

The Influence of Demographic Factors and Financial Planning on Financial Management Behavior with Financial Self-efficacy as an Intervening Variable in Pandemic Covid-19

Putri Dwi Kurniasari, Yanuar Rachmansyah, and Himawan Arif Sutanto^(⋈)

Department of Management, STIE Bank BPD Jateng, Semarang, Indonesia himawanmiesp@gmail.com

Abstract. The study aimed to determine the effect of demographic factors and financial planning on financial management behavior with financial self-efficacy as an intervening variable. As many as 95 students in the city of Semarang used the accidental sampling technique. The analysis technique is Partial least squares structural equation modeling (PLS-SEM) using SmartPLS 4. The results show that financial planning and financial self-efficacy have a significant effect on financial management behavior, financial planning has an effect on financial self-efficacy, and financial self-efficacy plays a role as mediation in the relationship between financial planning and financial management behavior. Meanwhile, demographic factors (gender, age, and income) do not affect financial management behavior, and financial self-efficacy cannot mediate between demographic factors and financial management behavior.

Keywords: demographic factor \cdot financial planning \cdot financial management behavior \cdot financial self-efficacy

1 Introduction

Students are one of the younger generations who are easily influenced by developments in information technology and the times. In utilizing the income they earn, they will be faced with a variety of financial choices that are quite complicated, including the difficulty of distinguishing primary, secondary, or tertiary needs [1]. Students tend not to have future financial planning [2]. The Covid-19 pandemic has brought changes to society, one of which is limiting social activities and economic aspects. However, the level of consumption during the pandemic has increased (Table 2).

Based on a survey from the 'Indonesian Student Lifestyle' in Q-IV 2020 (Table 1), shows that the cost of eating and drinking daily is the largest student expenditure item per month. However, during a pandemic, the biggest spending items were internet quota.

When making financial decisions, people's financial management behavior is influenced by a variety of situational and personal circumstances [3]. Every individual should

No	Types of Spending	Percentage		
		Before	After	
1	Eat and Drink	44,3%	15,6%	
2	Transportation	6,1%	1,4%	
3	Internet quota	3,6%	44,8%	
4	Clothing and Accessories	6,3%	10,2%	
5	Others	39,7%	28%	

Table 1. Types of Student Spending Before and After the Pandemic

Sources: https://www.urbanasia.com/SurveiLifepal (2020)

be able to manage his or her daily cash flow in order to financial stability (Nusron et al., 2018). Demographic factors are studies that relate to individual characteristics, attitudes, and behavior influenced by factors: gender, age, educational status, and income [5]. Age can affect each individual's financial management behavior [6]. Age has an important role in making decisions, such as determining the right product or financial service.

Gender influences their financial management behavior. Women were shown to be better money managers than men and were regarded as more trustworthy money managers. Women managed finances more carefully and diligently than men, which was one of the reasons why women had superior money management than men. Women also saved money more frequently and with greater care [7]. Women tend to manage their finances less than men [8]. This is consistent with [6] stating that gender including age has a positive influence on financial management behavior. However, research by [9] concluded that gender does not affect financial management behavior.

Students each month receive an allowance from their parents, and part of it is from part-time work or something else. The results of the study [10] state that student allowance has a significant influence on financial management behavior. However, the research by states that there is no effect of income or income on financial management behavior. Demographic factors related to financial management behavior can be seen in how the individual spends his money. The difference between a person's gender and age in managing their money is a factor that can influence individuals to make financial decisions. The more mature a person is, the better the level of financial management behavior [12]. In addition, men also tend to have lower consumptive behavior than women.

Financial planning is associated with financial management behavior as seen by how he uses his money. Without financial planning, life, which is difficult for most members of society, will become even more difficult [13]. Likewise, with students, good financial planning will minimize financial risk. The results of research by [14] state that there is a positive influence between financial planning on financial management behavior. Financial self-efficacy is the belief in the ability to change financial behavior for the better. The previous research by [15, 16] states that there is a positive influence between self-efficacy on financial management behavior.

Variable	Indicator	Skala
Demographic factors are the details about an individual's life that include things like gender, age, marital status, number of children, family size, occupation, educational attainment, linguistic background, level of income, possessions or ownership, nationality, ethnicity, race, religion, and location [23].	o Gender o Age o Students Allowance	Gender (1=man; 0=women) Age 1=17-19 2=20-22 3=23-25 Students Allowance 1=<32.31 USD 2=32.3-64.8 USD 3=64.9-96.4 USD 4=69.41-128.3 USD 5=>128.3 USD
Financial planning is the first stage of financial management, which entails managing all cash flows that are required to raise the required sums of money, forecasting the total inflow and outflow of funds, and performing financial control over both current and upcoming financial and commercial events [28]	 The Evaluates current finances The Setting financial targets The Develop planning and financial alternatives to be achieved Carry out financial planning with discipline 	Likert
Financial management behavior is a person's ability to plan, budget, manage, control, seek and store personal and business monetary funds [18].	 The Record assets owned The Record all expenses and income The Identify monthly routine expenses Develop a spending plan 	Likert
Financial self-efficacy refers to one's belief in his or her ability to achieve financial goals [30].	 believing in and having confidence in managing money will have an impact on finances in the future The Feel strong and competent to solve the financial problems faced The Believe that you will succeed in managing money well even though it will be 	Likert

Table 2. Operational Definition

2 Literature Reviews

2.1 Theory of Planned Behavior (TPB)

This theory was originally called the theory of reasoned action, then was further developed by Ajzen and changed to the theory of planned behavior. The theory of planned behavior is a theory that studies a person's behavior where the intention is the main factor underlying a person's behavior when they have the desire to do something because it has a special meaning to be able to achieve their goals. This theory assumes that humans will behave consciously and even unconsciously and will consider the information available [17]. The theory of planned behavior has 3 independent variables, namely the first is the attitude towards behavior where individuals make judgments about something favorable

complex

or unfavorable. Both social factors are based on perceived social pressure. The third is behavioral control, namely one's perception of the ease or difficulty in carrying out certain actions and relies on the beliefs they have [17].

