains the variability of the response data around it (Hulland, 2019) (Table 5).

Effect of Management Assistance on Cost Efficiency

Management assistance has no effect on cost efficiency for loan repayment. Management assistance was not significantly related to the cost efficiency (path coefficient = -0,019, p value = 0,430, > 0,01). Based on the finding, our H1 is not substantiated. The hypothesis, which stated that management assistance has a positive effect on cost efficiency, is not supported by the research

Effect of Management Assistance on Propensity/Proclivity for Loan Repayment

Management assistance has no effect on propensity/proclivity for loan repayment. Management assistance was not significantly related to the component propensity for repayment (path coefficient = -0.095, p value = 0.446 > 0.01). Based on the finding, our H2 is not substantiated. The hypothesis, which was stated Management Assistance has a positive effect on propensity/proclivity for loan repayment, is not supported by the research.

Effect of Management Assistance on Loan Cost

The management assistance was significantly related to the loan cost (path coefficient = 0.288, p value = 0.004, < 0.01) – implying that the higher the extent of management assistance, the better the loan performance. The result indicates that the SLC manager believes that their support to the member is essential to reducing the loan cost of the entity. Such a finding is also caused since SLC managers selection proved that empowerment of member key success micro and small business enterprises. This finding

supports research before that business management assistance is an aspect of strategic microfinance member empowerment. Hence, H3 is supported, which confirms the validity pathway from management assistance to the loan cost (Wediawati, 2019).

Effect of Marketing Services on Cost Efficiency

The marketing services were considerably associated with the cost efficiency (path coefficient = 0.328, p value = 0.002, < 0.01). This implies that members of the savings loan cooperative face difficulties in getting potential buyers. Without getting enough buyers, they will have a hard time getting the income to pay the loan installments. The relationship between non-financial services and repayment performance was significant. The provision of non-financial services is costly, but it enhances loan repayment. In line with the study (Godquin, 2020) said that non-financial services can include access to basic literacy, professional training, marketing, and health. In all, H4 is confirmed, which denotes that marketing services are a valid factor that links to cost efficiency and, thus, extends its validity to include SLC loan performance.

The Effect of Marketing Services on Propensity/Proclivity for Loan Repayment

Marketing service has no effect on propensity/proclivity for loan repayment. Marketing services were not significantly related to the component propensity for repayment (path coefficient = 0.179, p value = 0.060, > 0.01). Based on the finding, our H5 is not substantiated. The hypothesis, which was stated that marketing services have a positive effect on propensity/proclivity for loan repayment, is not supported by the research.

The Effect of Marketing Services on Loan Cost

Marketing service does not affect the loan cost. Marketing services were not significantly related to the loan cost (path coefficient = -0.086, p value = 0.226, > 0.01). Based on the finding, our H6 is not substantiated. The hypothesis, which stated that marketing services have a positive effect on loan cost, is not supported by the research.

The Effect of Financial literacy on cost efficiency

Financial literacy was significantly related to all aspects of loan performance. Financial literacy was significantly related to the cost efficiency (path coefficient = 0.396, p value < 0.001) – implying that the higher the extent of financial literacy, the better the loan performance. Based on the finding, our H7 is substantiated. Correlations result further reveal a significant positive relationship between the financial literacy services of the SLC and their loan performance.

The Effect of Financial Literacy on Propensity/Proclivity for Loan Repayment

FL was significantly related to the component propensity for repayment (path coefficient = 0.253, p value = 0.014, < 0.01). Based on the finding, our H8 was substantiated. Several research studies also prove that literacy or knowledge in specific areas was better able to maintain lending without incurring substantially lower repayment rates on their loans (Ji et al., 2019). The hypothesis which state financial literacy has a direct positive effect on propensity/proclivity for loan repayment is supported by the research.

The Effect of Financial Literacy on Loan Cost

FL was significantly related to the component propensity for repayment (path coefficient = 0.253, p value = 0.0014, < 0.01), also significantly related to the loan cost (path coefficient = 0.333, p value = 0.007, < 0.01). Based on the finding, our H9 is substantiated. The prediction which state financial literacy has

a direct positive effect on loan cost is supported by the hypothesis research. Financial Literacy significantly affects to the loan cost. Financial education as a component of financial literacy statistically significant and larger improvements in financial planning, rules of thumb, and savings deposits (Hakizimfura et al., 2020).

