

# The Effect of Financial Literacy on Financial Management Behaviour with Self-control as Intervening Variable

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**Keywords:** Financial Literacy, Financial Management Behaviour, Self-Control

**Abstract:** This research aims to explain the influence of financial literacy on financial management behavior with self-control as intervening variables. This research was conducted on the management of the Village Owned Enterprises (BUM Des) in Sleman Regency, with 54 respondents. Used three variables, the data collected will be tested using the regression and path analysis. This study shows that financial literacy has a positive effect on financial management behaviour. This study also investigates the indirect effect of financial literacy on financial management behaviour through self-control. The result shows that the direct effect is stronger than an indirect effect on the influence of financial literacy on financial management behaviour. The higher the financial literacy of the BUM Des management, the better the self-control of the management in spending or consumption based on needs that are planned. So, it can be concluded that the management's knowledge, skills, and confidence in financial planning and management, combined with self-control related to financial expenditure, will significantly influence the behaviour of financial management regarding decision making in the use of village finances.

## 1 INTRODUCTION

Government efforts to equalize development are carried out in various ways. One of them is an effort to equalize welfare in rural areas because the village is one of the potential places for the country's economy. The many village potentials that can be developed and a large number of natural resources that have not yet been exploited, encourage the government to issue policies that can support the development of village potential. The policies made by the government include those listed in UU No. 6 of 2014 concerning Villages, followed by Government Regulation No. 60 of 2014 concerning village funds sourced from the State Budget.

Based on this law, every village has the right to receive funding from the government sourced from the state budget. Village funds can be used to develop village potential, one of which is to establish village-owned enterprises (BUM Des) aimed at boosting the economy of village communities. BUM Des was formed by the village government to utilize all economic potential, natural resources, and human resources to improve the village community. BUM Des is managed by the village government and also the village community

to strengthen the village economy and is formed based on the needs and potential that exists in the village.

The problem that often arises from the existence of village funds is the ability to manage village funds. The ability of administrators of village-owned enterprises to manage village funds is an important factor in achieving the objectives of the fund. Errors in management and planning that often occur tend to be caused by the behaviour of management who do not have adequate financial knowledge. In general, two factors influence a person's behaviour, namely, internal factors and external factors. External factors include culture, social class, and family. While internal factors include motivation, the learning process, and self-concept, in the concept of finance, the learning process can be interpreted as a person's knowledge to understand knowledge related to finance or what is referred to as financial literacy (Weningsih, 2018). The Organization for Economic Co-operation and Development / International Network on Financial Education (OECD / INFE) (2009) argues that the lack of financial literacy is recognized as one of the factors that contribute to financial information decisions that are lacking in information, thus causing negative impacts. Remund

(2010) also states that financial literacy is a measurement of one's understanding of financial concepts, and has the ability and confidence to manage personal finances through appropriate short-term decision making, long-term financial planning, and attention to economic events and conditions.

Several studies have shown an influence between financial literacy and behaviour in financial management, including research conducted by Robb & Woodyard (2011), Lusardi & Mitchell (2011), and Michaud (2017). Robb and Woodyard prove that functional financial literacy will have a positive influence on a person's financial behaviour, where someone will be able to manage or allocate their finances appropriately. Michaud's research (2017) found that financial literacy is associated with increased income and plays an important role in improving welfare. Michaud stressed that behavioural interventions also need to be considered because this will guarantee the achievement of welfare in the form of increased income when someone already has an understanding of financial literacy. Whereas, Lusardi & Mitchell (2011) found that behavioural factors, such as perceptions about the importance of financial literacy, satisfaction at a certain level on understanding financial literacy and the results obtained, would greatly affect a person's level of financial management ability. Their research also found that financial literacy will be very easily understood through interactions between individuals in a work environment or a community.