2.2 Financial Management Behavior

Financial Management Behavior is an important concept in financial science. Financial management behavior is a person's ability to plan, budget, manage, control, seek and store personal and business monetary fund's [18]. Furthermore, financial management behavior is a person's expertise that is closely related to budgeting, auditing, planning, managing, controlling, and storing daily finances [19]. According to Joo (2008), good financial management practices should increase financial well-being while poor personal financial management might have substantial long-term negative social and societal repercussions. Consequently, the appropriate administration of funds is the core concern of financial management [3]. Financial behavior is related to an individual's financial responsibility for his or her financial management [21].

Some supporting indicators that become a reference for student financial behavior including how to spend according to needs, pay debts on time, plan finances for future needs, and save and set aside money for their own needs. So, it can be concluded that financial management behavior is a person's ability to allocate sources of funds and manage daily finances. Financial behavior is an important concept in finance, which involves individual behavior to manage sources of funds, which can be seen from a psychological perspective. Financial management behavior is defined as a process of making financial decisions, related to effectiveness in managing sources of funds, and the flow of funds must be directed according to a predetermined plan [22].

2.3 Demographic Factors

Demographic factors are the details about an individual's life that include things like gender, age, marital status, number of children, family size, occupation, educational attainment, linguistic background, level of income, possessions or ownership, nationality, ethnicity, race, religion, and location [23]. Age is a level of life measurement or limitation that affects the physical condition, mindset, and comprehension of individuals. Age plays an important role in decision-making, one of which is determining the right financial product or service. Gender is one of the factors that can influence individual financial attitudes, especially among students. Males had lower financial management skills than females. Women were better than men at analyzing debts, maintaining bills and receipts in an accessible location, and setting aside money regularly [7]. According to [24] women manage their finances using economic principles and efficiency, while men tend to increase their income to improve their quality of life. A student allowance is known as the amount that can affect every individual's behavior and financial attitudes. According to [2] the lower students' allowance, the higher the level of financial knowledge.

The influence of demographic factors on financial management behavior is based on the theory of planned behavior which is motivated by social factors, namely relying on perceived social pressure. Men and women have different behaviors and attitudes in managing finances. In general, men tend to have a higher level of financial management behavior than women. This is because women tend to be more consumptive. After all, their needs are more diverse. A study [25] found that women who are capable of managing their finances and long-term planning tend to select financial products that offer financial security and future benefits, such as stocks or real estate investments, savings accounts, and insurance policies. The higher the student allowance, the lower the financial management behavior tends to be, and vice versa [12]. This is consistent with the research by [10] and [1] that income or student allowance has a significant effect on financial management behavior. Furthermore, research by [6] shows that age and gender have a positive effect on financial management behavior.

H1: Demographic factors (gender, age, student allowance) influence financial management behavior

Demographic factors and financial self-efficacy have an interrelated relationship. Students with good financial knowledge have a high level of financial efficacy. The existence of belief in self-efficacy also determines the way a person behaves. Gender cannot be associated with financial self-efficacy because basically a person's beliefs and self-confidence are different. Both men and women may have the same self-confidence in managing their finances. Age is also not related to financial self-efficacy because one's awareness of financial management is not based on age. The more mature the age, the individual will not necessarily experience an increase in financial management. A student allowance is also not always related to financial management because everyone has different needs according to their allowance. Even if there is a change in their student allowance, it is highly unlikely that they will be able to change the way they manage their finances. The previous research by [26] states that student allowance affects financial self-efficacy. The results of research conducted by show age and income have a significant influence on financial self-efficacy.

H2: Demographic factors (gender, age, student allowance) influence financial selfefficacy

2.4 Financial Planning

Financial planning is an activity in processing personal financial management that aims to achieve economic satisfaction. Financial planning is the first stage of financial management, which entails managing all cash flows that are required to raise the required sums of money, forecasting the total inflow and outflow of funds, and performing financial control over both current and upcoming financial and commercial events [28]. Financial planning provides a strategy for achieving financial objectives at various periods of life [14]. Someone with mature financial planning shows that they can manage their finances well. This is based on the theory of planned behavior, which states that individuals act because of certain goals that are driven by behavioral control factors, namely a person's perception of how easy or difficult it is to perform certain actions, which includes their confident behavior. This is consistent with [14, 29] that financial planning has a positive impact on financial management behavior.

H3: Financial planning has a positive effect on financial behavior management.

Financial planning is managing our financial situation using the basis of financial planning as a process for achieving life goals through planned financial management. While financial self-efficacy can be associated with one's ability to do something. Someone who will make a financial plan must be based on self-ability and have planned financial goals. So that this ability can increase one's self-confidence to get maximum goals. This relates to the theory of planned behavior based on behavioral control factors, namely a person's perception of how easy or difficult it is to carry out certain behaviors, which is related to self-confidence. Before making financial planning, an individual must have high self-confidence. In addition, students need a high level of financial self-efficacy because it can provide good habits in making financial decisions in the future.

H4: Financial planning has a positive effect on financial self-efficacy.

2.5 Financial Self-efficacy

Financial self-efficacy refers to one's belief in his or her ability to achieve financial goals [30]. Several factors influence self-efficacy including past experiences, messages from others, and the successes and failures of others. However, self-efficacy is related to self-reflection which depends on the attitude of the individual [26]. So that a person will be aware of his abilities which in the end can increase the positive value in himself which then tries to use properly [31]. By having high financial self-efficacy, individuals are expected to be able to provide financial well-being. The higher the level of self-efficacy, the higher the individual's confidence in his ability to succeed. Self-confidence can be related to financial aspects which are explained through self-assessment regarding the financial knowledge they have [32]. Student financial self-efficacy can influence financial management behavior. Research by [18] conclude that financial self-efficacy has a positive effect on financial management behavior.

