

Financial Literacy, Financial Self-Efficacy, and Financial Well-Being Among Generation Z: Evidence from Batam, Indonesia

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ABSTRACT

In the developing industrial regions, young adults like generation Z require more than just fundamental financial knowledge to navigate the complexities of the modern economic landscape, financial problems and financial freedom. This study analyzes the mediating role of financial self-efficacy in the relationship between financial literacy and financial well-being of Generation Z in Batam City Indonesia, a major economic hub in Indonesia. The primary data of the study were collected using the quantitative survey design method through purposive sampling of 350 Gen Z. Partial Least Squares Structural Equation Modeling (PLS-SEM) was used to analyze the structural correlation between variables. The study results show that financial literacy directly and significantly affects financial self-efficacy and financial well-being. Moreover, financial self-efficacy significantly affects financial well-being while partially mediating the effect of financial literacy on financial well-being. This study reaffirms the importance of financial literacy; however, its effect is maximized when accompanied by self-confidence in managing finances. This study adds to the literature on the financial well-being of Generation Z and has practical implications for improving financial literacy and promoting self-efficacy towards sustainable financial conditions.

Keywords: *Keywords: Financial Literacy, Financial Well-Being, Financial Self-Efficacy, Generation Z, PLS-SEM.*

ABSTRAK

Di kawasan industri yang sedang berkembang, kaum muda seperti Generasi Z membutuhkan lebih dari sekadar pengetahuan keuangan dasar untuk menghadapi kompleksitas lanskap ekonomi modern, masalah keuangan, dan kebebasan finansial. Penelitian ini menganalisis peran mediasi efikasi diri finansial dalam hubungan antara literasi keuangan dan kesejahteraan finansial Generasi Z di Kota Batam, Indonesia, salah satu pusat ekonomi utama di Indonesia. Data primer penelitian ini dikumpulkan menggunakan metode desain survei kuantitatif melalui pengambilan sampel purposif terhadap 350 responden Generasi Z. Partial Least Squares Structural Equation Modeling (PLS-SEM) digunakan untuk menganalisis korelasi struktural antar variabel. Hasil penelitian menunjukkan bahwa literasi keuangan secara langsung dan signifikan memengaruhi efikasi diri finansial serta kesejahteraan finansial. Selain itu, efikasi diri finansial secara signifikan memengaruhi kesejahteraan finansial sekaligus berperan sebagai mediator parsial terhadap pengaruh literasi keuangan terhadap kesejahteraan finansial. Penelitian ini menegaskan kembali pentingnya literasi keuangan; namun, dampaknya akan maksimal jika disertai dengan kepercayaan diri dalam mengelola keuangan. Penelitian ini menambah khazanah literatur mengenai kesejahteraan finansial Generasi Z dan memiliki implikasi praktis untuk meningkatkan literasi keuangan serta mendorong efikasi diri guna mencapai kondisi keuangan yang berkelanjutan.

Kata Kunci: Literasi Keuangan, Inklusi Keuangan, Financial Self-Efficacy, Kesejahteraan Finansial, Generasi Z, PLS-SEM

1. INTRODUCTION

The rapid growth of the digital economy is creating new dynamics in personal finance management. To make sound financial decisions, individuals must possess sufficient financial literacy to effectively utilize digital

financial information and services. In Indonesia, financial challenges persist, marked by many people's limited ability to apply basic financial principles, such as saving, investing, and managing debt. According to the DNKI & Economy report (2023), financial regulators are

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set to implement various strategies in 2024 aimed at expanding financial inclusion and enhancing public understanding of financial literacy. The 2024 National Survey on Financial Literacy and Inclusion (SNLIK) conducted by the Financial Services Authority revealed that the national financial literacy index is 65.43%, while the financial index stands at 75.02% (Jalin.co.id, 2025). In the Riau Islands region, which includes the city of Batam, the financial literacy index is reported at 65%, with a financial inclusion index of 75% (Otoritas Jasa Keuangan, 2024). This data suggests that most of the population possesses a basic understanding of finance.

A better understanding of financial management has not yet been adequately translated into the widespread adoption of sound financial practices. Based on the survey that was carried out by Yanti & Tipa (2024) Batam is an industrial and commercial city that has easy access to consumer goods and promotes consumerism that prioritizes the need to maintain image over fulfilling basic needs. "There are many young people in Batam who are inexperienced in budgeting, saving consistently and managing their expenses in an organized way. Yuwono & Juniani (2020) explains that factors such as lack of self-control and social pressure can impede effective savings management, especially in an urban environment full of consumption temptations and social influences. According to the data of the survey "Public Financial Management Behavior 2024" conducted by GoodStats, only 30.1% of respondents have savings, and 23.4% of them find it difficult to save regularly. This situation highlights a major disconnect between theoretical knowledge and practical application in financial management, which ultimately affects the financial health of individuals. However, this greater understanding has not yet been matched by good financial practice. The results of the pre-survey by Yuli & Tipa (2024) stated that the city of Batam as a city of industry and commerce has easy access to consumer goods, which has led to the emergence of a consumerist lifestyle that is driven by the desire to maintain a certain lifestyle, not by essential needs. Moreover, most young people in Batam are not accustomed to budgeting, saving

