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Shaping financial futures: exploring the impact of financial literacy, inclusion, and behavior on financial planning in Telkom University's Generation Z

Cyndi Mayori, Agus Maolana Hidayat
Business Administration, Telkom University, Bandung, Indonesia
*Correspondents e-mail: agusmh@telkomuniversity.ac.id

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Author's email:
cyndimayori@student.telkomuniversity.ac.id

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Abstract

Purpose – The research determines the positive and significant influence of Financial Literacy, Financial Inclusion, and Financial Behavior on Financial Planning.

Design/methodology/approach – The research methods are quantitative with a descriptive-causal research design. A survey was conducted with 400 samples from the Gen Z student population at Telkom University. The sampling technique used in this research is non-probability sampling (purposive sampling). Data analysis techniques include descriptive analysis and path analysis using Smart-PLS.

Findings – The findings indicate that financial literacy has a positive and significant effect on financial inclusion, financial behavior, and financial planning among Gen Z students at Telkom University. Higher financial literacy enables students to use financial services wisely, adopt better financial habits, and achieve effective financial planning. Financial inclusion plays a more significant role than financial behavior in mediating the relationship between financial literacy and financial planning. This highlights the commitment of Telkom University's Gen Z students to achieving financial goals through accessible financial services and investment products, supporting their efforts to meet financial objectives within targeted timelines.

Research limitations/implications – Research findings can play a crucial role in the financial planning of Gen Z students, enabling them to achieve proper and sustainable financial management by enhancing financial literacy, wise financial behavior, and proper utilization of financial products.

Practical implications – This research can help Gen Z students to plan their finances by tracking and identifying their levels of financial literacy and financial behavior, as well as their access to financial products. So they can take steps to plan their finances for the future.

Originality/value – Previous researchers rarely conducted this study, especially the connection between financial inclusion and financial planning, which positively influences financial planning.

Keywords: Financial Literacy, financial inclusion, financial behavior, financial planning, Gen Z

Introduction

This study explores the financial literacy, behaviors, and inclusion of Generation Z (Gen Z), specifically focusing on university students. While earlier research (Adil et al., 2022; Margaretha &

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Pambudhi, 2015; Morgan & Long, 2020; Shaik et al., 2022; Worang et al., 2022) has explored parts such as financial literacy, financial inclusion, and financial behavior, the interconnection of these factors with financial planning has not been fully examined, especially in Gen Z students. Financial literacy, which is essential for understanding and managing financial matters (Gade & Sarma, 2017; Seay et al., 2023), plays a critical role in shaping how individuals approach financial planning. Also, the accessibility of modern financial products and services, as part of financial inclusion, enables individuals to make informed financial decisions (Ouma et al., 2017). Financial behavior is a manifestation of both financial literacy and inclusion (Kadoya & Khan, 2020b; Kartawinata et al., 2021). Recent studies (Lusardi & Mitchell, 2014; Ouma et al., 2017) highlight the increasing recognition of the connection between financial literacy, inclusion, and behavior, yet limited research has investigated how these factors collectively influence financial planning, particularly among Gen Z students.

This study specifically focuses on students at Telkom University, one of the largest and top-ranked private universities in Indonesia. The number of students enrolled at Telkom University in the 2022/2023 academic year reached 36,898 (Telkom University, 2023). Most of these students belong to Generation Z, as indicated by their birth years, which generally fall between 2000 and 2005. Generation Z is defined as individuals born between 1997 and 2012 (Rakhmah, 2021). Telkom University holds the first position in the Webometrics Ranking of World Universities for private universities in Indonesia as of July 2023 (Telkom University, 2022). Its student body, known as Telyutizens, comes from diverse regions across the country (Telkom University, 2022), reflecting the broader features of Gen Z in Indonesia.

Figure 1. Geographic distribution of Telkom University students across 34 provinces in Indonesia
Source: Telkom University (2024).

The map illustrates the nationwide representation of students from western, central, and eastern regions of the Indonesian archipelago. Based on official institutional data, students at Telkom University originate from across the Indonesian archipelago, including Sumatra (15.24%), Java (74.69%), Nusa Tenggara Islands (2.22%), Kalimantan (2.95%), Sulawesi (4.03%), Maluku Islands (0.24%), and Papua (0.62%) (Telkom University, 2024). This wide geographic distribution highlights the university's inclusivity and supports its relevance as a representative site for studying financial behavior and planning among Generation Z in Indonesia.

