

DOI: <https://doi.org/10.38035/dijefa.v5i2>

Received: 8 May 2024, Revised: 17 May 2024, Publish: 18 May 2024

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The Influence of Financial Technology on Saving Behavior Through Self-Control as a Mediator in Generation Z

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Abstract: This research aims to test and analyze the influence of financial technology on saving behavior with self-control as a mediating variable in Generation Z. Developments in financial technology influence the way Generation Z manages their finances. This research uses a quantitative descriptive method by collecting data through online questionnaires and using 400 Generation Z respondents in West Java. Structural Equation Modeling Partial Least Squares (SEM-PLS) was used as an analysis method in this research. The research results show that financial technology has a positive effect on saving behavior, financial technology has a positive effect on self-control, self-control has a positive effect on saving behavior, and self-control has a positive effect in the mediation of financial technology on saving behavior.

Keyword: Financial Technology; Self-Control; Saving Behavior.

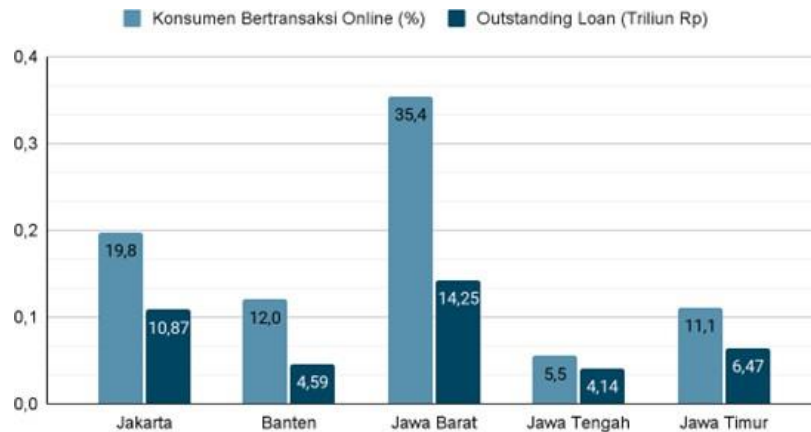
INTRODUCTION

As time passes, a lot of changes are taking place in the behavior and activities of society in everyday life.

Saving behavior is a crucial aspect of personal finance that directly impacts the financial well-being of individuals and groups. While Generation Z may possess adequate financial knowledge, particularly in personal financial management and understanding financial products, they still encounter difficulties in saving due to relatively low incomes. Despite their ability to be frugal, their savings tend to be prioritized for immediate gratification rather than future investment (Charista et al., 2022).

Recent developments in financial technology have also brought about changes in how Generation Z manages and allocates their funds. Suryanto et al. (2020) reveal that Fintech e-wallets, which specifically focus on digital transaction services, offer convenience in digital payments, ensuring practicality, speed, and efficiency. The use of e-wallets not only provides benefits such as discounts and attractive promotions but also allows customers to easily conduct transactions through smartphone devices. As a cohort coming of age in the digital era, Gen Z has greater access to financial information and banking services. However, despite

the convenience of financial technology, Generation Z is often perceived as spendthrift. This generation frequently pursues a hedonistic lifestyle, prioritizing the attainment of satisfying experiences and self-indulgence (Nurmalia, et al., 2024). Research by Katadata Insight Center (2022) indicates that 59.4% of Generation Z respondents stated their expenses exceed their income, with savings allocation ranking fourth after communication expenses, food expenditures, and routine bills. Additionally, 61% of Generation Z utilize financial technology services such as credit cards and pay-later options for fashion and accessories over other necessities.



Source: (Katadata Insight Center, 2023; Financial Services Authority, 2023)

Figure 1. Comparison of Percentage of Consumers Engaging in Online Transactions and Outstanding Loans in 5 Provinces

Figure 1 depicts a comparison of the percentage of consumers engaged in online transactions and outstanding loans as of June 2023 across five major provinces in Indonesia: Jakarta, Banten, West Java, Central Java, and East Java. The figure illustrates that among these provinces, consumers conducting online transactions are most prevalent, with the highest amount of outstanding online loans observed in West Java. This data provides insight into financial behavior and raises concerns regarding saving habits among the population of West Java, particularly Generation Z. According to the population census conducted by the Central Bureau of Statistics (2020), more than 71.5 million individuals in Indonesia belong to Generation Z, defined as those born between 1997 and 2012, currently ranging from students to working professionals. Among these, West Java has the largest population of Generation Z, totaling approximately 13 million individuals.