regularly, or controlling their expenses systematically. Yuwono & Juniani (2020) explains that the urban environment with temptations to consume and the social environment causes poor savings management due to lack of self-control and social constraints. According to the GoodStats survey "Public Financial Management Behaviour 2024," only 30.1% of respondents have savings, and 23.4% are unable to save consistently. This situation suggests a substantial gap between the knowledge of concepts and the practical application of these concepts in financial management which affects financial well-being. The ability of financial literacy has become one of the key skills that individuals need to have to achieve increasingly complex financial well-being, according to Hong Shan et al. (2023) This means that financial literacy and financial inclusion cannot be considered end goals but are important tools to achieve the financial well-being of society. The basis of rational decision making is financial literacy, and financial inclusion ensures access to instruments and support services. According to Lone & Bhat (2024a), "financial well-being is a state in which a person can fulfill current and future financial obligations, is free from financial stress, and is financially secure. Financial well-being is not only related to the amount of income but also to the ability of a person to manage their income to fulfill present and future needs without financial pressure and to control their finances. This highlights the importance of financial management knowledge and skills in achieving financial well-being. However, financial literacy alone is not enough to ensure financial well-being. Based on Suwatno et al. (2020) it is not enough to understand financial literacy, but individual self-confidence is needed to manage finances and achieve financial well-being. This conclusion is in line with the results of research by Akbar & Armansyah (2023) that the level of literacy in managing finances is not as determinant as the level of confidence in managing finances for a person. Nurlaila (2020) states that a person's self-confidence in financial competence can form positive financial behavior. Economic difficulties are not only caused by income factors but also by errors in managing finances,

such as poor budgeting, lack of savings, and impulsive spending habits. Hence, financial self-efficacy could be a mediator between financial literacy and financial well-being. One of the theories related to this research is the Theory of Planned Behavior (TPB). The theory assumes that human behavior is the result of a deliberate consideration process, that is, the evaluation of information and personal experiences in the decision-making process. The Theory of Planned Behavior consists of three main components: attitude, subjective norms, and perceived behavioral control, all of which can affect behavioral intentions. The findings of Lone & Bhat (2024a) support the association between financial literacy, financial self-efficacy, and financial well-being. The study revealed that financial literacy positively affects financial well-being through the mediation of financial self-efficacy. The study was conducted on the business faculty lecturers of the Jammu and Kashmir region of India. However, the homogeneity of the population and the differences in the geographical and demographic contexts suggest a research gap that provides opportunities for further studies on other population groups with different social and economic characteristics. The first research gap is the limited scope of previous research subjects, which focused on academics with homogenous backgrounds. This gap opens the possibility of investigating a more varied population, one of which is Generation Z, who are stepping into the stage of young adulthood that is like the shift toward financial independence. Generation Z is a research interest due to its position as a productive generation and potential pillar of the national economy.

Empirical data further supports the urgency of research on Generation Z as they still need to improve their financial health. Bank OCBC NISP, in 2024, through its annual research, the OCBC Financial Fitness Index, noted that the financial health score of the younger generation of Indonesia is at 41.25%, up slightly from the previous year's score of 41.16%. More effective interventions are necessary to enhance the financial literacy and practices of young people. Moreover, the Financial Services Authority (OJK) said that Gen Z's exposure to bad debts

from online loans (pinjol) and paylater was 39.94%. Most of this spending was on lifestyle fulfillment rather than basic needs, with 54% going to travel and entertainment and 42% to fashion. This consumer lifestyle, without proper financial planning, is proof of the still low financial well-being of Gen Z.

The results of several studies on the financial literacy of Generation Z in Indonesia also show inconsistent results; for example, the research of Akbar and Armansyah (2023) found that financial self-efficacy had a significant effect on the financial behavior of Generation Z, whereas financial literacy and gender did not significantly affect it. The findings are different from Nurlaila's (2020) study, which stated that the higher the financial literacy knowledge, the stronger the financial self-efficacy, and the better the financial management behavior among teenagers. Meanwhile, the study of Suwatno et al. (2020) shows that financial literacy and financial self-confidence (financial self-efficacy) have a significant positive contribution to the financial management behavior of students. This inconsistency of those research results shows the need for a more in-depth study focused on financial well-being, which has not been widely explored in the context of Indonesia's Generation Z. Therefore, this study aims to fill that gap by examining the effect of financial literacy and financial self-efficacy on the financial well-being of Generation Z in a comprehensive manner, especially in the city of Batam, which is characterized as an industrial city with dynamic economic characteristics. The background and research results are not consistent, indicating that the financial behavior of generation Z tends to vary and is influenced by various factors.

