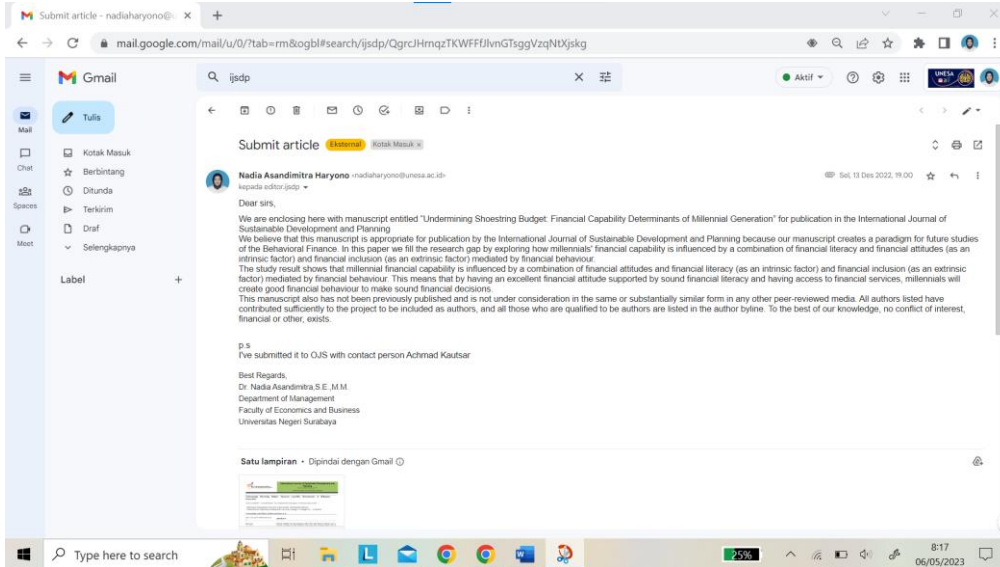
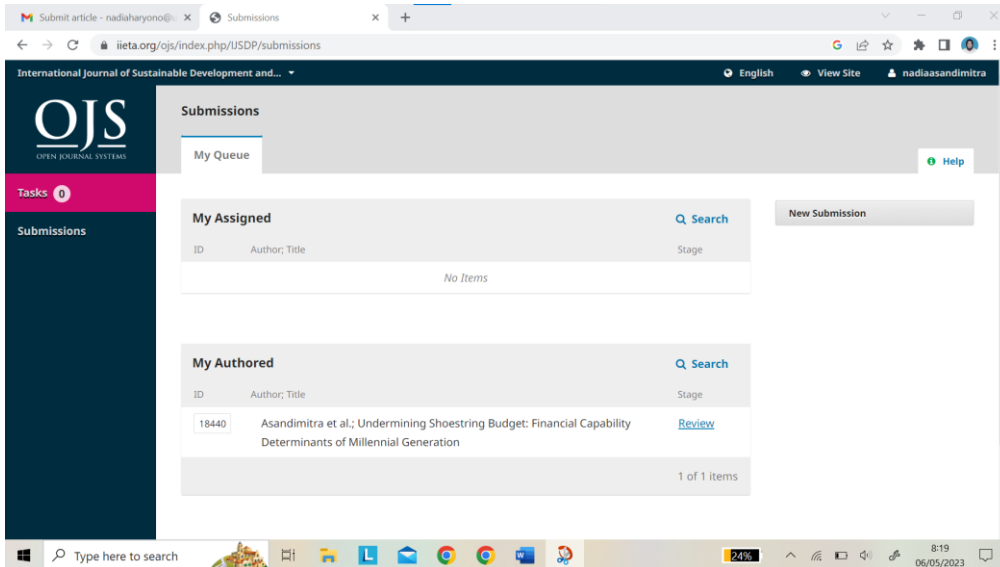


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## Undermining Shoestring Budget: Financial Capability Determinants of Millennial Generation

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### ABSTRACT

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Financial capability can help millennials address their risky financial behaviours and, in particular, provide low-income millennials with opportunities to develop healthy financial behaviours. This study aims to fill the research gap by exploring how millennials' financial capability is influenced by a combination of financial literacy and financial attitudes (as an intrinsic factor) and financial inclusion (as an extrinsic factor) mediated by financial behaviour. The research method explains the causal relationship or causality to investigate the relationship between two or more variables. In this study, the research sample is the Indonesian millennial generation. The study result shows that millennial financial capability is influenced by a combination of financial attitudes and financial literacy (as an intrinsic factor) and financial inclusion (as an extrinsic factor) mediated by financial behaviour. This means that by having an excellent financial attitude supported by sound financial literacy and having access to financial services, millennials will create good financial behaviour to make sound financial decisions.

### 1. INTRODUCTION

The topic of the millennial generation is currently widely discussed in the world because the millennial generation has different characteristics compared to the previous generation. The millennial generation will play an essential role in various aspects for the next 10 to 20 years. In Indonesia, this topic is a critical issue. According to BPS data, 50% of the productive age population currently comes from the millennial generation. From 2020 to 2030, it is estimated to reach 70% of the productive age population [1].

This is a demographic bonus where the population of productive age is greater than that of non-productive age. One of the benefits of the demographic bonus is that it can change the level of the economy in a country either through its participation in the workforce or their participation as investors or savers [2]. As one of the main targets of the Indonesian government's financial inclusion policy, the financial capability of the millennial generation will assist them in determining financial products/services that help them to improve a better standard of living/financially well-being. [3].

However, the *shoestring budget phenomenon* in the millennial generation, a condition where a person does not have enough money (in the form of cash or savings) to meet their basic needs, occurs in many big cities in the world, including Indonesia [4]. The shoestring budget condition is also heavily influenced by the economic background of families who are categorised as low-income earners or who are categorised as poor with an average income of less than \$200 per month [5] and lack of family support or limited access to financial assistance [4]; [6].

This condition puts low-income millennials challenging to prepare for their financial future, such as education or health [7]. The unexpected drop in income or unexpected

expenses is a common experience in low-income households [8]; and [9].

However, millennials also have no emergency savings [10], and low-income millennials have savings with an average accumulation of around US\$ 200 [11]. Based on the Indonesia Millennial Report by the IDN Research Institute (2019), which researched 5,500 millennials throughout Indonesia, 51.1 per cent of the millennial generation's income was spent for routine needs, including entertainment, debt instalments, investments, and internet subscription fees.

The generation born between 1980-2000 set aside 10.7 per cent of total income to savings, which is still far from the ideal 30% of income for savings [12]. With no savings to cover the unexpected needs, millennials usually borrow from friends or family ([13]; [14]) or do not pay the bill [8].

Millennials also have to pay tuition fees during their transition to adulthood. Low-income millennials carry a higher debt burden [15] and are more likely than their wealthier counterparts [16]. Millennials struggle to complete their degrees or avoid defaulting on loans indicate that their transition to adulthood coincides with substantial debt that can hinder their financial well-being [16]. With limited preparedness for emergencies, increased use of alternative financial products, and the accumulation of burdensome debt, millennials face obstacles that can threaten their overall financial happiness, future financial goals, and the transition to financial independence [17].

On the other hand, the millennial generation between 25-34 years old in Indonesia is the primary e-commerce user. [18] shows that millennials are the most active and most consumptive internet users. The Kadence Institute conducted research and found that the Indonesian people have an unhealthy consumptive lifestyle, 28% of the total expenditure greater than income [19]. This consumptive behaviour will

significantly affect the financial behaviour financial management. Meanwhile, in terms of investment behaviour, Indonesian investors, including the millennial generation, are considered not to have a long-term strategy or do not have financial goals, and 83% do not have a clear income target [20].

Financial capability can help address millennial risky financial behaviours and, in particular, provide low-income millennials with opportunities to develop healthy financial behaviours. Financial capability is an individual's ability to carry out good financial behaviour in an institutional context with opportunities facilitating such behaviour. Financial literacy and financial inclusion are the "building blocks" of financial capability [21]. Financial literacy can be linked to healthier behaviours such as avoiding the use of risky financial services and saving for retirement and emergencies ([22]; [23]), although financial knowledge literacy on behavioural finance may disappear over time [24].

Meanwhile, financial inclusion refers to accessible and affordable financial products and services for underserved households [21]. It can benefit millennials who are less likely to have a checking or savings account or are more likely to use alternative financial products [25].

There are several studies on the determinants of the financial behaviour of the millennial generation in Indonesia, including ([26]; [27]; [28]; [29]; and [30]). The motivation of this research, apart from being a development of previous research which only limited its study to financial behaviour, not financial capability and researched The above also has not explored the influence of the extrinsic variable determining financial ability, namely financial inclusion.

Financial inclusion is an essential factor because, apart from being part of government policy [3], also supported by [31] about the significant role of financial inclusion on financial behaviour and financial ability in low-income millennials. [32] describes the condition of financial inclusion benefit for alleviating poverty and financial welfare of the Indonesian people.

[33] analyse the implementation of financial inclusion in the millennial generation in high and low-income countries. [29] explores the effect of financial inclusion as a determinant of financial behaviour and ability in the millennial generation, along with financial knowledge. Thus, this study aims to fill the research gap by exploring how millennials' financial capability is influenced by a combination of financial literacy and financial attitudes (as an intrinsic factor) and financial inclusion (as an extrinsic factor) mediated by financial behaviour.

The results of this study are expected to help policymakers develop financial education programs to improve millennial behaviour to increase their financial capacity for their welfare. Thus, the originality of the current research is focused on: (1) the direct and indirect effects of financial attitude and financial literacy on financial ability; (2) analysis of the mediating role of financial behaviour within the framework of financial capability; and (3) the direct influence of financial inclusion on financial capability.

## 2. LITERATURE REVIEW

### Millennial Generation Financial Behavior

Financial behaviour is the behaviour that a person has when managing personal finances seen from the psychological point of view and habits that the individual does in financial decision making [34]. Meanwhile [35] explains that financial behaviour is a person's ability to manage (budgeting, planning, checking, managing,

controlling, searching and storing) funds or finances in everyday life.

Behaviour can reflect a person's self from a psychological point of view. Financial behaviour measurement is carried out using indicators from [36] and [37] namely timely payment of bills, provision of money for savings, unexpected expenses, monitoring of financial management, and evaluation of financial management.

Behavioural finance starts from a person's behaviour in the financial decision-making process [38]. Good financial behaviour leads to more responsible financial behaviour so that people can manage finances properly. According to this study, Indonesian consumer tend to buy things without thinking and are prone to impulsive shopping, leading to financial problems.

The emergence of financial management behaviour is caused by the influence of a person's desire to fulfil his needs based on the income level [35]. According to [39], ethical errors in financial management behaviour have led to many bankruptcies, so financial management skills are needed to overcome this consumer behaviour. In addition, this financial behaviour will also potentially hamper their welfare in the future [40]. Therefore, it is necessary to understand the financial capability of the millennial generation.

[1] divides the population group into four generations, namely the "baby boomer" generation, "generation X", "millennial", and "generation Z". Generation X is a generation of baby boomers born between 1965 and 1980 and are 41 to 56 years old. Millennials are born between 1981-2000, or currently 21-40 years old, and Generation Z was born since 2000 until now.

Millennials exhibited complex financial behaviour in a very different macroeconomic environment from previous generations and were born in a financially liberalised market with variable interest rates and accessible credit lines [41]. This generation has to face a high cost of living due to high housing prices, so it must be purchased with a credit scheme [42], various choices of consumer credit [43], and an unstable labour market [44]. The financial behaviour of today's young millennials can shape their future financial well-being or potentially hinder their future ability to accumulate wealth [40].

Attitude precedes individual behaviour [45];[46] In general, a financial attitude is defined as a person's behaviour towards money with a positive or negative tendency towards money [47]. Therefore, [48] measure it into five activities: controlling spending, saving regularly, comparing the services of financial instruments used, and having a reserve of funds and setting a budget.

Various studies have shown that attitudes reflect a prognostic relationship with behaviour [49], shows a direct and positive relationship. Financial literacy is a person's overall insight to manage his finances. The higher the level of financial literacy indicates the breadth of a person's knowledge of finance, the better his financial behaviour will be. This is the following research ([36]; [50]; and [51]). According to [52], the measurement translated into four dimensions: personal finance, management of deposits through savings and time deposits, insurance, and investment. Considering the discussion above, the following hypothesis can be formulated:

**H1:** Financial attitude has a positive effect on financial behaviour.

**H2:** Financial literacy has a positive effect on financial behaviour.

### Financial Capability of Millennial Generation

Financial capability is a person's ability to manage and control finances [53]. It can be assumed that financial capability is financial self-efficacy which indicates a person's ability to take the necessary actions to deal with prospective situations. Financial capability is associated with using finances to get what you want to achieve financial wealth.

Referring to [54], financial capability is the ability to manage and control individual finances efficiently, including daily financial management such as budgeting, usage of bank accounts, retirement planning and anticipation of unexpected events by saving and financial products selection. Therefore, the measurement uses three elements of a combination of financial knowledge, financial access and financial functioning.

Furthermore, financial capability includes financial literacy and external opportunities through financial inclusion. Thus, financial capability consists of developing knowledge and access to financial services [55]. Research recommendations from ([31]; [32]; [33]; ([56]; and [57]) were studied about the importance of increasing the financial capability of millennials through financial inclusion.

Ability is a derived concept and reflects the various functions an individual may achieve and involves individual choice. Hence, capability is about a series of choices that an individual makes to achieve a set goal of becoming a financially capable individual [58].

An individual's assessment of their capacity to achieve desired financial behaviour and to achieve financial capability through financial knowledge, financial attitudes, and financial inclusion is financial self-efficacy [59]. This study will also relate to the process of identity development [60]. The process of developing financial identification includes financial attitudes, knowledge, and behaviour within the framework of financial capability [61]. Considering the discussion above, the following hypothesis can be formulated: **H3:** Financial capability is positively influenced by financial behaviour.

### Financial Attitude on Financial Capability

According to [62], financial attitude is a personal judgment, opinion, or state of mind about finances that is applied to his attitude. Someone who has an excellent financial attitude tends not to face financial problems often because he has a wise attitude in responding to financial problems followed by good financial management behaviour [63].

The positive influence of financial attitude on financial behaviour is also by the results of research from ([64]; [65]; [66]). In contrast to the research that has been done by [62] and [37], which states that financial attitude has a negative influence on financial behaviour. The research conducted by [67] and [68] shows that financial attitude has no significant effect on financial behaviour.

Attitude is the confidence to make appropriate financial decisions, which will affect the individual's financial ability [61]. A better financial attitude will increase financial capability [56]. If individuals can make sound financial decisions, they can be called financially capable.

Financial attitude is an essential factor in financial capability ([69]; and [70]). A high level of financial capability is associated with sound and less risky financial behaviour. Financial capability has both individual and structural elements that combine the individual's ability to act and the

opportunity to act, namely financial inclusion [71]. Financial behaviour is one of the essential factors of financial ability [70]. Financial capability refers to applying financial knowledge supported by desired financial behaviour to achieve financial well-being ([69]; [70]).

Attitude expresses implicit beliefs that can influence behavioural intentions [45]. In the financial context, attitudes can be explained as opinions and mindsets about managing financial affairs and making financial decisions [72]. Attitude is about self-confidence to take appropriate financial decisions, and it affects an individual's financial ability [61]. A better attitude improves financial ability [56]. If one can make sound financial decisions, it can be called financially capable. Considering the discussion above, the following hypothesis can be formulated:

**H4:** Millennial's financial capability is positively influenced by financial attitude.

Because financial behaviour replaces financial attitude and precedes financial ability, financial behaviour falls between financial attitude and financial ability. Interestingly, attitudes produce behavioural and behavioural outcomes, and therefore, financial behaviour has a mediator role between attitudes and capabilities. So, to address this problem in research, the following hypotheses have been made:

**H4a:** The impact of financial attitude on financial capability is mediated by financial behaviour.

### Financial Literacy on Financial Capability

Financial literacy is the fundamental knowledge needed to manage personal finances successfully [73]. Individuals with high financial literacy know how to do good financial management and products. Individuals will know the benefits of existing financial products and understand how to use them [36].

These financial products include savings, loans, insurance, and investments. According to [74], individuals with high financial literacy will have a high understanding of finance. This financial management includes making a budget and developing a priority scale of needs so that financial resources can be allocated on target.

Financial capability has been introduced to expand the concept compared to the simple idea of financial literacy [75], which consists of capabilities and opportunities. If a person acquires skills and knowledge (literate) but does not use or apply them in practical decision making, they are recognised as financially incapable ([76]; and [77]). A financially capable individual should have the ability and opportunity to improve their financial well-being by making wise financial decisions and actions. Financial literacy and financial inclusion aim to improve the financial capacity of young people [78], and not only the ability to act but the opportunity to act together affects financial capability [71]. Then the hypothesis can be formulated:

**H5:** Millennial financial capability is directly influenced by millennial financial literacy. **H5a:** The impact of financial literacy on financial capability is mediated by financial behaviour.

### Financial Inclusion on Financial Capability

According to the [79], financial inclusion is about awareness, availability, and accessibility of financial products and services, thus ensuring people to reach financial services and products.

Low levels of financial inclusion are about failure to access and utilise financial services that limit people from

saving money properly, planning efficiently for cost-effective loans, and protecting them and their families from the basic disasters of hunger, crime, and poverty. Natural disasters [80]. Therefore, it is necessary to increase financial inclusion, which can lead to the development of financial capability [81].

Timely, accessible, cost-effective, financially attractive, easy to use, secure & protected and reliable financial products & services lead to financial inclusion ([21]; and [82]; [83]). Another study emphasised external factors (i.e., access to and use of services and products) regarding financial capacity building and stated that financial inclusion is an important point that must be considered for financial capacity [84]. Increased financial inclusion expands an individual's ability to invest and hedge against risk. Financial inclusion is strongly and positively linked to individual savings as access to bank accounts is linked to financial inclusion [75], ultimately increasing individuals' savings and financial security. Inclusion is measured based on the factual use of the public as consumers of financial products and services. Thus, the hypothesis can be formulated:

**H6:** Financial capability is directly affected by millennial financial inclusion.

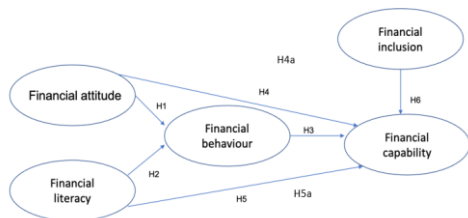


Figure 1 Research Framework

### 3. METHODOLOGY

#### Types of research

The research method is a scientific way to obtain data with a specific purpose and use [85]. This is explanatory research that aims to test a theory or hypothesis to strengthen or even reject existing research theories or hypotheses using a quantitative approach. Based on the level of explanation, this research is associative, which explains the causal relationship to investigate the relationship between two or more variables.

#### Population and Sample

In this study, the population is the millennial generation of Surabaya City, the second biggest industrial city in Indonesia. The type of sampling is purposive sampling with the respondent criteria:

1. Domiciled in Surabaya, both natives and immigrants who live in Surabaya.
2. Born between 1981-2000, or between the ages of 20 and 39.

For implementation in the field using techniques, *snowball sampling* is a sampling technique that is initially small in number and then enlarges [85]. One or two people initially chose the determination of this sample. Then, two previous people sought other respondents so that the number of samples increased until the target of 220 respondents could be achieved.

#### Data collection technique

Data collection techniques are tools or methods used to collect research data consisting of interview techniques, questionnaires, and observations [85]. This study uses a questionnaire to collect data, and the questionnaire will be prepared both online and offline. The questionnaire is a data collection technique done by giving a set of questions or written statements to respondents to answer [85]. The statement scale used is the Likert scale. The Likert scale is a widely used scale that asks respondents to indicate the degree of agreement or disagreement with each series of statements [86].