The convenience provided by fintech platforms paves the way for Generation Z to adopt a consumptive mindset. Rinjani & Arnita (2023) mention that this generation's ability to manage income tends to be lacking. Agus (2022) reveals that the presence of financial technology does not necessarily have a positive impact, as instead of encouraging saving, the convenience of financial technology often prompts Generation Z to spend their money.

Financial technology also introduces new challenges in terms of self-control, particularly in the context of saving behavior. Self-control encompasses an individual's ability to manage feelings, desires, and intentions regarding a specific behavior (Hartono & Isbanah, 2022). This relates to one's determination in managing personal finances. However, if this determination cannot be effectively realized, they will not achieve satisfactory financial conditions. Despite having a high determination to set aside and save money, Generation Z in Indonesia still faces financial challenges (Ramadhini et al., 2023). Hartono & Isbanah (2022) found that respondents' inability to control themselves has a negative impact on saving behavior, especially among young generations who generally have low levels of self-control due to age factors and lack of financial planning.

Self-control is an individual's ability to read situations well and regulate their behavior according to the circumstances, involving the capacity to control and manage the actions they take (Arilia & Lestari, 2022). When engaging in an action, individuals need to exercise self-control, which means having the will to make choices in their own lives. A higher level of self-control can lead to more positive behaviors, as individuals are capable of making mature considerations regarding their desires (Putri & Wahjudi, 2022). The role of self-control as a mediating variable suggests that self-control ultimately enhances well-being. In this context, self-control becomes a key factor in evaluating the response of Generation Z in Indonesia to the development of financial technology in saving behavior. The ability to resist the urge to spend money impulsively and the ability to prioritize saving among various expenditure options are becoming increasingly crucial in managing personal finances.

Given this background, this research aims to explore the "Influence of Financial Technology on Saving Behavior of Generation Z through Self-Control as Mediation."

METHOD

This study uses quantitative methods with regression analysis to explore relationships between variables.

This study adopts a descriptive quantitative research design and utilizes primary data collected through an online questionnaire using the Google Forms platform. The population under study comprises Generation Z individuals residing in the West Java region, with a total of 400 respondents. Sample selection employs purposive sampling technique, where respondents are chosen based on specific characteristics relevant to the research objectives. In this context, the focus is on Generation Z individuals (born between 1997-2007) with income and active utilization of Financial Technology (Fintech). Data analysis is conducted using Structural Equation Modeling Partial Least Squares (SEM PLS) to test the research hypotheses. This analytical method is chosen for its capability to handle complex models. SEM PLS analysis will be utilized to examine and model the relationships between the variables measured in this study. Measurement items in this research are adapted from Erlangga & Krisnawati (2020) and Hartono & Isbanah (2022), comprising 7 indicators of financial technology questions, 8 indicators of saving behavior questions, and 10 indicators of self-control statements.

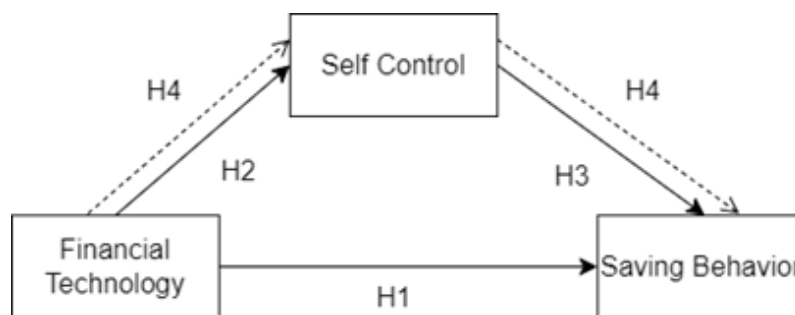


Figure 2. Research Framework

RESULTS AND DISCUSSION

In this study, validity testing, reliability testing, and hypothesis testing were conducted for the variables of Financial Technology, Self-Control, and Saving Behavior. The validity test was designed to examine whether the research indicators used in the study are truly valid. The loading factor values used to test validity should be greater than 0.70. Based on the results of the PLS Algorithm, several indicators needed to be removed to ensure that the final outer loading results showed that all variable indicators could represent the variables and be used in the research model. The final outer loading values are presented in Table 1.