This variation highlights the importance of more research to understand the dynamics that are driving this generation's financial well-being. Thus, this study is expected to provide empirical contributions to enrich the literature of financial behavior of the younger generation in particular to understand their financial well-being. The results of this study are also expected to strengthen the understanding of the importance of increasing financial self-efficacy as an effort to create sustainable financial well-

being, not only through improving financial literacy.

2. LITERATURE REVIEW

Theory of Planned Behavior (TPB)

The Theory of Planned Behavior (TPB) was developed by Ajzen (1991) to improve his earlier theory by adding Perceived Behavioral Control (PBC) as a major predictor of individual behavior. The TPB has been established on the assumption that human conduct is a consequence of a conscious and rational process where individuals carry out a complete assessment of the data and personal experiences that affect their decision-making process (Fishbein & Ajzen, 2011).

In this theory, behavioral intention is determined by three key components: Attitude Toward the Behavior- An individual's favorable or unfavorable judgment of the specific activity in question. Subjective Norm – The perceived social pressure or societal expectation to perform or not perform a given activity. Perceived behavioral regulation-The self-assessment of one's ability to regulate and maintain the behavior.

In this context, financial literacy plays a role in shaping individuals' attitudes toward financial management, and financial self-efficacy reflects perceived behavioral control (Lone & Bhat, 2024b) (Karina Sukma Ardani & Made Dudy Satyawan, 2025). Where this can explain how the intention to manage finances arises and leads to financial well-being.

Financial Literacy

According to Lusardi in Amaral et al. (2024a) financial literacy may be described as the individual's skill in the endeavor to better their standard of life by understanding financial planning and allocation sensibly. The Financial Services Authority (OJK) defines financial literacy as a continuous endeavor aimed at enhancing an individual's knowledge, skills, and confidence in financial management. This empowerment enables individuals to make informed decisions and effectively optimize their overall financial well-being(Choerudin et al., 2023).

Financial Well-being

According to Prendergast et al. (2018) financial well-being is a state in which an individual can meet their current needs and feel secure in facing future situations. A state in which an individual can meet their current financial needs, achieve their future financial goals, and is free from any financial problems that could cause stress (Chaity et al., 2024).

Financial well-being is not only related to the economic realities individuals face, but also to their confidence in managing their finances. When individuals understand financial concepts and have the confidence to manage their finances, they tend to exhibit healthy financial behaviors, such as budgeting, saving, and managing debt. It is these behaviors that ultimately lead to improved financial well-being (Lone & Bhat, 2024a).

Financial Self-Efficacy

Self-efficacy was first introduced by Bandura (1977) and forms the core of social cognitive theory. (Zumeri & Bandura, 1997) defines self-efficacy as an individual's belief in their ability to achieve goals using their own capabilities. In this context, self-efficacy reflects the extent to which a person believes in their own ability to handle situations and achieve positive outcomes (Suwatno et al., 2020).

In a financial context, this concept has evolved into financial self-efficacy, defined as an individual's belief in their ability to manage their finances effectively. In a financial context, this concept has developed into what is known as financial self-efficacy. Financial self-efficacy refers to an individual's confidence in their ability to manage their finances effectively. According to Herawati & Dewi (2020) financial self-efficacy is linked to one's belief in their financial management capabilities, and it is directly proportional to their skills in managing finances. State that financial self-efficacy is related to an individual's belief in their ability to manage their finances and is directly proportional to their financial management skills.

Previous Research

Studies and research on financial well-being and financial behavior consistently identify financial literacy as a key determinant and a

cornerstone. Several studies have demonstrated that adequate financial knowledge, especially in its application to digital financial literacy, directly contributes to improved financial well-being and the fostering of responsible financial behavior (Bamisha K P. & Nidheesh KB, 2022; Chong et al., 2021; Kurniawati et al., n.d.; Masitoh et al., 2023). The importance of developing such literacy has been demonstrated through financial education initiatives, especially for young adults and Generation Z. In addition to helping to prevent consumptive tendencies, high-quality financial education also provides individuals with the basic skills needed to make structured investment decisions and plan (Amaral et al., 2024b; Anghel & Pochea, 2025a; Dare et al., 2023).

Although literacy is important, empirical research indicates that cognitive understanding may not be enough to drive practical behaviour. This is where financial self-efficacy becomes an important psychological factor. It is interesting to note that several studies emphasize how a person's confidence in their ability to manage money often takes center stage in deciding their financial behaviour. Self-efficacy has been proven to have a positive and significant effect even when the variables of financial literacy or financial experience do not have a significant direct effect (Akbar & Armansyah, 2023) & (Amaral et al., 2024b). Suwatno et al. (2020) stated that financial theory would not be as effective if it is not combined with a strong sense of confidence in its application.