#### Data analysis technique

##### Multiple linear regression

The analytical method used in this study is multiple linear regression. The equation of multiple linear regression is:

$$Y1 = \alpha + \beta X1 + \beta X2 + e \dots \dots \dots (1)$$

Information :

- Y1 = financial behaviour variable value
- $\alpha$  = constant value Y if X = 0
- X1 = financial attitude variable value
- X2 = financial literacy variable value
- $\beta$  = regression coefficient X1, X2
- e = residue

$$Y2 = \alpha + \beta X1 + \beta X2 + \beta X3 + \beta X4 + e \dots \dots (2)$$

Information :

- Y2 = financial capability variable value
- $\alpha$  = constant value Y if X = 0
- X1 = financial attitude variable value
- X2 = financial literacy variable value
- X3 = financial behavior variable value
- X4 = financial inclusion variable value
- B = regression coefficient X1, X2, X3, X4
- e = residue

### 4. RESULTS AND DISCUSSION

#### Validity and Reliability Test Results

At this stage, the primary data of the four variables (financial attitude, financial literacy, financial behaviour and financial capability) must go through a validity and reliability test first. The results of the validity and reliability tests are summarised in Table 1.

Table 1. Validity and Reliability Test Results

Variable	Items	Corrected Item-Total Correlation	Cronbach's Alpha
Financial Attitude	X1	0.594	0.874
	X2	0.659	
	X3	0.764	
	X4	0.689	
	X5	0.669	
	X6	0.577	
	X7	0.504	
	X8	0.593	
Financial Literacy	X9	0.640	0.841
	X10	0.580	
	X11	0.707	

Variable	Items	Corrected Item-Total Correlation	Cronbach's Alpha
	X12	0.677	
	X13	0.661	
	X14	0.641	
	X15	0.614	
	X16	0.294	
	X17	0.255	
	X18	0.233	
<i>Financial Behavior</i>	X19	-0.121*	0.866
	X20	-0.264*	
	X21	0.656	
	X22	0.659	
	X23	0.704	
<i>Financial Capability</i>	X24	0.667	0.923
	X25	0.547	
	X26	0.517	
	X27	0.398	
	X28	0.487	
	X29	0.298	
	X30	0.116*	
	X31	0.492	
	X32	0.657	
	X33	0.697	
	X34	0.505	
	X35	0.708	
	X36	0.691	
	X37	0.637	
X38	0.662		
X39	0.512		
X40	0.656		
X41	0.753		
X42	0.730		
X43	0.697		
X44	0.697		
X45	0.622		
X46	0.392		

Table 1 shows that items X19 and X20 in the financial behavior variable and X30 on financial capability are invalid, so they are deleted in this study. The value of the r table is 0.138 so that the corrected item-total is valid. For the reliability test, the minimum Cronbach's Alpha value is 0.7, and all variables are declared reliable.

#### Classic Assumption Test Results

Table 2 shows that the multicollinearity test is declared not to occur because the VIF value is smaller than 10. The Glejer test analysis shows no heterocedasticity. In the autocorrelation test, the Durbin Watson value of 2.062 is in the area where there is no autocorrelation. Finally, the normality test used Kolmogorov Smirnov with a value of 0.485 or above 0.050 so that the research data were normally distributed. In the conclusion of this classical assumption test, the research model can be continued to the next stage.

**Table 2. Hypothesis Testing**

Dependent	Independent	B	Std. Error	T	Sig.	VIEW
<i>Financial Capability</i>	(Constant)	1.202	.171	7.026	0.000	
	Financial Attitude	-.121	.048	2.497	0.013	1,462
	Financial Literacy	.385	.055	6,941	0.000	1,704
	Financial Behavior	.199	.063	3.166	0.002	1992
	Financial Inclusion	.092	.037	2,500	0.013	2.173
	Test Model			65.586	0.000	
	Determinant				0.548	
<i>Financial Behavior</i>	(Constant)	-.025	.229	-0.109	0.913	
	Financial Attitude	.193	.064	3.009	0.003	1,400
	Financial Literacy	.286	.068	4.197	0.000	1,400
	Test Model			28.125	0.000	
	Determinant				0.198	
Sobel Test	FA-FB-FC			2.1812	0.014	
	FL-FB-FC			2.5257	0.005	

## Regression Result

Based on Table 2, the multiple regression equation in this study is as follows:

$$\text{Financial Capability} = 1,202 + 0,121 \text{ Financial attitude} + 0,385 \text{ Financial literacy} + 0,199 \text{ Financial behavior} + 0,092 \text{ Financial inclusion} + e$$

The multiple linear regression model explains that the constant value of 1.202 states that if the value of the independent variable is considered constant, then the value of financial capability is 0.686. The financial attitude regression coefficient of 0.121 states that for every 1000 times increase in financial attitude, it will increase financial management behaviour by 121 times. The financial literacy regression coefficient of 0.385 states that every 1000 times increase in financial literacy level will decrease financial management behaviour by 385 times.

The financial behaviour regression coefficient of 0.199 states that every 1000 times increase in financial behaviour will increase financial management behaviour by 199 times. The financial inclusion regression coefficient of 0.092 states that every 1000 increases in financial inclusion will increase financial management behaviour by 92 times.

While  $e$  is the residue or all things that may influence the dependent variable, this research is not observed.

$$\text{Financial Behavior} = 0,193 \text{ Financial attitude} + 0,286 \text{ Financial literacy} + e$$

The multiple linear regression model explains that the financial attitude regression coefficient of 0.193 states that for every 1000 times increase in financial attitude, it will increase financial management behaviour by 193 times.

The financial literacy regression coefficient of 0.286 states that every 1000 times increase in financial literacy level will decrease financial management behaviour by 286 times. At the same time,  $e$  is the residue where all things may influence the dependent variable but are not observed in this research.

## Coefficient of Determination Results

The coefficient of determination ( $R^2$ ) measures how far the model can explain variations in the dependent variable. Based on Table 2, the coefficient of determination in financial capability research is 0.548. This means that the independent variables included in this model, namely financial attitude, financial literacy, financial behaviour and financial inclusion, can explain the dependent variable (financial capability) by 54.8%. In contrast, the rest (45.2%) is explained by variables outside the model.

The coefficient of determination in financial behaviour research is 0.198. It means that the independent variables included in this model, namely financial attitude and financial literacy, can explain the dependent variable (financial behaviour) of 19.8%, while variables outside the model explain the rest (80.2 %).

## Hypothesis Test Results

### F test

The F test is a test of the financial capability model of the millennial generation. From the significant value in table 2, it can be seen that it is 0.0000, far below 5%. In conclusion,

the F test is significant. Simultaneously there is an influence between financial attitude, financial literacy, financial behaviour and financial inclusion on the financial capability of the millennial generation.

The F test is a test of the financial behaviour model of the millennial generation; from the significant value in table 12, it looks like 0.0000, far below 5%. In conclusion, the F test is significant. Simultaneously there is an influence between financial attitude and financial literacy on the financial behaviour of the Surabaya millennial generation.

### T-test

To test the independent variables one by one whether or not there is an effect on the dependent variable (Y) using the t-test. If  $\text{Sig} > 0.05$ , then  $H_0$  is accepted, and if  $\text{Sig} < 0.05$ , then  $H_0$  is rejected. In Table 2, the significance level of the financial attitude variable is  $< 0.050$ , and then  $H_0$  is rejected, meaning that there is an influence between the financial attitude and the financial capability of the millennial generation. The significance of the financial literacy variable  $< 0.050$  then  $H_0$  is rejected, meaning that there is an influence between financial literacy and the financial capability of the millennial generation in Indonesia.

The significance of the financial behaviour variable  $< 0.050$  then  $H_0$  is rejected, meaning that there is an influence between Financial behaviour and the financial capability of the millennial generation. Finally, the significance of the Financial inclusion variable  $< 0.050$  then  $H_0$  is rejected.

About financial behaviour, in table 2, the significance level of the financial attitude variable is  $< 0.050$ , then  $H_0$  is rejected, meaning that there is an influence between financial attitude and the millennial generation's financial behaviour. Moreover, the significance of the financial literacy variable  $< 0.050$  then  $H_0$  is rejected, meaning that there is an influence between financial literacy and the financial behaviour of the Surabaya millennial generation.

### Mediation Test

This study uses the Sobel test to test the indirect effect (mediation). Based on Table 2, the following results can be obtained:

- 1) Hypothesis for financial attitude variable  $\rightarrow$  financial behaviour  $\rightarrow$  financial capability has a probability value of 0.014 ( $p = 0.05$ ). This shows that the hypothesis is accepted, meaning that financial behaviour can mediate the effect of financial attitude on financial capability.
- 2) The sixth hypothesis for the erratic financial literacy  $\rightarrow$  financial behaviour  $\rightarrow$  financial capability has a probability value of 0.005 ( $p=0.05$ ). This shows that the sixth hypothesis is rejected. So it can be concluded that financial behaviour can mediate the influence of financial literacy on financial capability.

## Discussion

### Financial Attitude On The Financial Behavior

Based on the partial test calculation results, financial attitude obtained a significance value (p-value) of 0.003. This signature value is smaller than the probability level of 0.050, so financial attitude affects the financial behaviour of the Indonesian millennial generation. These results indicate that the better the financial attitude of the millennial generation, the better the quality of their financial behaviour.

Financial attitude relates to the individual's attitude towards managing expenses, budgeting, saving, having reserve

funds, and making investments. This attitude has a positive or negative tendency, so that it is associated with financial management or financial behaviour, so individuals who have a positive financial attitude will carry out good financial management or good financial behaviour. This result supports the previous studies from [11]; [28]; [34]; [35]; [36]; [37]; [38]; [45]; [46]; [47]; [48]; and [49].

#### ***Financial Literacy on the Financial Behavior***

Based on the partial test calculation results, financial literacy obtained a significance value (p-value) of 0.000. This signature value is smaller than the probability level of 0.050, so financial literacy affects the financial behaviour of the Indonesian millennial generation. These results indicate that the better the financial knowledge of the millennial generation, the better the quality of their financial behaviour.

Financial literacy is related to the financial insight that individuals have. The higher the literacy rate, the higher the financial behaviour. With the breadth of knowledge related to finance, namely related to the management of savings, insurance and investment, it will be wiser to behave related to finance.

This is supported by the description of re's answer respondents where the Indonesia millennial generation can be categorised as having fairly good financial literacy with the highest score on prioritising investment quality and having the lowest value answer on choosing the right insurance, meaning that the Indonesia millennial generation has not been able to choose the right insurance. Considering that the millennial generation respondents in this study have just worked or have no work experience, they have not been able to make various investments and choose insurance whose premiums are according to their abilities. This finding supports the previous research from ([36]; [50]; [51]; and [52]).

#### ***Financial Behavior on the Financial Capability***

Based on the results of partial test calculations, financial behavior obtained a significance value (p-value) of 0.002. This signature value is smaller than the probability level of 0.050, so financial behavior affects the financial capability of the millennial generation in Indonesia. These results indicate that the better the financial behaviour of the millennial generation, the better the quality of their financial capabilities.

Financial capability is related to the achievement of financial wellness by using its financial capabilities. This means that if individuals who have positive financial behaviour can manage current and future needs and lead to financial satisfaction, they have the good financial capability.

This is supported by the description of respondents' answers where the Indonesia millennial generation can be categorised as having poor financial behaviour with the highest score on pay bills on time (e.g. electricity, and postpaid credit and has the lowest score answer on record expenses (daily, monthly). This means that the millennial generation in Indonesia has not been able to record their expenses regularly.

Considering that the millennial generation who are respondents in this study are new to work or do not have work experience so that most of their income is only enough to cover their daily needs, but on the one hand, the convenience of doing online shopping makes respondents behave extravagantly and forget to record their expenses regularly. Although the millennial generation has poor financial behaviour related to expenditure management, this does not cause poor financial capabilities. This can be seen from the

description of respondents' answers that, on average, the millennial generation has a reserve of funds for urgent needs.

This finding supports the previous research from ([31]; [32]; [33]; [53]; [54]; [55]; [56]; [57]; [60]; [61]; and [87]).

#### ***Financial Attitude on the Financial Capability***

Based on the partial test calculation results, financial attitude obtained a significance value (p-value) of 0.013. This signature value is smaller than the probability level of 0.050, so financial attitude affects financial capability for the millennial generation in Indonesia. These results indicate that the better the financial behaviour of the millennial generation, the better the quality of their financial capabilities.

A person with an excellent financial attitude means having sound financial judgments, opinions, and thoughts so that they can apply them in daily life related to financial decisions and deal with financial problems wisely to be said to have good financial capabilities.

This is supported by the description of respondents' answers where the Indonesia millennial generation can be categorised as having an excellent financial attitude with a value of the highest level is fully aware of their financial situation and having the lowest value for money answer is not everything, meaning that the millennial generation in Indonesia still considers the importance of having much money.

Considering that the millennial generation respondents in this study have incomes below \$300 because they are new to work or do not have much work experience after graduating from college. Because they are aware of this situation, plus they still have a wasteful nature, the millennial generation is fully aware of having reserve funds for unexpected events to be categorised as good financial capabilities. This finding supports the previous research ([64]; [65]; [66]; and [67]).

#### ***Financial Attitude on Financial Capability is mediated by the Financial Behavior of the Surabaya millennial generation.***

Based on the results of the Sobel test to obtain a significance value (p-value) of 0.014. This signature value is smaller than the probability level of 0.050, so financial attitude affects the financial capability of the millennial generation in Indonesia, mediated by financial behaviour. These results indicate that the Indonesian millennial generation's more financial-related attitude and good financial management and behaviour will affect their financial capabilities.

Individuals with an excellent financial attitude mean having wisdom in dealing with issues related to finance. This is because the individual has sound judgments, opinions, and thoughts applied in daily attitudes related to financial decisions to have good financial capabilities. This finding supports the previous research ([64]; [65]; [66]; and [67]).

#### ***Financial literacy on the Financial Capability***

Based on the partial test calculation results, financial literacy obtained a significance value (p-value) of 0.000. This significance value is smaller than the probability level of 0.050, so financial literacy affects the financial capability of the Indonesian millennial generation. These results indicate that the better the financial knowledge of the millennial generation, the better the quality of their financial capabilities.

The higher the knowledge about financial products so that they understand the benefits and risks of these products



and apply this knowledge in financial decisions in everyday life, it can be interpreted that the individual has good financial capabilities.

This is supported by the description of the answer respondents where the Indonesia millennial generation can be categorised as having fairly good financial literacy with the highest score on prioritising investment quality and having the lowest value answer on choosing the right insurance, meaning that the Indonesia millennial generation has not been able to choose the right insurance. Considering that the millennial generation respondents in this study have just worked or have no work experience, they have not been able to make various investments and choose insurance whose premiums are according to their abilities. This result supports the previous research from ([37]; [71]; [73]; [74]; [76]; [77]; and [78])

#### ***Financial Literacy on Financial Capability that mediated by the Financial Behaviour***

Based on the results of the Sobel test to obtain a significance value (p-value) of 0.005. This signature value is smaller than the probability level of 0.050, so financial literacy affects the financial capability of the millennial generation in Indonesia, mediated by financial behaviour. These results indicate that more financial knowledge of Indonesia's millennial generation and sound financial management and behaviour will affect their financial capabilities.

Financial literacy is basic knowledge in order to manage finances well. Individuals with good financial literacy know the existing financial products and understand the use of these financial products. If an individual's financial understanding is good, it will impact daily financial behaviour where he can prepare a budget and priority scale for his life needs so that his finances can be allocated properly. If the individual can apply his financial knowledge in financial decisions, he is financially capable. This study supports the previous research from ([37]; [72]; [73]; [74]; [75]; [76]; [77]; and [78]).

#### ***Financial inclusion on the Financial Capability***

Based on the partial calculation of financial inclusion results, a significance value (p-value) of 0.013. This signature value is smaller than the probability level of 0.050, so financial inclusion affects the financial capability of the millennial generation. These results indicate that the better the financial inclusion of the millennial generation, the better the quality of their financial capabilities.

Indonesia's millennial generation already has good enough financial inclusion to enable them to reach financial services and products. Hence, they can save properly, do efficient planning for cost-effective loans, and protect themselves and their families from the basic disasters of hunger, crime, and natural disasters so that financial capability can be built with limited income considering that they have just entered the working environment or have just graduated from college. This study supports the previous study from ([23]; [75]; [82]; [83]; and [84]).

#### **5. CONCLUSIONS AND SUGGESTIONS**

This study shows a positive relationship between financial literacy, attitude and inclusion on financial capability mediated by the financial behaviour of the millennial generation. This shows that the millennial generation's knowledge and understanding of the return and risk of a

transaction and the choice of financial instruments determine their capability in managing finances. This is also supported by applying financial literacy in daily activities and the availability of information, access and banking products through financial inclusion.

Therefore, this study provides practical implications to the banking sector to increase awareness and availability of banking products specifically for students or the younger generation with various administrative conveniences and low monthly fees. They are motivated to use savings products or long-term investments. Furthermore, the government is also expected to support this financial inclusion by increasing the coverage area of banking services to rural areas and across islands.

While the theoretical implication is, the researcher confirms the positive influence of research on the positive relationship of financial literacy, attitude and inclusion to financial capability. This study offers a novelty that shows the role of financial behaviour in mediating the causality above, which shows the existence of habitual factors in financial management, which will determine whether the millennial generation is financially capable in the short and long term to undermine shoestring budget problems and become financially wealthier.

This study has limitations in the number of respondents, which may not be used to generalise the picture of phenomena throughout Indonesia and globally. So that in addition to increasing the number of respondents, further research is expected to include control variables such as age, gender and education to obtain more complete research results.

