

# **The Effect of Financial Literacy, Profitability, and Size of SME's on Capital Structure Decision With Financial Inclusion as a Moderating Variable (Case Study: SME's in Bengkalis Subdistrict - Riau)**

El Shinta Mangku Alam<sup>1</sup>, Elok Sri Utami<sup>2</sup>, Intan Nurul Awwaliyah<sup>3</sup>  
*Master of Management, Faculty of Economic and Business, University of Jember*

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## **Abstract:**

*This study aims to examine the effect of financial literacy, profitability, and size of SME's on capital structure decisions with financial inclusion as a moderating variable. The type of this research was explanatory research with a quantitative approach. The object of this research was SME's in Bengkalis Subdistrict and the population of this research were 1.158 SME's. Using purposive sampling techniques, the samples obtained for this study were 82 SME's in Bengkalis Subdistrict. The data analysis method used was SmartPLS 3.0. The results of this study indicated that the variables of financial literacy, profitability, and size of SME's partially had a significant effect on capital structure. Financial inclusion has an effect on moderating the effect of the financial literacy variable on capital structure, but the financial inclusion variable has no effect on moderating profitability and size of SME's variables on capital structure. The results of this study are expected to help SME's to achieve optimal capital structure in order to maximize the profits and strengthen the national economics.*

**Key Word:** *Financial literacy, profitability, size of SME's, Capital Structure, SME's*

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## **I. Introduction**

Micro, Small and Medium Enterprises (MSMEs) play an important role in the global economy and are considered engines of growth and can create jobs in both developed and developing countries (Mbonyane & Ladzani, 2011). In Indonesia, data from the Ministry of Cooperatives and SMEs stated that the number of MSMEs which reached more than 64 million by mid-2022 had contributed 60.51 percent to the Gross Domestic Product (GDP) to strengthen the national economy and was able to absorb 96.9 percent of the workforce. total absorption of the national workforce. (Kementerian Koperasi dan UKM RI, 2022). The role of MSME in the Indonesian economy can be seen from its position as a major player in economic activity in various sectors, the largest provider of employment opportunities, an important player in the development of local economic activities and community empowerment, a creator of new markets and a source of innovation, as well as its contribution to maintaining the balance of payments through export activities.

However, in its growth, MSMEs experience various obstacles. Winarni (2006) identified in general the problems faced by MSMEs, namely lack of capital, difficulties in marketing, intense business competition, difficulty in raw materials, lack of technical production and expertise, low managerial skills, lack of knowledge about financial management, and and difficult licensing processes. The object of research is SME's in the Bengkalis Subdistrict because Bengkalis Subdistrict has a strategic area in developing MSMEs, but there are still many MSME owners who are incapable of managing their business, especially related to financing. This becomes an urgency in this research.

The difference between this research and previous research, if previous research did not focus on the type of business being studied, this study provides several indicators that can influence the structure of business capital with the latest phenomena, about how to obtain financial access and business financial literacy capabilities so as to create better business financial performance. Another difference lies in the research object and the variables studied. In addition, the novelty of the research can be seen from the addition of a moderating variable, namely financial inclusion. The research gap was obtained the existence of facts in the field that are different from the application of capital structure theory and also based on several findings which stated various results. The differences between previous studies make research on capital structure interesting to re-examine, especially when looking at it from the perspective of financial literacy and inclusion as well as when it is applied to SME's objects.

## **II. Literature Review**

### **Relationship of Financial Literacy on Capital Structure Decision**

Financial literacy play an important role in accessing MSME capital. With a good understanding of financial education, banks will trust debtors to obtain financing facilities. The higher the level of understanding of financial products, business risks, loan risks, etc., it will make it easier for debtors to get bank loans. Huston (2010) suggested a relationship between financial literacy, financial knowledge, financial education, and individual welfare on access to capital. The results of previous research conducted by (Andoh & Nunoo, 2012). Lack of financial literacy also affects access to credit, because high financial literacy affects banking behavior (Cole, Sampson, & Zia, 2009; Nkundabanyanga, Kasozi, Nalukenge, & Tauringana, 2014; Punyasavatsut, 2011). H1: Financial Literacy has a positive effect on Capital Structure Decision.