Mistakes that occur in financial management are also often caused due to a lack of self-control from someone. Self-control is a person's ability to maintain behaviour. Someone with good self-control will have better financial behaviour and will be able to manage the financial resources they have (Kiyosaki, 2012). They will not spend on things that are not needed or for activities that are not useful. Self-control will lead to wise decision making and better financial welfare. Besides, self-control will help someone has a strong self-desire to achieve success in the future. Lack of self-control will lead to irrational decision making, low self-confidence, and destructive behaviour (Younas, et.al; 2019). Kahneman and Krueger (2010) found the effect of self-control on financial behaviour. According to Kahneman, someone with good cognitive abilities will be able to manage their finances to achieve goals.

From the results of the pre-survey conducted, it is known that someone who has sufficient financial knowledge, will have sufficient self-control in managing finances. Based on this, this study was

conducted to examine the effect of financial literacy on financial management behaviour by using self-control as an intervening variable. The study was conducted on administrators of village-owned enterprises (BUM Des) of Sleman regency in managing village funds obtained from the government.

## 2 LITERATURE REVIEW AND HYPOTHESES

### 2.1 Financial Management Behavior

Financial management behavior is a determination, acquisition, allocation and use of financial resources in accordance with specified objectives (Horne and Wachowicz (2002). The more active a person's financial management behavior will be, it can improve financial welfare, and vice versa, failure in financial management will lead to negative consequences in the long run.

Deacon and Firebaugh (1988) define financial management behavior as a set of behavioral results in the form of planning, implementation, and evaluation involving the scope of cash, loan, investment, insurance, and pension planning. Failure to manage finances will lead to serious long-term consequences, not only for someone but also for the company. Financial behavior as part of financial management behavior can be measured by looking at someone's actions, including financial knowledge, financial attitudes, and locus of control (Dowling, et al., 2009)

### 2.2 Financial Literacy and Financial Management Behaviour

Financial literacy is knowledge and understanding of financial concepts and risks as well as the skills, motivation, confidence to apply such knowledge and understanding to make effective decisions in the financial context, improving financial well-being, both individual and community welfare (OECD, 2016: 87). Financial literacy can also be defined as a combination of awareness, knowledge, skills, attitudes, and behaviours needed to create financial awareness and ultimately achieve individual welfare (OECD, 2011).

Houston (2010: 306-307) explains that financial literacy shows how well an individual can understand and use information related to finance. Financial literacy can also lead to components of

resources that can be used in financial activities to improve the quality of life expected from consumption, such as behaviours that can improve financial welfare.

According to Braunstein and Welsch (2002: 445-447), several factors that cause financial literacy between individuals include 1) technological changes, 2) increasing debt problems, and 3) changes in individual finances. According to Michaud (2017), financial literacy is associated with better future planning related to the rate of return from higher deposits, as well as debt with low-interest rates. For workers, low financial literacy results in increased financial bankruptcy due to the high frequency of absences and low productivity. Also, workers who have financial literacy skills will better understand the company's financial condition, especially in times of crisis, which allows workers to be able to make profitable deals for the parties involved.

Several studies on the effect of financial literacy on financial management behaviour, among others, were conducted by Klapper, Lusardi, and Panos (2012), Murithi (2012), Stromback, et al. (2017), and Weningsih (2018). Financial literacy becomes the main focus of financial education and supports the creation of awareness about the importance of welfare in life. Inadequate financial literacy will affect one's financial decision making. If someone's financial literacy is high, then someone will have good behaviour in financial decision making. Research Murithi (2012) found that understanding financial literacy has a better effect when something similar is offered to an individual in a group. Klapper et al. (2012) proved the influence of financial literacy on financial behaviour by looking at the positive influence of financial literacy on the use of formal services in the financial sector. The higher the level of financial literacy, the higher the capacity of deposits, and the lower the amount of expenditure during a financial crisis. This research shows that financial literacy can make an individual face the conditions of economic change through savings and become a wise person in financial management.