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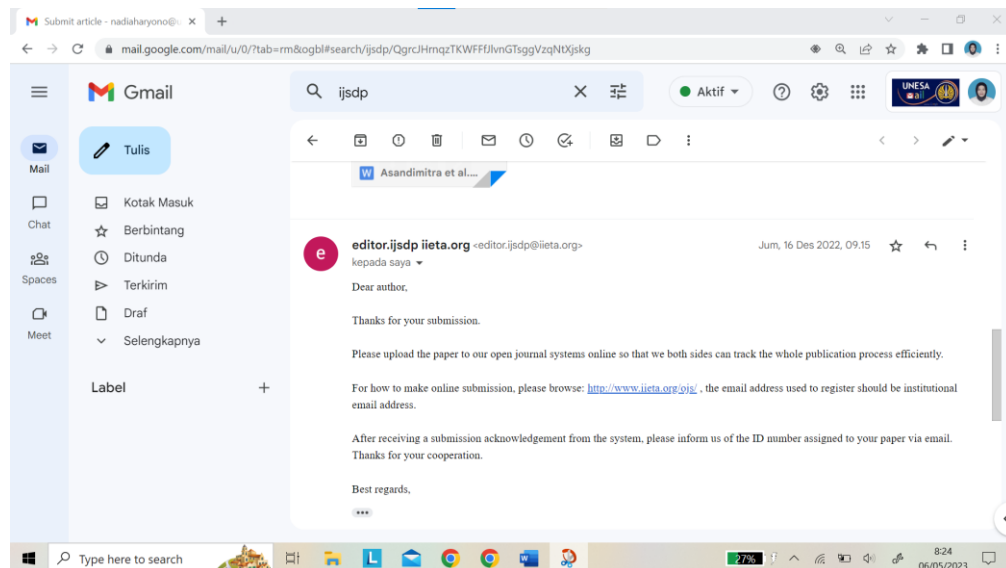
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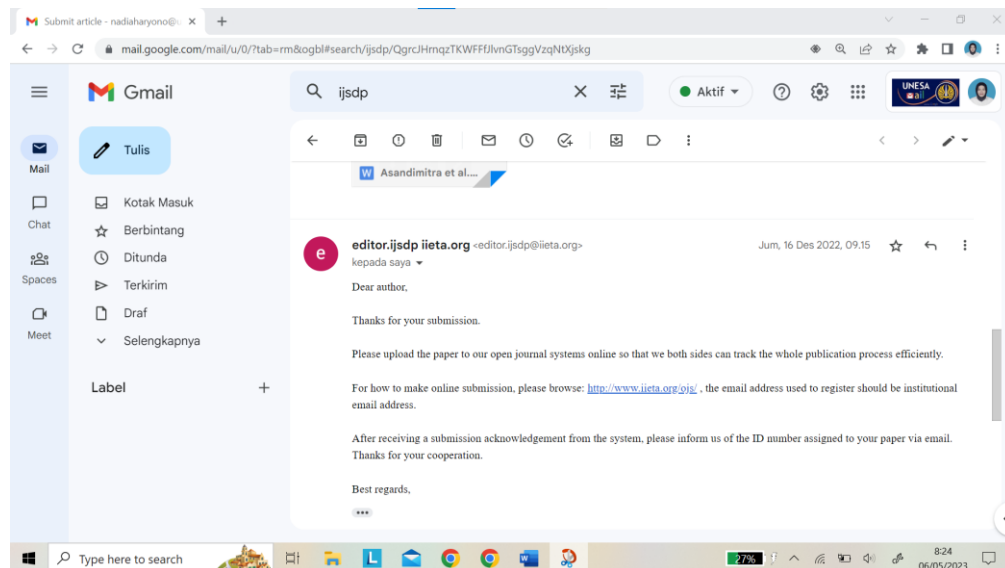
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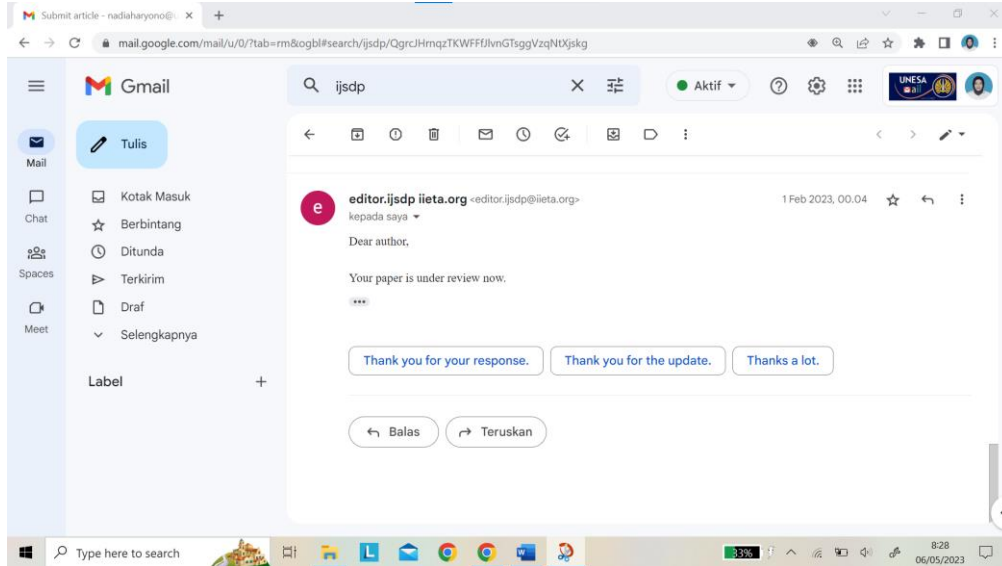
Jawaban dari jurnal tanggal 16 Desember 2022 mengenai submission



Menanyakan progress terhadap article submission tanggal 12 Januari 2023

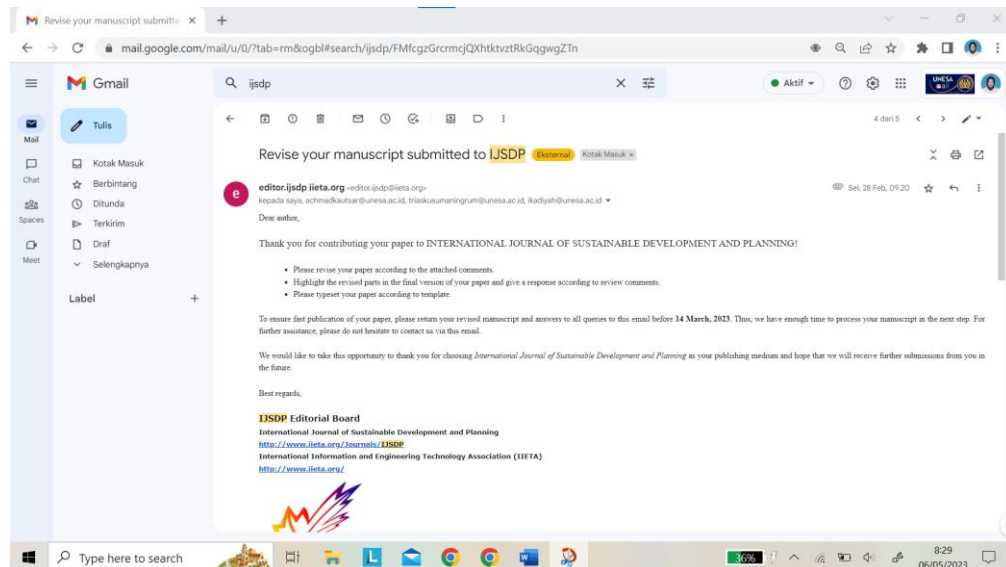


Jawaban dari jurnal mengenai progress submission tanggal 1 Februari 2023





Pemberitahuan revisi tahap 1 tanggal 28 Februari 2023



## REVIEWER'S COMMENTS

### Title of the article reviewed:

Undermining Shoestring Budget: Financial Capability Determinants of Millennial Generation

### Summary

This study aims to fill the research gap by exploring how millennials' financial capability is influenced by a combination of financial literacy and financial attitudes (as an intrinsic factor) and financial inclusion (as an extrinsic factor) mediated by financial behaviour. The research method explains the causal relationship or causality to investigate the relationship between two or more variables. In this study, the research sample is the Indonesian millennial generation. The study result shows that millennial financial capability is influenced by a combination of financial attitudes and financial literacy (as an intrinsic factor) and financial inclusion (as an extrinsic factor) mediated by financial behaviour.

### Minor Issues

The writing theme of this article is reasonable and realistic. However, there are some formatting issues in the paper. The author needs to further exercise his/her academic thinking and the scientific nature of the language. The author also needs to adjust the overall structure of the article and comb out a more logical structure.

#### ABSTRACT:

- There are logic problems in the abstract of this paper. The abstract lacks introduction of research methods. The author only mentions the research method, but does not say what research method was used. The author should revise it.

#### INTRODUCTION:

- I think there are logical problems with the subparagraphs in this chapter, such as the third and fourth paragraphs are both related to the low income of millennials and the problems brought by low income, and I suggest that the authors combine these two paragraphs.

#### LITERATURE REVIEW:

- In this section, some concluding sentences, the authors do not indicate the references, like paragraph 2, line 1, "Behaviour can reflect a person's self from a psychological point of view.", if these have sources, it is recommended that the authors indicate the sources.
- The title of Figure 1 should not be included in the figure and the author is advised to change it.
- In this picture, I don't think the author has shown the relationship between H4a and H5a and financial attitude and capability, as well as financial literacy and financial capability. I suggest the author re-conceive this picture.

#### METHODOLOGY:

- The formulas in the paper should be in the same standard format and the author should use MathType software for input.
- In Table 1, "Items", What does "X5-X46" mean? What do these variables represent? Suggest the author to explain.

#### RESULTS AND DISCUSSION:

- In this chapter, the format of some titles is different from other titles, such as "Mediation Test", and the font of the title is inclined. Does this expression represent other meaning?

#### CONCLUSIONS AND SUGGESTION:

- In this section, the authors re-summarize the management recommendations.

#### Others:

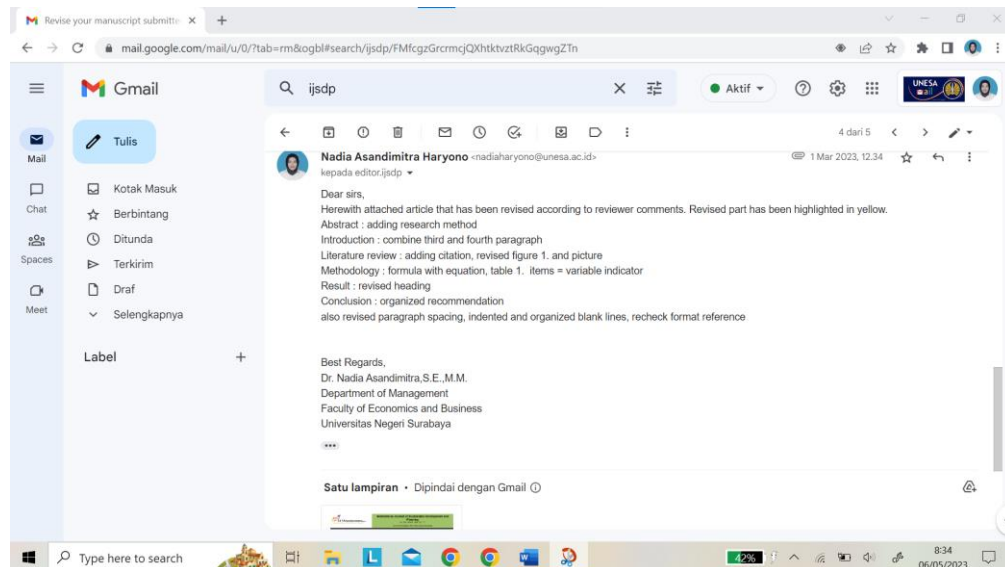
The following minor issues should be looked into by the author:

- There are many problems with the formatting of this article and the authors are advised to improve their academic skills.
- There are problems with the format of the references. And references should be marked in the article. It is recommended that authors recheck the format of references.
- The form should be changed to international three lines form.
- The paper's paragraphs are indented differently, and the author is advised to make changes.
- The paragraph spacing in this paper is inconsistent, and the authors are advised to standardize the standard.
- There are some unnecessary blank lines in the article, it is recommended that the author delete them and re-layout the article content.

### **General Comments**

**Finally, I suggest to accept this article. The author should modify the relevant content and format of each part of the article.**

Balasan review tahap 1 tanggal 1 Maret 2023



## Undermining Shoestring Budget: Financial Capability Determinants of Millennial Generation

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### ABSTRACT

#### Received:

#### Accepted:

#### Keywords:

*Millennials, Financial Capability,  
Financial Literacy, Financial Attitude*

Financial capability can help millennials address their risky financial behaviours and, in particular, provide low-income millennials with opportunities to develop healthy financial behaviours. This study aims to fill the research gap by exploring how millennials' financial capability is influenced by a combination of financial literacy and financial attitudes (as an intrinsic factor) and financial inclusion (as an extrinsic factor) mediated by financial behaviour. **This research method is explanatory causality with the Millennial Generation population in East Java using purposive sampling techniques and SEM-AMOS analysis tools.** The study result shows that millennial financial capability is influenced by a combination of financial attitudes and financial literacy (as an intrinsic factor) and financial inclusion (as an extrinsic factor) mediated by financial behaviour. This means that by having an excellent financial attitude supported by sound financial literacy and having access to financial services, millennials will create good financial behaviour to make sound financial decisions.

## 2. INTRODUCTION

The topic of the millennial generation is currently widely discussed in the world because the millennial generation has different characteristics compared to the previous generation. The millennial generation will play an essential role in various aspects for the next 10 to 20 years. In Indonesia, this topic is a critical issue. According to BPS data, 50% of the productive age population currently comes from the millennial generation. From 2020 to 2030, it is estimated to reach 70% of the productive age population [1].

This is a demographic bonus where the population of productive age is greater than that of non-productive age. One of the benefits of the demographic bonus is that it can change the level of the economy in a country either through its participation in the workforce or their participation as investors or savers [2]. As one of the main targets of the Indonesian government's financial inclusion policy, the financial capability of the millennial generation will assist them in determining financial products/services that help them to improve a better standard of living/financially well-being. [3].

However, the *shoestring budget phenomenon* in the millennial generation, a condition where a person does not have enough money (in the form of cash or savings) to meet their basic needs, occurs in many big cities in the world, including Indonesia [4]. The shoestring budget condition is also heavily influenced by the economic background of families who are categorised as low-income earners or who are categorised as poor with an average income of less than \$200 per month [5] and lack of family support or limited access to financial assistance([4]; [6]). This condition puts low-income millennials challenging to prepare for their

financial future, such as education or health [7]. The unexpected drop in income or unexpected expenses is a common experience in low-income households ([8]; and [9]).

However, millennials also have no emergency savings [10], and low-income millennials have savings with an average accumulation of around US\$ 200 [11]. Based on the Indonesia Millennial Report by the IDN Research Institute (2019), which researched 5,500 millennials throughout Indonesia, 51.1 per cent of the millennial generation's income was spent for routine needs, including entertainment, debt instalments, investments, and internet subscription fees.

The generation born between 1980-2000 set aside 10.7 per cent of total income to savings, which is still far from the ideal 30% of income for savings [12]. With no savings to cover the unexpected needs, millennials usually borrow from friends or family ([13]; [14]) or do not pay the bill [8].

Millennials also have to pay tuition fees during their transition to adulthood. Low-income millennials carry a higher debt burden [15] and are more likely than their wealthier counterparts [16]. Millennials struggle to complete their degrees or avoid defaulting on loans indicate that their transition to adulthood coincides with substantial debt that can hinder their financial well-being [16]. With limited preparedness for emergencies, increased use of alternative financial products, and the accumulation of burdensome debt, millennials face obstacles that can threaten their overall financial happiness, future financial goals, and the transition to financial independence [17].

On the other hand, the millennial generation between 25-34 years old in Indonesia is the primary e-commerce user. [18] shows that millennials are the most active and most consumptive internet users. The Kadence Institute conducted

research and found that the Indonesian people have an unhealthy consumptive lifestyle, 28% of the total expenditure greater than income [19]. This consumptive behaviour will significantly affect the financial behaviour financial management. Meanwhile, in terms of investment behaviour, Indonesian investors, including the millennial generation, are considered not to have a long-term strategy or do not have financial goals, and 83% do not have a clear income target [20].

Financial capability can help address millennial risky financial behaviours and, in particular, provide low-income millennials with opportunities to develop healthy financial behaviours. Financial capability is an individual's ability to carry out good financial behaviour in an institutional context with opportunities facilitating such behaviour. Financial literacy and financial inclusion are the "building blocks" of financial capability [21]. Financial literacy can be linked to healthier behaviours such as avoiding the use of risky financial services and saving for retirement and emergencies ([22]; [23]), although financial knowledge literacy on behavioural finance may disappear over time [24].

Meanwhile, financial inclusion refers to accessible and affordable financial products and services for underserved households [21]. It can benefit millennials who are less likely to have a checking or savings account or are more likely to use alternative financial products [25].

There are several studies on the determinants of the financial behaviour of the millennial generation in Indonesia, including ([26]; [27]; [28]; [29]; and [30]). The motivation of this research, apart from being a development of previous research which only limited its study to financial behaviour, not financial capability and researched The above also has not explored the influence of the extrinsic variable determining financial ability, namely financial inclusion.

Financial inclusion is an essential factor because, apart from being part of government policy [3], also supported by [31] about the significant role of financial inclusion on financial behaviour and financial ability in low-income millennials. [32] describes the condition of financial inclusion benefit for alleviating poverty and financial welfare of the Indonesian people.

[33] analyse the implementation of financial inclusion in the millennial generation in high and low-income countries. [29] explores the effect of financial inclusion as a determinant of financial behaviour and ability in the millennial generation, along with financial knowledge. Thus, this study aims to fill the research gap by exploring how millennials' financial capability is influenced by a combination of financial literacy and financial attitudes (as an intrinsic factor) and financial inclusion (as an extrinsic factor) mediated by financial behaviour.

The results of this study are expected to help policymakers develop financial education programs to improve millennial behaviour to increase their financial capacity for their welfare. Thus, the originality of the current research is focused on: (1) the direct and indirect effects of financial attitude and financial literacy on financial ability; (2) analysis of the mediating role of financial behaviour within the framework of financial capability; and (3) the direct influence of financial inclusion on financial capability.

## 2. LITERATURE REVIEW

### Millennial Generation Financial Behavior

Financial behaviour is the behaviour that a person has when managing personal finances seen from the

psychological point of view and habits that the individual does in financial decision making [34]. Meanwhile [35] explains that financial behaviour is a person's ability to manage (budgeting, planning, checking, managing, controlling, searching and storing) funds or finances in everyday life.

Behaviour can reflect a person's self from a psychological point of view [35]. Financial behaviour measurement is carried out using indicators from [36] and [37] namely timely payment of bills, provision of money for savings, unexpected expenses, monitoring of financial management, and evaluation of financial management.

Behavioural finance starts from a person's behaviour in the financial decision-making process [38]. Good financial behaviour leads to more responsible financial behaviour so that people can manage finances properly. According to this study, Indonesian consumer tend to buy things without thinking and are prone to impulsive shopping, leading to financial problems.

The emergence of financial management behaviour is caused by the influence of a person's desire to fulfil his needs based on the income level [35]. According to [39], ethical errors in financial management behaviour have led to many bankruptcies, so financial management skills are needed to overcome this consumer behaviour. In addition, this financial behaviour will also potentially hamper their welfare in the future [40]. Therefore, it is necessary to understand the financial capability of the millennial generation.

[1] divides the population group into four generations, namely the "baby boomer" generation, "generation X", "millennial", and "generation Z". Generation X is a generation of baby boomers born between 1965 and 1980 and are 41 to 56 years old. Millennials are born between 1981-2000, or currently 21-40 years old, and Generation Z was born since 2000 until now.

Millennials exhibited complex financial behaviour in a very different macroeconomic environment from previous generations and were born in a financially liberalised market with variable interest rates and accessible credit lines [41]. This generation has to face a high cost of living due to high housing prices, so it must be purchased with a credit scheme [42], various choices of consumer credit [43], and an unstable labour market [44]. The financial behaviour of today's young millennials can shape their future financial well-being or potentially hinder their future ability to accumulate wealth [40].

Attitude precedes individual behaviour [45];[46] In general, a financial attitude is defined as a person's behaviour towards money with a positive or negative tendency towards money [47]. Therefore, [48] measure it into five activities: controlling spending, saving regularly, comparing the services of financial instruments used, and having a reserve of funds and setting a budget.

Various studies have shown that attitudes reflect a prognostic relationship with behaviour [49], shows a direct and positive relationship. Financial literacy is a person's overall insight to manage his finances. The higher the level of financial literacy indicates the breadth of a person's knowledge of finance, the better his financial behaviour will be. This is the following research ([36]; [50]; and [51]). According to [52], the measurement translated into four dimensions: personal finance, management of deposits through savings and time deposits, insurance, and investment. Considering the discussion above, the following hypothesis can be formulated:

**H1:** Financial attitude has a positive effect on financial behaviour.

**H2:** Financial literacy has a positive effect on financial behaviour.

### **Financial Capability of Millennial Generation**

Financial capability is a person's ability to manage and control finances [53]. It can be assumed that financial capability is financial self-efficacy which indicates a person's ability to take the necessary actions to deal with prospective situations. Financial capability is associated with using finances to get what you want to achieve financial wealth.

Referring to [54], financial capability is the ability to manage and control individual finances efficiently, including daily financial management such as budgeting, usage of bank accounts, retirement planning and anticipation of unexpected events by saving and financial products selection. Therefore, the measurement uses three elements of a combination of financial knowledge, financial access and financial functioning.

Furthermore, financial capability includes financial literacy and external opportunities through financial inclusion. Thus, financial capability consists of developing knowledge and access to financial services [55]. Research recommendations from ([31]; [32]; [33]; ([56]; and [57]) were studied about the importance of increasing the financial capability of millennials through financial inclusion.

Ability is a derived concept and reflects the various functions an individual may achieve and involves individual choice. Hence, capability is about a series of choices that an individual makes to achieve a set goal of becoming a financially capable individual [58].