### **Relationship of Profitability on Capital Structure Decision**

The ability of a business to make a profit at a certain time is the notion of profitability. MSMEs with a small amount of profit tend to have large debts because the low profit rate makes the availability of internal funds insufficient (Mayangsari, 2001). The profitability of MSMEs is measured using the Net Profit Margin (NPM) which interprets the ability of MSMEs to earn profit over a certain period. From several previous studies by Hayuning (2010), the results showed that profitability had a significant negative effect, Baharuddin et.al (2011). The final conclusion in the study was that the level of profitability had an influence in a negative direction on DER. Thus the direction of the relationship between profitability is predicted to be negative. H2: Profitability has a negative effect on Capital Structure Decision.

### **Relationship of SME's Size on Capital Structure Decision**

The size of MSMEs has an impact on capital structure, if MSMEs have a small size, the costs required for MSMEs to invest will also be smaller (Ariyanto, 2002). This trend is because small-sized MSMEs need a little additional funds to support their operational activities and if MSMEs have a large size then one way is to apply for loans from other parties when equity is felt to be insufficient. Based on the justifications that have been explained, it can be concluded that the size of an MSME will affect the capital structure with reference to the fact that small MSMEs have a small sales growth rate so that MSMEs tend to choose to use smaller loans as well. This statement supports research from Prabansari and Hadri (2006), Song (2004), and Shanmugasundaram (2008). Thus the size of MSMEs is predicted to have a positive effect on capital structure. H3: SME's size has a positive effect on Capital Structure Decision.

### **Relationship of Financial Literacy on Capital Structure Decision Moderated by Financial Inclusion**

The quality of financial information has a significant positive effect on the performance and perceptions of business owners on their ability to access external capital. A significant positive effect of their perception of the ability to access capital on performance was also found (Kotey & Naruanard, 2006). More specifically, access to finance can be measured in terms of access to certain institutions, such as banks, insurance services, or microfinance institutions, or the services provided by these institutions, such as payment services, savings or loans and credit (CAGP, 2009). Then (Beck et al., 2006) stated that geographical limitations, socio-economic limitations, limited opportunities greatly affect access to capital. Kwaning et al. (2015) suggested that the government institute several institutions to help access loans, form tax incentives for financial institutions involved in MSME loans and formulate laws and regulations to help loan quality. MSMEs also need to establish associations so that they can always be connected and exchange ideas with each other. H4: Financial Inclusion moderates the effect of Financial Literacy on Capital Structure Decision.

### **Relationship of Profitability on Capital Structure Decision Moderated by Financial Inclusion**

According to the Pecking Order theory, companies will use retained earnings first as investment funds, and then move to new debt and equity only when necessary (Myers, 1984). Companies with high profitability will have more internal funds (retained earnings) than companies with low profitability. With large retained earnings, companies will prefer to use retained earnings before using debt. If associated with moderating variables, financial inclusion can increase profitability because increased financial inclusion will make it easier for people to access financial services so that the frequency of use, access, quality, and welfare can increase from time to time which can have a positive influence on profitability. The results of Rao(2019) show that profitability has a significant effect on the capital structure of SMEs with a negative relationship. Research conducted by Watung, et al. (2016) also concluded that profitability has a negative effect on capital structure. Meanwhile, when it is related to financial inclusion, research from Nursyam and Azib (2020) and Rubaeni (2021) support each other and provide the result that with financial inclusion, the value of profitability will increase.

H5: Financial Inclusion moderates the effect of Profitability on Capital Structure Decision.