The results of many studies have found that financial self-efficacy acts as a strong mediation factor in the mapping of more complex dynamics. Based on the theory of planned behavior and social cognitive theory, self-efficacy is constantly bridging the gap between financial outcomes and knowledge (Lone & Bhat, 2024b). Well-internalized literacy and education will be encompassed in a strong self-efficacy. Increasing self-efficacy will also not only encourage increasingly responsible money management practices but also reduce the negative effects of behavioral barriers such as impulsivity or financial stress that can hurt well-being (Handayati et al., 2023; Marsela Wulansari, 2023)

Overall, the previous study stated that achieving financial well-being is a multifaceted process that requires a synergy between psychological maturity and cognitive abilities. This research is focused on analyzing the effect of financial literacy understanding on the improvement of financial well-being, especially in the demographic group of Generation Z, based on the urgency and dynamics that have been described. In addition, the study intends to explore the mediating role of financial self-efficacy between financial literacy and financial well-being thoroughly to understand the psychological mechanisms behind the phenomenon. It is expected that this framework would enable the research to provide a strong empirical basis for improving the economic resilience of Generation Z.

Financial Literacy on Financial Self-efficacy.

Financial literacy is an understanding of basic financial concepts that can serve as the foundation for financial management and rational financial decision-making. Studied by Suwatno et al. (2020) was found that financial understanding is a key factor in responsible financial behavior; an individual's positive attitude toward financial knowledge leads them to act in accordance with expectations—such as confidence in their actions, accountability for their decisions, and independence from external influence. This fosters a high level of confidence in applying their financial knowledge when undertaking specific financial actions.

H1: Financial literacy has a significant effect on financial self-efficacy.

Financial Self-Efficacy on Financial Wellbeing

Self-confidence plays an important role in improving financial well-being. Where belief in one's abilities influences how individuals behave. Research by Sabri et al. (2020) shows that high self-efficacy influences the ability to manage difficult situations and remain calm when facing challenges. Thus, it encourages individuals to achieve their goals, and when done well, it yields effective results and creates a sense of satisfaction.

H2: Financial self-efficacy has a significant effect on financial well-being.

Financial Literacy on Financial Wellbeing

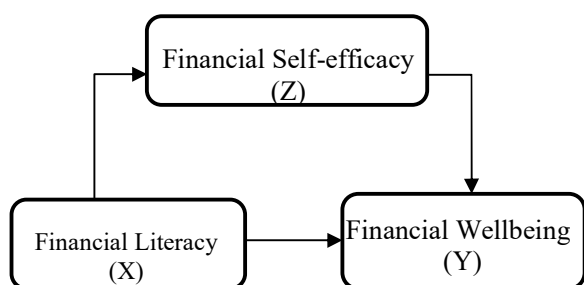
Financial literacy is essential for improving financial understanding. A sound understanding of finance fosters a positive mindset and serves as the foundation for sound financial decision-making. This statement is supported by research by Anghel & Pochea (2025b) which found that the higher a person’s financial literacy, the higher their social well-being.

H3 : Financial literacy has a significant effect on financial well-being.

Mediating Role Of Final Self-Efficacy On Financial Wellbeing

Financial self-efficacy helps build the confidence to manage one’s finances and achieve greater financial well-being through sound financial understanding and prudent financial management. In their study, (Chaity et al., 2024b) found that self-efficacy mediates the relationship between financial behavior and financial well-being, leading to proactive financial management.

H4: Financial self-efficacy mediates the relationship between financial literacy and financial well-being.



Picture 2.1 Research Framework
Source: Data Compiled (2025)

3. RESEARCH METHOD

This study employed a quantitative approach, using primary data collected through the distribution of a questionnaire to Generation Z respondents in Batam City. The research instrument consists of an online questionnaire containing statements relating to financial literacy, financial self-efficacy and financial well-being, using a 5-point Likert scale. The breakdown of the variables can be seen in the operational table.

Table 1. Operational variables

Variable	Indicator
Financial Literacy (X)	Financial Awareness Financial Experience Financial Skills
Financial Self-efficacy (Z)	Financial Self-efficacy
Financial Wellbeing (Y)	Financial preparedness for emergency Current money management stress Perceived financial security

Source: (Lone & Bhat, 2024), Midra et al (2017).

Respondents were selected using purposive sampling based on specific criteria: residing in Batam City, aged 20-28, and having a minimum fixed monthly income of IDR 4,000,000. The sample size was determined using Hair et al. (2022), assuming a power level of 80%, a significance level of 5%, and a minimum path coefficient of 0.2; the resulting minimum sample size is:

$$n \text{ min} > \left(\frac{2.486}{|0.2|} \right)^2 = 154,5$$

Based on this formula, the minimum sample size required was 155 respondents. In practice, a sample of 159 respondents was successfully obtained.