H5: Financial self-efficacy influences financial behavior management

Self-efficacy is considered to be able to influence the choices of actions taken by individuals related to finance, where individuals feel competent and confident in controlling their lives and good financial management. Good financial management behavior comes from an individual's ability to prepare for financial planning. Based on a high degree of self-control, he can evaluate the initially planned actions if one day an unexpected risk occurs, can solve financial problems, and is responsible. This is related to the theory of planned behavior which is driven by behavioral control factors, namely a person's perception of how easy or difficult it is to carry out certain behaviors related to his beliefs. Financial self-efficacy is one of the factors in making financial decisions [18]. Self-efficacy can shape a person's way of thinking about how he spends his money. When a person's self-efficacy level increases, the individual's financial behavior will be better.

- H6: Financial self-efficacy mediates the relationship between demographic factors and financial management behavior.
- H7: Financial self-efficacy mediates the relationship between financial planning and financial management behavior

3 Methodology

The population in this study were active students in the city of Semarang. as many as 95 students were taken as a sample by purposive and accidental sampling. The data analysis technique used in this study is Partial least squares structural equation modeling (PLS-SEM) which is based on variance. PLS-SEM is an alternative method of covariance-based structural equation modeling (SEM) in analyzing data [33].

4 Result and Discussion

4.1 Students Characteristic

The characteristics of the students in this study consisted of the type of gender, age, and student allowance as can be seen in Table 3.

Most of the students who were respondents in this study were women (65.3%) while the male respondents were 34.7%. The age range of students who were respondents in this study was mostly between 20–22 years (51.6%) with student allowance between 32.3 - 64.8 USD each month (43.2%).

Characteristic	Frequency	Percent
Gender		
Male	33	34.7%
Female	62	65.3%
Age		
17 - 19	15	15.8%
20 - 22	49	51.6%
23 - 25	31	32.6%
Students Allowance		
< 32.31 USD	8	8.4%
32.3 - 64.8 USD	41	43.2%
64.9 – 96.4 USD	24	25.3%
69.41 – 128.3 USD	18	18.9%
> 128.3 USD	4	4.2%

Table 3. Students Characteristic

Sources: primary data process, 202

4.2 Partial Least Squares Structural Equation Modeling (PLS-SEM)

According to [33] PLS-SEM is an alternative approach that shifts from a covariance-based SEM approach to a variant-based one. In PLS-SEM there are two measurements, namely the evaluation of the measurement model (outer model) and the structural model (inner model). The results of the evaluation of the outer model and inner model can be explained as follows.

Evaluation of the Measurement Model (Outer Model)

The purpose of the outer model test is to specify the relationship between latent variables and their indicators. Evaluation of the measurement model (outer model) is carried out to test the validity and reliability of the data in the model which consists of 3 criteria, namely convergent validity, discriminant validity, and composite reliability.

Convergent Validity

Convergent validity occurs if the scores are obtained from two different instruments that measure the same construct and have a high correlation. Convergent validity can be measured by loading factor and Average Variance Extract [34]. A loading value of 0.5 to 0.6 is considered sufficient [35]. In this study, the limit value of the loading factor used is 0.6. Therefore, indicators that produce a Loading Factor value of less than 0.6 will be omitted and then analyzed again until they meet convergent validity. The loading factors value in this study is presented in Table 4.

Loading Factors Variable Indicator Stage 1 Stage 2 Gender 1.000 1.000 Demographic factor 1.000 1.000 Age Allowance 1.000 1.000 FP1 0.85 0.852 FP2 0.865 0.855 Financial Planning FP3 0.884 0.889 FP4 -0.025omitted FSE1 0.651 0.654 FSE2 0.651 0.649 Financial Self-Efficacy FSE3 0.821 0.821 FSE4 0.875 0.875 0.84 FSE5 0.841 FMB1 0.592 omitted 0.82 FMB2 0.839 FMB3 0.631 0.660 FMB4 0.707 0.673 Financial Management Behavior FMB5 0.873 0.900 FMB6 0.882 0.907 FMB7 0.662 0.704 FMB8 0.858 0.883

Table 4. Loading Factor

Sources: Output SmartPLS 2022

Variable	AVE	Cut off	Description
Financial Planning	0.75	>0.5	Valid
Financial Management Behavior	0.643	>0.5	Valid
Financial Self-efficacy	0.599	>0.5	Valid

Table 5. Average Variance Extract (AVE)

Sources: Output SmartPLS 2022

Based on Table 4, it can be seen that the value of the Outer Model or the correlation between constructs and variables initially did not meet convergent validity because there were still indicators that had a loading factor of less than 0.6. After modification, all loading factors have a value above 0.6 so that the constructs of all variables in this study meet Convergent Validity. Then the AVE evaluation can be seen in Table 5.

Based on Table 5. The AVE value is greater than 0.5 as recommended, so it can be concluded that all constructs meet the convergent validity.

Discriminant Validity

Evaluation of Discriminant validity is carried out to ensure that each concept of each latent variable is different from other variables. The discriminant validity of reflective indicators can be seen by comparing the correlation of indicators of a construct with the correlation of these indicators with other constructs based on cross-loading [36]. If the correlation of construct indicators has a higher value than the correlation of these indicators to other constructs, then it is said that the construct has high discriminant validity [35]. Table 6 shows the results of the cross-loading factors in this study.

Based on Table 6, shows that the value of each indicator correlation with its latent variable (construct) is higher than the correlation with other constructs, so it can be concluded that the model in this study met the criteria of good discriminant validity.

Reliability

The reliability criteria can also be seen from the reliability value of a construct. This study provides the reliability values as shown in Table 7.

Based on Table 7, it can be seen that all the constructs used in this study provide composite reliability values and Cronbach's alpha >0.7 as recommended, so it can be concluded that all constructs meet the Reliability criteria.