An individual's assessment of their capacity to achieve desired financial behaviour and to achieve financial capability through financial knowledge, financial attitudes, and financial inclusion is financial self-efficacy [59]. This study will also relate to the process of identity development [60]. The process of developing financial identification includes financial attitudes, knowledge, and behaviour within the framework of financial capability [61]. Considering the discussion above, the following hypothesis can be formulated:

**H3:** Financial capability is positively influenced by financial behaviour.

### **Financial Attitude on Financial Capability**

According to [62], financial attitude is a personal judgment, opinion, or state of mind about finances that is applied to his attitude. Someone who has an excellent financial attitude tends not to face financial problems often because he has a wise attitude in responding to financial problems followed by good financial management behaviour [63].

The positive influence of financial attitude on financial behaviour is also by the results of research from ([64]; [65]; [66]). In contrast to the research that has been done by [62] and [37], which states that financial attitude has a negative influence on financial behaviour. The research conducted by [67] and [68] shows that financial attitude has no significant effect on financial behaviour.

Attitude is the confidence to make appropriate financial decisions, which will affect the individual's financial ability [61]. A better financial attitude will increase financial capability [56]. If individuals can make sound financial decisions, they can be called financially capable.

Financial attitude is an essential factor in financial capability ([69]; and [70]). A high level of financial capability

is associated with sound and less risky financial behaviour. Financial capability has both individual and structural elements that combine the individual's ability to act and the opportunity to act, namely financial inclusion [71]. Financial behaviour is one of the essential factors of financial ability [70] Financial capability refers to applying financial knowledge supported by desired financial behaviour to achieve financial well-being ([69]; [70]).

Attitude expresses implicit beliefs that can influence behavioural intentions [45]. In the financial context, attitudes can be explained as opinions and mindsets about managing financial affairs and making financial decisions [72]. Attitude is about self-confidence to take appropriate financial decisions, and it affects an individual's financial ability [61]. A better attitude improves financial ability [56]. If one can make sound financial decisions, it can be called financially capable. Considering the discussion above, the following hypothesis can be formulated:

**H4:** Millennial's financial capability is positively influenced by financial attitude.

Because financial behaviour replaces financial attitude and precedes financial ability, financial behaviour falls between financial attitude and financial ability. Interestingly, attitudes produce behavioural and behavioural outcomes, and therefore, financial behaviour has a mediator role between attitudes and capabilities. So, to address this problem in research, the following hypotheses have been made:

**H4a:** The impact of financial attitude on financial capability is mediated by financial behaviour.

### **Financial Literacy on Financial Capability**

Financial literacy is the fundamental knowledge needed to manage personal finances successfully [73]. Individuals with high financial literacy know how to do good financial management and products. Individuals will know the benefits of existing financial products and understand how to use them [36].

These financial products include savings, loans, insurance, and investments. According to [74], individuals with high financial literacy will have a high understanding of finance. This financial management includes making a budget and developing a priority scale of needs so that financial resources can be allocated on target.

Financial capability has been introduced to expand the concept compared to the simple idea of financial literacy [75], which consists of capabilities and opportunities. If a person acquires skills and knowledge (literate) but does not use or apply them in practical decision making, they are recognised as financially incapable ([76]; and [77]). A financially capable individual should have the ability and opportunity to improve their financial well-being by making wise financial decisions and actions. Financial literacy and financial inclusion aim to improve the financial capacity of young people [78], and not only the ability to act but the opportunity to act together affects financial capability [71]. Then the hypothesis can be formulated:

**H5:** Millennial financial capability is directly influenced by millennial financial literacy.

**H5a:** The impact of financial literacy on financial capability is mediated by financial behaviour.

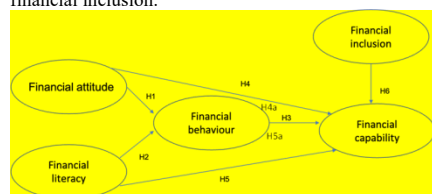
### **Financial Inclusion on Financial Capability**

According to the [79], financial inclusion is about awareness, availability, and accessibility of financial products and services, thus ensuring people to reach financial services and products.

Low levels of financial inclusion are about failure to access and utilize financial services that limit people from saving money properly, planning efficiently for cost-effective loans, and protecting them and their families from the basic disasters of hunger, crime, and poverty. Natural disasters [80]. Therefore, it is necessary to increase financial inclusion, which can lead to the development of financial capability [81].

Timely, accessible, cost-effective, financially attractive, easy to use, secure & protected and reliable financial products & services lead to financial inclusion ([21]; and [82]; [83]). Another study emphasized external factors (i.e., access to and use of services and products) regarding financial capacity building and stated that financial inclusion is an important point that must be considered for financial capacity [84]. Increased financial inclusion expands an individual's ability to invest and hedge against risk. Financial inclusion is strongly and positively linked to individual savings as access to bank accounts is linked to financial inclusion [75], ultimately increasing individuals' savings and financial security. Inclusion is measured based on the factual use of the public as consumers of financial products and services. Thus, the hypothesis can be formulated:

**H6:** Financial capability is directly affected by millennial financial inclusion.



**Figure 1.** Research Framework

### 3. METHODOLOGY

#### Types of research

The research method is a scientific way to obtain data with a specific purpose and use [85]. This is explanatory research that aims to test a theory or hypothesis to strengthen or even reject existing research theories or hypotheses using a quantitative approach. Based on the level of explanation, this research is associative, which explains the causal relationship to investigate the relationship between two or more variables.

#### Population and Sample

In this study, the population is the millennial generation of Surabaya City, the second biggest industrial city in Indonesia. The type of sampling is purposive sampling with the respondent criteria:

3. Domiciled in Surabaya, both natives and immigrants who live in Surabaya.
4. Born between 1981-2000, or between the ages of 20 and 39.

For implementation in the field using techniques, *snowball sampling* is a sampling technique that is initially small in number and then enlarges [85]. One or two people initially chose the determination of this sample. Then, two previous people sought other respondents so that the number of samples increased until the target of 220 respondents could be achieved.

#### Data collection technique

Data collection techniques are tools or methods used to collect research data consisting of interview techniques, questionnaires, and observations [85]. This study uses a questionnaire to collect data, and the questionnaire will be prepared both online and offline. The questionnaire is a data collection technique done by giving a set of questions or written statements to respondents to answer [85]. The statement scale used is the Likert scale. The Likert scale is a widely used scale that asks respondents to indicate the degree of agreement or disagreement with each series of statements [86].

#### Data analysis technique

##### Multiple linear regression

The analytical method used in this study is multiple linear regression. The equation of multiple linear regression is:

$$Y_1 = \alpha + \beta X_1 + \beta X_2 + e \dots\dots\dots (1)$$

Information :

- $Y_1$  = financial behaviour variable value
- $\alpha$  = constant value Y if X = 0
- $X_1$  = financial attitude variable value
- $X_2$  = financial literacy variable value
- $\beta$  = regression coefficient X1, X2
- $e$  = residue

$$Y_2 = \alpha + \beta X_1 + \beta X_2 + \beta X_3 + \beta X_4 + e \dots\dots\dots (2)$$

Information :

- $Y_2$  = financial capability variable value
- $\alpha$  = constant value Y if X = 0
- $X_1$  = financial attitude variable value
- $X_2$  = financial literacy variable value
- $X_3$  = financial behavior variable value
- $X_4$  = financial inclusion variable value
- $\beta$  = regression coefficient X1, X2, X3, X4
- $e$  = residue

### 4. RESULTS AND DISCUSSION

#### Validity and Reliability Test Results

At this stage, the primary data of the four variables (financial attitude, financial literacy, financial behaviour and financial capability) must go through a validity and reliability test first. The results of the validity and reliability tests are summarised in Table 1.

**Table 1.** Validity and Reliability Test Results

Variable	Indicator	Corrected Item-Total Correlation	Cronbach's Alpha
Financial Attitude	FA1	0.594	0.874
	FA2	0.659	
	FA3	0.764	
	FA4	0.689	
	FA5	0.669	
	FA6	0.577	
	FA7	0.504	
	FA8	0.593	
Financial Literacy	FL9	0.640	0.841
	FL10	0.580	
	FL11	0.707	
	FL12	0.677	



	FL13	0.661	
	FL14	0.641	
	FL15	0.614	
	FL16	0.294	
	FL17	0.255	
	FL18	0.233	
Financial Behavior	FB19	-0.121*	0.866
	FB20	-0.264*	
	FB21	0.656	
	FB22	0.659	
	FB23	0.704	
	FB24	0.667	
Financial Capability	FC25	0.547	0.923
	FC26	0.517	
	FC27	0.398	
	FC28	0.487	
	FC29	0.298	
	FC30	0.116*	
	FC31	0.492	
	FC32	0.657	
	FC33	0.697	
	FC34	0.505	
	FC35	0.708	
	FC36	0.691	
	FC37	0.637	
	FC38	0.662	
	FC39	0.512	
	FC40	0.656	
	FC41	0.753	
	FC42	0.730	
	FC43	0.697	
	FC44	0.697	
	FC45	0.622	
	FC46	0.392	

Table 1 shows that indicators FB19 and FB20 in the financial behavior variable and FC30 on financial capability are invalid, so they are deleted in this study. The value of the r table is 0.138 so that the corrected item-total is valid. For the reliability test, the minimum Cronbach's Alpha value is 0.7, and all variables are declared reliable.

#### Classic Assumption Test Results

Table 2 shows that the multicollinearity test is declared not to occur because the VIF value is smaller than 10. The

Glejer test analysis shows no heteroscedasticity. In the autocorrelation test, the Durbin Watson value of 2.062 is in the area where there is no autocorrelation. Finally, the normality test used Kolmogorov Smirnov with a value of 0.485 or above 0.050 so that the research data were normally distributed. In the conclusion of this classical assumption test, the research model can be continued to the next stage.

Table 2. Hypothesis Testing

Dependent	Independent	B	Std. Error	T	Sig.	VIEW
Financial Capability	(Constant)	1.202	.171	7.026	0.000	
	Financial Attitude	-.121	.048	2.497	0.013	1.462
	Financial Literacy	.385	.055	6.941	0.000	1.704
	Financial Behavior	.199	.063	3.166	0.002	1.992
	Financial Inclusion	.092	.037	2.500	0.013	2.173
	Test Model				65.586	0.000
Financial Behavior	Determinant				0.548	
	(Constant)	-.025	.229	-0.109	0.913	
	Financial Attitude	.193	.064	3.009	0.003	1.400
	Financial Literacy	.286	.068	4.197	0.000	1.400
Sobel Test	Test Model			28.125	0.000	
	Determinant				0.198	
Sobel Test	FA-FB-FC			2.1812	0.014	
	FL-FB-FC			2.5257	0.005	

## Regression Result

Based on Table 2, the multiple regression equation in this study is as follows:

$$\text{Financial Capability} = 1,202 + 0,121 \text{ Financial attitude} + 0,385 \text{ Financial literacy} + 0,199 \text{ Financial behavior} + 0,092 \text{ Financial inclusion} + e$$

The multiple linear regression model explains that the constant value of 1.202 states that if the value of the independent variable is considered constant, then the value of financial capability is 0.686. The financial attitude regression coefficient of 0.121 states that for every 1000 times increase in financial attitude, it will increase financial management behaviour by 121 times. The financial literacy regression coefficient of 0.385 states that every 1000 times increase in financial literacy level will decrease financial management behaviour by 385 times.

The financial behaviour regression coefficient of 0.199 states that every 1000 times increase in financial behaviour will increase financial management behaviour by 199 times. The financial inclusion regression coefficient of 0.092 states that every 1000 increases in financial inclusion will increase financial management behaviour by 92 times.

While  $e$  is the residue or all things that may influence the dependent variable, this research is not observed.

$$\text{Financial Behavior} = 0,193 \text{ Financial attitude} + 0,286 \text{ Financial literacy} + e$$

The multiple linear regression model explains that the financial attitude regression coefficient of 0.193 states that for every 1000 times increase in financial attitude, it will increase financial management behaviour by 193 times.

The financial literacy regression coefficient of 0.286 states that every 1000 times increase in financial literacy level will decrease financial management behaviour by 286 times. At the same time,  $e$  is the residue where all things may influence the dependent variable but are not observed in this research.

## Coefficient of Determination Results

The coefficient of determination ( $R^2$ ) measures how far the model can explain variations in the dependent variable. Based on Table 2, the coefficient of determination in financial capability research is 0.548. This means that the independent variables included in this model, namely financial attitude, financial literacy, financial behaviour and financial inclusion, can explain the dependent variable (financial capability) by 54.8%. In contrast, the rest (45.2%) is explained by variables outside the model.

The coefficient of determination in financial behaviour research is 0.198. It means that the independent variables included in this model, namely financial attitude and financial literacy, can explain the dependent variable (financial behaviour) of 19.8%, while variables outside the model explain the rest (80.2 %).

## Hypothesis Test Results

### F test

The F test is a test of the financial capability model of the millennial generation. From the significant value in table 2, it can be seen that it is 0.0000, far below 5%. In conclusion, the F test is significant. Simultaneously there is an influence between financial attitude, financial literacy, financial behaviour and financial inclusion on the financial capability of the millennial generation.

The F test is a test of the financial behaviour model of the millennial generation; from the significant value in table 12, it looks like 0.0000, far below 5%. In conclusion, the F test is significant. Simultaneously there is an influence between financial attitude and financial literacy on the financial behaviour of the Surabaya millennial generation.

### T-test

To test the independent variables one by one whether or not there is an effect on the dependent variable (Y) using the t-test. If  $\text{Sig} > 0.05$ , then  $H_0$  is accepted, and if  $\text{Sig} < 0.05$ , then  $H_0$  is rejected. In Table 2, the significance level of the financial attitude variable is  $< 0.050$ , and then  $H_0$  is rejected, meaning that there is an influence between the financial attitude and the financial capability of the millennial generation. The significance of the financial literacy variable  $< 0.050$  then  $H_0$  is rejected, meaning that there is an influence between financial literacy and the financial capability of the millennial generation in Indonesia.

The significance of the financial behaviour variable  $< 0.050$  then  $H_0$  is rejected, meaning that there is an influence between financial behaviour and the financial capability of the millennial generation. Finally, the significance of the Financial inclusion variable  $< 0.050$  then  $H_0$  is rejected.

About financial behaviour, in table 2, the significance level of the financial attitude variable is  $< 0.050$ , then  $H_0$  is rejected, meaning that there is an influence between financial attitude and the millennial generation's financial behaviour. Moreover, the significance of the financial literacy variable  $< 0.050$  then  $H_0$  is rejected, meaning that there is an influence between financial literacy and the financial behaviour of the Surabaya millennial generation.

## Mediation Test

This study uses the Sobel test to test the indirect effect (mediation). Based on Table 2, the following results can be obtained:

- 3) Hypothesis for financial attitude variable  $\rightarrow$  financial behaviour  $\rightarrow$  financial capability has a probability value of 0.014 ( $p = 0.05$ ). This shows that the hypothesis is accepted, meaning that financial behaviour can mediate the effect of financial attitude on financial capability.
- 4) The sixth hypothesis for the erratic financial literacy  $\rightarrow$  financial behaviour  $\rightarrow$  financial capability has a probability value of 0.005 ( $p=0.05$ ). This shows that the sixth hypothesis is rejected. So it can be concluded that financial behaviour can mediate the influence of financial literacy on financial capability.

## Discussion

### Financial Attitude On The Financial Behavior

Based on the partial test calculation results, financial attitude obtained a significance value ( $p$ -value) of 0.003. This signature value is smaller than the probability level of 0.050, so financial attitude affects the financial behaviour of the Indonesian millennial

generation. These results indicate that the better the financial attitude of the millennial generation, the better the quality of their financial behaviour.

Financial attitude relates to the individual's attitude towards managing expenses, budgeting, saving, having reserve funds, and making investments. This attitude has a positive or negative tendency, so that it is associated with financial management or financial behaviour, so individuals who have a positive financial attitude will carry out good financial management or good financial behaviour. This result supports the previous studies from [11]; [28]; [34]; [35]; [36]; [37]; [38]; [45]; [46]; [47]; [48]; and [49].

#### **Financial Literacy on the Financial Behavior**

Based on the partial test calculation results, financial literacy obtained a significance value (p-value) of 0.000. This signature value is smaller than the probability level of 0.050, so financial literacy affects the financial behaviour of the Indonesian millennial generation. These results indicate that the better the financial knowledge of the millennial generation, the better the quality of their financial behaviour.

Financial literacy is related to the financial insight that individuals have. The higher the literacy rate, the higher the financial behaviour. With the breadth of knowledge related to finance, namely related to the management of savings, insurance and investment, it will be wiser to behave related to finance.

This is supported by the description of respondents where the Indonesia millennial generation can be categorised as having fairly good financial literacy with the highest score on prioritising investment quality and having the lowest value answer on choosing the right insurance, meaning that the Indonesia millennial generation has not been able to choose the right insurance. Considering that the millennial generation respondents in this study have just worked or have no work experience, they have not been able to make various investments and choose insurance whose premiums are according to their abilities. This finding supports the previous research from ([36]; [50]; [51]; and [52]).

#### **Financial Behavior on the Financial Capability**

Based on the results of partial test calculations, financial behavior obtained a significance value (p-value) of 0.002. This signature value is smaller than the probability level of 0.050, so financial behavior affects the financial capability of the millennial generation in Indonesia. These results indicate that the better the financial behaviour of the millennial generation, the better the quality of their financial capabilities.

Financial capability is related to the achievement of financial wellness by using its financial capabilities. This means that if individuals who have positive financial behaviour can manage current and future needs and lead to financial satisfaction, they have the good financial capability.

This is supported by the description of respondents' answers where the Indonesia millennial generation can be categorised as having poor financial behaviour with the highest score on pay bills on time (e.g. electricity, and postpaid credit and has the lowest score answer on record expenses (daily, monthly). This means that the millennial generation in Indonesia has not been able to record their expenses regularly.

Considering that the millennial generation who are respondents in this study are new to work or do not have work experience so that most of their income is only enough to cover their daily needs, but on the one hand, the convenience of doing online shopping makes respondents behave extravagantly and forget to record their expenses regularly. Although the millennial generation has poor financial behaviour related to expenditure management, this does not cause poor financial capabilities. This can be seen from the description of respondents' answers that, on average, the millennial generation has a reserve of funds for urgent needs.

This finding supports the previous research from ([31]; [32]; [33]; [53]; [54]; [55]; [56]; [57]; [60]; [61]; and [87]).

#### **Financial Attitude on the Financial Capability**

Based on the partial test calculation results, financial attitude obtained a significance value (p-value) of 0.013. This signature value is smaller than the probability level of 0.050, so financial attitude affects financial capability for the millennial generation in Indonesia. These results indicate that the better the financial behaviour of the millennial generation, the better the quality of their financial capabilities.

A person with an excellent financial attitude means having sound financial judgments, opinions, and thoughts so that they can apply them in daily life related to financial decisions and deal with financial problems wisely to be said to have good financial capabilities.

This is supported by the description of respondents' answers where the Indonesia millennial generation can be categorised as having an excellent financial attitude with a value of the highest level is fully aware of their financial situation and having the lowest value for money answer is not everything, meaning that the millennial generation in Indonesia still considers the importance of having much money.

Considering that the millennial generation respondents in this study have incomes below \$300 because they are new to work or do not have much work experience after graduating from college. Because they are aware of this situation, plus they still have a wasteful nature, the millennial generation is fully aware of having reserve funds for unexpected events to be categorised as good financial capabilities. This finding supports the previous research ([64]; [65]; [66]; and [67]).

#### **Financial Attitude on Financial Capability is mediated by the Financial Behavior of the Surabaya millennial generation.**

Based on the results of the Sobel test to obtain a significance value (p-value) of 0.014. This signature value is smaller than the probability level of 0.050, so financial attitude affects the financial capability of the millennial generation in Indonesia, mediated by financial behaviour. These results indicate that the Indonesian millennial generation's more financial-related attitude and good financial management and behaviour will affect their financial capabilities.

Individuals with an excellent financial attitude mean having wisdom in dealing with issues related to finance. This is because the individual has sound judgments, opinions, and thoughts applied in daily attitudes related to financial decisions to have good financial capabilities. This finding supports the previous research ([64]; [65]; [66]; and [67]).