Saving and Loan Cooperatives and Economic Growth

In the five provinces that became the research sample, the number of cooperatives was 9,452 units, members 10,780,419 people, and total assets managed were IDR 63,880,860 million. With their role as an intermediary institution, SMEs as members have high trust in SLC, because it is an institution that fosters and provides capital. Banking access has not been achieved. With the level of confidence that continues to grow, it is hoped that capital from member savings in the regions will be able to continue to roll over to support productive economic activities. Several indicators that affect loan performance are dominated by aspects of financial literacy. Financial information and best practice business management are especially important in supporting SME activities. This is in line with the results of previous studies that have indicated that the information dimensions, when used as instruments for financial inclusion, accelerate economic growth and reduce poverty and inequality (Mushtaq & Bruneau, 2021).

The Attitude Of The SLC Manager Of Member Empowerment Through Management Innovation

Given the role and function as well as the double mission, it is time for SLC managers to continue to motivate themselves and develop specific management techniques as practiced by financial institutions in general. Because SLC is an intermediary financial institution as well. However, with greater demands on members' efforts to provide financial and non-financial services, the SLC manager's responsibilities are heavier than those of other financial institutions. SLC managers are burdened with empowering members' businesses, in addition to their main roles and duties, disbursing loans. The success of a member's business will determine the success of SLC's business, without exception. Members as the sole customers of SLC are the ones who provide the income.

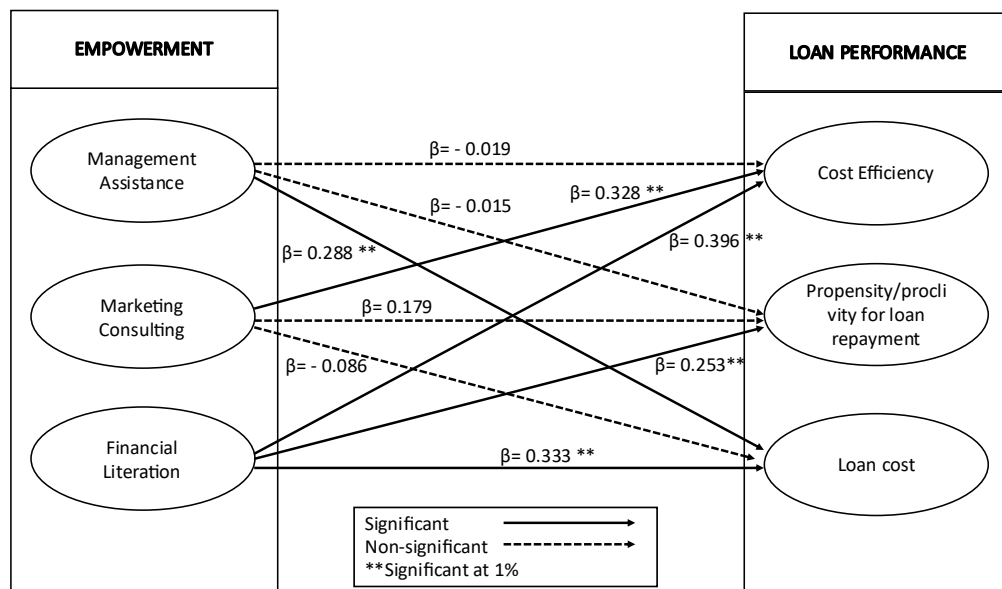


Figure 2. Analyze financial literacy

The money to be deposited with the SLC is derived from the results of the members' business and their entrepreneurial skills. To achieve this goal, SLC managers need to implement management innovation. Management innovation can adopt an intraorganizational evolutionary perspective as roles of key change agents inside and outside the organization in driving and shaping four processes—motivation, invention, implementation, and theorization and labeling (Birkinshaw et al., 2020.)

In the period of economic recovery after the COVID-19 pandemic, the role of savings and loan cooperatives for the recovery of members' businesses has become more important and strategic. It is almost certain that most members of the cooperative have productive business activities. Both SLC and members are related and mutually determine. The performance of SLC's savings and loans will be better if the member's business is growing. The synergistic mechanism that must run can be more effective if SLC managers innovate in management in the form of providing non-financial services to accelerate the recovery of member businesses and higher quality loan performance of entities. Without support services, SMEs are not empowered enough to get back on their feet as it is hoped that history will repeat itself.