Evaluation of the Structural Model (Inner Model)

Based on the results of the analysis, it was obtained the model values of fit and quality indices. The estimation results for the Full Structural model (inner model) are depicted in Fig. 1.

Loading to others construct Variable Indicator Loading Gender Allow FP **FSE** FMB Age Gender 1.000 > -0.018 0.192 0.128 0.173 0.128 Demographic Age 1.000 > -0.0180.451 0.009 0.096 0.009 factor 1.000 0.192 0.451 -0.026 0.124 -0.026 Allowance 0.038 0.525 0.523 FP1 0.852 > 0.277 0.073 Financial FP2 0.855 0.088 -0.023 -0.0240.492 0.408 Planning FP3 0.889 0.08 0.105 0.025 0.661 0.584 > 0.402 0.417 FSE1 0.654 0.163 0.041 0.019 FSE2 0.649 > 0.073 0.192 0.233 0.449 0.352 Financial FSE3 0.821 > 0.138 0.03 0.092 0.6 0.634 Self-Efficacy FSE4 0.875 > 0.159 0.114 0.066 0.551 0.543 FSE5 0.84 > 0.133 0.019 0.089 0.499 0.474 FMB2 0.839 > 0.021 -0.037 0.477 0.494 0.081 FMB3 0.660 > 0.168 0.109 0.09 0.38 0.582 Financial FMB4 0.673 > 0.174 0 0.081 0.567 0.513 Management FMB5 0.900 > 0.033 0.013 -0.0650.506 0.499 Behavior FMB6 0.907 > 0.066 -0.033 -0.0890.517 0.485 FMB7 0.704 > 0.1680.0440.02 0.319 0.424FMB8 0.883 0.045 -0.085 -0.1240.504 0.558

Table 6. Cross Loading

Sources: Output SmartPLS 2022

Table 7. Cronbach's Alpha and Composite Reliability

Variable	Cronbach's alpha	Composite reliability	Cut off	Description
Financial Planning	0.835	0.854	>0.7	Reliable
Financial Management Behavior	0.903	0.908	>0.7	Reliable
Financial Self-efficacy	0.828	0.851	>0.7	Reliable

Source: Output SmartPLS 2022

Evaluation of the structural model (inner model) can refer to the criteria for the coefficient of determination (\mathbb{R}^2), cross-validated redundancy (\mathbb{Q}^2), and model fit [34]. An explanation of the evaluation of the inner model can be seen as follows:

Coefficient of Determination (R-Square)

The coefficient of determination or R-square explains how much the exogenous variables in the model can explain the endogenous variables. Based on the results of the SEM-PLS analysis, the R-square value is obtained as shown in Table 8.

This study uses 2 (two) endogenous variables, namely financial self-efficacy and financial management behavior which are influenced by several exogenous variables. Table 8 shows that the adjusted R-square value for the Financial Management behavior variable is 0.441. These results indicate that any change in the financial management behavior variable can be explained by demographic factors, financial planning, and

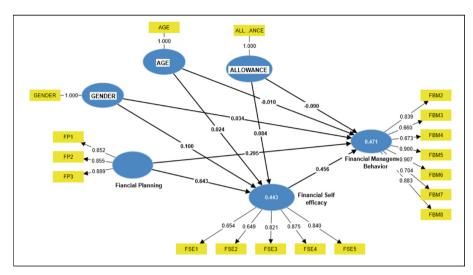


Fig. 1. Inner Model

Table 8. Determinant Coefficient (R-Square)

Variable Endogen	R-square	R-square adjusted
Financial Management Behavior	0.471	0.441
Financial Self-efficacy	0.443	0.418

Source: Output SmartPLS 2022

financial self-efficacy of 44.1%. Meanwhile, the adjusted R-square value for the self-efficacy variable is 0.418, which means that variations in financial self-efficacy can be explained by demographic factors and financial planning by 52.4%.

Predictive Relevance Analysis (Q-Square)

Predictive relevance analysis (Qsquare) is used to describe the level of good prediction of endogenous variables:

$$\begin{split} Q^2 &= 1 - (1 - R_1{}^2) \, (1 - R_2{}^2) \, (1 - Rn^2) \\ Q^2 &= 1 - (1 - 0.441) \, (1 - 0.418) \\ Q^2 &= 1 - (0.559 \, x \, 0.582) \\ Q^2 &= 1 - 0.325 \\ Q^2 &= 0.675 \end{split}$$

Parameter	Recommended value	Estimation result	Information
SRMR	< 0,8 (Perfect) dan < 0,1 (Fit)	0.089	Good fit
NFI	>0,9	0,721	Marginal

Table 9. Model Fit

Source: Output SmartPLS 2022

Table 10. Direct Effect

Hypothesis	Path	Coefficient Value	P values	Description
H1a	Age → FMB	-0.010	0.910	No support
H1b	Allowance → FMB	-0.090	0.285	No support
H1c	Gender → FMB	0.034	0.850	No support
H2a	$AGE \rightarrow FSE$	0.024	0.744	No support
H2b	Allowance → FSE	0.084	0.255	No support
H2c	Gender \rightarrow FSE	0.100	0.577	No support
Н3	$FP \rightarrow FMB$	0.295	0.013**	Support
H4	$FP \rightarrow FSE$	0.643	0.000***	Support
H5	$FSE \rightarrow FMB$	0.456	0.000***	Support

FP=Financial Planning; FSE= Financial self-efficacy; FMB=Financial Management Behavior.

Source: primary data process, 2022

The Q square value is 0.825, These results indicate that the Q square value is greater than 0.5, which means that the factors of demographic factors, financial planning, and financial self-efficacy have a good predictive level of financial management behavior.

Model Fit

Some of the criteria of the Fit Model in this study can be explained in Table 9.