**Relationship of SME's Size on Capital Structure Decision Moderated by Financial Inclusion**

Company size is often used as an indicator for the possibility of bankruptcy for a company, where companies with large sizes are seen as more capable of dealing with crises in running their business. This will make it easier for companies with a larger size to obtain loans or external funds. Large companies can also provide guarantees in terms of paying off larger debts than small companies because the size of the company is seen from the total assets owned by the company (Muslikatun, 2016). Kwaning et al. (2015) suggested that the government institute several institutions to help access loans, form tax incentives for financial institutions involved in MSME loans and formulate regulations to help loan quality. An MSME association should also be formed to unite them and act as guarantor whenever loans are accessed.

H6: Financial Inclusion moderates the effect of SME's Size on Capital Structure Decision.

**III. Method**

The type of this research was explanatory research with a quantitative approach. The object of this research was SME's in Bengkalis Subdistrict and the population of this research were 1.158 SME's. Considering the large number of population members, the researcher therefore determined the criteria with certain considerations (purposive sampling) in taking the research sample as follows:

**Table 1  
Research Sampling Indicators**

Criteria	Number of Samples
1. SME's in Bengkalis District have been established for at least 2 years to find out the understanding of the financial literacy of SME's actors based on experience in running their business.	1.158
2. SME's in Bengkalis District who do not receive financial assistance (credit) as business funds for SME's funding purposes.	(583)
3. SME's that are not registered and actively participate in activities at the Cooperatives and SME's Office of Bengkalis Regency who have complete data such as business information, owner's name, business address, and cellphone number.	(337)
4. SME's that do not keep records on the business being managed and do not understand financial reports.	(156)
<b>Research Sample</b>	<b>82</b>

Source: Office Cooperatives and UMKM Bengkalis Regency

Using purposive sampling techniques, the samples obtained for this study were 82 SME's in Bengkalis Subdistrict. The data analysis method used was SmartPLS 3.0 Version 3.3.7.

**IV. Result**

Goodness of Fit is done by using an evaluation of the outer model and inner model as follows:

**Outer Model**

Evaluation of the measurement model with a reflective design is analyzed by looking at the results of the convergent validity of each item. Convergent validity testing in PLS can be seen from the magnitude of the outer loading of each dimension on its latent variables. A loading factor of 0.5 or more is considered high enough. The outer model or measurement model is an assessment of the validity and reliability variables of the study. The results of the analysis on the initial outer model (Figure 1), the Z1.02 dimension is not included in the initial outer model, because the answer scores are constant. There is one dimension that has a loading factor of less than 0.50, namely Z1.04 (-0.067), so it is excluded and an evaluation of the model is carried out. Using SmartPLS Software as shown in figures below:

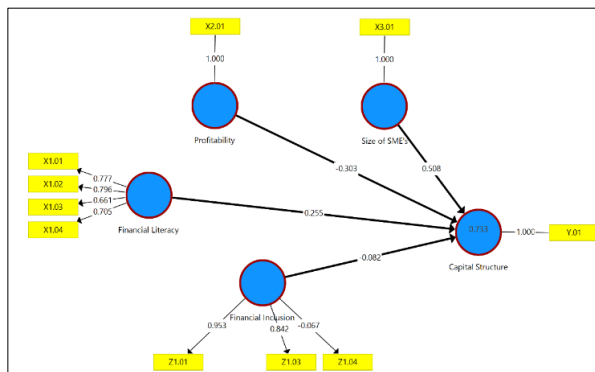


Figure 1. Early Outer Models

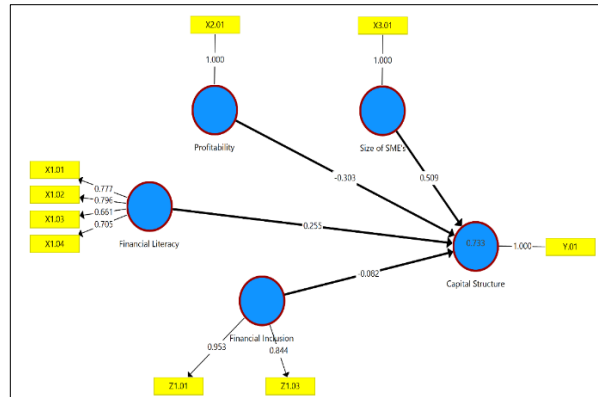


Figure 2. Outer Model Evaluation

Furthermore, composite reliability examines the dimensional reliability value of the constructs that make it up. Composite reliability results are said to be good, if the value is above 0.70. The results of testing the composite reliability of the measurement model can be presented in Table 2 below:

Table 2  
Composite Reliability Results

	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)	Result
Capital Structure	1.000	1.000	1.000	Reliable
Financial Inclusion	0.781	0.895	0.810	Reliable
Financial Literacy	0.717	0.825	0.543	Reliable
Profitability	1.000	1.000	1.000	Reliable
Size of SME's	1.000	1.000	1.000	Reliable

The results of the reliability test show that all constructs have a composite reliability coefficient of more than 0.70. Thus, all measurement models used in this study already have high reliability. So that further analysis can be carried out by examining the goodness of fit of the model by evaluating the inner model.

Fit Model

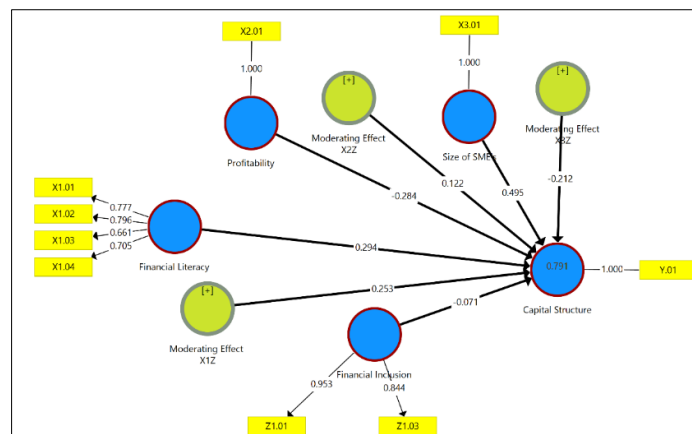


Figure 3. Hypothetical Models

Models that have a good fit will have an SRMR value of less than 0.08 and a poor fit status if the value is more than 0.10. As for the NFI, a greater index of 0.50 indicates a good fit model is obtained.

Table 3  
Model Fit Test Results with SRMR and NFI

Index	Statistic	Limit of Good Fit	Limit of Poor Fit
SRMR	0,093	Less than 0,08	More than 0,10
NFI	0,810	More than 0,50	Less than 0,50

The model proposed in this study has an SRMR value of 0.093, which means less than 0.10, so it can be concluded that the model is in good fit status. The NFI value of 0.810 (more than 0.50) also explains that the fit of the model is good. The suitability of other models can be assessed from several calculations such as the coefficient of determination of the model. The coefficient of determination value for the capital structure variable is 0.733. This value indicates that the variation in capital structure explained by financial literacy, profitability, company size and financial inclusion is 73.3%, while the rest is explained by other variables.

**Inner Model**

Inner model testing aims to determine the path coefficient and inner model T-statistics which indicate the level of significance of changes in the independent variable to the dependent variable (Hartono and Abdillah, 2009). This model aims to test the moderation of financial inclusion on the effect of financial literacy, profitability and the size of MSMEs on capital structure can be presented in Table 2 below:

**Table 4**  
**Path Coefficient Test Results**

	Original Sample (O)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
Financial Literacy -> Capital Structure	0.294	0.085	3.462 *	0.001
Profitability -> Capital Structure	-0.284	0.100	2.834 *	0.005
Size of SME's -> Capital Structure	0.495	0.142	3.479 *	0.001
Financial Inclusion -> Capital Structure	-0.071	0.120	0.595 ns	0.552
Moderating Effect X1Z -> Capital Structure	0.253	0.119	2.131 *	0.034
Moderating Effect X2Z -> Capital Structure	0.122	0.141	0.866 ns	0.387
Moderating Effect X3Z -> Capital Structure	-0.212	0.147	1.440 ns	0.151