#### **Financial literacy on the Financial Capability**

Based on the partial test calculation results, financial literacy obtained a significance value (p-value) of 0.000. This significance value is smaller than the probability level of 0.050, so financial literacy affects the financial capability of the Indonesian millennial generation. These results indicate that the better the financial knowledge of the millennial generation, the better the quality of their financial capabilities.

The higher the knowledge about financial products so that they understand the benefits and risks of these products and apply this knowledge in financial decisions in everyday life, it can be interpreted that the individual has good financial capabilities.

This is supported by the description of the answer respondents where the Indonesia millennial generation can be categorised as having fairly good financial literacy with the highest score on prioritising investment quality and having the lowest value answer on choosing the right insurance, meaning that the Indonesia millennial generation has not been able to choose the right insurance. Considering that the millennial generation respondents in this study have just worked or have no work experience, they have not been able to make various investments and choose insurance whose premiums are according to their abilities. This result supports the previous research from ([37]; [71]; [73]; [74]; [76]; [77]; and [78])

#### **Financial Literacy on Financial Capability that mediated by the Financial Behaviour**

Based on the results of the Sobel test to obtain a significance value (p-value) of 0.005. This signature value is smaller than the probability level of 0.050, so financial literacy affects the financial capability of the millennial generation in Indonesia, mediated by financial behaviour. These results indicate that more financial knowledge of Indonesia's millennial generation and sound financial management and behaviour will affect their financial capabilities.

Financial literacy is basic knowledge in order to manage finances well. Individuals with good financial literacy know the existing financial products and understand the use of these financial products. If an individual's financial understanding is good, it will impact daily financial behaviour where he can prepare a budget and priority scale for his life needs so that his finances can be allocated properly. If the individual can apply his financial knowledge in financial decisions, he is financially capable. This study supports the previous research from ([37]; [72]; [73]; [74]; [75]; [76]; [77]; and [78]).

#### **Financial inclusion on the Financial Capability**

Based on the partial calculation of financial inclusion results, a significance value (p-value) of 0.013. This signature value is smaller than the probability level of 0.050, so financial inclusion affects the financial capability of the millennial generation. These results indicate that the better the financial inclusion of the millennial generation, the better the quality of their financial capabilities.

Indonesia's millennial generation already has good enough financial inclusion to enable them to reach financial services and products. Hence, they can save properly, do efficient planning for cost-effective loans, and protect themselves and their families from the basic disasters of hunger, crime, and natural disasters so that financial capability can be built with limited income considering that they have just entered the working environment or have just graduated from college. This study supports the previous study from ([23]; [75]; [82]; [83]; and [84]).

### **5. CONCLUSIONS AND SUGGESTIONS**

This study shows a positive relationship between financial literacy, attitude and inclusion on financial capability mediated by the financial behaviour of the millennial generation. This shows that the millennial generation's knowledge and understanding of the return and risk of a transaction and the choice of financial instruments determine their capability in managing finances. This is also supported by applying financial literacy in daily activities and the availability of information, access and banking products through financial inclusion.

Therefore, this study provides practical implications to the banking sector to increase awareness and availability of banking products specifically for students or the younger generation with various administrative conveniences and low monthly fees. Furthermore, the government is also expected to support this financial inclusion by increasing the coverage area of banking services to rural areas and across islands.

While the theoretical implication offers a novelty that shows the role of financial behaviour in mediating the causality above, which shows the existence of habitual factors in financial management, which will determine whether the millennial generation is financially capable in the short and long term to undermine shoestring budget problems and become financially wealthier.

This study has limitations in the number of respondents, which may not be used to generalize the picture of phenomena throughout Indonesia and globally. So that in addition to increasing the number of respondents, further research is expected to include control variables such as age, gender and education to obtain more complete research results.

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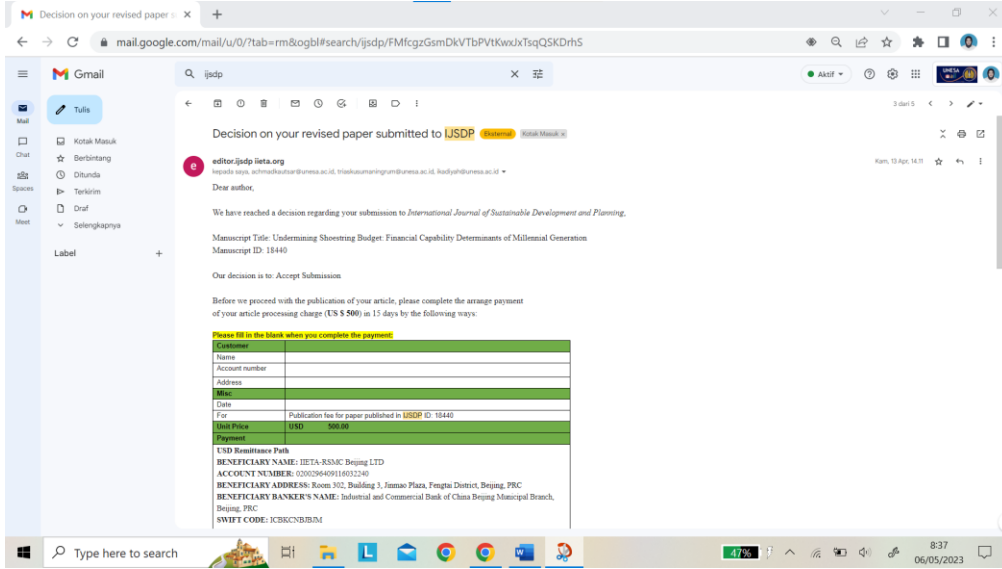
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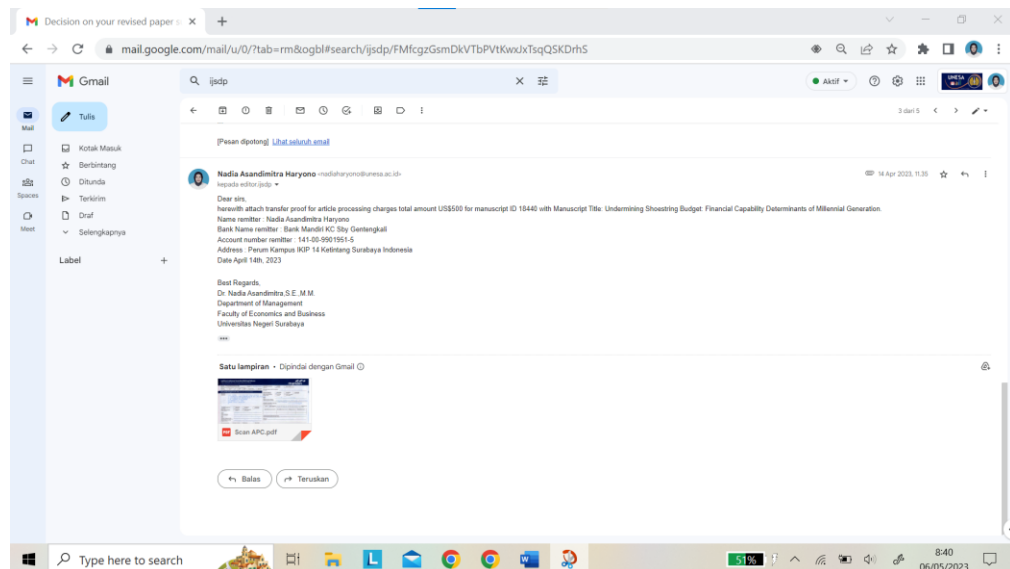
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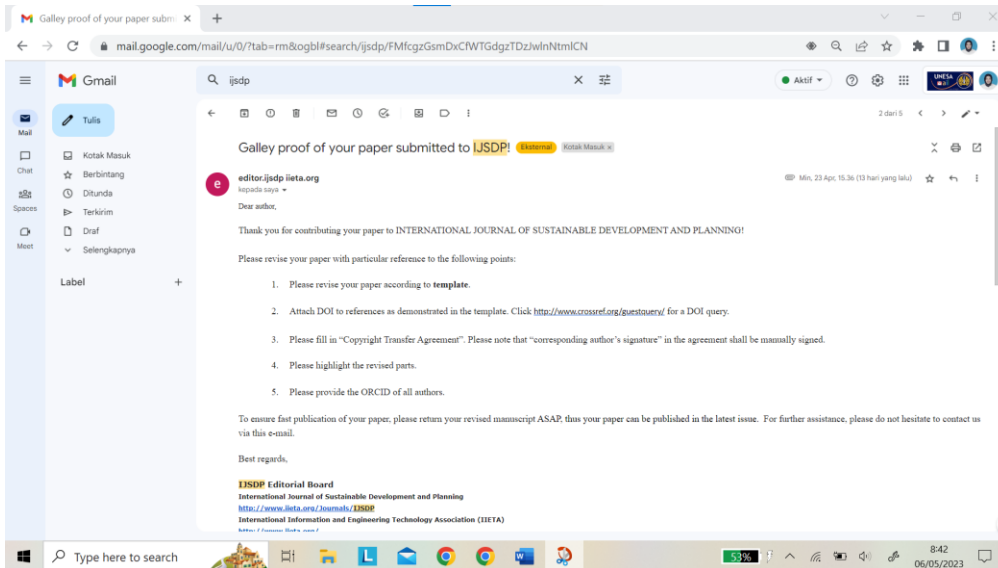
Review tahap 2 tanggal 13 April 2023 Decision about revised paper submitted



## Balasan review tahap 2



Review tahap 3 tanggal 23 April 2023 Galery proof of your paper



## Undermining Shoestring Budget: Financial Capability Determinants of Millennial Generation

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### ABSTRACT

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#### Keywords:

*millennials, financial capability, financial literacy, financial attitude*

Financial capability can help millennials address their risky financial behaviours and, in particular, provide low-income millennials with opportunities to develop healthy financial behaviours. This study aims to fill the research gap by exploring how millennials' financial capability is influenced by a combination of financial literacy and financial attitudes (as an intrinsic factor) and financial inclusion (as an extrinsic factor) mediated by financial behaviour. This research method is explanatory causality with the Millennial Generation population in East Java using purposive sampling techniques and SEM-AMOS analysis tools. The study result shows that millennial financial capability is influenced by a combination of financial attitudes and financial literacy (as an intrinsic factor) and financial inclusion (as an extrinsic factor) mediated by financial behaviour. This means that by having an excellent financial attitude supported by sound financial literacy and having access to financial services, millennials will create good financial behaviour to make sound financial decisions.

### 3. INTRODUCTION

The topic of the millennial generation is currently widely discussed in the world because the millennial generation has different characteristics compared to the previous generation. The millennial generation will play an essential role in various aspects for the next 10 to 20 years. In Indonesia, this topic is a critical issue. According to BPS data, 50% of the productive age population currently comes from the millennial generation. From 2020 to 2030, it is estimated to reach 70% of the productive age population [1].

This is a demographic bonus where the population of productive age is greater than that of non-productive age. One of the benefits of the demographic bonus is that it can change the level of the economy in a country either through its participation in the workforce or their participation as investors or savers [2]. As one of the main targets of the Indonesian government's financial inclusion policy, the financial capability of the millennial generation will assist them in determining financial products/services that help them to improve a better standard of living/financially well-being [3].

However, the *shoestring budget phenomenon* in the millennial generation, a condition where a person does not have enough money (in the form of cash or savings) to meet their basic needs, occurs in many big cities in the world, including Indonesia [4]. The shoestring budget condition is also heavily influenced by the economic background of families who are categorised as low-income earners or who are categorised as poor with an average income of less than \$200 per month [5] and lack of family support or limited access to

financial assistance [4, 6]. This condition puts low-income millennials challenging to prepare for their financial future, such as education or health [7]. The unexpected drop in income or unexpected expenses is a common experience in low-income households [8, 9].

However, millennials also have no emergency savings [10], and low-income millennials have savings with an average accumulation of around US\$ 200 [11]. Based on the Indonesia Millennial Report by the IDN Research Institute (2019), which researched 5,500 millennials throughout Indonesia, 51.1 per cent of the millennial generation's income was spent for routine needs, including entertainment, debt instalments, investments, and internet subscription fees.

The generation born between 1980-2000 set aside 10.7 per cent of total income to savings, which is still far from the ideal 30% of income for savings [12]. With no savings to cover the unexpected needs, millennials usually borrow from friends or family [13, 14] or do not pay the bill [8].

Millennials also have to pay tuition fees during their transition to adulthood. Low-income millennials carry a higher debt burden [15] and are more likely than their wealthier counterparts [16]. Millennials struggle to complete their degrees or avoid defaulting on loans indicate that their transition to adulthood coincides with substantial debt that can hinder their financial well-being [16]. With limited preparedness for emergencies, increased use of alternative financial products, and the accumulation of burdensome debt, millennials face obstacles that can threaten their overall financial happiness, future financial goals, and the transition to financial independence [17].

On the other hand, the millennial generation between 25-34

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years old in Indonesia is the primary e-commerce user. Ali and Purwandi [18] show that millennials are the most active and most consumptive internet users. The Kadence Institute conducted research and found that the Indonesian people have an unhealthy consumptive lifestyle, 28% of the total expenditure greater than income [19]. This consumptive behaviour will significantly affect the financial behaviour financial management. Meanwhile, in terms of investment behaviour, Indonesian investors, including the millennial generation, are considered not to have a long-term strategy or do not have financial goals, and 83% do not have a clear income target [20].

Financial capability can help address millennial risky financial behaviours and, in particular, provide low-income millennials with opportunities to develop healthy financial behaviours. Financial capability is an individual's ability to carry out good financial behaviour in an institutional context with opportunities facilitating such behaviour. Financial literacy and financial inclusion are the "building blocks" of financial capability [21]. Financial literacy can be linked to healthier behaviours such as avoiding the use of risky financial services and saving for retirement and emergencies [22, 23], although financial knowledge literacy on behavioural finance may disappear over time [24].

Meanwhile, financial inclusion refers to accessible and affordable financial products and services for underserved households [21]. It can benefit millennials who are less likely to have a checking or savings account or are more likely to use alternative financial products [25].

There are several studies on the determinants of the financial behaviour of the millennial generation in Indonesia, including [26-30]. The motivation of this research, apart from being a development of previous research which only limited its study to financial behaviour, not financial capability and researched the above also has not explored the influence of the extrinsic variable determining financial ability, namely financial inclusion.

Financial inclusion is an essential factor because, apart from being part of government policy [3], also supported by West and Friedline [31] about the significant role of financial inclusion on financial behaviour and financial ability in low-income millennials. Tambunan [32] describes the condition of financial inclusion benefit for alleviating poverty and financial welfare of the Indonesian people.

Fernández-Olit et al. [33] analyse the implementation of financial inclusion in the millennial generation in high and low-income countries. Kusumaningrum et al. [29] explores the effect of financial inclusion as a determinant of financial behaviour and ability in the millennial generation, along with financial knowledge. Thus, this study aims to fill the research gap by exploring how millennials' financial capability is influenced by a combination of financial literacy and financial attitudes (as an intrinsic factor) and financial inclusion (as an extrinsic factor) mediated by financial behaviour.

The results of this study are expected to help policymakers develop financial education programs to improve millennial behaviour to increase their financial capacity for their welfare. Thus, the originality of the current research is focused on: (1) the direct and indirect effects of financial attitude and financial literacy on financial ability; (2) analysis of the mediating role of financial behaviour within the framework of financial capability; and (3) the direct influence of financial inclusion on financial capability.

## 4. LITERATURE REVIEW

### 2.1 Millennial generation financial behavior

Financial behaviour is the behaviour that a person has when managing personal finances seen from the psychological point of view and habits that the individual does in financial decision making [34]. Meanwhile [35] explains that financial behaviour is a person's ability to manage (budgeting, planning, checking, managing, controlling, searching and storing) funds or finances in everyday life.

Behaviour can reflect a person's self from a psychological point of view [35]. Financial behaviour measurement is carried out using indicators from the studies of Falahati et al. [36] and Hasibuan et al. [37] namely timely payment of bills, provision of money for savings, unexpected expenses, monitoring of financial management, and evaluation of financial management.

Behavioural finance starts from a person's behaviour in the financial decision-making process [38]. Good financial behaviour leads to more responsible financial behaviour so that people can manage finances properly. According to this study, Indonesian consumer tend to buy things without thinking and are prone to impulsive shopping, leading to financial problems.

The emergence of financial management behaviour is caused by the influence of a person's desire to fulfil his needs based on the income level [35]. According to Brigham and Houston [39], ethical errors in financial management behaviour have led to many bankruptcies, so financial management skills are needed to overcome this consumer behaviour. In addition, this financial behaviour will also potentially hamper their welfare in the future [40]. Therefore, it is necessary to understand the financial capability of the millennial generation.

Ali and Purwandi [1] divides the population group into four generations, namely the "baby boomer" generation, "generation X", "millennial", and "generation Z". Generation X is a generation of baby boomers born between 1965 and 1980 and are 41 to 56 years old. Millennials are born between 1981-2000, or currently 21-40 years old, and Generation Z was born since 2000 until now.

Millennials exhibited complex financial behaviour in a very different macroeconomic environment from previous generations and were born in a financially liberalised market with variable interest rates and accessible credit lines [41]. This generation has to face a high cost of living due to high housing prices, so it must be purchased with a credit scheme [42], various choices of consumer credit [43], and an unstable labour market [44]. The financial behaviour of today's young millennials can shape their future financial well-being or potentially hinder their future ability to accumulate wealth [40].

Attitude precedes individual behaviour [45, 46]. In general, a financial attitude is defined as a person's behaviour towards money with a positive or negative tendency towards money [47]. Therefore, Sugiyanto et al. [48] measure it into five activities: controlling spending, saving regularly, comparing the services of financial instruments used, and having a reserve of funds and setting a budget.

Various studies have shown that attitudes reflect a prognostic relationship with behaviour [49], shows a direct and positive relationship. Financial literacy is a person's overall insight to manage his finances. The higher the level of financial literacy indicates the breadth of a person's knowledge

of finance, the better his financial behaviour will be. This is the following research [36, 50, 51]. According to Chen and Volpe [52], the measurement translated into four dimensions: personal finance, management of deposits through savings and time deposits, insurance, and investment. Considering the discussion above, the following hypothesis can be formulated:

**H1:** Financial attitude has a positive effect on financial behaviour.

**H2:** Financial literacy has a positive effect on financial behaviour.

## 2.2 Financial capability of millennial generation

Financial capability is a person's ability to manage and control finances [53]. It can be assumed that financial capability is financial self-efficacy which indicates a person's ability to take the necessary actions to deal with prospective situations. Financial capability is associated with using finances to get what you want to achieve financial wealth.

Huang et al. [54] financial capability is the ability to manage and control individual finances efficiently, including daily financial management such as budgeting, usage of bank accounts, retirement planning and anticipation of unexpected events by saving and financial products selection. Therefore, the measurement uses three elements of a combination of financial knowledge, financial access and financial functioning.

Furthermore, financial capability includes financial literacy and external opportunities through financial inclusion. Thus, financial capability consists of developing knowledge and access to financial services [55]. Research recommendations from [31-33, 56, 57]) were studied about the importance of increasing the financial capability of millennials through financial inclusion.

Ability is a derived concept and reflects the various functions an individual may achieve and involves individual choice. Hence, capability is about a series of choices that an individual makes to achieve a set goal of becoming a financially capable individual [58].

An individual's assessment of their capacity to achieve desired financial behaviour and to achieve financial capability through financial knowledge, financial attitudes, and financial inclusion is financial self-efficacy [59]. This study will also relate to the process of identity development [60]. The process of developing financial identification includes financial attitudes, knowledge, and behaviour within the framework of financial capability [61]. Considering the discussion above, the following hypothesis can be formulated:

**H3:** Financial capability is positively influenced by financial behaviour.

## 2.3 Financial attitude on financial capability

Rajna et al. [62] financial attitude is a personal judgment, opinion, or state of mind about finances that is applied to his attitude. Someone who has an excellent financial attitude tends not to face financial problems often because he has a wise attitude in responding to financial problems followed by good financial management behaviour [63].