Based on Table 9, shows that the SRMR value < 0.1 indicates a fit model and NFI indicates marginal so it can be concluded that the model in this study meets the SEM-PLS fit model criteria [36, 37]. Therefore, the model in this study is acceptable and further tests can be carried out.

Hypothesis test

Before testing the hypothesis in this study, the results of the path coefficient with PLS-SEM are presented as follows:

Based on Table 10 it can be seen that Financial Planning and financial self-efficacy affect financial management behavior. Financial planning also influences financial self-efficacy. Meanwhile, demographic factors do not affect financial management behavior and financial self-efficacy.

Based on Table 11, it can be seen that the indirect influence of demographic factor variables (age, allowance, gender) through financial self-efficacy gives a Sig. > 0.05 so that it can be concluded that financial self-efficacy is not able to mediate the effect of demographic factors on financial management behavior. Meanwhile, the indirect

^{***} Significant 1%; ** Significant 5%; * Significant 10%;

Hypothesis	Path	Coefficient Value	P values	Description
Н6а	$Age \rightarrow FP \rightarrow FMB$	0.011	0.751	No support
H6b	Allowance \rightarrow FSE \rightarrow FMB	0.038	0.286	No support
Н6с	Gender \rightarrow FSE \rightarrow FMB	0.046	0.570	No support
H7	$FP \rightarrow FSE \rightarrow FMB$	0.293	0.001***	Support

Table 11. Indirect Effect

FP=Financial Planning; FSE= Financial self-efficacy; FMB=Financial Management Behavior.

Source: primary data process, 2022

relationship of financial planning to financial management behavior through self-efficacy provides a Sig 0.001 < 0.05 so it can be concluded that financial self-efficacy mediates the effect of financial planning on financial management behavior.

4.3 Discussion

The Influence of Demographic Factors on Financial Management Behavior

The results of this study showed that demographic factors (age, gender, student allowance) did not affect financial management behavior. Men and women cannot be compared in how to manage their finances because each individual has their way of behaving. This happens because both men and women have the same opportunity to manage their finances [12] Likewise, age and student allowance do not affect financial management behavior. Age plays an important role in decision-making, one of which is determining the right financial product or service. Gender is one of the factors that can influence individual financial attitudes, especially among students. Males had lower financial management skills than females. Women were better than men at analyzing debts, maintaining bills and receipts in an accessible location, and setting aside money regularly [7]. This study supports research conducted by [29, 38] which show that demographic factors such as gender, age, and income do not affect financial management behavior.

The influence of Demographic Factors on Financial Self-Efficacy

Demographic factors do not affect financial self-efficacy. According to [39] there are differences in perceptions of financial self-efficacy based on gender, age, education, and income. Between men and women cannot be compared in their confidence in managing their finances. This is due to the assumption that individuals act based on their own will. Students, both male, and female have burdens to bear in understanding the importance of managing their finances [26]. So, gender cannot affect a person's level of self-efficacy, including in terms of financial management. Mature age does not necessarily have high confidence in making financial decisions, and vice versa because one's beliefs can change. A student allowance is not the same for each person. High students allowance are not necessarily able to manage their money as well as possible, as well

^{***} Significant 1%; ** Significant 5%; * Significant 10%;

as low students' allowance [12]. In this case, the environment and lifestyle can influence their financial behavior. The results of this study are not in line with the theory of planned behavior on social factors. The results of this study are different from research conducted by [26] states that student allowance affects financial self-efficacy and [27] that shows age and income have a significant influence on financial self-efficacy.

The Influence of Financial Planning on Financial Management Behavior

The results of the study show that financial planning affects financial management behavior. This means that when students manage finances, financial planning is very important. Because if financial planning is not planned properly, it can become a problem [40]. This is in line with the research hypothesis and can prove that students in Semarang have financial planning that is quite high in their financial management behavior. This is in line with research results [14, 29] that financial planning has a positive impact on financial management behavior.

The Influence of Financial Self-Efficacy on Financial Management Behavior

Self-efficacy influences financial management behavior. This indicates that a person's high level of financial self-efficacy can influence their level of financial behavior management. Self-confidence and self-confidence that grows in themselves encourage students to make good financial decisions so that financial management behavior will get better [41]. These results are in line with the Theory of Planned Behavior from behavioral control factors which states that a person acts because of a specific purpose. This result is reinforced by [18] concludes that financial self-efficacy has a positive effect on financial management behavior.

The Influence of Financial Planning on Financial Self-Efficacy

The results of the study show that financial planning affects financial self-efficacy. In this case, it can be seen from self-confidence to be successful in handling financial problems and having a high commitment to making financial planning in the present and the future [42]. This is because students need high financial self-efficacy and provide good habits to achieve their goals to improve their financial well-being. In [43] explained that individual involvement with financial planning can be influenced by their financial self-efficacy. This is in line with the theory of planned behavior which suggests that a person acts because of a specific purpose [17]. The underlying factors are behavior control factors, namely individual perceptions of the ease or difficulty of carrying out certain behaviors based on their beliefs. The goal is to meet the daily needs that change with the changing stages of life.

The Effect of Demographic Factors on Financial Management Behavior Through Financial Self-Efficacy

The results showed that financial self-efficacy was not able to mediate the relationship between demographic factors and financial management behavior. Individual needs that are increasingly complex require a person's competence in managing finances better [44]. Men and women are not always able to manage their money properly because their self-confidence can change at any time under certain conditions [44]. Individual perceptions and attitudes tend to have differences in each person. The more mature they

don't necessarily have a high level of efficacy in managing their money [10]. Likewise, student financial management behavior is not necessarily based on high self-efficacy either. This is because the respondents consist of various ages, and most of them still depend on their parents [12].

Students who receive student allowance from their parents will differ in managing their finances compared to students who earn their income or obtain both [26]. The method of financial management will also differ according to the level of consumption of each which has differences. This result is not in line with the theory of planned behavior because most of the respondents in this study were not financially independent or could be said to still depend on student allowance from their parents [45]. This is reinforced by research [26] stating that financial self-efficacy cannot mediate income indicators on financial management behavior.