**V. Discussion**

**The Influence of Financial Literacy on Capital Structure Decision**

The results of the study show that financial literacy has a positive and significant effect on the capital structure of SME's in Bengkalis District. This shows that the higher the financial literacy, the capital structure owned will increase. Conversely, if financial literacy is low, then the capital structure will decrease. SME's with a high level of financial literacy have the potential to produce higher productivity as well, so as to increase their competitiveness in order to realize an optimal capital structure. Business owners "HH Jaya", "Medical Farma", and "Cik Yon Chicken Restaurant" were the respondents with the highest scores and were able to answer 16 questions correctly so that it could be stated that each SME's owner had a good level of financial literacy. The SME's owner chooses to use debt dominance in running his business with an average composition of debt compared to equity of 70:30. This effort aims to increase funding sources owned by SME's in supporting ongoing business productivity. With good financial literacy, SME's will be increasingly able to combine the use of internal capital and external use simultaneously with the ideal composition according to each SME's. To support financial literacy, it is also necessary to make maximum use of technology to assist business activities (Utami et al., 2021). SME's in Bengkalis Regency can wisely adjust to the times that are full of advances in digital technology so that businesses are growing rapidly. It is necessary to digitize SME's through digital marketing to promote business and improve SME's performance (Nurul et al., 2023). The results of this study are in line with previous research conducted by Sohilauw (2018), Tuffour (2020), Rahayu & Mudholifah (2017) which states that good financial literacy will influence business management decisions optimally.

**The Influence of Profitability on Capital Structure Decision**

The results of the study show that profitability has a negative and significant effect on the capital structure of SME's in Bengkalis District. This shows that the higher the level of profitability of SME's, the capital structure owned will decrease. Conversely, if the profitability of SME's decreases, the capital structure will increase. SME's that have high profitability decide to predominantly use internal funds compared to loans so that they can reduce large interest costs. The owner of the "Kerupuk Bunda" business is one of the respondents with a high profit of 42% stating that he will use internal funds more dominantly than having to pay debts, because the business he is running, namely crackers, is very much influenced by many factors such as: weather, big events, competitors, and others so that business stability is still difficult to predict. Therefore, he chose a safe position with internal funds rather than being pinned down by debt when business conditions were declining. Zulfikar, the owner of the "Roti Canai Fikar" business, one of the respondents from Bengkalis District, also agreed. This result is different from the research results presented by Muhajir (2009) which states that profitability has a positive effect on capital structure. However, these results remain consistent with the

findings of Hayuning (2010), Febriyani (2010), and research conducted by Nugrahani (2012) which states that profitability has a significant negative effect on capital structure.

### **The Influence of SME's size on Capital Structure Decision**

The size of SME's has a positive and significant effect on the capital structure of SME's in Bengkalis District. This shows that the larger the size of SME's, the capital structure owned will increase. Conversely, if the smaller the size of the SME's, the capital structure will decrease. SME's that have a larger size tend to use more debt, because the need for funds is greater. SME's that have a larger company size do a lot of production compared to small-sized SME's. Banks and creditors will prefer to provide loans to large SME's because the possibility of bankruptcy for these SME's is smaller. It is supported that the larger the size of SME's, the more assets they have which can later be used as collateral offered to SME's fund providers so that SME's owners will find it easier to get additional debt compared to small SME's. Agree with the statement of Khrisnan and Moyer (1996), which states that small company sizes tend to have the potential to experience bankruptcy. The high possibility of small companies going bankrupt is because small companies have businesses with a reputation that is not (yet) good (Adrianto and Wibowo, 2007).