Updating our concept of SLC loan performance measurement. Referring to the regulations, compliance would be more appropriate if the performance measure of the SLC loan also refers to the existence of the double bottom line mission it carries. If the SLC follows the provisions of other financial institutions including banking as it is currently running, then loan performance usually uses only 3 indicators, namely cost efficiency, component propensity for repayment, and loan cost. According to the loan performance measure, it is not yet fully compliant with regulations, due to the different missions of SLC, although one of its roles is as an intermediary financial institution for small and micropreneurs who members are.

The development of loan performance indicators is based on cooperative principles. Cooperatives are business institutions, social institutions, educational institutions for members. In addition, SLC does not serve non-members by regulation. Thus, the performance of the SLC loan will be of good quality or smooth if the member's business develops so that it can pay its loan obligations. Thus, it is necessary to change or modify the SLC performance measurement which was originally purely a financial institution business consideration to add other indicators, namely non-financial services in the form of management assistance, marketing services and financial literacy as additional aspects that are already running, namely cost efficiency, propensity/proclivity for loan repayments, and loan costs.

The role of members' financial literacy is very influential on loan performance. In line with the education function of members, financial literacy has a significant effect on loan performance. Financial literacy is an interconnecting resource that mitigates information asymmetry and collateral deficit when evaluating loan applications (Hussain et al., 2020). From the results of this study, it is quite evident that financial literacy has a significant positive effect on all aspects of SLC loan performance.

Fulfilling micro and small enterprise needs. SLC member SMEs are generally micro and small entrepreneurs, with all their limitations so that they do not fully meet the 5Cs criteria in credit analysis. Limited knowledge and relatively low capital. Associated with management aspects, whether marketing, operations, human resources, and finance require continuous guidance and improvement. Production can be good and accepted by the market, but good packaging, branding, and licensing have not been fully implemented and cannot be fulfilled by themselves. Likewise, the financial aspect, generally, financial transactions are still mixed between personal assets and the business entity. Opportunities to increase business capacity are still incredibly open, and this is their hope and prayer.

CONCLUSION

Currently, SLC is not optimal in the process of empowering its members, and there is no clear way to measure the quality of loan performance. This is partly because the loan performance of SLC as a savings and loan entity isn't based on specific to a cooperative legal entity and its business nature, but refers to

other financial institutions and banks. In this paper, we provide a useful reference for optimizing the synergy and role of SLC entities with their members. SLC and members have a closed system relationship. SLC is not allowed by regulation to serve non-members. Therefore, the loan performance of SLC is fully determined by member payments that come from the success of the member's business. All efforts need to be directed at advancing business performance through empowerment, that is, management assistance, strengthening repayments, and financial literacy. The result of this study was that financial literacy influences the quality of loan performance. The better degree of literate member as a customer will directly affect the improvement of the loan performance organization as the lender party. Through this local research, we supply theoretical and managerial implications for more effectiveness of cooperative management, as well as providing information for customer literacy that will determine loan or credit performance indicators for savings and loan cooperatives.

REFERENCES

- Behr, P., & Sonnekalb, S. (2020). The effect of information sharing between lenders on access to credit, cost of credit, and loan performance-evidence from a credit registry introduction. *Journal of Banking and Finance*, 36(11), 3017–3032. <https://doi.org/10.1016/j.jbankfin.2020.07.007>.
- Birkinshaw, J., Hamel, G., & Mol, M. J. (2020). Management innovation. *Academy of Management Review*, 33(4). <https://doi.org/10.5465/amr.2008.34421969>.
- Fianto, B. A., Maulida, H., & Laila, N. (2019). Determining factors of non-performing financing in Islamic microfinance institutions. *Heliyon*, 5(8), 1-5. <https://doi.org/10.1016/j.heliyon.2019.e02301>.
- Fornell, C., & Larcker, D. F. (2020). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50. <https://doi.org/10.1177/002224378101800104>.
- Garg, N., & Singh, S. (2020). Financial literacy among youth. *International Journal of Social Economics* 45(1), 173–186. <https://doi.org/10.1108/IJSE-11-2016-0303>.
- Gibb, A. A. (2020). Key factors in the design of policy support for the small and medium enterprise (SME) development process: An overview. *Entrepreneurship and Regional Development*, 5(1), 1–24. <https://doi.org/10.1080/08985629300000001>.
- Godquin, M. (2020). Microfinance repayment performance in Bangladesh: how to improve the allocation of loans by MFIs. *World Development*, 32(11), 1909–1926. <https://doi.org/10.1016/j.worlddev.2020.05.011>.
- Hakizimfura, E., Randall, D., & Zia, B. (2020). Decentralized delivery of financial education: experimental evidence from Rwanda. *Journal of Development Economics*, 144. <https://doi.org/10.1016/j.jdeveco.2020.102439>.
- Hulland, J. (2020). Use of partial least squares (pls) in strategic management research: a review of four recent studies. *Strategic Management Journal*, 20(2), 195-204.
- Hussain, J., Salia, S., & Karim, A. (2020). Is knowledge that powerful? Financial literacy and access to finance: An analysis of enterprises in the UK. *Journal of Small Business and Enterprise Development*, 25(6), 985–1003. <https://doi.org/10.1108/JSBED-01-2018-0021>.
- Inekwe, J. N. (2019). Lending Risk in MFIs: the extreme bounds of microeconomic and macroeconomic factors. *Journal of Small Business Management*, 57(2), 538–558. <https://doi.org/10.1111/jsbm.12401>.
- Ivar, L., Berge, O., Bjorvatn, K., & Tungodden, B. (2011). Human and financial capital for microenterprise development: evidence from a field and lab experiment. *Management Science*, 61(4), 702 – 722.
- Ji, C., Jia, F., & Xu, X. (2021). Agricultural co-operative sustainability: evidence from four Chinese pig production co-operatives. *Journal of Cleaner Production*, 197, 1095–1107. <https://doi.org/10.1016/j.jclepro.2018.06.279>.