The latest global financial literacy survey (OECD, 2023) revealed that the global average for financial literacy stands at only 34%, with a significant gap in developing nations, including Indonesia, where financial literacy remains below the global average (Klapper et al., 2023). This underscores the growing concern about the need for financial education, particularly in countries where financial knowledge is limited.

Recent studies emphasize the importance of financial literacy and inclusion in improving financial behavior and resilience, especially among young adults (OECD, 2023). For example, Wiyanto et al. (2022) and Chhatwani & Mishra (2021)highlight that improving financial literacy alone is not enough; it must be complemented by enhanced financial inclusion and responsible financial behaviors to ensure long-term financial stability. The findings of the Financial Services Authority (2022) on Indonesia's financial inclusion rate (85.10%) and financial literacy rate (49.68%) reveal the urgent need for increased financial education, especially among the youth. This is relevant considering that, according to the Global Financial Literacy Excellence Center (2022), the average financial literacy level across five generations; Silent Generation (55), Baby Boomers (55%), Gen X (48%), Gen Y (48%), Gen Z (43%) remains relatively low, with literacy rates below 60%. Gen Z has the lowest financial literacy level at 43%, which is lower than the other four generations. Also, the financial literacy levels of Gen Z individuals, whether students (45%) or non-students (43%), are similar (Yakoboski et al., 2022)

This lack of financial literacy is reflected in their financial behavior. A study by Deloitte (2022) found that nearly half of Gen Z (46%) and Millennials (47%) worldwide rely on their salaries to meet their living expenses, and they are concerned that their income may not cover all their costs. This highlights the growing financial insecurity among younger generations, which could be exacerbated by their limited financial knowledge. Further complicating this issue is the dynamic lifestyle of Generation Z, which usually prioritizes present needs over future financial goals (Wiyanto et al., 2019).

Given these challenges, this research explores how financial knowledge, behaviors, and inclusive access to financial services collectively shape financial planning decisions in this demographic. This study draws on two key theoretical frameworks: the Theory of Planned Behavior (Ajzen, 1991) and Financial Behavior Theory (Shim et al., 2009). The Theory of Planned Behavior suggests that attitudes, subjective norms, and perceived behavioral control influence individual behavior, which is important for understanding how financial literacy impacts financial planning. Meanwhile, Financial Behavior Theory emphasizes the role of individual financial decisions and their outcomes, providing insights into how financial behaviors interact with literacy and inclusion to affect financial planning.

This study fills the research gap by addressing the following research questions:

1. How do financial literacy, financial inclusion, and financial behavior influence financial planning among Gen Z students at Telkom University?
2. To what extent do financial literacy and financial behavior mediate the relationship between financial inclusion and financial planning?

Literature Review

Financial literacy, financial inclusion, financial behavior, and financial planning are interconnected constructs that play important roles in shaping the financial well-being of individuals. Financial literacy refers to the ability to process and apply financial knowledge in decision-making regarding budgeting, saving, investing, and retirement planning (Lusardi & Mitchell, 2014). It encompasses an individual's awareness, knowledge, skills, attitudes, and behaviors, which are essential for making sound financial decisions (Atkinson & Messy, 2012). Research has shown that individuals with higher financial literacy usually engage more in financial planning, saving for the future, and making informed investment decisions (Grohmann, 2018; Lusardi & Mitchell, 2014).

Financial inclusion ensures access to affordable financial products and services, especially for underserved communities (Schuetz & Venkatesh, 2020). Financial inclusion enables individuals to effectively manage their finances by providing access to essential financial tools such as loans, savings accounts, and insurance. This accessibility is important for the application of financial knowledge, as it lets individuals make informed financial decisions (Ozili, 2020). Studies have shown that individuals with access to financial services are more likely to engage in responsible financial behaviors, leading to better financial outcomes (Arner et al., 2020; Omar & Inaba, 2020).

Financial behavior reflects how individuals manage their finances, including their spending, saving, and debt management practices (Andarsari & Ningtyas, 2019; Darmawan & Pamungkas, 2019; Herawati et al., 2018). It serves as a bridge between financial literacy and financial planning, as individuals with high financial literacy need to show responsible financial behavior to implement their knowledge effectively (Kadoya & Khan, 2020a). Responsible financial behavior, such as regular saving, avoiding unnecessary debt, and making informed investment decisions, plays a critical role in achieving long-term financial security (Mudzingiri et al., 2018).