The positive influence of financial attitude on financial behaviour is also by the results of research from [64-66]. In contrast to the research that has been done [37, 62], which states that financial attitude has a negative influence on financial behaviour. The research conducted by [67, 68] shows

that financial attitude has no significant effect on financial behaviour.

Attitude is the confidence to make appropriate financial decisions, which will affect the individual's financial ability [61]. A better financial attitude will increase financial capability [56]. If individuals can make sound financial decisions, they can be called financially capable.

Financial attitude is an essential factor in financial capability [69, 70]. A high level of financial capability is associated with sound and less risky financial behaviour. Financial capability has both individual and structural elements that combine the individual's ability to act and the opportunity to act, namely financial inclusion [71]. Financial behaviour is one of the essential factors of financial ability [70] Financial capability refers to applying financial knowledge supported by desired financial behaviour to achieve financial well-being [69, 70].

Attitude expresses implicit beliefs that can influence behavioural intentions [45]. In the financial context, attitudes can be explained as opinions and mindsets about managing financial affairs and making financial decisions [72]. Attitude is about self-confidence to take appropriate financial decisions, and it affects an individual's financial ability [61]. A better attitude improves financial ability [56]. If one can make sound financial decisions, it can be called financially capable. Considering the discussion above, the following hypothesis can be formulated:

**H4:** Millennial's financial capability is positively influenced by financial attitude.

Because financial behaviour replaces financial attitude and precedes financial ability, financial behaviour falls between financial attitude and financial ability. Interestingly, attitudes produce behavioural and behavioural outcomes, and therefore, financial behaviour has a mediator role between attitudes and capabilities. So, to address this problem in research, the following hypotheses have been made:

**H4a:** The impact of financial attitude on financial capability is mediated by financial behaviour.

## 2.4 Financial literacy on financial capability

Financial literacy is the fundamental knowledge needed to manage personal finances successfully [73]. Individuals with high financial literacy know how to do good financial management and products. Individuals will know the benefits of existing financial products and understand how to use them [36].

These financial products include savings, loans, insurance, and investments. According to Prihartono and Asandimitra [74], individuals with high financial literacy will have a high understanding of finance. This financial management includes making a budget and developing a priority scale of needs so that financial resources can be allocated on target.

Financial capability has been introduced to expand the concept compared to the simple idea of financial literacy [75], which consists of capabilities and opportunities. If a person acquires skills and knowledge (literate) but does not use or apply them in practical decision making, they are recognised as financially incapable [76, 77]. A financially capable individual should have the ability and opportunity to improve their financial well-being by making wise financial decisions and actions. Financial literacy and financial inclusion aim to improve the financial capacity of young people [78], and not only the ability to act but the opportunity to act together affects

financial capability [71]. Then the hypothesis can be formulated:

**H5:** Millennial financial capability is directly influenced by millennial financial literacy.

**H5a:** The impact of financial literacy on financial capability is mediated by financial behaviour.

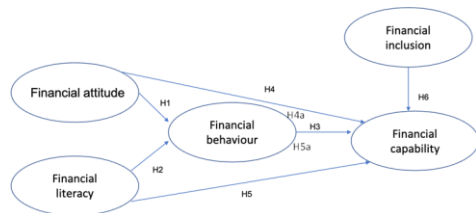
## 2.5 Financial inclusion on financial capability

According to the OECD [79], financial inclusion is about awareness, availability, and accessibility of financial products and services, thus ensuring people to reach financial services and products.

Low levels of financial inclusion are about failure to access and utilize financial services that limit people from saving money properly, planning efficiently for cost-effective loans, and protecting them and their families from the basic disasters of hunger, crime, and poverty. Natural disasters [80]. Therefore, it is necessary to increase financial inclusion, which can lead to the development of financial capability [81].

Timely, accessible, cost-effective, financially attractive, easy to use, secure & protected and reliable financial products & services lead to financial inclusion [21, 82, 83]). Another study emphasized external factors (i.e., access to and use of services and products) regarding financial capacity building and stated that financial inclusion is an important point that must be considered for financial capacity [84]. Increased financial inclusion expands an individual's ability to invest and hedge against risk. Financial inclusion is strongly and positively linked to individual savings as access to bank accounts is linked to financial inclusion [75], ultimately increasing individuals' savings and financial security. Inclusion is measured based on the factual use of the public as consumers of financial products and services. Thus, the hypothesis can be formulated:

**H6:** Financial capability is directly affected by millennial financial inclusion.



**Figure 1.** Research framework

## 5. METHODOLOGY

### 3.1 Types of research

The research method is a scientific way to obtain data with a specific purpose and use [85]. This is explanatory research that aims to test a theory or hypothesis to strengthen or even reject existing research theories or hypotheses using a quantitative approach. Based on the level of explanation, this research is associative, which explains the causal relationship to investigate the relationship between two or more variables.

### 3.2 Population and sample

In this study, the population is the millennial generation of Surabaya City, the second biggest industrial city in Indonesia. The type of sampling is purposive sampling with the respondent criteria:

(1) Domiciled in Surabaya, both natives and immigrants who live in Surabaya.

(2) Born between 1981-2000, or between the ages of 20 and 39.

For implementation in the field using techniques, *snowball sampling* is a sampling technique that is initially small in number and then enlarges [85]. One or two people initially chose the determination of this sample. Then, two previous people sought other respondents so that the number of samples increased until the target of 220 respondents could be achieved.

### 3.3 Data collection technique

Data collection techniques are tools or methods used to collect research data consisting of interview techniques, questionnaires, and observations [85]. This study uses a questionnaire to collect data, and the questionnaire will be prepared both online and offline. The questionnaire is a data collection technique done by giving a set of questions or written statements to respondents to answer [85]. The statement scale used is the Likert scale. The Likert scale is a widely used scale that asks respondents to indicate the degree of agreement or disagreement with each series of statements [86].

### 3.4 Data analysis technique

#### Multiple linear regression

The analytical method used in this study is multiple linear regression. The equation of multiple linear regression is:

$$Y_1 = \alpha + \beta X_1 + \beta X_2 + e \quad (1)$$

where,  $Y_1$ =financial behaviour variable value;  $\alpha$ =constant value  $Y$  if  $X=0$ ;  $X_1$ =financial attitude variable value;  $X_2$ =financial literacy variable value;  $\beta$ =regression coefficient  $X_1, X_2$ ;  $e$ =residue.

$$Y_2 = \alpha + \beta X_1 + \beta X_2 + \beta X_3 + \beta X_4 + e \quad (2)$$

where,  $Y_2$ =financial capability variable value;  $\alpha$ =constant value  $Y$  if  $X=0$ ;  $X_1$ =financial attitude variable value;  $X_2$ =financial literacy variable value;  $X_3$ =financial behavior variable value;  $X_4$ =financial inclusion variable value;  $\beta$ =regression coefficient  $X_1, X_2, X_3, X_4$ ;  $e$ =residue.

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## 6. RESULTS AND DISCUSSION

### 4.1 Validity and reliability test results

At this stage, the primary data of the four variables (financial attitude, financial literacy, financial behaviour and financial capability) must go through a validity and reliability test first. The results of the validity and reliability tests are summarised in Table 1.

Table 1 shows that indicators FB19 and FB20 in the financial behavior variable and FC30 on financial capability

are invalid, so they are deleted in this study. The value of the reliability test, the minimum Cronbach's Alpha value is 0.7, and all variables are declared reliable.

**Table 1.** Validity and reliability test results

Variable	Indicator	Corrected Item-Total Correlation	Cronbach's Alpha
<i>Financial Attitude</i>	FA1	0.594	0.874
	FA2	0.659	
	FA3	0.764	
	FA4	0.689	
	FA5	0.669	
	FA6	0.577	
	FA7	0.504	
	FA8	0.593	
<i>Financial Literacy</i>	FL9	0.640	0.841
	FL10	0.580	
	FL11	0.707	
	FL12	0.677	
	FL13	0.661	
	FL14	0.641	
	FL15	0.614	
	FL16	0.294	
	FL17	0.255	
	FL18	0.233	
<i>Financial Behavior</i>	FB19	-0.121*	0.866
	FB20	-0.264*	
	FB21	0.656	
	FB22	0.659	
	FB23	0.704	
	FB24	0.667	
	FC25	0.547	
	FC26	0.517	
	FC27	0.398	
	FC28	0.487	
<i>Financial Capability</i>	FC29	0.298	0.923
	FC30	0.116*	
	FC31	0.492	
	FC32	0.657	
	FC33	0.697	
	FC34	0.505	
	FC35	0.708	
	FC36	0.691	
	FC37	0.637	
	FC38	0.662	
	FC39	0.512	
	FC40	0.656	
	FC41	0.753	
	FC42	0.730	
	FC43	0.697	
	FC44	0.697	
	FC45	0.622	
	FC46	0.392	

#### 4.2 Classic assumption test results

Table 2 shows that the multicollinearity test is declared not to occur because the VIF value is smaller than 10. The Glejser test analysis shows no heterocedasticity. In the autocorrelation test, the Durbin Watson value of 2.062 is in the area where

there is no autocorrelation. Finally, the normality test used Kolmogorov Smirnov with a value of 0.485 or above 0.050 so that the research data were normally distributed. In the conclusion of this classical assumption test, the research model can be continued to the next stage.

**Table 2.** Hypothesis testing

Dependent	Independent	B	Std. Error	T	Sig.	VIEW
<i>Financial Capability</i>	(Constant)	1.202	.171	7.026	0.000	
	Financial Attitude	-.121	.048	2.497	0.013	1,462
	Financial Literacy	.385	.055	6.941	0.000	1,704
	Financial Behavior	.199	.063	3.166	0.002	1,992
	Financial Inclusion	.092	.037	2,500	0.013	2,173
	Test Model				65.586	0.000
<i>Financial Behavior</i>	Determinant				0.548	
	(Constant)	-.025	.229	-0.109	0.913	
	Financial Attitude	.193	.064	3.009	0.003	1,400
	Financial Literacy	.286	.068	4.197	0.000	1,400
	Test Model				28.125	0.000



Sobel Test	Determinant		0.198
	FA-FB-FC	2.1812	0.014
	FL-FB-FC	2.5257	0.005

#### 4.3 Regression result

Based on Table 2, the multiple regression equation in this study is as follows:

$$\text{Financial Capability} = 1,202 + 0,121 \text{ Financial attitude} + 0,385 \text{ Financial literacy} + 0,199 \text{ Financial behavior} + 0,092 \text{ Financial inclusion} + e$$

The multiple linear regression model explains that the constant value of 1.202 states that if the value of the independent variable is considered constant, then the value of financial capability is 0.686. The financial attitude regression coefficient of 0.121 states that for every 1000 times increase in financial attitude, it will increase financial management behaviour by 121 times. The financial literacy regression coefficient of 0.385 states that every 1000 times increase in financial literacy level will decrease financial management behaviour by 385 times.

The financial behaviour regression coefficient of 0.199 states that every 1000 times increase in financial behaviour will increase financial management behaviour by 199 times. The financial inclusion regression coefficient of 0.092 states that every 1000 increases in financial inclusion will increase financial management behaviour by 92 times.

While e is the residue or all things that may influence the dependent variable, this research is not observed.

$$\text{Financial Behavior} = 0,193 \text{ Financial attitude} + 0,286 \text{ Financial literacy} + e$$

The multiple linear regression model explains that the financial attitude regression coefficient of 0.193 states that for every 1000 times increase in financial attitude, it will increase financial management behaviour by 193 times.

The financial literacy regression coefficient of 0.286 states that every 1000 times increase in financial literacy level will decrease financial management behaviour by 286 times. At the same time, e is the residue where all things may influence the dependent variable but are not observed in this research.

#### 4.4 Coefficient of determination results

The coefficient of determination ( $R^2$ ) measures how far the model can explain variations in the dependent variable. Based on Table 2, the coefficient of determination in financial capability research is 0.548. This means that the independent variables included in this model, namely financial attitude, financial literacy, financial behaviour and financial inclusion, can explain the dependent variable (financial capability) by 54.8%. In contrast, the rest (45.2%) is explained by variables outside the model.

The coefficient of determination in financial behaviour research is 0.198. It means that the independent variables included in this model, namely financial attitude and financial literacy, can explain the dependent variable (financial behaviour) of 19.8%, while variables outside the model explain the rest (80.2 %).

#### 4.5 Hypothesis test results

##### 4.5.1 F test

The F test is a test of the financial capability model of the millennial generation. From the significant value in table 2, it can be seen that it is 0.0000, far below 5%. In conclusion, the

F test is significant. Simultaneously there is an influence between financial attitude, financial literacy, financial behaviour and financial inclusion on the financial capability of the millennial generation.

The F test is a test of the financial behaviour model of the millennial generation; from the significant value in table 12, it looks like 0.0000, far below 5%. In conclusion, the F test is significant. Simultaneously there is an influence between financial attitude and financial literacy on the financial behaviour of the Surabaya millennial generation.

##### 4.5.2 T-test

To test the independent variables one by one whether or not there is an effect on the dependent variable (Y) using the t-test. If Sig > 0.05, then Ho is accepted, and if Sig < 0.05, then Ho is rejected. In Table 2, the significance level of the financial attitude variable is < 0.050, and then Ho is rejected, meaning that there is an influence between the financial attitude and the financial capability of the millennial generation. The significance of the financial literacy variable < 0.050 then Ho is rejected, meaning that there is an influence between financial literacy and the financial capability of the millennial generation in Indonesia.

The significance of the financial behaviour variable < 0.050 then Ho is rejected, meaning that there is an influence between Financial behaviour and the financial capability of the millennial generation. Finally, the significance of the Financial inclusion variable < 0.050 then Ho is rejected.

About financial behaviour, in table 2, the significance level of the financial attitude variable is < 0.050, then Ho is rejected, meaning that there is an influence between financial attitude and the millennial generation's financial behaviour. Moreover, the significance of the financial literacy variable < 0.050 then Ho is rejected, meaning that there is an influence between financial literacy and the financial behaviour of the Surabaya millennial generation.

##### 4.5.3 Mediation Test

This study uses the Sobel test to test the indirect effect (mediation). Based on Table 2, the following results can be obtained:

(1) Hypothesis for financial attitude variable  $\rightarrow$  financial behaviour  $\rightarrow$  financial capability has a probability value of 0.014 ( $p=0.05$ ). This shows that the hypothesis is accepted, meaning that financial behaviour can mediate the effect of financial attitude on financial capability.

(2) The sixth hypothesis for the erratic financial literacy  $\rightarrow$  financial behaviour  $\rightarrow$  financial capability has a probability value of 0.005 ( $p=0.05$ ). This shows that the sixth hypothesis is rejected. So, it can be concluded that financial behaviour can mediate the influence of financial literacy on financial capability.

#### 4.6 Discussion

##### 4.6.1 Financial attitude on the financial behavior

Based on the partial test calculation results, financial attitude obtained a significance value (p-value) of 0.003. This signature value is smaller than the probability level of 0.050, so financial attitude affects the financial behaviour of the Indonesian millennial generation. These results indicate that

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the better the financial attitude of the millennial generation, the better the quality of their financial behaviour.

Financial attitude relates to the individual's attitude towards managing expenses, budgeting, saving, having reserve funds, and making investments. This attitude has a positive or negative tendency, so that it is associated with financial management or financial behaviour, so individuals who have a positive financial attitude will carry out good financial management or good financial behaviour [11, 28, 34-38, 45-49].

#### 4.6.2 Financial literacy on the financial behavior

Based on the partial test calculation results, financial literacy obtained a significance value (p-value) of 0.000. This signature value is smaller than the probability level of 0.050, so financial literacy affects the financial behaviour of the Indonesian millennial generation. These results indicate that the better the financial knowledge of the millennial generation, the better the quality of their financial behaviour.

Financial literacy is related to the financial insight that individuals have. The higher the literacy rate, the higher the financial behaviour. With the breadth of knowledge related to finance, namely related to the management of savings, insurance and investment, it will be wiser to behave related to finance.

This is supported by the description of re's answer respondents where the Indonesia millennial generation can be categorised as having fairly good financial literacy with the highest score on prioritising investment quality and having the lowest value answer on choosing the right insurance, meaning that the Indonesia millennial generation has not been able to choose the right insurance. Considering that the millennial generation respondents in this study have just worked or have no work experience, they have not been able to make various investments and choose insurance whose premiums are according to their abilities [36, 50-52].

#### 4.6.3 Financial behavior on the financial capability

Based on the results of partial test calculations, financial behavior obtained a significance value (p-value) of 0.002. This signature value is smaller than the probability level of 0.050, so financial behavior affects the financial capability of the millennial generation in Indonesia. These results indicate that the better the financial behaviour of the millennial generation, the better the quality of their financial capabilities.

Financial capability is related to the achievement of financial wellness by using its financial capabilities. This means that if individuals who have positive financial behaviour can manage current and future needs and lead to financial satisfaction, they have the good financial capability.

This is supported by the description of respondents' answers where the Indonesia millennial generation can be categorised as having poor financial behaviour with the highest score on pay bills on time (e.g. electricity, and postpaid credit and has the lowest score answer on record expenses (daily, monthly). This means that the millennial generation in Indonesia has not been able to record their expenses regularly.

Considering that the millennial generation who are respondents in this study are new to work or do not have work experience so that most of their income is only enough to cover their daily needs, but on the one hand, the convenience of doing online shopping makes respondents behave extravagantly and forget to record their expenses regularly. Although the millennial generation has poor financial

behaviour related to expenditure management, this does not cause poor financial capabilities. This can be seen from the description of respondents' answers that, on average, the millennial generation has a reserve of funds for urgent needs [31-33, 53-61, 87].

#### 4.6.4 Financial attitude on the financial capability

Based on the partial test calculation results, financial attitude obtained a significance value (p-value) of 0.013. This signature value is smaller than the probability level of 0.050, so financial attitude affects financial capability for the millennial generation in Indonesia. These results indicate that the better the financial behaviour of the millennial generation, the better the quality of their financial capabilities.

A person with an excellent financial attitude means having sound financial judgments, opinions, and thoughts so that they can apply them in daily life related to financial decisions and deal with financial problems wisely to be said to have good financial capabilities.

This is supported by the description of respondents' answers where the Indonesia millennial generation can be categorised as having an excellent financial attitude with a value of the highest level is fully aware of their financial situation and having the lowest value for money answer is not everything, meaning that the millennial generation in Indonesia still considers the importance of having much money.

Considering that the millennial generation respondents in this study have incomes below \$300 because they are new to work or do not have much work experience after graduating from college. Because they are aware of this situation, plus they still have a wasteful nature, the millennial generation is fully aware of having reserve funds for unexpected events to be categorised as good financial capabilities. This finding supports the previous research [64-67].

#### 4.6.5 Financial attitude on financial capability is mediated by the financial behavior of the surabaya millennial generation

Based on the results of the Sobel test to obtain a significance value (p-value) of 0.014. This signature value is smaller than the probability level of 0.050, so financial attitude affects the financial capability of the millennial generation in Indonesia, mediated by financial behaviour. These results indicate that the Indonesian millennial generation's more financial-related attitude and good financial management and behaviour will affect their financial capabilities.

Individuals with an excellent financial attitude mean having wisdom in dealing with issues related to finance. This is because the individual has sound judgments, opinions, and thoughts applied in daily attitudes related to financial decisions to have good financial capabilities. This finding supports the previous research [64-67].

#### 4.6.6 Financial literacy on the financial capability

Based on the partial test calculation results, financial literacy obtained a significance value (p-value) of 0.000. This signature value is smaller than the probability level of 0.050, so financial literacy affects the financial capability of the Indonesian millennial generation. These results indicate that the better the financial knowledge of the millennial generation, the better the quality of their financial capabilities.

The higher the knowledge about financial products so that they understand the benefits and risks of these products and apply this knowledge in financial decisions in everyday life, it

can be interpreted that the individual has good financial capabilities.