In this study, a non-probability purposive sampling method was used to meet the study’s relevant criteria. Specific criteria were established for participants in this study. The qualifications for respondents were as follows: Residing in Batam City, Generation Z aged in between 20–28 years and having a fixed monthly income (minimum IDR 4,000,000).

The analytical method employed was Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS 4. This analysis was conducted in two stages: testing the outer and inner models. The outer model was used to test the validity and reliability of the instruments, including tests of convergent and discriminant validity and of reliability. Based on the results of the initial test of validity and discriminant validity, which yielded a value of 0.9, it was found that all items used in this study

are valid for use. This indicates that each variable has a distinct conceptual distinction despite being interrelated, meaning that the research instrument is capable of accurately distinguishing the constructs being measured.

The inner model was used to examine the causal relationships between latent variables through tests of the coefficient of determination (R^2), effect size (f^2), and Prediction Relevance (Q^2). Furthermore, hypothesis testing was conducted using the bootstrap technique to examine direct and indirect effects, as well as the mediating role of financial self-efficacy in the relationships between financial literacy and financial well-being.

4. RESULT AND DISCUSSION

Result

Respondent Demographic Profile

The high participation rate within this age group is also attributed to the digital distribution method of the questionnaire. Individuals aged 21–24 are digital natives with high internet and social media usage intensity. Consequently, they demonstrated higher accessibility and responsiveness toward completing the online questionnaire compared to other age brackets. The respondents of this study were mostly female, which indicates that women are more responsive to financial issues and financial management. Most of the respondents were working in the private sector with a monthly income of IDR 4,000,000 to IDR 7,000,000. This finding indicates that the respondents are generally members of the group of workers who earn the Regional Minimum Wage (UMR) in Batam City. This income is indicative of a relatively stable financial position.

Table 2 Respondent Demographic Profile

No	Profile	Total	Percentage (%)	
1	Age	20	5	3%
2		21	23	14%
3		22	50	31%
4		23	43	27%
5		24	17	11%
6		25	6	4%
7		26	7	4%

8		27	3	2%
9		28	5	3%
Total			159	100%
1	Gender	Male	61	38%
2		Female	98	62%
Total			159	100%
	Jobs	Civil		
1		Servant/SOE/ Army/Police	8	5%
2		Entrepreneur	14	9%
3		Private Employee	112	70%
4		Others	25	16%
Total			159	100%
1	Income (IDR)	4.000.000 - 7.000.000	136	86%
2		7.000.001 - 10.000.000	21	13%
3		>10.000.000	2	1%
Total			159	100%

Source: Data Compiled (2026)

Validity Test

Convergent validity testing assesses the extent to which indicators within a construct are genuinely correlated with one another and measure the same concept. In other words, this test ensures that each indicator within a construct has a strong relationship with the others. According to Hair et al. (2022) convergent validity can be assessed by examining factor loadings, with an ideal value greater than 0.70, and by examining Average Variance Extracted (AVE), which must exceed 0.50 for the construct to be considered valid.

The test results show that most indicators have factor loadings above 0.70, indicating they are valid and capable of representing the constructs being measured. The KF2 item was retained even though its outer loading was 0.655, because its removal could potentially reduce the validity of other items. This consideration aligns with Chin's (1998) perspective, as cited in Yamin (2023), which states that loading factors in the range of 0.50–0.60 are still acceptable if the Average Variance Extracted (AVE) exceeds 0.50. Composite Reliability (CR) exceeds 0.70. Thus, all constructs in this study meet the

criteria for convergent validity and demonstrate good consistency in measuring the same concept.

The Discriminant Validity test aims to compare research constructs with other constructs to prevent overlap. In the study Hair et al. (2022), discriminant validity is assessed using the HTMT ratio, which must be less than 0.9.

Table 3. Convergent Validity Test

Variable	Item	Outer Loading	AVE	CR
Financial Literacy (X)	FL1	0,727	0,545	0,915
	FL2	0,736		
	FL3	0,775		
	FL4	0,714		
	FL5	0,724		
	FL6	0,730		
	FL7	0,765		
	FL8	0,750		
	FL9	0,720		
	FW1	0,710		
Financial Well-Being (Y)	FW2	0,655	0,725	0,926
	FW3	0,763		
	FW4	0,735		
	FW5	0,735		
	FW6	0,784		
	FW7	0,784		
	FW8	0,749		
	FW9	0,762		
	FW10	0,784		
	FSE1	0,850		
Financial Self-efficacy (Z)	FSE2	0,861	0,558	0,888
	FSE3	0,843		

Source: Data Compiled (2026)

The test results show on table 4 that all variables have an HTMT value below 0.90. This indicates that each construct is clearly distinguishable and that there are no issues with discriminant validity. Thus, it can be concluded that the research model meets the criteria for discriminant validity, meaning that the relationships among the variables in the model are reliable for further analysis.