Financial planning is setting financial goals and managing resources to meet those goals. It involves creating a strategy for budgeting, saving, investing, and preparing for retirement (Bogan et al., 2020). Financial planning is the ultimate outcome of the interaction between financial literacy, financial inclusion, and financial behavior. When individuals have financial knowledge, access to financial services, and responsible financial behavior, they are more likely to engage in effective financial planning (Hutabarat & Wijaya, 2020).

Based on these theoretical foundations, the study proposes these hypotheses:

Financial Literacy and Financial Inclusion

Financial literacy plays a pivotal role in enhancing financial inclusion, particularly among Generation Z, who are increasingly exposed to digital financial services. Individuals who are financially literate can more understand and using financial products and services, which helps with greater access to and participation in the formal financial system. According to Atkinson and Messy (2018), financial literacy equips individuals with the knowledge and skills required to make informed financial decisions, such as opening a savings account, applying for loans, or using mobile banking services. Schuetz and Venkatesh (2020) further emphasize that financial literacy is a critical enabler of financial inclusion, as it bridges the gap between awareness and access. For Generation Z, who are digital natives yet may lack financial experience, literacy becomes a key factor in empowering them to use available financial services responsibly and effectively. So some think higher levels of financial literacy significantly enhance financial inclusion among Generation Z.
H_1: Financial literacy significantly affects financial inclusion among Generation Z.

Financial Literacy and Financial Behavior

Financial literacy is a critical determinant of financial behavior, as it gives individuals the foundational knowledge needed to make prudent financial choices. Generation Z, who are in a formative stage of financial independence, require adequate financial knowledge to guide their consumption, saving, and debt management habits. Lusardi and Mitchell (2014) found that individuals with higher financial literacy are more likely to show responsible financial behaviors, such as budgeting regularly, avoiding excessive debt, and saving for future needs. Kadoya and Khan (2020a) support this relationship, stating that financial literacy significantly influences behavioral patterns by shaping attitudes and perceptions toward money management. For Generation Z, whose financial behaviors are being shaped in a rapidly evolving economic and digital landscape, literacy is essential to help them navigate financial decisions effectively. So it is argued that financial literacy positively influences financial behavior among Generation Z.
H_2: Financial literacy significantly affects financial behavior among Generation Z.

Financial Literacy and Financial Planning

Financial literacy contributes significantly to individuals' ability to engage in financial planning by equipping them with the skills to assess, strategize, and manage their personal finances. Individuals with a strong understanding of financial principles are better prepared to set long-term goals, create budgets, and make informed investment decisions. Grohmann (2018) and Lusardi and Mitchell (2014) highlight that financial literacy is a strong predictor of planning behavior, as it enables individuals to recognize the importance of preparing for future financial needs, such as retirement or emergencies. For Generation Z, financial planning may not be an immediate priority, but those with higher literacy are more likely to adopt proactive strategies early in life. Financial literacy is expected to have a significant positive impact on financial planning among Generation Z individuals.
H_3: Financial literacy significantly affects financial planning among Generation Z.

Financial Inclusion and Financial Planning

Access to financial services, or financial inclusion, is a key enabler of effective financial planning. When individuals have access to banking services, credit facilities, insurance, and investment tools, they are more empowered to create financial plans. Arner et al. (2020) argue that financial inclusion reduces barriers to financial participation, letting individuals execute their financial goals more efficiently. For Generation Z, access to digital banking, mobile wallets, and other inclusive financial technologies offers the opportunity to start managing their finances and planning for future expenses. Without inclusion, even financially literate individuals may face obstacles in realizing their plans due to lack of access to necessary instruments. So this study thinks financial inclusion positively influences financial planning among Generation Z.
H_4: Financial inclusion significantly affects financial planning among Generation Z.

Financial Behavior and Financial Planning

Financial behavior reflects the actual application of financial knowledge and attitudes, and it directly influences how individuals approach financial planning. Responsible behaviors, such as saving regularly, budgeting, and avoiding unnecessary debt, form the foundation for sound financial planning. Herawati et al. (2018) emphasize that consistent and disciplined financial behavior improves the likelihood of setting and meeting financial goals. Mudzingiri et al. (2018) also find that individuals with strong financial behavior usually plan for the future more systematically, as they are more aware of the long-term consequences of their current actions. Among Generation Z, fostering positive financial behaviors is essential to encourage early engagement with financial planning. Thus, some think financial behavior significantly affects financial planning among Generation Z.
H_5: Financial behavior significantly affects financial planning among Generation Z.