This is supported by the description of the answer respondents where the Indonesia millennial generation can be categorised as having fairly good financial literacy with the highest score on prioritising investment quality and having the lowest value answer on choosing the right insurance, meaning that the Indonesia millennial generation has not been able to choose the right insurance. Considering that the millennial generation respondents in this study have just worked or have no work experience, they have not been able to make various investments and choose insurance whose premiums are according to their abilities [37, 71, 73, 74, 76-78].

#### 4.6.7 Financial literacy on financial capability that mediated by the financial behaviour

Based on the results of the Sobel test to obtain a significance value (p-value) of 0.005. This signature value is smaller than the probability level of 0.050, so financial literacy affects the financial capability of the millennial generation in Indonesia, mediated by financial behaviour. These results indicate that more financial knowledge of Indonesia's millennial generation and sound financial management and behaviour will affect their financial capabilities.

Financial literacy is basic knowledge in order to manage finances well. Individuals with good financial literacy know the existing financial products and understand the use of these financial products. If an individual's financial understanding is good, it will impact daily financial behaviour where he can prepare a budget and priority scale for his life needs so that his finances can be allocated properly. If the individual can apply his financial knowledge in financial decisions, he is financially capable [37, 72-78].

#### 4.6.8 Financial inclusion on the financial capability

Based on the partial calculation of financial inclusion results, a significance value (p-value) of 0.013. This signature value is smaller than the probability level of 0.050, so financial inclusion affects the financial capability of the millennial generation. These results indicate that the better the financial inclusion of the millennial generation, the better the quality of their financial capabilities.

Indonesia's millennial generation already has good enough financial inclusion to enable them to reach financial services and products. Hence, they can save properly, do efficient planning for cost-effective loans, and protect themselves and their families from the basic disasters of hunger, crime, and natural disasters so that financial capability can be built with limited income considering that they have just entered the working environment or have just graduated from college [23, 75, 82-84].

## 7. CONCLUSIONS AND SUGGESTIONS

This study shows a positive relationship between financial literacy, attitude and inclusion on financial capability mediated by the financial behaviour of the millennial generation. This shows that the millennial generation's knowledge and understanding of the return and risk of a transaction and the choice of financial instruments determine their capability in managing finances. This is also supported by applying financial literacy in daily activities and the

availability of information, access and banking products through financial inclusion.

Therefore, this study provides practical implications to the banking sector to increase awareness and availability of banking products specifically for students or the younger generation with various administrative conveniences and low monthly fees. Furthermore, the government is also expected to support this financial inclusion by increasing the coverage area of banking services to rural areas and across islands.

While the theoretical implication offers a novelty that shows the role of financial behaviour in mediating the causality above, which shows the existence of habitual factors in financial management, which will determine whether the millennial generation is financially capable in the short and long term to undermine shoestring budget problems and become financially wealthier.

This study has limitations in the number of respondents, which may not be used to generalize the picture of phenomena throughout Indonesia and globally. So that in addition to increasing the number of respondents, further research is expected to include control variables such as age, gender and education to obtain more complete research results.

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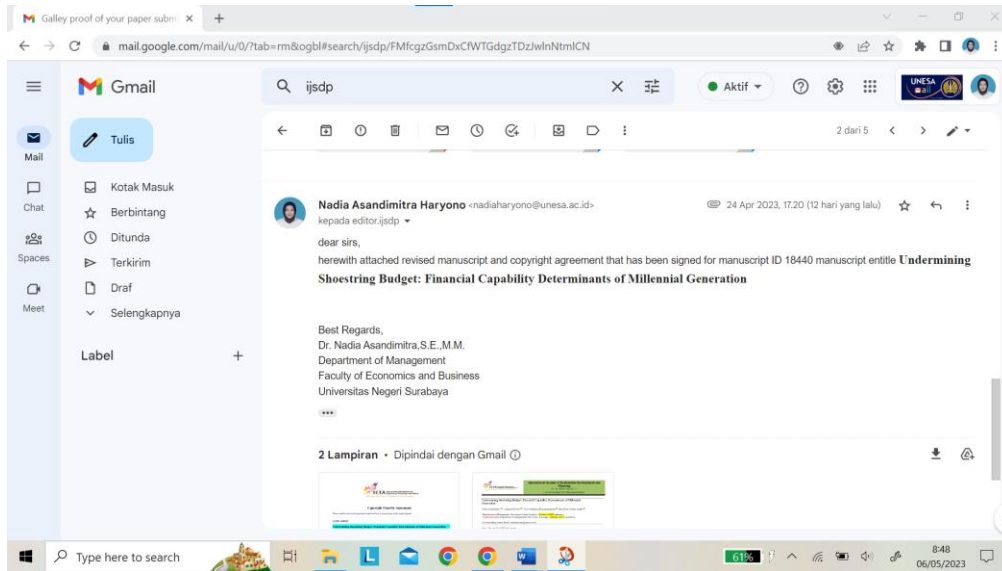
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## Undermining Shoestring Budget: Financial Capability Determinants of Millennial Generation

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### ABSTRACT

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#### Keywords:

*millennials, financial capability, financial literacy, financial attitude*

Financial capability can help millennials address their risky financial behaviours and, in particular, provide low-income millennials with opportunities to develop healthy financial behaviours. This study aims to fill the research gap by exploring how millennials' financial capability is influenced by a combination of financial literacy and financial attitudes (as an intrinsic factor) and financial inclusion (as an extrinsic factor) mediated by financial behaviour. This research method is explanatory causality with the Millennial Generation population in East Java using purposive sampling techniques and SEM-AMOS analysis tools. The study result shows that millennial financial capability is influenced by a combination of financial attitudes and financial literacy (as an intrinsic factor) and financial inclusion (as an extrinsic factor) mediated by financial behaviour. This means that by having an excellent financial attitude supported by sound financial literacy and having access to financial services, millennials will create good financial behaviour to make sound financial decisions.

## 8. INTRODUCTION

The topic of the millennial generation is currently widely discussed in the world because the millennial generation has different characteristics compared to the previous generation. The millennial generation will play an essential role in various aspects for the next 10 to 20 years. In Indonesia, this topic is a critical issue. According to BPS data, 50% of the productive age population currently comes from the millennial generation. From 2020 to 2030, it is estimated to reach 70% of the productive age population [1].

This is a demographic bonus where the population of productive age is greater than that of non-productive age. One of the benefits of the demographic bonus is that it can change the level of the economy in a country either through its participation in the workforce or their participation as investors or savers [2]. As one of the main targets of the Indonesian government's financial inclusion policy, the financial capability of the millennial generation will assist them in determining financial products/services that help them to improve a better standard of living/financially well-being [3].

However, the *shoestring budget phenomenon* in the millennial generation, a condition where a person does not have enough money (in the form of cash or savings) to meet their basic needs, occurs in many big cities in the world, including Indonesia [4]. The shoestring budget condition is also heavily influenced by the economic background of families who are categorised as low-income earners or who are categorised as poor with an average income of less than \$200 per month [5] and lack of family support or limited access to

financial assistance [4, 6]. This condition puts low-income millennials challenging to prepare for their financial future, such as education or health [7]. The unexpected drop in income or unexpected expenses is a common experience in low-income households [8, 9].

However, millennials also have no emergency savings [10], and low-income millennials have savings with an average accumulation of around US\$ 200 [11]. Based on the Indonesia Millennial Report by the IDN Research Institute (2019), which researched 5,500 millennials throughout Indonesia, 51.1 per cent of the millennial generation's income was spent for routine needs, including entertainment, debt instalments, investments, and internet subscription fees.

The generation born between 1980-2000 set aside 10.7 per cent of total income to savings, which is still far from the ideal 30% of income for savings [12]. With no savings to cover the unexpected needs, millennials usually borrow from friends or family [13, 14] or do not pay the bill [8].

Millennials also have to pay tuition fees during their transition to adulthood. Low-income millennials carry a higher debt burden [15] and are more likely than their wealthier counterparts [16]. Millennials struggle to complete their degrees or avoid defaulting on loans indicate that their transition to adulthood coincides with substantial debt that can hinder their financial well-being [16]. With limited preparedness for emergencies, increased use of alternative financial products, and the accumulation of burdensome debt, millennials face obstacles that can threaten their overall financial happiness, future financial goals, and the transition to financial independence [17].

On the other hand, the millennial generation between 25-34

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years old in Indonesia is the primary e-commerce user. Ali and Purwandi [18] show that millennials are the most active and most consumptive internet users. The Kadence Institute conducted research and found that the Indonesian people have an unhealthy consumptive lifestyle, 28% of the total expenditure greater than income [19]. This consumptive behaviour will significantly affect the financial behaviour financial management. Meanwhile, in terms of investment behaviour, Indonesian investors, including the millennial generation, are considered not to have a long-term strategy or do not have financial goals, and 83% do not have a clear income target [20].

Financial capability can help address millennial risky financial behaviours and, in particular, provide low-income millennials with opportunities to develop healthy financial behaviours. Financial capability is an individual's ability to carry out good financial behaviour in an institutional context with opportunities facilitating such behaviour. Financial literacy and financial inclusion are the "building blocks" of financial capability [21]. Financial literacy can be linked to healthier behaviours such as avoiding the use of risky financial services and saving for retirement and emergencies [22, 23], although financial knowledge literacy on behavioural finance may disappear over time [24].

Meanwhile, financial inclusion refers to accessible and affordable financial products and services for underserved households [21]. It can benefit millennials who are less likely to have a checking or savings account or are more likely to use alternative financial products [25].

There are several studies on the determinants of the financial behaviour of the millennial generation in Indonesia, including [26-30]. The motivation of this research, apart from being a development of previous research which only limited its study to financial behaviour, not financial capability and researched the above also has not explored the influence of the extrinsic variable determining financial ability, namely financial inclusion.

Financial inclusion is an essential factor because, apart from being part of government policy [3], also supported by West and Friedline [31] about the significant role of financial inclusion on financial behaviour and financial ability in low-income millennials. Tambunan [32] describes the condition of financial inclusion benefit for alleviating poverty and financial welfare of the Indonesian people.

Fernández-Olit et al. [33] analyse the implementation of financial inclusion in the millennial generation in high and low-income countries. Kusumaningrum et al. [29] explores the effect of financial inclusion as a determinant of financial behaviour and ability in the millennial generation, along with financial knowledge. Thus, this study aims to fill the research gap by exploring how millennials' financial capability is influenced by a combination of financial literacy and financial attitudes (as an intrinsic factor) and financial inclusion (as an extrinsic factor) mediated by financial behaviour.

The results of this study are expected to help policymakers develop financial education programs to improve millennial behaviour to increase their financial capacity for their welfare. Thus, the originality of the current research is focused on: (1) the direct and indirect effects of financial attitude and financial literacy on financial ability; (2) analysis of the mediating role of financial behaviour within the framework of financial capability; and (3) the direct influence of financial inclusion on financial capability.

## 9. LITERATURE REVIEW

### 2.1 Millennial generation financial behavior

Financial behaviour is the behaviour that a person has when managing personal finances seen from the psychological point of view and habits that the individual does in financial decision making [34]. Meanwhile [35] explains that financial behaviour is a person's ability to manage (budgeting, planning, checking, managing, controlling, searching and storing) funds or finances in everyday life.

Behaviour can reflect a person's self from a psychological point of view [35]. Financial behaviour measurement is carried out using indicators from the studies of Falahati et al. [36] and Hasibuan et al. [37] namely timely payment of bills, provision of money for savings, unexpected expenses, monitoring of financial management, and evaluation of financial management.

Behavioural finance starts from a person's behaviour in the financial decision-making process [38]. Good financial behaviour leads to more responsible financial behaviour so that people can manage finances properly. According to this study, Indonesian consumer tend to buy things without thinking and are prone to impulsive shopping, leading to financial problems.

The emergence of financial management behaviour is caused by the influence of a person's desire to fulfil his needs based on the income level [35]. According to Brigham and Houston [39], ethical errors in financial management behaviour have led to many bankruptcies, so financial management skills are needed to overcome this consumer behaviour. In addition, this financial behaviour will also potentially hamper their welfare in the future [40]. Therefore, it is necessary to understand the financial capability of the millennial generation.

Ali and Purwandi [1] divides the population group into four generations, namely the "baby boomer" generation, "generation X", "millennial", and "generation Z". Generation X is a generation of baby boomers born between 1965 and 1980 and are 41 to 56 years old. Millennials are born between 1981-2000, or currently 21-40 years old, and Generation Z was born since 2000 until now.

Millennials exhibited complex financial behaviour in a very different macroeconomic environment from previous generations and were born in a financially liberalised market with variable interest rates and accessible credit lines [41]. This generation has to face a high cost of living due to high housing prices, so it must be purchased with a credit scheme [42], various choices of consumer credit [43], and an unstable labour market [44]. The financial behaviour of today's young millennials can shape their future financial well-being or potentially hinder their future ability to accumulate wealth [40].

Attitude precedes individual behaviour [45, 46]. In general, a financial attitude is defined as a person's behaviour towards money with a positive or negative tendency towards money [47]. Therefore, Sugiyanto et al. [48] measure it into five activities: controlling spending, saving regularly, comparing the services of financial instruments used, and having a reserve of funds and setting a budget.

Various studies have shown that attitudes reflect a prognostic relationship with behaviour [49], shows a direct and positive relationship. Financial literacy is a person's overall insight to manage his finances. The higher the level of financial literacy indicates the breadth of a person's knowledge

of finance, the better his financial behaviour will be. This is the following research [36, 50, 51]. According to Chen and Volpe [52], the measurement translated into four dimensions: personal finance, management of deposits through savings and time deposits, insurance, and investment. Considering the discussion above, the following hypothesis can be formulated:

**H1:** Financial attitude has a positive effect on financial behaviour.

**H2:** Financial literacy has a positive effect on financial behaviour.

## 2.2 Financial capability of millennial generation

Financial capability is a person's ability to manage and control finances [53]. It can be assumed that financial capability is financial self-efficacy which indicates a person's ability to take the necessary actions to deal with prospective situations. Financial capability is associated with using finances to get what you want to achieve financial wealth.

Huang et al. [54] financial capability is the ability to manage and control individual finances efficiently, including daily financial management such as budgeting, usage of bank accounts, retirement planning and anticipation of unexpected events by saving and financial products selection. Therefore, the measurement uses three elements of a combination of financial knowledge, financial access and financial functioning.

Furthermore, financial capability includes financial literacy and external opportunities through financial inclusion. Thus, financial capability consists of developing knowledge and access to financial services [55]. Research recommendations from [31-33, 56, 57]) were studied about the importance of increasing the financial capability of millennials through financial inclusion.

Ability is a derived concept and reflects the various functions an individual may achieve and involves individual choice. Hence, capability is about a series of choices that an individual makes to achieve a set goal of becoming a financially capable individual [58].

An individual's assessment of their capacity to achieve desired financial behaviour and to achieve financial capability through financial knowledge, financial attitudes, and financial inclusion is financial self-efficacy [59]. This study will also relate to the process of identity development [60]. The process of developing financial identification includes financial attitudes, knowledge, and behaviour within the framework of financial capability [61]. Considering the discussion above, the following hypothesis can be formulated:

**H3:** Financial capability is positively influenced by financial behaviour.

## 2.3 Financial attitude on financial capability

Rajna et al. [62] financial attitude is a personal judgment, opinion, or state of mind about finances that is applied to his attitude. Someone who has an excellent financial attitude tends not to face financial problems often because he has a wise attitude in responding to financial problems followed by good financial management behaviour [63].

The positive influence of financial attitude on financial behaviour is also by the results of research from [64-66]. In contrast to the research that has been done [37, 62], which states that financial attitude has a negative influence on financial behaviour. The research conducted by [67, 68] shows

that financial attitude has no significant effect on financial behaviour.

Attitude is the confidence to make appropriate financial decisions, which will affect the individual's financial ability [61]. A better financial attitude will increase financial capability [56]. If individuals can make sound financial decisions, they can be called financially capable.

Financial attitude is an essential factor in financial capability [69, 70]. A high level of financial capability is associated with sound and less risky financial behaviour. Financial capability has both individual and structural elements that combine the individual's ability to act and the opportunity to act, namely financial inclusion [71]. Financial behaviour is one of the essential factors of financial ability [70] Financial capability refers to applying financial knowledge supported by desired financial behaviour to achieve financial well-being [69, 70].

Attitude expresses implicit beliefs that can influence behavioural intentions [45]. In the financial context, attitudes can be explained as opinions and mindsets about managing financial affairs and making financial decisions [72]. Attitude is about self-confidence to take appropriate financial decisions, and it affects an individual's financial ability [61]. A better attitude improves financial ability [56]. If one can make sound financial decisions, it can be called financially capable. Considering the discussion above, the following hypothesis can be formulated:

**H4:** Millennial's financial capability is positively influenced by financial attitude.

Because financial behaviour replaces financial attitude and precedes financial ability, financial behaviour falls between financial attitude and financial ability. Interestingly, attitudes produce behavioural and behavioural outcomes, and therefore, financial behaviour has a mediator role between attitudes and capabilities. So, to address this problem in research, the following hypotheses have been made:

**H4a:** The impact of financial attitude on financial capability is mediated by financial behaviour.

## 2.4 Financial literacy on financial capability

Financial literacy is the fundamental knowledge needed to manage personal finances successfully [73]. Individuals with high financial literacy know how to do good financial management and products. Individuals will know the benefits of existing financial products and understand how to use them [36].

These financial products include savings, loans, insurance, and investments. According to Prihartono and Asandimitra [74], individuals with high financial literacy will have a high understanding of finance. This financial management includes making a budget and developing a priority scale of needs so that financial resources can be allocated on target.

Financial capability has been introduced to expand the concept compared to the simple idea of financial literacy [75], which consists of capabilities and opportunities. If a person acquires skills and knowledge (literate) but does not use or apply them in practical decision making, they are recognised as financially incapable [76, 77]. A financially capable individual should have the ability and opportunity to improve their financial well-being by making wise financial decisions and actions. Financial literacy and financial inclusion aim to improve the financial capacity of young people [78], and not only the ability to act but the opportunity to act together affects

financial capability [71]. Then the hypothesis can be formulated:

**H5:** Millennial financial capability is directly influenced by millennial financial literacy.

**H5a:** The impact of financial literacy on financial capability is mediated by financial behaviour.

## 2.5 Financial inclusion on financial capability

According to the OECD [79], financial inclusion is about awareness, availability, and accessibility of financial products and services, thus ensuring people to reach financial services and products.

Low levels of financial inclusion are about failure to access and utilize financial services that limit people from saving money properly, planning efficiently for cost-effective loans, and protecting them and their families from the basic disasters of hunger, crime, and poverty. Natural disasters [80]. Therefore, it is necessary to increase financial inclusion, which can lead to the development of financial capability [81].

Timely, accessible, cost-effective, financially attractive, easy to use, secure & protected and reliable financial products & services lead to financial inclusion [21, 82, 83]). Another study emphasized external factors (i.e., access to and use of services and products) regarding financial capacity building and stated that financial inclusion is an important point that must be considered for financial capacity [84]. Increased financial inclusion expands an individual's ability to invest and hedge against risk. Financial inclusion is strongly and positively linked to individual savings as access to bank accounts is linked to financial inclusion [75], ultimately increasing individuals' savings and financial security. Inclusion is measured based on the factual use of the public as consumers of financial products and services. Thus, the hypothesis can be formulated:

**H6:** Financial capability is directly affected by millennial financial inclusion.

Figure 1. illustrates the research framework.

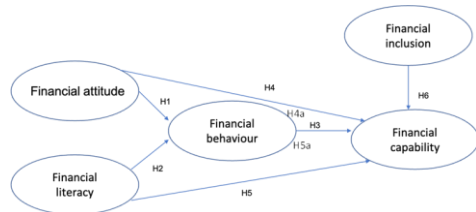


Figure 1. Research framework

## 10. METHODOLOGY

### 3.1 Types of research

The research method is a scientific way to obtain data with a specific purpose and use [85]. This is explanatory research that aims to test a theory or hypothesis to strengthen or even reject existing research theories or hypotheses using a quantitative approach. Based on the level of explanation, this research is associative, which explains the causal relationship to investigate the relationship between two or more variables.