Table 4. Discriminant Validity Test

Variable	HTMT	Note
Financial Literacy – Financial Self-efficacy	0,789	Valid
Financial Literacy – Financial Wellbeing	0,687	Valid
Financial Self-efficacy – Financial Wellbeing	0,806	Valid

Source: Data Compiled (2026)

Reliability Test

This test is conducted to verify the accuracy and consistency of the instrument in measuring the construct. Hair et al. (2022) mentioned that an instrument is considered reliable if Cronbach's alpha and composite reliability are ≥ 0.7 .

Table 5. Reliability Test

	Cronbach's Alpha	Composite Reliability (rho_c)
Financial Literacy	0,896	0,915
Financial Self-efficacy	0,811	0,888
Financial WellBeing	0,912	0,926

Source: Data Compiled (2026)

The test results indicate that all variables have Cronbach's Alpha and Composite Reliability values greater than 0.70. It confirms that all constructs exhibit excellent reliability. Consequently, the indicators used in this study are consistent in measuring their respective latent variables, thereby establishing the reliability of the research model.

Coefficient of Determination (R²)

The coefficient of determination is used to evaluate a model using PLS, as indicated by the R-squared value. Changes in the R-Square value can be used to explain the relationship between independent variables and the dependent variable, as well as the strength of that relationship. Haryono (2016) categorizes an R² value of 0.67 as strong, an R² value of 0.33 as moderate, and an R² value of 0.19 as weak.

Tabel 6. R-square Test

	R-square	R-square adjusted
Financial Self-efficacy	0,466	0,463
Financial Wellbeing	0,533	0,527

Source: Data Compiled (2026)

The test results show that the R-squared value for the financial self-efficacy variable is 0.466. This test indicates that the financial literacy variable explains 46.6% of financial self-efficacy, suggesting that this model falls into the moderate category. Meanwhile, the R-square for the financial well-being variable is 0.533, indicating that financial literacy explains 53.3% of the variance in financial well-being. Thus, the model for these variables falls into the moderate category.

Effect Size (f^2)

Effect size tests were conducted to determine the magnitude of the variables' influence in the structural model. Haryono (2017) mentioned that an f^2 value of 0.35 is considered high, 0.15 is moderate, and 0.02 is low.

Table 7. F-square Test

	Financial Self-efficacy (Z)	Financial Wellbeing (Y)
Financial Literacy (X)	0,873	0,098
Financial Self-efficacy (Z)		0,283

Source: Data Compiled (2026)

The test results show that the effect size (f^2) of the financial literacy variable has a very large effect on financial self-efficacy, with an f^2 value of 0.873. It indicates that financial literacy plays a major role in enhancing individuals' confidence in managing their finances. Furthermore, the effect of financial literacy on financial well-being is only 0.098, which falls into the small/weak category, indicating that financial literacy has a limited significant effect on financial well-being. It implies that financial literacy is not yet strong enough to drive financial well-being on its own, suggesting its role is likely more effective when mediated by

other variables. Meanwhile, the financial self-efficacy variable has an f^2 value of 0.283 for financial well-being, which falls in the moderate range. This finding indicates that financial self-efficacy plays a greater role in improving an individual's financial well-being. Thus, it can be concluded that while financial literacy is important, without individual self-confidence, it will not affect financial wellbeing.

Predictive Relevance (Q^2)

The Q^2 value is used to assess the model's ability to make accurate predictions. In the study by Hair et al. (2017), the Q^2 values were reported as 0.35 (high), 0.15 (moderate), and 0.02 (low).

Table 8. Q-square Test

	Q^2 predict
Financial Self-efficacy (Z)	0,456
Financial Wellbeing (Y)	0,384

Source: Data Compiled (2026)

The test results show that the Q^2 predict values for financial self-efficacy and financial well-being are 0.456 and 0.384, respectively. Therefore, it can be concluded that the model has good predictive quality.

Hypothesis Testing

Hypothesis testing is a statistical approach used to assess the validity of an assumption based on available data. In this study, hypothesis testing was conducted using the bootstrapping method. According to the criteria established by Hair et al. (2017), a hypothesis is accepted if the T-statistic is ≥ 1.96 and the P-value is ≤ 0.05 . The test was conducted to examine the direct effect via the path coefficient and the indirect effect via the specific indirect effect. Additionally, this study evaluated the mediating role of the financial self-efficacy variable, determining whether it acts as full mediation or partial mediation.