Financial Literacy, Financial Inclusion and Financial Planning

Financial inclusion serves as a mediating variable in the relationship between financial literacy and financial planning by enabling the practical application of financial knowledge. While financial literacy gives individuals the theoretical foundation for managing their finances, inclusion provides the tools and access needed to put this knowledge into action. Schuetz and Venkatesh (2020) suggest that without access to financial services, the benefits of financial literacy cannot be fully realized. For example, knowing how to save or invest is only beneficial if one has access to savings accounts or investment platforms. In Generation Z, who are increasingly reliant on digital financial tools, inclusion plays an important role in translating financial literacy into planning behavior. So financial inclusion is expected to mediate the relationship between financial literacy and financial planning.
H_6: Financial inclusion mediates the effect of financial literacy on financial planning.

Financial Literacy, Financial Behavior, and Financial Planning

Financial behavior is considered a behavioral outcome of financial literacy and a necessary mechanism through which literacy influences financial planning. Financially literate individuals may not automatically engage in planning unless their knowledge translates into consistent, responsible financial behaviors. Kadoya and Khan (2020a) argue that behavior acts as a channel through which knowledge is operationalized into action, particularly in financial decision-making. Among Generation Z, establishing strong financial habits is important for long-term planning. Those with high financial literacy are more likely to adopt positive financial behaviors, which then lead to more structured financial planning. Thus, some think financial behavior mediates the relationship between financial literacy and financial planning.
H_7: Financial behavior mediates the effect of financial literacy on financial planning.

Figure 2 presents the conceptual framework, showing the direct and indirect effects of financial literacy on financial planning, mediated by financial inclusion and financial behavior.

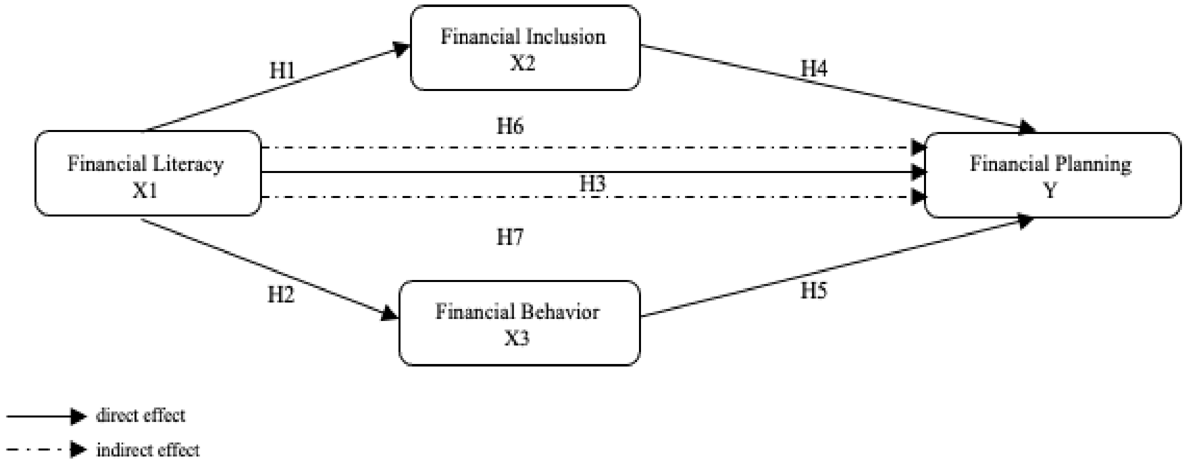

Figure 2. Research conceptual framework

Research Methods

This study assesses the values of each variable, thus using a descriptive research approach. Descriptive research is independent and is intended to summarize the variables that have been determined (Jaya, 2020). The research method applied is quantitative research, a type of research that uses measurement procedures to obtain new findings related to features that emerge in human life, called.variables (Jaya, 2020).

The research strategy chosen is a survey research, with sampling from a single population using a questionnaire as the primary data collection tool. The questionnaire is a set of written questions posed to respondents, serving as an efficient data collection technique when the researcher has identified the variables to be investigated (Jaya, 2020). This research is based on earlier theoretical studies on the activities of Financial Literacy (X1), Financial Inclusion (X2), Financial Behavior (X3), and Financial Planning (Y). The instruments used to measure each variable in this study are detailed in Appendix 1 and are adapted and changed from various studies (Malinda et al., 2018; Ulfatun et al., 2016; Xiao & Porto, 2017) To ensure the content validity of each question in the assessment, responses were collected from participants using a 5-point Likert scale, with five indicating 'strongly agree' and one indicating 'strongly disagree.'