The Influence of Financial Planning on Financial Management Behavior Through Financial Self-Efficacy

Financial self-efficacy in this study can mediate the relationship between financial planning and financial management behavior. Individual involvement in financial planning reflects how well they manage their finances, are financially responsible and think for the future [46]. Good at managing cash out, determining budgets, separating some money for unexpected costs, and conducting periodic evaluations [40]. In [47] also discusses the importance of understanding self-efficacy for financial planning in making decisions and dealing with financial risks. This means that students who have high self-efficacy will find it easier to plan their finances and also find it easier to deal with their financial problems [48]. This is by the research hypothesis and in line with the theory of planned behavior which is motivated by behavioral control factors, namely individual perceptions of the ease or difficulty of carrying out certain behaviors that are based on the beliefs they have. Behavioral control has motivational implications for a person's intentions [46] including in carrying out financial planning.

5 Conclusion

Based on the results of the analysis it can be concluded that financial planning and financial self-efficacy influence the financial behavior of students in Semarang. In addition, financial planning also affects financial self-efficacy. Financial self-efficacy can mediate the relationship between financial planning and the financial behavior of students in Semarang. Meanwhile, demographic factors cannot be a determinant of financial self-efficacy and financial behavior of students in Semarang.

References

I. R. Putri and A. Tasman, "Pengaruh Financial Literacy dan Income terhadap Personal Financial Management Behavior pada Generasi Millennial Kota Padang," *J. Kaji. Manaj. dan Wirausaha*, vol. 01, no. 1, pp. 151–160, 2019.

- 2. R. Asaff, Suryati, and R. Rahmayani, "Pengaruh Financial Attitude dan Financial Knowledge terhadap Financial Management Behavior (Studi Kasus pada Mahasiswa Fakultas Ekonomi Konsentrasi Keuangan Universitas Andi Djemma Palopo)," *Jemma J. Econ. Manag. Account.*, vol. 2, no. 2, pp. 09–22, 2019.
- 3. S. Varadarajah, "Influence of Demographic Factors on The Personal Financial Management Behavior of Lower Income People in Batticaloa," *IJARIIE*, vol. 6, no. 2, pp. 2395–4396, 2020, DOI: https://doi.org/10.32437/sswswproceedings-2020.aits.
- L. Amalia Nusron, M. Wahidiyah, and D. Setyo Budiarto, "Antecedent Factors of Financial Management Behavior: An Empirical Research Based on Education," *KnE Soc. Sci.*, vol. 3, no. 10, p. 437, 2018, doi: https://doi.org/10.18502/kss.v3i10.3146.
- C. N. Joseph, "Pengaruh Literasi Keuangan Dan Faktor Demografi Terhadap Perilaku Pengelolaan Keuangan Pribadi Pada Dosen-Dosen Fakultas Ekonomi Ukim," *J. Soso-Q*, vol. 8, no. 1, pp. 1–11, 2020, doi:https://doi.org/10.30598/sosoq.v8i1.1073.
- E. Masdupi, S. Sabrina, and Megawati., "Literasi keuangan dan faktor demografi terhadap perilaku keuangan mahasiswa Fakultas Ekonomi Universitas Negeri Padang," *J. Kaji. Manaj. Bisnis*, vol. 8, no. 1, pp. 35–47, 2019, doi: https://doi.org/10.2403/jkmb.10884900.
- V. I. Dewi, "How do demographic and socioeconomic factors affect financial literacy and its variables?," *Cogent Bus. Manag.*, vol. 9, no. 1, 2022, DOI: https://doi.org/10.1080/23311975. 2022.2077640.
- 8. N. Yunita, "Pengaruh Gender Dan Kemampuan Akademis Terhadap Literasi Keuangan dalam Perilaku Pengelolaan Keuangan pada Mahasiswa Jurusan Akuntansi," *Prism. (Platform Ris. Mhs. Akuntansi)*, vol. 01, no. 02, pp. 1–12, 2020.
- A. Humaidi, M. Khoirudin, A. R. Adinda, and A. Kautsar, "The Effect of Financial Technology, Demography, and Financial Literacy on Financial Management Behavior of Productive Age in Surabaya, Indonesia," *Int. J. Adv. Sci. Res. Eng.*, vol. 06, no. 01, pp. 77–81, 2020, doi: https://doi.org/10.31695/ijasre.2020.33604.
- S. Harianto and Y. Isbanah, "Pengaruh Financial Knowledge, Pendapatan, Locus of Control, Financial Attitude, Financial Self-Efficacy, dan Parental Financial Socialization terhadap Financial Management Behavior Masyarakat di Kabupaten Sidoarjo," *J. Ilmu Manaj.*, vol. 9, no. 1, p. 241, 2021, doi: https://doi.org/10.26740/jim.v9n1.p241-252.
- 11. E. Budiono, "Analisis Financial Knowledge, Financial Attitude, Income, Locus of Control, Financial Management Behavior Masyarakat Kota Kediri," *J. Ilmu Manaj.*, vol. 8, no. 1, pp. 284–295, 2020.
- 12. N. L. Rizkiawati and N. Asandimitra, "Pengaruh Demografi, Financial Knowledge, Financial Attitude, Locus of Control dan Financial Self-Efficacy terhadap Financial Management Behavior Masyarakat Surabaya," *J. Ilmu Manaj.*, vol. 6, no. 2010, pp. 93–107, 2018.
- S. Sobaya, M. F. Hidayanto, and S. Junaidi, "Pengaruh Literasi Keuangan dan Lingkungan Sosial terhadap Perencanaan Keuangan Pegawai di Universitas Islam Indonesia Yogyakarta," *Madania*, vol. 20, no. 1, pp. 115–128, 2016.
- 14. Andoko and Y. Martok, "Explanatory Analysis of Financial Planning on Household Financial Behavior," *J. Account. Manag. Innov.*, vol. 4, no. 2, pp. 124–138, 2020.
- 15. A. Fathul Bari, A. Yunanto, and I. Shaferi, "The Role of Financial Self Efficacy in Moderating Relationships Financial Literacy and Financial Management Behavior," *Int. Sustain. Compet. Advant.*, vol. 8, no. 1, pp. 51–60, 2020.
- W. E. D. Radianto, T. C. Efrata, L. Dewi, L. Effendi, and I. Salim, "The Roles of Financial Self Efficacy and Mental Accounting in Increasing Financial Motivation and Behavior," *Int. J. Econ. Bus. Account. Res.*, vol. 6, no. 3, pp. 1–11, 2022, [Online]. Available: https://www.jurnal.stie-aas.ac.id/index.php/IJEBAR/article/download/6476/2695.
- 17. I. Ajzen, "The theory of planned behavior," *Organ. Behav. Hum. Decis. Process.*, vol. 50, no. 2, pp. 179–211, 1991, doi: https://doi.org/10.1016/0749-5978(91)90020-T.