Table 9. Direct Effect Test

	Original Sample	T-statistic	P-value	Decision
Financial Literacy →	0,683	12,731	0,000	H1 Accepted

Financial Self- efficacy					
Financial Literacy →	0,293	4,509	0,000	H2	Accepted
Financial Well-being					
Financial Self- efficacy →	0,498	7,826	0,000	H3	Accepted
Financial Well-being					

Source: Data Compiled (2026)

Based on the test results shown on table 9, the T-statistic and P-value of the three hypotheses meet the criteria for hypothesis acceptance. Hypothesis 1 is accepted, indicating that Financial Literacy has a direct and significant effect on the Financial Self-efficacy of Generation Z in Batam City. Hypothesis 2 is accepted, indicating that Financial Literacy has a direct and significant effect on the Financial Well-being of Generation Z in Batam City. Hypothesis 3 is accepted, where Financial Self-efficacy is proven to have a direct and significant effect on the Financial Well-being of Generation Z in Batam City. All hypotheses proposed in this study are accepted. Thus, it can be concluded that the constructs have a significant relationship and provide a direct effect in accordance with the hypothesized direction.

Based on the results of the *specific indirect effect* test on table 10, a T-statistic value of $6.880 > 1,96$ and a P-value of $0,000 < 0,05$, were obtained, indicating that Financial Self-efficacy has a significant indirect effect on the relationship between Financial Literacy and Financial Well-being. However, Financial Literacy has a direct and significant effect on Financial Well-being, thus the mediation is partial (partial mediation). Therefore, it can be concluded that Financial Self-efficacy strengthens the effect of financial literacy on financial well-being, although financial literacy still contributes directly without going through the mediating variable.

Table 10. Indirect Effect Test

Original Sample	T- statistic	P- value	Decision
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Financial Literacy →				
Financial Self- efficacy →	0,340	6,880	0,000	Mediating
Financial Well-being				

Source: Data Compiled (2026)

Discussion

Financial Literacy on Financial Self-efficacy

The findings of this study indicate that financial literacy has a significant direct effect on financial self-efficacy.

The results of the analysis indicate that financial literacy is a key factor in responsible financial behaviour; individuals with a positive attitude toward financial knowledge will strive to behave in accordance with expectations, such as demonstrating confidence in their actions, taking responsibility for their actions, and remaining unaffected by others. This fosters a high level of confidence in applying their financial knowledge when engaging in specific financial activities. Logically, this finding reflects the socio-economic dynamics of Batam as a prominent Free Trade Zone (FTZ) and industrial hub, which inherently subjects its population to rapid economic circulation and heightened modern consumerism. For respondents predominantly situated in the early productive age who are transitioning into Batam's active workforce particularly within the manufacturing, logistics, and service sectors financial literacy functions as a critical cognitive anchor. Consequently, this financial autonomy enables the young workforce to optimize their newly acquired disposable income through structured budgeting and strategic savings, which is vital for maintaining long-term financial sustainability amidst the economic volatility of an industrial city.

This study reinforces Lone & Bhat (2024a) and Lown et al. (2015) findings, confirming that financial literacy is a strong predictor of financial efficacy, financially literate individuals are significantly more confident in their ability to cope with unexpected economic shocks than those who are financially illiterate.

Financial Self-Efficacy on Financial Wellbeing

Financial self-efficacy has a significant direct effect on financial well-being. High self-efficacy enhances one's ability to manage difficult situations and remain calm in the face of challenges. This encourages individuals to achieve their goals; when done effectively, it yields positive results and fosters a sense of satisfaction.

This study reinforces the findings of Farrell et al. (2016) and Chong et al. (2021), who argue that self-efficacy is one of the main pillars of financial behaviour and overall well-being. Individuals with high financial self-efficacy tend to exhibit proactive financial behaviors, such as disciplined budgeting, saving, and avoiding consumer debt.

The context makes this causal relationship very pronounced in the current socio-economic landscape of Batam. Batam is a strategically located Free Trade Zone (FTZ) driven by manufacturing industry. Its workforce is subject to unique economic pressures, such as exposure to global market fluctuations and relatively high cost of living due to reliance on external commodity supplies. In this volatile urban context, financial self-efficacy is a key psychological anchor; those respondents with high financial confidence do not merely react to systemic pressures but instead cope with the high cost of living through adaptive strategies such as disciplined budgeting and the prioritization of emergency funds.

Financial Literacy on Financial Wellbeing

Financial literacy has a significant direct effect on financial well-being. Understanding finances fosters a sound mindset and serves as the foundation for making financial decisions. This research is inline and reinforces research by Avni et al. (2025) and Sabri et al. (2020).

Individuals with higher levels of financial literacy tend to have better financial well-being scores, as reflected in their ability to manage expenses, maintain an emergency fund, reduce financial stress, and feel more confident and financially secure about the future. This effect arises because financial literacy enhances the ability to make sound financial decisions, such as budgeting, investing, and debt management.