H1: Financial literacy has a positive effect on financial management behaviour

### 2.3 Self-control and Financial Management Behaviour

Self-control is the ability to control someone to organize, maintain and direct behaviour that directs

someone to give positive consequences. The ability to control oneself is related to one's ability to control emotions and encourage others (Weningsih, 2018). Self-control is the level at which a person makes consistent choices (Sutter, et.al, 2013). Self-control is a non-cognitive skill that is important in individual decision making, such as consumption and savings.

According to Schultz and Schultz (2013: 317), self-control is the ability of a person to exercise control and manage behaviour with full consideration before doing something. Self-control can be influenced by internal factors (such as age, emotional control, psychological well-being, and how religious a person is), and external factors (such as family environment, and peers).

Mischel (2014) states that self-control can be related to financial literacy, where someone who has the knowledge and financial literacy abilities will be able to control themselves in financial management. Dikria and Mintarti's research (2016) proves that financial literacy has a positive influence on self-control. Someone who has the knowledge and skills about financial literacy combined with self-control will be more selective in spending. Someone with high financial literacy will be better able to predict an event, so they will be more careful in controlling their finances and making decisions.

H2: Financial literacy has a positive effect on financial management behaviour with self-control as an intervening variable.

## 3 RESEARCH METHOD

This study is a quantitative study that aims to examine the effect of financial literacy on financial management behaviour with self-control as an intervening variable. This research was conducted on the management of the Village Owned Enterprises (BUM Des) in Sleman Regency, with 54 respondents. Data collection was carried out by distributing questionnaires consisting of 28 question items representing 3 variables, consisting of 15 question items for financial literacy variables, 7 question items for self-control variables, and 6 question items for financial management behaviour variables.

The data used in this study are financial literacy (independent variable), financial management behaviour (dependent variable), and self-control (intervening variable).

### 3.1 Financial Literacy

Financial literacy is defined as the knowledge, skills, and attitudes that influence behaviour in improving the quality of decision making and financial management to prosper. Financial literacy is measured using indicators: 1) money management, 2) financial planning, 3) financial well-being, and 4) financial knowledge (Australian Unity Financial Wellbeing Questionnaire - design and validation)

### 3.2 Financial Management Behaviour

Financial behaviour is a study that studies how psychological phenomena affect financial behaviour. Financial behaviour measured using indicators: 1) consumption; 2) debt management; 3) money management; 4) savings and investment (Strömbäck et. Al, 2017)

### 3.3 Self-control

Self-control is related to better financial management and involves one's ability to resist desires or impulses to spend excessively. Self-control is measured using indicators 1) stopping bad habits; 2) resist temptation; 3) maintain self-discipline; 4) focus on short-term goals; and 5) laziness (Strömbäck et. Al, 2017)

The data collected will be tested using the regression analysis to testing the influence of financial literacy on financial management behaviour and from the results obtained later conclusions will be drawn. To test the direct and indirect effect of financial literacy toward financial management behaviour through self-control, the path analysis was conducted. Path analysis is the part of the regression analysis used to analyze the relationship between dependent variable with independent variable directly or indirectly through one or more intermediaries. The path calculation describes the influence of Financial Literacy (X) directly and indirectly to Financial Management Behaviour (Y2) through Self-Control (Y1).

The structural equation used is as follows:

$$Y1 = \beta1X + \epsilon1 \dots\dots\dots \text{sub structural (1)}$$

$$Y2 = \beta1X + \beta2Y1 + \epsilon2 \dots\dots\dots \text{sub structural (2)}$$

## 4 RESEARCH RESULTS

### 4.1 Descriptive Statistics

Table 1 below shows descriptive statistics from research respondents. 68.52% of respondents were male while the rest were female. The majority of respondents aged between 30 and 39 years. 9.26% of respondents had the last high school education, 38.89% had a Diploma education, and the remaining 51.85% had a Bachelor's degree. 68.52% of respondents have taken care of BUM Des for 3 years, 18.52% have worked for 2 years, and the rest work for less than 1 year.