To determine the number of respondents who will fill out the questionnaire, the researcher uses the Slovin's formula. The sample size in research using the Slovin's formula is determined based on the error rate value, where the smaller the error rate, the smaller the selected sample size (Riyanto & Hatmawan, 2020). The Slovin's formula is as follows:

$$n = \frac{N}{1 + Ne^2}$$

Information:
n = sample size; N = population size; e = error rate

This formula is used to determine the sample size that represents the population with a specific error rate.

In this study, the error rate used is 5% with a population size of 36,898 people. So the sample size to be used in this study is:

$$n = \frac{36{,}898}{(1 + 36{,}898 \times (0.05^2))}$$
$$n = \frac{36{,}898}{(1 + 36{,}898 \times 0.0025)}$$
$$n = \frac{36{,}898}{(1 + 92.245)}$$

$$n = \frac{36{,}898}{(93.245)}$$
$$n = 395.71$$

By selecting samples using the non-probability sampling method, especially the purposive sampling technique, to help with the researcher in conducting research with the criteria of Gen Z Telkom University students who will be respondents for this study. Based on the data collection time, the researcher uses cross-sectional data, where the data has one or more variables at the same time (Jaya, 2020). This approach focuses on observing the relationship between variables without considering time differences.

Data Collection and Processing

In this research, the researcher uses a quantitative method using primary data, namely questionnaires distributed to Gen Z Telkom University students. The minimum sample size in this study is rounded to 400 questionnaire samples divided into five sections. The first section covers respondent profiles, where respondents provide personal data that can be used as research features. The second section has a list of questions about financial literacy, the third section includes questions about financial inclusion, the fourth section includes questions about financial behavior, and finally, the fifth section has questions about financial planning. To analyze the data, PLS-SEM (Partial Least Squares Structural Equation Modeling) is chosen due to its advantages in handling large sample sizes, such as the 400 respondents in this study. PLS-SEM is effective for analyzing complex relationships between latent variables that cannot be directly measured, and it provides valid estimates even with large, non-normally distributed data (Sarstedt et al., 2017). This method allows for the analysis of simultaneous relationships, including reciprocal effects, making it well-suited for intricate models (Civelek, 2018; Henseler, 2017; Sarstedt et al., 2017).

Results and Discussion

Figure 3 shows that most respondents in this study are female Gen Z Telkom University students (61.75%). Despite being dominated by females, there is no difference in financial literacy levels based on gender perspectives (Nurhadi & Hidayat, 2021). However, in other studies, it is mentioned that adult women have an interest in good financial planning (Franita, 2019). Regarding financial inclusion, investing using advanced financial services and products is significantly related to financial literacy perceptions, and this correlation is stronger in females than males (Bannier & Neubert, 2016).

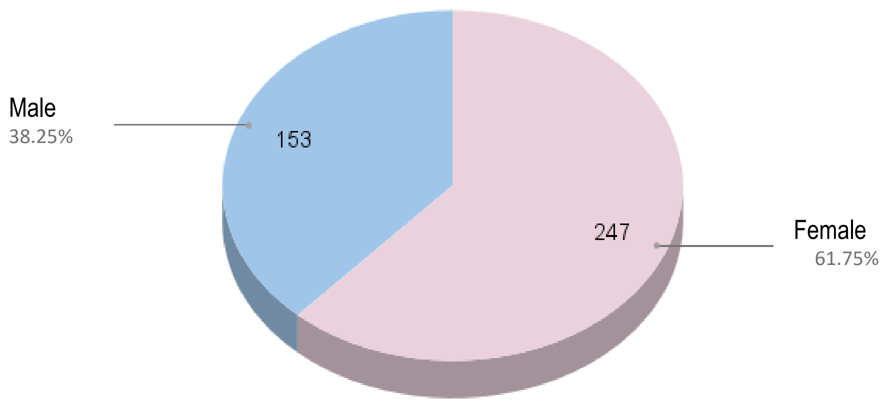

Figure 3. Gender Composition

Table 1 shows that respondents are predominantly students aged 20 and 21, accounting for a percentage of 26.00%. The smallest percentage is students aged 26, constituting 0.25% of the total sample.