- Kameyama, S., Kobayashi, H., Suetake, T., & Andersen, A. (2021). Model for sme sector development. *Proceedings of the 19th International Conference of the System Dynamics Society*.
- Lee, Y., & Kozar, K. A. (2021). An empirical investigation of anti-spyware software adoption: A multitheoretical perspective. *Information and Management*, 45(2), 109–119. <https://doi.org/10.1016/j.im.2008.01.002>.
- Liñares-Zegarra, J., & Wilson, J. O. S. (2022). The size and growth of microfinance institutions. *British Accounting Review*, 50(2), 199–213. <https://doi.org/10.1016/j.bar.2017.11.006>.
- Loubere, N., & Zhang, H. X. (2020). Co-operative financial institutions and local development in China. *Journal of Co-Operative Organization and Management*, 3(1), 32–39. <https://doi.org/10.1016/j.jcom.2015.03.001>.
- Lusardi, A., & Tufano, P. (2020). Debt literacy, financial experiences, and overindebtedness. *Journal of Pension Economics and Finance*, 14(4), 332–368. <https://doi.org/10.1017/S1474747215000232>.
- McKillop, D., French, D., Quinn, B., Sobiech, A. L., & Wilson, J. O. S. (2020). Cooperative financial institutions: A review of the literature. *International Review of Financial Analysis*, 71, 1–11. <https://doi.org/10.1016/j.irfa.2020.101520>.
- Mushtaq, R., & Bruneau, C. (2021). Microfinance, financial inclusion, and ict: implications for poverty and inequality. *Technology in Society*, 59, 1–37. <https://doi.org/10.1016/j.techsoc.2019.101154>.
- Nkundabanyanga, S. K., Akankunda, B., Nalukenge, I., & Tusiime, I. (2020). The impact of financial management practices and competitive advantage on the loan performance of MFIs. *International Journal of Social Economics*, 44(1), 114–131. <https://doi.org/10.1108/IJSE-05-2014-0104>.
- Pramono, R., Sondakh, L. W., Bernarto, I., Juliana, J., & Purwanto, A. (2021). Determinants of the Small and Medium Enterprises Progress: A Case Study of SME Entrepreneurs in Manado, Indonesia. *Journal of Asian Finance, Economics and Business*, 8(1), 881–889. <https://doi.org/10.13106/jafeb.2021.vol8.no1.881>.
- Wediawati, B. (2019). Sustainability of islamic microfinance in indonesia: a holistic approach. *Academy of Strategic Management Journal*, 7(1), 1–15. <https://www.researchgate.net/publication/332871647>.
- Zamore, S., Beisland, L. A., & Mersland, R. (2019). Geographic diversification and credit risk in microfinance. *Journal of Banking and Finance*, 109. <https://doi.org/10.1016/j.jbankfin.2019.105665>.
- Zeller, M., & Meyer, R. L. (2020). *The triangle of microfinance financial sustainability, outreach, and impact*. Internation Food Policy Research Institute.