Table 1. Characteristics of respondent

Gender	Number of Respondents	%
Men	37	68.52
Women	17	31.48
Total	54	100.00
Age	Number of Respondents	%
20-29 Year	3	5.56
30-39 Year	19	35.19
40-49 Year	14	25.93
50-59 Year	9	16.67
> 60 Year	9	16.67
Total	54	100.00
Education	Number of Respondents	%
High School	5	9.26
Diploma	21	38.89
S1	28	51.85
Total	54	100.00
Length of Work	Number of Respondents	%
<1 Year	7	12.96
2 Years	10	18.52
3 Years	37	68.52
Total	54	100.00

### 4.2 Test Results

Testing the effect of financial literacy on financial management behaviour, presented in table 2, shows that financial literacy has a positive effect on financial management behaviour as indicated by a regression coefficient of 0.840 and a significance of 0,000 less than 0.05. These results prove that the higher the financial literacy of the BUM Des management, the better their behaviour in managing village finances.

Good understanding and sufficient knowledge along with the expertise possessed in terms of savings, loans, and investments will make an individual wiser in making financial decisions to achieve goals in the future.

Table 2. Testing the influence of financial literacy on financial management behaviour

Model	Unstandardized Coefficient		t.	Sig	R <sup>2</sup>
	B	Std Error			
Constant	0,595	7,771	1,707	,000	0,739
X	0,840	4,374	9,635	,000	

Financial problems often occur because of errors in financial management such as making wrong decisions in spending that tends to cause someone to be more consumptive. Lusardi and Mitchell (2017) state that the lack of understanding of products and mechanisms in the financial markets, as part of financial literacy, results in suboptimal decision making related to investment. In this case, financial literacy is associated with an inability to make decisions regarding managing deposits (savings), low participation in financial markets (van Rooj, Lusardi, and Alessie, 2011) and low ability to diversify in portfolios (Guiso and Jappelli, 2009).

Regarding loans (credit), someone with a low level of financial literacy tends to decide to take loans at a higher cost. A person who uses credit to finance expenses often experiences excess loans because of excessive spending activities, such as spending on clothing purchases, electronic equipment, vehicles, and recreational activities funded by loans (Lucks, K., 2016). Therefore, someone with the right level of financial literacy tends to be more rational in spending and will be better at managing their finances. Based on the results, the first hypothesis (H1) is acceptable, that financial literacy has a positive effect on financial management behaviour.

Table 3. Summary of the Regression Analysis

Model	Unstandardized Coefficient		t.	Sig	R <sup>2</sup>
	B	Std Error			
Sub structural X→ Y1					
Constant	1,265	,338	3,749	,000	0,537
X→Y1	,657	,085	7,7	,000	

71					
Sub structural X→ Y1→ Y2					
Constant	-,087	,338	-,258	,797	0,729
X→Y2	,486	,110	4,405	,000	
Y1→ Y2	,539	,123	4,374	,000	

Table 3 shows the result of regression analysis on the effect of financial literacy on financial management behavior with self-control as an intervening variable. On the influence of financial literacy on self-control, the result shows that the regression coefficient of financial literacy variables of 0.657, significant at 0,000. It shows that there is a positive influence on financial literacy on self-control. The higher a person's financial literacy, the better someone will be in self-control related to financial activities carried out. Self-control is the ability of a person to exercise control and manage his behavior before deciding to do something. Someone with good financial literacy will be able to control himself and will be more careful in using his money and have various considerations before taking an action

The results of testing the effect of financial literacy on financial management behavior with self-control variables as intervening variables in table 3 show the regression coefficient of financial literacy variables of 0.486 and self-control regression coefficient of 0.539, both significant at 0,000. This shows that financial literacy has a positive effect on financial management behavior with self-control as an intervening variable.