Table 1. Age distribution of respondents

Age	f	Percentage
17	2	0.50%
18	60	15.00%
19	82	20.50%
20	104	26.00%
21	104	26.00%
22	38	9.50%
23	6	1.50%
24	3	0.75%
26	1	0.25%
Total	400	100.00%

Table 2. Distribution of respondents' income

Income Range	f	Percentage
<Rp1,000,000	78	19.50%
>Rp1,000,000 – Rp2,000,000	207	51.75%
>Rp2,000,000 – Rp3,000,000	82	20.50%
>Rp3,000,000 – Rp4,000,000	26	6.50%
>Rp4,000,000 – Rp5,000,000	7	1.75%
Total	400	100.00%

Table 2 indicates that respondents with income >Rp1,000,000 – Rp2,000,000 have the highest percentage, which is 51.75%. But respondents with income >Rp4,000,000 – Rp5,000,000 have the smallest percentage, accounting for only 1.75% of the total sample.

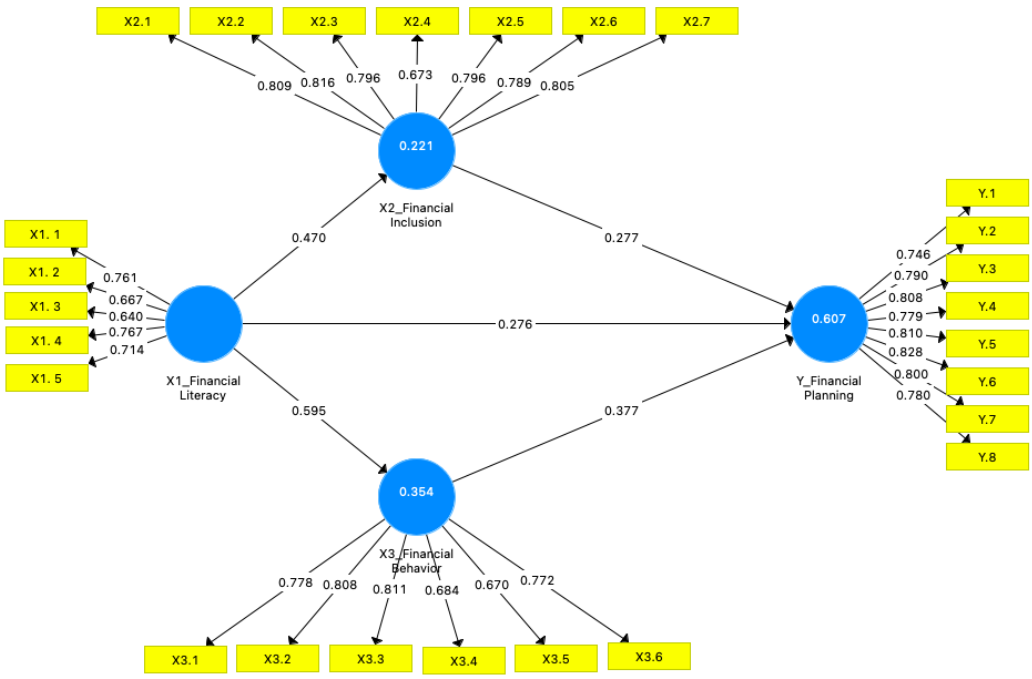

Figure 4. Research Model Test Results

Figure 4 presents the structural model outcomes, revealing that all measurement indicators meet the required outer loading thresholds, thus supporting the model's convergent validity. According to Wiksuana, (2019) outer loading values ranging from 0.5 to 0.6 are still considered acceptable, as they meet the minimum threshold for convergent validity and indicate an adequate level of construct reliability. The next step involves testing the Average Variance Extracted (AVE) values, as presented in the following Table.

Table 3. Validity Test Results

	Average Variance Extracted (AVE)
X1_Financial Literacy	0.506
X2_Financial Inclusion	0.616
X3_Financial Behavior	0.571
Y_Financial Planning	0.629

Based on the expected criteria in Table 3 of the validity test conducted, it can be concluded that the validity of the research data is considered convergent because each variable has an AVE value above 0.5 (Henseler, 2017).