Table 1. Outer Loading

Indicator	Financial technology	Self-control	Saving behavior
FT2	0,760		
FT4	0,741		
FT6	0,774		
SB1			0,740
SB3			0,713
SB5			0,753
SB7			0,727
SC1		0,719	
SC10		0,758	
SC2		0,730	
SC3		0,729	
SC4		0,774	
SC5		0,769	
SC6		0,777	
SC7		0,737	
SC8		0,798	
SC9		0,785	

Source: Primary data processed (2024)

Furthermore, reliability testing aims to assess the dependability of an indicator. In the analysis of validity and reliability, measurement tools are utilized to calculate Cronbach's alpha, RhoA, composite reliability values, and the average variance extracted (AVE).

Table 2: Validity and Reliability

	Cronbach's Alpha	RhoA	Composite Reliability	Average Variance Extracted (AVE)
Financial technology	0,631	0,731	0,803	0,575
Self-control	0,918	0,921	0,931	0,575
Saving behavior	0,713	0,714	0,823	0,538

Source: Primary data processed (2024)

The results in Table 2 indicate that the Cronbach's alpha value is > 0.6 , RhoA and Composite Reliability values are > 0.7 , and the average variance extracted (AVE) value is > 0.5 . These findings elucidate that all research indicators are reliable.

Table 3. Discriminant Validity

	Financial technology	Description
Financial technology	0,759	Valid
Self-control	0,758	Valid
Saving behavior	0,733	Valid

Source: Primary data processed (2024)

Table 3 represents the measurement of discriminant validity, which results in the Fornell-Larcker Criterion value being greater than the AVE value. Therefore, it can be concluded that Financial Technology, Self-Control, and Saving Behavior fulfill the aspect of discriminant validity. The aspects of validity, reliability, and data differentiation to assess data suitability have been fulfilled. The next step is to analyze the research model using Partial Least Squares (PLS) with the coefficient of determination, indicated through R-Square. R-square represents the value held by the influenced variables, namely self-control and saving behavior.

Table 4. R-Square

	R Square
Self-control	0,139
Saving behavior	0,294

Source: Primary data processed (2024)

Table 4 indicates that Financial Technology influences Self-Control by 13.9%, with the remaining influenced by other variables. Meanwhile, Financial Technology, along with the mediation of Self-Control, influences Saving Behavior by 29.4%.

Hypothesis Testing

To test the research hypotheses, the data deemed suitable will be processed using a bootstrapping model.

Table 5. Hypothesis Testing

	Original Sample (O)	P Values
Direct Effect		
Financial technology -> Saving behavior	0,490	0,000
Financial technology -> Self control	0,373	0,000
Self-control -> Saving behavior	0,249	0,000
Indirect Effect		
Financial technology -> Self-control -> Saving behavior	0,093	0,002

Source: Primary data processed (2024)

The table above explains that almost all hypotheses can be accepted, based on the p-value being less than 5% or 0.05. H1 is accepted, stating that financial technology affects saving behavior, with a p-value of $0.000 < 0.05$. H2 is accepted, stating that financial technology affects self-control, with a p-value of $0.000 > 0.05$. H3 is accepted, stating that self-control affects saving behavior, with a p-value of $0.000 < 0.05$. H4 is accepted, stating that financial technology mediated by self-control affects saving behavior, with a p-value of $0.002 < 0.05$.

The results of this research indicate that financial technology has a positive effect on saving behavior. These findings are consistent with previous research conducted by Irdawati et al. (2022), which explains that financial technology assists individuals in managing their finances better, adjusting expenditures to needs, and organizing income and expenses. Financial technology serves as a tool that facilitates individuals in practicing more structured and consistent saving behavior. The convenience of access and usage offered by Fintech platforms makes individuals more inclined to engage in active saving practices. Loaba's study (2022) found that the use of mobile banking services increases the likelihood of individuals saving both formally and informally. In other words, individuals who can access mobile banking are more likely to have formal savings. In the digital era, convenience and speed are key factors motivating people to save, especially Gen Z. Various services and products offered play a significant role, such as digital banks, conventional online banking services, and other mobile facilities that increase the likelihood of savings usage. Many financial companies offer these convenience services with various benefits while ensuring their security (Jumena et al., 2022; Loaba, 2022). Generation Z has a great opportunity to utilize financial technology to enhance awareness and discipline in saving. For example, by using digital banking applications or online investment platforms, Gen Z can easily access tools to help them budget, monitor expenses, and automatically set savings goals.