Table 4. Summary of the Path Analysis

Model	Path Coefficient	T	Sig.	R <sup>2</sup>
Sub structural 1 (X→ Y2 )				
X	0,463	4,405	,000	0,537
Sub structural2 (X→ Y1→ Y2 )				
X	0,733	7,771	,000	0,739
Y1	0,460	4,374	,000	

The result of path analysis in Table 4 shows that the path coefficients of variables financial literacy is 0.733, and the path coefficient for self-control is 0.460, and significant at 0.000. This shows that there is an indirect effect of financial literacy on financial management behaviour through self-control. The indirect effect of financial literacy on financial

management behaviour is  $(0.733) \times (0.460) = 0.33719$ . While the direct effect of financial literacy on financial management behaviour is 0.463, significant at 0.000. Thus, it can be concluded that the direct effect of financial literacy on financial management behaviour is greater than the effect of financial literacy on financial management behaviour through self-control variables. The effect between variables is presented in the following figure 1

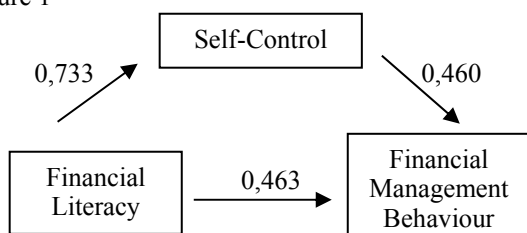


Figure 1. Effect of Financial Literacy on Financial Management Behaviour with Self-Control as an intervening variable

The result of this study is consistent with the study of Weningsih (2018) and Ramalho and Forte (2018). Ramalho and Forte (2018) show the positive influence of financial knowledge as part of financial literacy on self-control, and the positive influence of financial knowledge on the behavior of financial management, both directly and through self-control. Weningsih (2018) shows that financial literacy hurts consumptive behaviour with self-control as intervening variable. Financial literacy combined with self-control will make more selective consumption pattern. Financial literacy, accompanied by good self-control will lead to good financial management behaviour. Some person who has good self-control will be more careful in managing his finance and will try to be an intelligent person in carrying out various financial activities.

Based on the results, the second hypothesis (H2) is acceptable, that financial literacy has a positive effect on financial management behaviour through self-control as intervening variables.

## 5 DISCUSSION

The results indicate a positive influence of financial literacy on the financial management behaviour of the village caretaker-owned business (BUM Des) entities village in Sleman district. This shows that financial literacy in the management of the BUM Des in Sleman Regency in terms of village financial

management shows good results. Administrators can plan and manage village finances well, such as managing funds to pay debts, have financial planning for things in the future, and unforeseen needs, and have sufficient basic financial knowledge. So it can be concluded that the management of the BUM Des in Sleman Regency has good financial literacy and the financial behaviour of the management in financial planning and managing the business unit's finances has been done appropriately and adequately.

Indirectly, self-control as an intervening variable influences the relationship of financial literacy to financial management behaviour. This indirect effect shows that the higher the financial literacy of the BUM Des management, the better the self-control of the management in spending or consumption based on needs that are planned, and not based on conditions for a moment, as well as the ability of the board to think for goals long-term. This will significantly affect the management in making financial decisions in achieving public welfare. The management's knowledge, skills, and confidence in financial planning and management, combined with self-control related to financial expenditure, will greatly influence the behavior of financial management regarding decision making in the use of village finances. This will significantly support the achievement of the objectives of village fund granting, namely improving the village economy and achieving the welfare of the village community.

## 6 CONCLUSION

Financial literacy can be defined as a person's ability, understanding, and skills to manage their finances to reduce management errors in making financial decisions for welfare purposes. This financial literacy is related to general financial knowledge about deposits and loans, investment, and security guarantees. Good financial literacy will greatly affect the behaviour of financial management, both in terms of planning, controlling, and making financial decisions. The high financial literacy will affect self-control. The higher the financial literacy, the better one's self-control will be in carrying out financial management. Self-control is often associated with one's ability to control and manage behaviour before making a decision. In terms of financial management, self-control is an activity that drives a person to make savings by reducing impulsive purchases (Otto, Davies & Charter, 2004). Someone with good

financial literacy, combined with self-control ability, will produce good management behavior. Good financial management will be crucial for the achievement of the long-term goals of the formation of a Village-Owned Enterprise that is improving the village economy and achieving the welfare of the community.

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