Table 4. Reliability Test Results

Reliability	Test Results		Test Criteria >0,7
	Effect	Loading	
Cronbach's Alpha	Financial Literacy	0.757	Reliable
	Financial Inclusion	0.895	Reliable
	Financial Behavior	0.849	Reliable
	Financial Planning	0.916	Reliable
Composite Reliability	Financial Literacy	0.836	Reliable
	Financial Inclusion	0.918	Reliable
	Financial Behavior	0.888	Reliable
	Financial Planning	0.931	Reliable

Reliability test in Table 4 shows that most of the results can be considered reliable with satisfactory scores because they all are above the value of 0.8. However, there is one variable, namely financial literacy, with a Cronbach's Alpha value ≤ 0.8. Still, the result is still acceptable because it is above the value of 0.7 (Hair et al., 2019; Henseler, 2017).

Table 5. Hypothesis Test Results

Hypothesis	Path	Coefficient	P Values	Result
Direct Effect				
H_1	X1 → X2	0.470	0.000	Significant
H_2	X1 → X3	0.595	0.000	Significant
H_3	X1 → Y	0.276	0.000	Significant
H_4	X2 → Y	0.277	0.000	Significant
H_5	X3 → Y	0.377	0.000	Significant
Indirect Effect				
H_6	X1 → X2 → Y	0.130	0.001	Significant
H_7	X1 → X3 → Y	0.224	0.000	Significant

The results of the hypothesis testing in Table 5 show that all hypotheses can be accepted based on p-values ≤ 0.05 and t-statistics ≥ 1.96 (Haryono, 2016). Financial literacy was found to significantly affect financial inclusion (H1, p = 0.000), financial behavior (H2, p = 0.000), and directly on financial planning (H3, p = 0.000). Financial inclusion also significantly influenced financial planning (H4, p = 0.000), as did financial behavior (H5, p = 0.000). Financial inclusion (H6, p = 0.001) and financial behavior (H7, p = 0.000) were both found to mediate the relationship between financial literacy and financial planning.

This study provides a comprehensive view of how financial literacy, financial inclusion, and financial behavior interact and collectively influence financial planning among Generation Z students at Telkom University. The findings indicate that financial literacy not only directly enhances students' financial behavior and planning but also indirectly reinforces these outcomes by improving financial inclusion. These results underscore the interconnected nature of these constructs, where financial knowledge equips students with the ability to make informed decisions, access appropriate financial services, and adopt responsible financial practices factors that collectively contribute to more effective financial planning. This integrated perspective aligns with earlier research that emphasizes the pivotal role of financial literacy as both a direct and indirect determinant of financial well-being (Chhatwani & Mishra, 2021; Grohmann, 2018; Lusardi & Mitchell, 2014).

Financial literacy, defined as an individual's ability to understand financial ideas and apply them in real-life decisions (Grohmann, 2018; Lusardi & Mitchell, 2014; Soetiono & Setiawan, 2018), serves as a critical foundation for improving access to financial services (Atkinson & Messy, 2012; Lyons & Kass-Hanna, 2018; Morgan & Long, 2020) encouraging responsible financial behavior (Allgood & Walstad, 2012; de Bassa Scheresberg, 2013; Potrich et al., 2016; Stolper & Walter, 2017), and enhancing individuals' capacity to engage in sound financial planning (Agarwal et al., 2015; Boon et al., 2011; van Rooij et al., 2012). Financial inclusion, referring to the availability and use of financial products and services, significantly contributes to students' ability to plan financially. Greater access to formal financial institutions supports guided financial decision-making, particularly in budgeting, saving, and investing (Chhatwani & Mishra, 2021; Klapper & Lusardi, 2020; Pandey et al., 2022). In addition, financial behavior, defined as consistent actions toward managing money and preparing for the future, also shows a strong positive association with financial planning. Students who display discipline in spending, time orientation, and savings practices are more likely to establish and follow through on effective financial plans (Adam et al., 2017; Brounen et al., 2016; Strömbäck et al., 2017).

The mediating roles of financial inclusion and financial behavior further show how financial literacy is translated into actionable planning. Students with higher financial literacy are not only more likely to adopt better financial behaviors but are also more capable of effectively using financial services (Chhatwani & Mishra, 2021; Klapper & Lusardi, 2020). These mediating factors bridge the gap between knowledge and action, emphasizing the importance of both access and behavior in shaping individuals' financial futures.