- E. A. Asmin, M. Ali, M. Nohong, and R. Mardiana, "The Effect of Financial Self-Efficacy and Financial Knowledge on Financial Management Behavior Abstract;" *Golden Ratio Financ. Manag.*, vol. 1, no. 2, pp. 76–86, 2021, doi: https://doi.org/10.52970/grfm.v1i1.59 Website:
- 19. N. Q. Waty, N. Triwahyuningtyas, and E. Warman, "Analisis Perilaku Manajemen Keuangan Mahasiswa Dimasa Pandemi Covid-19," in *Prosiding Konferensi Riset Nasional Ekonomi, Manajemen, dan Akuntansi.*, 2021, vol. 2, no. 3, pp. 477–495.
- S. Joo, "Personal Financial Wellness," in *Handbook of Consumer Finance Research*, J. J. Xiao, Ed. New York, NY: Springer New York, 2008, pp. 21–33.
- 21. A. R. Iriani, C. W. E. Rahayu, and C. H. T. Rahmawati, "The influence of demographic factors and financial literacy on the financial behavior," *J. Kaji. Manaj. Bisnis*, vol. 10, no. 1, p. 33, 2021, doi: https://doi.org/10.24036/jkmb.11220500.
- 22. I. Humaira and E. M. Sagoro, "Pengaruh Pengetahuan Keuangan, Sikap Keuangan, Dan Kepribadian Terhadap Perilaku Manajemen Keuangan Pada Pelaku Umkm Sentra Kerajinan Batik Kabupaten Bantul," *Nominal, Barom. Ris. Akunt. dan Manaj.*, vol. 7, no. 1, pp. 96–110, 2018, doi: https://doi.org/10.21831/nominal.v7i1.19363.
- 23. J. Cantiello, M. D. Fottler, D. Oetjen, and N. J. Zhang, "The impact of demographic and perceptual variables on a young adult's decision to be covered by private health insurance," *BMC Health Serv. Res.*, vol. 15, no. 1, pp. 1–15, 2015, doi: https://doi.org/10.1186/s12913-015-0848-6.
- I. Herdjiono, H. P. Peka, I. Ilyas, D. F. Septarini, C. H. Setyawati, and O. Irianto, "Gender Gap in Financial Knowledge, Financial Attitude and Financial Behavior," in *In 1st International Conference on Social Sciences (ICSS 2018)*, 2018, vol. 226, no. Icss, pp. 1363–1366.
- N. Anastasia and M. J. Lestaritio, "The Effect of Women's Financial Self-Efficacy on Financial Product Ownership," *J. Econ. Business, Account. Ventur.*, vol. 23, no. 2, pp. 169–182, 2020, doi: https://doi.org/10.14414/jebav.v23i2.2285.
- 26. N. R. Sari and A. Listiadi, "Pengaruh Literasi Keuangan, Pendidikan Keuangan di Keluarga, Uang Saku terhadap Perilaku Pengelolaan Keuangan dengan Financial Self-Efficacy sebagai Variabel Intervening," *J. Pendidik. Akunt.*, vol. 9, no. 1, pp. 58–70, 2021, doi: https://doi.org/10.26740/jpak.v9n1.p58-70.
- 27. L. Farrell, T. R. L. Fry, and L. Risse, "The significance of financial self-efficacy in explaining women's personal finance behaviour," *J. Econ. Psychol.*, vol. 54, pp. 85–99, 2016, doi: https://doi.org/10.1016/j.joep.2015.07.001.
- 28. V. Grozdanovska, K. Bojkovska, and N. Jankulovski, "Financial Management and Financial reporting," *Eur. J. Bus. Manag.*, vol. 9, no. 2, pp. 120–292, 2017.
- W. Purwidianti, A. Santoso, A. Darmawan, I. Rahmawati, and L. Setiyani, "The Impact Of Financial Literacy, Financial Planning, Financial Self-Efficiency, And Demographic Variables On Financial Behavior," in *The 3rd International Conference of Business, Accounting, and Economics, ICBAE 2022, 10–11 August 2022*, 2022, pp. 8–13, doi: https://doi.org/10.4108/eai.10-8-2022. 2320785.
- 30. J. Forbes and S. M. Kara, "Confidence mediates how investment knowledge influences investing self-efficacy," *J. Econ. Psychol.*, vol. 31, no. 3, pp. 435–443, 2010, doi: https://doi.org/10.1016/j.joep.2010.01.012.
- 31. E. Ubaidillah, A. U. Syamnasti, C. W. Pusparini, M. A. Ghofur, M. A. Adha, and N. S. Ariyanti, "Pengaruh Pelatihan Kewirausahaan, Dukungan Lingkungan Keluarga, Motivasi Berprestasi Dan Self Efficacy Terhadap Minat Berwirausaha Mahasiswa," *JAMP J. Adm. dan Manaj. Pendidik.*, vol. 4, no. 3, pp. 272–284, 2021, doi: https://doi.org/10.17977/um027v4i3 2021p272.
- 32. G. Puspita and I. Isnalita, "Financial Literacy: Pengetahuan, Kepercayaan Diri dan Perilaku Keuangan Mahasiswa Akuntansi," *Owner*, vol. 3, no. 2, p. 117, 2019, doi: https://doi.org/10.33395/owner.v3i2.147.