### 3.2 Population and sample

In this study, the population is the millennial generation of Surabaya City, the second biggest industrial city in Indonesia. The type of sampling is purposive sampling with the respondent criteria:

- (1) Domiciled in Surabaya, both natives and immigrants who live in Surabaya.
- (2) Born between 1981-2000, or between the ages of 20 and 39.

For implementation in the field using techniques, *snowball sampling* is a sampling technique that is initially small in number and then enlarges [85]. One or two people initially chose the determination of this sample. Then, two previous people sought other respondents so that the number of samples increased until the target of 220 respondents could be achieved.

### 3.3 Data collection technique

Data collection techniques are tools or methods used to collect research data consisting of interview techniques, questionnaires, and observations [85]. This study uses a questionnaire to collect data, and the questionnaire will be prepared both online and offline. The questionnaire is a data collection technique done by giving a set of questions or written statements to respondents to answer [85]. The statement scale used is the Likert scale. The Likert scale is a widely used scale that asks respondents to indicate the degree of agreement or disagreement with each series of statements [86].

### 3.4 Data analysis technique

#### Multiple linear regression

The analytical method used in this study is multiple linear regression. The equation of multiple linear regression is:

$$Y_1 = \alpha + \beta X_1 + \beta X_2 + e \quad (1)$$

where,  $Y_1$ =financial behaviour variable value;  $\alpha$ =constant value  $Y$  if  $X=0$ ;  $X_1$ =financial attitude variable value;  $X_2$ =financial literacy variable value;  $\beta$ =regression coefficient  $X_1, X_2$ ;  $e$ =residue.

$$Y_2 = \alpha + \beta X_1 + \beta X_2 + \beta X_3 + \beta X_4 + e \quad (2)$$

where,  $Y_2$ =financial capability variable value;  $\alpha$ =constant value  $Y$  if  $X=0$ ;  $X_1$ =financial attitude variable value;  $X_2$ =financial literacy variable value;  $X_3$ =financial behavior variable value;  $X_4$ =financial inclusion variable value;  $\beta$ =regression coefficient  $X_1, X_2, X_3, X_4$ ;  $e$ =residue.

## 11. RESULTS AND DISCUSSION

### 4.1 Validity and reliability test results

At this stage, the primary data of the four variables (financial attitude, financial literacy, financial behaviour and financial capability) must go through a validity and reliability test first. The results of the validity and reliability tests are summarised in Table 1.

Table 1 shows that indicators FB19 and FB20 in the

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financial behavior variable and FC30 on financial capability are invalid, so they are deleted in this study. The value of the r table is 0.138 so that the corrected item-total is valid. For the

reliability test, the minimum Cronbach's Alpha value is 0.7, and all variables are declared reliable.

**Table 1.** Validity and reliability test results

Variable	Indicator	Corrected Item-Total Correlation	Cronbach's Alpha
<i>Financial Attitude</i>	FA1	0.594	0.874
	FA2	0.659	
	FA3	0.764	
	FA4	0.689	
	FA5	0.669	
	FA6	0.577	
	FA7	0.504	
	FA8	0.593	
<i>Financial Literacy</i>	FL9	0.640	0.841
	FL10	0.580	
	FL11	0.707	
	FL12	0.677	
	FL13	0.661	
	FL14	0.641	
	FL15	0.614	
	FL16	0.294	
	FL17	0.255	
	FL18	0.233	
<i>Financial Behavior</i>	FB19	-0.121*	0.866
	FB20	-0.264*	
	FB21	0.656	
	FB22	0.659	
	FB23	0.704	
	FB24	0.667	
	FC25	0.547	
	FC26	0.517	
	FC27	0.398	
	FC28	0.487	
<i>Financial Capability</i>	FC29	0.298	0.923
	FC30	0.116*	
	FC31	0.492	
	FC32	0.657	
	FC33	0.697	
	FC34	0.505	
	FC35	0.708	
	FC36	0.691	
	FC37	0.637	
	FC38	0.662	
	FC39	0.512	
	FC40	0.656	
	FC41	0.753	
	FC42	0.730	
FC43	0.697		
FC44	0.697		
FC45	0.622		
FC46	0.392		

#### 4.2 Classic assumption test results

Table 2 shows that the multicollinearity test is declared not to occur because the VIF value is smaller than 10. The Glejser test analysis shows no heterocedasticity. In the autocorrelation test, the Durbin Watson value of 2.062 is in the area where

there is no autocorrelation. Finally, the normality test used Kolmogorov Smirnov with a value of 0.485 or above 0.050 so that the research data were normally distributed. In the conclusion of this classical assumption test, the research model can be continued to the next stage.

**Table 2.** Hypothesis testing

Dependent	Independent	B	Std. Error	T	Sig.	VIEW
<i>Financial Capability</i>	(Constant)	1.202	.171	7.026	0.000	
	Financial Attitude	-.121	.048	2.497	0.013	1,462
	Financial Literacy	.385	.055	6.941	0.000	1,704
	Financial Behavior	.199	.063	3.166	0.002	1,992
	Financial Inclusion	.092	.037	2.500	0.013	2.173
	Test Model Determinant				65.586	0.000
<i>Financial Behavior</i>	(Constant)	-.025	.229	-0.109	0.913	
	Financial Attitude	.193	.064	3.009	0.003	1,400
	Financial Literacy	.286	.068	4.197	0.000	1,400

	Test Model	28.125	0.000
	Determinant		0.198
Sobel Test	FA-FB-FC	2.1812	0.014
	FL-FB-FC	2.5257	0.005

#### 4.3 Regression result

Based on Table 2, the multiple regression equation in this study is as follows:

$$\text{Financial Capability} = 1,202 + 0,121 \text{ Financial attitude} + 0,385 \text{ Financial literacy} + 0,199 \text{ Financial behavior} + 0,092 \text{ Financial inclusion} + e$$

The multiple linear regression model explains that the constant value of 1.202 states that if the value of the independent variable is considered constant, then the value of financial capability is 0.686. The financial attitude regression coefficient of 0.121 states that for every 1000 times increase in financial attitude, it will increase financial management behaviour by 121 times. The financial literacy regression coefficient of 0.385 states that every 1000 times increase in financial literacy level will decrease financial management behaviour by 385 times.

The financial behaviour regression coefficient of 0.199 states that every 1000 times increase in financial behaviour will increase financial management behaviour by 199 times. The financial inclusion regression coefficient of 0.092 states that every 1000 increases in financial inclusion will increase financial management behaviour by 92 times.

While e is the residue or all things that may influence the dependent variable, this research is not observed.

$$\text{Financial Behavior} = 0.193 \text{ Financial attitude} + 0.286 \text{ Financial literacy} + e$$

The multiple linear regression model explains that the financial attitude regression coefficient of 0.193 states that for every 1000 times increase in financial attitude, it will increase financial management behaviour by 193 times.

The financial literacy regression coefficient of 0.286 states that every 1000 times increase in financial literacy level will decrease financial management behaviour by 286 times. At the same time, e is the residue where all things may influence the dependent variable but are not observed in this research.

#### 4.4 Coefficient of determination results

The coefficient of determination ( $R^2$ ) measures how far the model can explain variations in the dependent variable. Based on Table 2, the coefficient of determination in financial capability research is 0.548. This means that the independent variables included in this model, namely financial attitude, financial literacy, financial behaviour and financial inclusion, can explain the dependent variable (financial capability) by 54.8%. In contrast, the rest (45.2%) is explained by variables outside the model.

The coefficient of determination in financial behaviour research is 0.198. It means that the independent variables included in this model, namely financial attitude and financial literacy, can explain the dependent variable (financial behaviour) of 19.8%, while variables outside the model explain the rest (80.2 %).

#### 4.5 Hypothesis test results

##### 4.5.1 F test

The F test is a test of the financial capability model of the millennial generation. From the significant value in table 2, it

can be seen that it is 0.0000, far below 5%. In conclusion, the F test is significant. Simultaneously there is an influence between financial attitude, financial literacy, financial behaviour and financial inclusion on the financial capability of the millennial generation.

The F test is a test of the financial behaviour model of the millennial generation; from the significant value in table 12, it looks like 0.0000, far below 5%. In conclusion, the F test is significant. Simultaneously there is an influence between financial attitude and financial literacy on the financial behaviour of the Surabaya millennial generation.

##### 4.5.2 T-test

To test the independent variables one by one whether or not there is an effect on the dependent variable (Y) using the t-test. If Sig > 0.05, then Ho is accepted, and if Sig < 0.05, then Ho is rejected. In Table 2, the significance level of the financial attitude variable is < 0.050, and then Ho is rejected, meaning that there is an influence between the financial attitude and the financial capability of the millennial generation. The significance of the financial literacy variable < 0.050 then Ho is rejected, meaning that there is an influence between financial literacy and the financial capability of the millennial generation in Indonesia.

The significance of the financial behaviour variable < 0.050 then Ho is rejected, meaning that there is an influence between Financial behaviour and the financial capability of the millennial generation. Finally, the significance of the Financial inclusion variable < 0.050 then Ho is rejected.

About financial behaviour, in table 2, the significance level of the financial attitude variable is < 0.050, then Ho is rejected, meaning that there is an influence between financial attitude and the millennial generation's financial behaviour. Moreover, the significance of the financial literacy variable < 0.050 then Ho is rejected, meaning that there is an influence between financial literacy and the financial behaviour of the Surabaya millennial generation.

##### 4.5.3 Mediation Test

This study uses the Sobel test to test the indirect effect (mediation). Based on Table 2, the following results can be obtained:

(1) Hypothesis for financial attitude variable  $\rightarrow$  financial behaviour  $\rightarrow$  financial capability has a probability value of 0.014 ( $p=0.05$ ). This shows that the hypothesis is accepted, meaning that financial behaviour can mediate the effect of financial attitude on financial capability.

(2) The sixth hypothesis for the erratic financial literacy  $\rightarrow$  financial behaviour  $\rightarrow$  financial capability has a probability value of 0.005 ( $p=0.05$ ). This shows that the sixth hypothesis is rejected. So, it can be concluded that financial behaviour can mediate the influence of financial literacy on financial capability.

#### 4.6 Discussion

##### 4.6.1 Financial attitude on the financial behavior

Based on the partial test calculation results, financial attitude obtained a significance value (p-value) of 0.003. This signature value is smaller than the probability level of 0.050,

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so financial attitude affects the financial behaviour of the Indonesian millennial generation. These results indicate that the better the financial attitude of the millennial generation, the better the quality of their financial behaviour.

Financial attitude relates to the individual's attitude towards managing expenses, budgeting, saving, having reserve funds, and making investments. This attitude has a positive or negative tendency, so that it is associated with financial management or financial behaviour, so individuals who have a positive financial attitude will carry out good financial management or good financial behaviour [11, 28, 34-38, 45-49].

#### 4.6.2 Financial literacy on the financial behavior

Based on the partial test calculation results, financial literacy obtained a significance value (p-value) of 0.000. This signature value is smaller than the probability level of 0.050, so financial literacy affects the financial behaviour of the Indonesian millennial generation. These results indicate that the better the financial knowledge of the millennial generation, the better the quality of their financial behaviour.

Financial literacy is related to the financial insight that individuals have. The higher the literacy rate, the higher the financial behaviour. With the breadth of knowledge related to finance, namely related to the management of savings, insurance and investment, it will be wiser to behave related to finance.

This is supported by the description of re's answer respondents where the Indonesia millennial generation can be categorised as having fairly good financial literacy with the highest score on prioritising investment quality and having the lowest value answer on choosing the right insurance, meaning that the Indonesia millennial generation has not been able to choose the right insurance. Considering that the millennial generation respondents in this study have just worked or have no work experience, they have not been able to make various investments and choose insurance whose premiums are according to their abilities [36, 50-52].

#### 4.6.3 Financial behavior on the financial capability

Based on the results of partial test calculations, financial behavior obtained a significance value (p-value) of 0.002. This signature value is smaller than the probability level of 0.050, so financial behavior affects the financial capability of the millennial generation in Indonesia. These results indicate that the better the financial behaviour of the millennial generation, the better the quality of their financial capabilities.

Financial capability is related to the achievement of financial wellness by using its financial capabilities. This means that if individuals who have positive financial behaviour can manage current and future needs and lead to financial satisfaction, they have the good financial capability.

This is supported by the description of respondents' answers where the Indonesia millennial generation can be categorised as having poor financial behaviour with the highest score on pay bills on time (e.g. electricity, and postpaid credit and has the lowest score answer on record expenses (daily, monthly). This means that the millennial generation in Indonesia has not been able to record their expenses regularly.

Considering that the millennial generation who are respondents in this study are new to work or do not have work experience so that most of their income is only enough to cover their daily needs, but on the one hand, the convenience of doing online shopping makes respondents behave

extravagantly and forget to record their expenses regularly. Although the millennial generation has poor financial behaviour related to expenditure management, this does not cause poor financial capabilities. This can be seen from the description of respondents' answers that, on average, the millennial generation has a reserve of funds for urgent needs [31-33, 53-61, 87].

#### 4.6.4 Financial attitude on the financial capability

Based on the partial test calculation results, financial attitude obtained a significance value (p-value) of 0.013. This signature value is smaller than the probability level of 0.050, so financial attitude affects financial capability for the millennial generation in Indonesia. These results indicate that the better the financial behaviour of the millennial generation, the better the quality of their financial capabilities.

A person with an excellent financial attitude means having sound financial judgments, opinions, and thoughts so that they can apply them in daily life related to financial decisions and deal with financial problems wisely to be said to have good financial capabilities.

This is supported by the description of respondents' answers where the Indonesia millennial generation can be categorised as having an excellent financial attitude with a value of the highest level is fully aware of their financial situation and having the lowest value for money answer is not everything, meaning that the millennial generation in Indonesia still considers the importance of having much money.

Considering that the millennial generation respondents in this study have incomes below \$300 because they are new to work or do not have much work experience after graduating from college. Because they are aware of this situation, plus they still have a wasteful nature, the millennial generation is fully aware of having reserve funds for unexpected events to be categorised as good financial capabilities. This finding supports the previous research [64-67].

#### 4.6.5 Financial attitude on financial capability is mediated by the financial behavior of the surabaya millennial generation

Based on the results of the Sobel test to obtain a significance value (p-value) of 0.014. This signature value is smaller than the probability level of 0.050, so financial attitude affects the financial capability of the millennial generation in Indonesia, mediated by financial behaviour. These results indicate that the Indonesian millennial generation's more financial-related attitude and good financial management and behaviour will affect their financial capabilities.

Individuals with an excellent financial attitude mean having wisdom in dealing with issues related to finance. This is because the individual has sound judgments, opinions, and thoughts applied in daily attitudes related to financial decisions to have good financial capabilities. This finding supports the previous research [64-67].

#### 4.6.6 Financial literacy on the financial capability

Based on the partial test calculation results, financial literacy obtained a significance value (p-value) of 0.000. This significance value is smaller than the probability level of 0.050, so financial literacy affects the financial capability of the Indonesian millennial generation. These results indicate that the better the financial knowledge of the millennial generation, the better the quality of their financial capabilities.

The higher the knowledge about financial products so that they understand the benefits and risks of these products and

apply this knowledge in financial decisions in everyday life, it can be interpreted that the individual has good financial capabilities.

This is supported by the description of the answer respondents where the Indonesia millennial generation can be categorised as having fairly good financial literacy with the highest score on prioritising investment quality and having the lowest value answer on choosing the right insurance, meaning that the Indonesia millennial generation has not been able to choose the right insurance. Considering that the millennial generation respondents in this study have just worked or have no work experience, they have not been able to make various investments and choose insurance whose premiums are according to their abilities [37, 71, 73, 74, 76-78].

#### 4.6.7 Financial literacy on financial capability that mediated by the financial behaviour

Based on the results of the Sobel test to obtain a significance value (p-value) of 0.005. This signature value is smaller than the probability level of 0.050, so financial literacy affects the financial capability of the millennial generation in Indonesia, mediated by financial behaviour. These results indicate that more financial knowledge of Indonesia's millennial generation and sound financial management and behaviour will affect their financial capabilities.

Financial literacy is basic knowledge in order to manage finances well. Individuals with good financial literacy know the existing financial products and understand the use of these financial products. If an individual's financial understanding is good, it will impact daily financial behaviour where he can prepare a budget and priority scale for his life needs so that his finances can be allocated properly. If the individual can apply his financial knowledge in financial decisions, he is financially capable [37, 72-78].

#### 4.6.8 Financial inclusion on the financial capability

Based on the partial calculation of financial inclusion results, a significance value (p-value) of 0.013. This signature value is smaller than the probability level of 0.050, so financial inclusion affects the financial capability of the millennial generation. These results indicate that the better the financial inclusion of the millennial generation, the better the quality of their financial capabilities.

Indonesia's millennial generation already has good enough financial inclusion to enable them to reach financial services and products. Hence, they can save properly, do efficient planning for cost-effective loans, and protect themselves and their families from the basic disasters of hunger, crime, and natural disasters so that financial capability can be built with limited income considering that they have just entered the working environment or have just graduated from college [23, 75, 82-84].

## 12. CONCLUSIONS AND SUGGESTIONS

This study shows a positive relationship between financial literacy, attitude and inclusion on financial capability mediated by the financial behaviour of the millennial generation. This shows that the millennial generation's knowledge and understanding of the return and risk of a transaction and the choice of financial instruments determine their capability in managing finances. This is also supported by applying financial literacy in daily activities and the

availability of information, access and banking products through financial inclusion.

Therefore, this study provides practical implications to the banking sector to increase awareness and availability of banking products specifically for students or the younger generation with various administrative conveniences and low monthly fees. Furthermore, the government is also expected to support this financial inclusion by increasing the coverage area of banking services to rural areas and across islands.

While the theoretical implication offers a novelty that shows the role of financial behaviour in mediating the causality above, which shows the existence of habitual factors in financial management, which will determine whether the millennial generation is financially capable in the short and long term to undermine financial budget problems and become financially wealthier.

This study has limitations in the number of respondents, which may not be used to generalize the picture of phenomena throughout Indonesia and globally. So that in addition to increasing the number of respondents, further research is expected to include control variables such as age, gender and education to obtain more complete research results.

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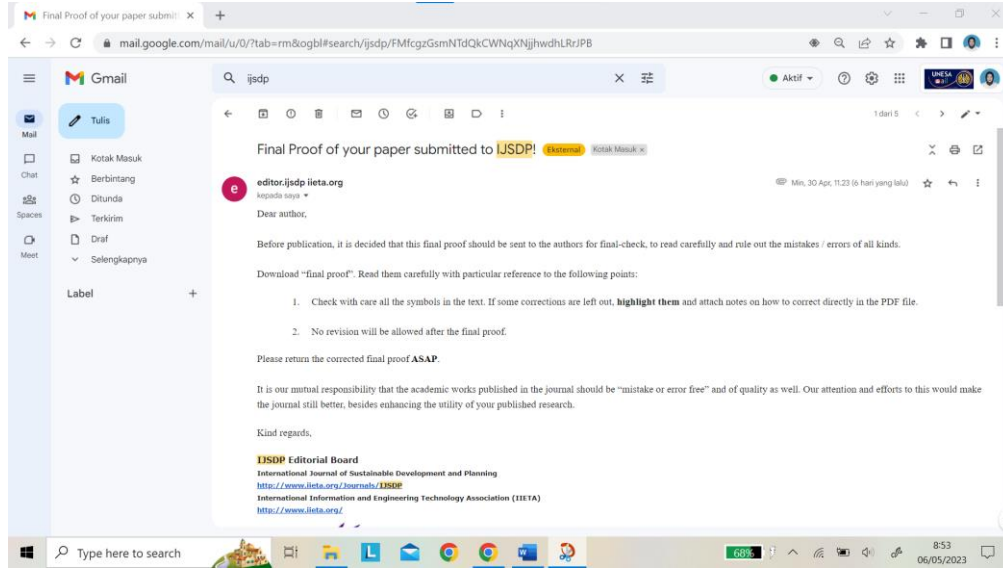
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