### **The Moderating Role of Financial Inclusion in the Relationship between Financial Literacy and Capital Structure Decision**

Financial inclusion moderates the effect of financial literacy on capital structure decisions for SME's in Bengkalis District. For SME's that are financially literate and supported by the frequent use of banking services, the maximum quality of services provided so that customers are satisfied, as well as easy access to financial institutions, this will automatically open up opportunities to increase business capacity, so that capital structure decisions will be achieved optimally and market failure caused by information asymmetry can be avoided. SME's owners in Bengkalis District realize that in managing their business, financial understanding is the main key for them to be able to run their business in a sustainable manner, at least by understanding the basics of finance. Also supported by knowing and understanding sources of funding as well as skills in financial planning will be a provision in accessing financing so that the financial structure becomes optimal. If the financial literacy of SME's is high, they will avoid suspicious or even detrimental financing. This is in line with research conducted by Sohilaaw (2018) which states that if the knowledge of the community regarding finance is high, but without the support of financial access to financial institutions, it will be difficult for them to get the products needed at financial institutions, especially financing. Kwaning et al (2015) also stated the same thing that financial inclusion greatly influences the relationship between financial literacy and capital structure. (Isdarini et al., 2022) also get the result that access to finance has a significant effect on financial literacy.

### **The Moderating Role of Profitability in the Relationship between Financial Literacy and Capital Structure Decision**

Financial inclusion does not moderate the effect of profitability on capital structure decisions for SME's in Bengkalis District. The higher the profitability does not necessarily improve the capital structure. There are many factors in determining easy granting of access to finance. All SME's still have the opportunity to get financing assistance even though the profit they have is not significant, but the amount of the loan obtained will be readjusted by the financial institution based on the results of business feasibility. For SME's in Bengkalis District, there is an inconsistency in the answers of respondents which does not always make the SME's owners interested in choosing debt dominance in financing their business even though they have been supported by financial institutions. Therefore, there is no evidence of the effect of financial literacy on capital structure decisions with moderation in the form of financial inclusion. This research is in line with research that has been conducted. The results of this study are supported by the research of Eny Maryanti (2016), Ginanjar et al. (2012), and Putri (2012), in their research found that profitability has no effect on capital structure.

### **The Moderating Role of SME's size in the Relationship between Financial Literacy and Capital Structure Decision**

Financial inclusion does not moderate the effect of SME's size on capital structure decisions for SME's in Bengkalis District. The larger the size of SME's does not necessarily improve the capital structure. SME's that are small in size also have the opportunity to gain access from financial institutions. There are many factors in determining the easy provision of financial access, where the final determination is based on business feasibility results. When comparing the assets of SME's owners, it can be seen that SME's with total assets above 1 billion are interested in using debt dominance in financing their businesses, especially since they are supported by financial institutions that provide access to business financing. However, SME's that have assets of less than 1 billion, it turns out that with the ease of access to finance that is provided, it also does not make

them use debt domination in financing their business. Based on previous research Sari et al., (2018); Budiherwanto (2021) provides a statement that company size has no effect on capital structure.

## VI. Conclusion

The results of this study have answered the objectives described earlier, namely to obtain empirical evidence of the influence of financial literacy, profitability, and size of SME's on capital structure with financial inclusion as a moderating variable. The findings show that on average 44,45% percent of the respondents answered the questions correctly, which is relatively low compared to what other studies found in other countries, such as (Chen & Volpe, 1998) in the US (52.87 percent), or Beal and Delpachitra (2003) in Australia (53 percent), Lantara (2015) in among undergraduate and graduate students UGM, Indonesia (45,39 percent). The results indicated that the financial literacy among the owners in Bengkalis Sub-District is at low level. SME's owners in Bengkalis District mostly choose to use their own capital in running their business and this supports the Pecking Order Theory developed by Myers and Manjuf (1984) in Husnan (2000: 276) which states that companies will choose internal funding over external funding when companies need fund. The priority of using internal funds in the pecking order theory is because the use of internal funding is free from information asymmetry.

For future researchers, it is expected to use a combination of other variables that are not used in this study such as business risk, working capital or even the demographic location of MSMEs which can affect the level of financial literacy and capital structure to expand the research results obtained. Future researchers should increase the number of samples, look for additional references to determine research indicators that are more appropriate and more specific in clarifying the size of each variable used. In addition, future researchers can use different analytical methods so that the effect of other variables on capital structure with new observation conditions can be identified.

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