- 33. J. Hair and A. Alamer, "Partial Least Squares Structural Equation Modeling (PLS-SEM) in second language and education research: Guidelines using an applied example," *Res. Methods Appl. Linguist.*, vol. 1, no. 3, p. 100027, 2022, doi: https://doi.org/10.1016/j.rmal.2022. 100027.
- 34. W. B. T. S. Putra, "Problems, Common Beliefs and Procedures on the Use of Partial Least Squares Structural Equation Modeling in Business Research," *South Asian J. Soc. Stud. Econ.*, vol. 14, no. 1, pp. 1–20, 2022, doi: https://doi.org/10.9734/sajsse/2022/v14i130367.
- 35. W. W. Chin, "The partial least squares approach for structural equation modeling.," in *Modern methods for business research.*, Mahwah, NJ, US: Lawrence Erlbaum Associates Publishers, 1998, pp. 295–336.
- 36. J. F. Hair Jr, G. T. M. Hult, C. M. Ringle, and M. Sarstedt, *A primer on partial least squares structural equation modeling (PLS-SEM)*, Second. Loas Angeles: SAGE Publications Ltd, 2017.
- 37. J. Henseler, C. M. Ringle, and M. Sarstedt, "A new criterion for assessing discriminant validity in variance-based structural equation modeling," *J. Acad. Mark. Sci.*, vol. 43, no. 1, pp. 115–135, 2015, doi: https://doi.org/10.1007/s11747-014-0403-8.
- 38. A. Sayinzoga, E. H. Bulte, and R. Lensink, "Financial Literacy and Financial Behaviour: Experimental Evidence from Rural Rwanda," *Econ. J.*, vol. 126, no. 594, pp. 1571–1599, 2016, doi: https://doi.org/10.1111/ecoj.12217.
- R. Wijaya, Hartini, and F. M. Leon, "Financial Inclusion and Financial Self-Efficacy in Indonesia," in *International Conference of Organizational Innovation (ICOI 2019)*, 2019, vol. 100, pp. 543–547, doi: https://doi.org/10.2991/icoi-19.2019.95.
- 40. I. Yousida, L. Kristansi, A. Rahman, and S. Paujiah, "Pengaruh Pengethuan Keuangan, Perencanaan Keuangan dan Kontrol Diri terhadap Perilaku Pengelolaan Keuangan pada Mahasiswa yang Menjalankan Praktik Bisnis di Kota Banjarmasin," *J. MItra Manaj.*, vol. 4, no. 9, pp. 1405–1416, 2020.
- 41. I. P. Waspada and H. Mulyani, "Meningkatkan Perilaku Pengelolaan Keuangan Mahasiswa melalui Financial Literacy dan Financial Self-Efficacy," *JPAK J. Pendidik. Akunt. dan Keuang.*, vol. 8, no. 1, pp. 87–96, 2020.
- 42. N. T. Herawati, I. M. Candiasa, I. K. Yadnyana, and N. Suharsono, "Factors That Influence Financial Behavior Among Accounting Students in Bali," *Int. J. Bus. Adm.*, vol. 9, no. 3, p. 30, 2018, doi: https://doi.org/10.5430/ijba.v9n3p30.
- 43. F. Neymotin, "Linking self-esteem with the tendency to engage in financial planning," *J. Econ. Psychol.*, vol. 31, no. 6, pp. 996–1007, 2010, doi: https://doi.org/10.1016/J.JOEP.2010. 08.006.
- 44. L. N. Assyfa, "Pengaruh Uang Saku, Gender Dan Kemampuan Akademik Terhadap Perilaku Pengelolaan Keuangan Pribadi Mahasiswa Akuntansi Dengan Literasi Keuangan Sebagai Variabel Intervening," *Platf. Ris. Mhs. Akunt.*, vol. 01, no. 01, pp. 109–119, 2020, [Online]. Available: https://ojs.stiesa.ac.id/index.php/prisma.
- 45. F. K. Nisa and N. A. Haryono, "Pengaruh Financial Knowledge, Financial Attitude, Financial Self Efficacy, Income, Locus of Control, dan Lifestyle terhadap Financial Management Behavior Generasi Z di Kota Surabaya," *J. Ilmu Manaj.*, vol. 10, no. 1, pp. 82–97, 2022, doi: https://doi.org/10.26740/jim.v10n1.p82-97.
- E. Yunista, N. Sari, A. K. Anam, P. S. Manajemen, U. I. Nahdlatul, and A. K. Anam, "Sikap Keuangan, Kontrol Perilaku, Efikasi Diri dan Perilaku Keuangan," *Organum J. Saintifik Manaj. dan Akunt.*, vol. 04, no. 01, pp. 28–39, 2021.

- 47. D. C. Haman and D. R. Laker, "Financial Planning Self-Efficacy: A Framework for Research and Practical Application," *J. Financ. Serv. Prof.*, vol. 72, no. 5, pp. 87–96, 2018.
- 48. J. S. N. Arifa and R. Setiyani, "Pengaruh Pendidikan Keuangan di Keluarga, Pendapatan, dan Literasi Keuangan terhadap Financial Management Behavior Melalui Financial Self-Efficacy Sebagai Variabel Mediasi," *Econ. Educ. Anal. J.*, vol. 2, no. 1, pp. 552–568, 2020, doi: https://doi.org/10.15294/eeaj.v9i2.39431.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (http://creativecommons.org/licenses/by-nc/4.0/), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