This result portrays a picture of Generation Z in the city of Batam, as an urban industrial hub where rapid digital penetration meets a highly consumerist ecosystem. As a digital generation exploring a city with a relatively high cost of living and close exposure to regional lifestyle trends, the youth of Batam are constantly present by seamless digital financial instruments. This provides Gen Z individuals with the analytical framework needed to dismantle lifestyle inflation driven by peers and the psychological traps of instant gratification. As a result, the financially literate youth in Batam can distinguish the long-term consequences of relaxed digital debt, transforming their behavior from impulsive consumption to disciplined budgeting and digital micro-investing. This ability ultimately transforms their inherent digital agility from financial vulnerability into a strategic mechanism for long-term economic resilience and emotional peace of mind.

Overall, these findings are consistent with the literature and previous research by Avni et al. (2025), Lusardi & Streeter (2023), Chong et al. (2021), Chaity et al. (2024c) which indicating that financial literacy is one of the most actionable factors for improving financial well-being.

Mediating Role Of Final Self-Efficacy On Financial Wellbeing

The results of this study show that financial self-efficacy acts as an important mediating mechanism between financial literacy and financial well-being. This shows that financial literacy is important, but the effect of financial literacy on financial well-being is stronger with the combination of self-confidence in managing personal finances (financial self-efficacy). These findings are in line with Lone & Bhat, (2024) and Bamisha K P. & Nidheesh KB (2022) which found that financial literacy has a significant effect on financial self-efficacy and financial well-being, with financial self-efficacy acting as a partial mediator. The results of this research also reinforce Avni et al. (2025), which found that increased financial literacy can lead to tangible improvements in financial outcomes, including enhanced financial resilience, reduced debt burdens, and increased savings. Society

will become more financially secure and independent if it is equipped with the knowledge and skills to handle complex financial situations effectively.

This current study is unique in that it specifically focuses on Generation Z in Batam City, Indonesia, which have a demographic, economic, and social group difference and presently in the early stages of financial independence. These changes greatly affect the function of financial self-efficacy as a mediator in the current investigation. Gen Z is very well-versed in money but their low self-confidence and strong propensity for consumptive behaviour means they are not yet ready to completely put the concepts of healthy financial management into practice. So, enhancing financial well-being involves not only knowledge of financial principles but also psychological variables like self-efficacy that can reinforce this relationship.

In the Theory of Planned Behavior (TPB), financial literacy can be understood as a factor that shapes a positive attitude toward financial management (attitude toward behavior). In contrast, financial self-efficacy represents perceived behavioral control—that is, an individual's belief in their ability to manage their finances. The combination of these two factors strengthens the intention to engage in healthy financial behavior, which ultimately contributes to financial well-being. In other words, this study demonstrates the relevance of TPB in explaining how intention and behavioral control influence the financial behavior of Generation Z.

The findings of this study reveal that financial literacy influences financial well-being, but the mediating role of self-efficacy further strengthens this influence. Additionally, this study addresses gaps in the literature regarding the financial well-being of Generation Z in Indonesia, particularly in Batam City. Given the characteristics of young people who are prone to consumptive behavior and the potential for problematic credit, these findings can serve as an important reference for regulators, educators, and financial institutions in designing financial literacy programs that focus not only on knowledge transfer but also on strengthening self-confidence in managing finances.

5. CONCLUSIONS AND SUGGESTIONS

Financial literacy has been shown to have a significant direct effect on financial self-efficacy, whereby a strong understanding of finance fosters behavior aligned with expectations, thereby boosting confidence in making rational decisions. Financial literacy has also been shown to have a significant direct effect on financial well-being, as a strong understanding of finance cultivates a mindset that serves as the foundation for making wise decisions under any circumstances. Furthermore, financial self-efficacy also has a significant direct influence on financial well-being, indicating that high financial self-efficacy fosters self-discipline that helps overcome challenges and achieve financial goals. Financial self-efficacy has also been shown to partially mediate the relationship between financial literacy and financial well-being, meaning that self-efficacy—the belief in one's ability to manage finances—contributes to greater financial well-being through wise financial understanding and management.

This study has several shortcomings that can be used as input for future research. First, the age distribution of the respondents was uneven, with younger members of Generation Z dominating the sample. This condition may have influenced the research results; therefore, future studies are advised to ensure a more balanced age distribution to yield more representative findings. Second, this study did not account for employment duration, a factor that could assess income stability and the maturity of sustainable financial planning. Third, the study covers only Generation Z in Batam City, Indonesia, so the results cannot yet be generalized to other regions.

Next studies are expected to expand the population by involving respondents from various regions with different socioeconomic characteristics. Additionally, future research is recommended to use a larger sample size with more diverse sampling methods. Future research is also expected to develop the model by adding other variables, such as financial behavior, lifestyle, and digital financial inclusion, to gain a more comprehensive understanding of the factors influencing the financial well-being of the younger generation.

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