Theoretical Implication and Managerial Implication

This study provides relevant contributions to both theoretical development and managerial practice by deepening the understanding of financial behavior constructs and their interrelated roles. Theoretically, it enriches the existing body of knowledge by examining the integrated relationship among financial literacy, financial inclusion, financial behavior, and financial planning, particularly within Generation Z university students in Indonesia. While earlier studies have often assessed these variables separately (Grohmann, 2018; Lusardi & Mitchell, 2014), this study advances the discourse by presenting their combined and mediating effects through a comprehensive structural model. Empirical research that integrates these constructs into a unified framework remains limited, especially in emerging economies. The findings highlight how financial inclusion and financial behavior mediate the impact of financial literacy on financial planning, thus offering new insights into how financial knowledge is translated into financial action.

From a managerial standpoint, the findings offer strategic implications for educational institutions, financial service providers, and policymakers aiming to enhance financial outcomes among youth. Universities are encouraged to embed financial literacy initiatives into their student development programs to cultivate financial competencies from an early stage. This may include structured workshops, interactive case-based learning, and access to digital financial planning tools. Financial institutions can tailor inclusive financial products for young consumers, such as student-centric savings accounts, mobile-based financial services, and educational campaigns on credit management. For policymakers, the results call for integrated strategies that support both financial access and behavioral transformation, making sure financial literacy is theoretical and results in meaningful financial decision-making. Through collaborative and targeted interventions, stakeholders can better equip Generation Z to navigate financial uncertainty and work toward long-term financial well-being.

Conclusion and Further Research

Based on the research results and discussions outlined earlier regarding the Analysis of the Influence of Financial Literacy, Financial Inclusion, and Financial Behavior on Financial Planning of Gen Z Students at Telkom University, these conclusions can be drawn: Financial Literacy has a positive and significant impact on each variable of Financial Inclusion, Financial Behavior, and Financial Planning. This implies that as the financial literacy of Gen Z students at Telkom University goes up, Financial Inclusion can be used wisely, Financial Behavior improves, and Financial Planning is achieved. Financial Inclusion plays an important role compared to Financial Behavior in mediating the influence of Financial Literacy on Financial Planning. This indicates that Gen Z students at Telkom University will achieve their financial goals by using financial products such as investments, supported by practical access to financial services, thus helping with the use of financial products to meet their financial goals within the specified time.

Suggestions for further research include digging into the role of mediation variables to understand more intricately how financial inclusion and financial behavior can mediate the relationship between financial literacy and financial planning. The focus should be on strategies to strengthen this positive relationship, and it is recommended to use a broader research sample, preferably on a national or international scale, to provide broader impact and benefits.

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Appendix

Table 1. Research Instrument

Variable	Code	Items		Source
Financial Literacy	X1	General personal finance knowledge	1. Finance involves the management of money, assets, or liabilities. 2. I understand how to manage income and expenses.	Ulfatun el al, 2016
		Savings and borrowing	1. I save part of my income for future use. 2. Debt is a duty that must be repaid within a certain period, with or without interest.	
		Insurance	1. Insurance is a financial protection tool or compensation for specific risks. 2. I know insurance products such as life insurance or property insurance.	
		Investment	1. Basic investment knowledge must be mastered before investing. 2. I know investment products such as mutual funds, precious metals, deposits, or bonds. 3. Investment interest rates are related to investment products.	
Financial Inclusion	X2	Access	1. I can easily access financial services. 2. I can access financial services practically. 3. I can access financial services at affordable costs.	The Policy Agency, Ministry of Finance of Indonesia, 2020
		Usage	1. I use modern financial services such as online banking or mobile banking applications. 2. I will continue to use financial products to meet financial needs.	
		Quality	1. I feel financial services can meet financial needs. 2. I feel financial products can support financial goals.	
Financial Behavior	X3	Spending within income constraints	1. I know that assigning income can help meet financial goals. 2. I know that assigning expenses can help control finances.	Xiao and Porto, 2017
		Saving for emergencies	1. Emergency funds are needed for financial protection in emergencies.	
		Checking credit reports	1. I routinely check bills. 2. I regularly check my billing statements.	
		Calculating retirement needs	1. Calculating future needs can help in financial planning.	
Financial Planning	Y	Specific	1. I am motivated to plan finances to achieve clear financial goals. 2. Having focused financial goals can help manage finances. 3. I strive to be disciplined in meeting financial goals.	Malinda, 2018
		Measurable	1. My financial plans are measurable according to my income. 2. I understand the importance of consistency in meeting financial goals.	
		Attainable	I am committed to meeting financial goals.	
		Reality-based	I manage the resources I have to meet financial goals.	
		Time-bound	I always focus on the time needed in financial planning.	