One challenge for Gen Z in using financial technology is how they control themselves. This research found an influence of financial technology on self-control. This finding aligns with the results of a study conducted by Yucha & Rohmah (2023) that e-wallets, as one of the fintech products, affect self-control. With various features, fintech provides the necessary

tools for individuals to make more rational financial decisions and control consumptive tendencies. Additionally, the significant influence of fintech occurs because it gives individuals more control over their personal finances. This enables them to transact more efficiently and effectively, providing greater control in managing their money (Bian et al., 2023). Generation Z can adopt technology to manage their finances and make Fintech a tool that helps them control impulses and manage expenses effectively.

This research also indicates that self-control influences saving behavior. Self-control, reflecting an individual's ability to resist immediate desires for long-term goals, has been proven to have a strong relationship with saving habits. These findings align with previous research by Sari & Anwar (2021). Angela & Pamungkas' study (2022) also found a positive influence of self-control on saving behavior, highlighting that self-control plays a key role in one's saving activities because better self-control in managing money reflects more effective saving behavior. Someone with strong self-control can make decisions by considering the importance of something before acting. Self-discipline is crucial when faced with situations of whether to save or spend money (Melvianda & Rahmi, 2023). According to Wulandari et al. (2024), strong self-control can prevent overspending, especially with limited income, as it enables decision-making before making purchases. Generation Z can use an understanding of self-control as a key to shaping and improving saving habits and building stable financial plans.

There is an indirect influence of financial technology on saving behavior. In other words, this study demonstrates that self-control mediates the relationship between financial technology and saving behavior. These findings are consistent with those conducted by Izazi et al. (2020). Juliana & Yuwono's research (2021) showed an indirect influence of financial technology usage on saving behavior. The study by Wulandari et al. (2024) also found that self-control positively plays a role as a mediating variable. Someone with strong self-control can avoid overspending, especially with limited income. Therefore, they tend to make decisions before making their purchases. With a high level of self-control, individuals can use fintech more discipline, optimizing these tools to achieve their financial goals, including saving. Dewi et al.'s study (2021) indicates that self-control can mediate the relationship between e-money usage and consumptive behavior. In other words, individuals with high levels of self-control are more likely to use e-money wisely, avoiding impulsive purchase decisions that can lead to excessive consumptive behavior. The presence of strong self-control is key to preventing users from making unnecessary expenditures. Generation Z, actively engaging with technology, has a significant opportunity to optimize Fintech as a tool to enhance self-control and cultivate healthy saving habits.

CONCLUSION

Based on the research findings and discussions, the following conclusions can be drawn. Firstly, the study indicates that the use of fintech has a positive impact on the saving habits of Generation Z. By utilizing digital banking applications, online investment platforms, and other financial management tools, Generation Z can more easily and effectively manage their finances, thereby encouraging them to save money more regularly and consistently. Secondly, the research findings also show that the use of fintech can influence the level of self-control among Generation Z in managing their finances. Through features such as budget restrictions, bill reminders, and transaction monitoring, fintech helps strengthen individuals' self-control abilities in controlling impulsive spending and prioritizing savings. Thirdly, the research results affirm that individuals' level of self-control has a significant relationship with their saving habits. Generation Z with better self-control tendencies tend to save money regularly and refrain from unnecessary expenditures, thus building better saving habits. Fourthly, self-control acts as a mediator between the use of fintech and the saving behavior of

Generation Z. Fintech helps reinforce individuals' self-control in managing their finances, which in turn encourages them to save money more regularly and consistently.

The recommendations from this study highlight the importance of Generation Z utilizing financial technology (fintech) to effectively manage their household finances. Facing modern finances, Generation Z can leverage various fintech applications and platforms available to facilitate monitoring, planning, and managing their finances. However, it is also important to recognize the significant role of self-control in ensuring the success of fintech usage in financial management. Therefore, research on enhancing self-control skills among Generation Z is relevant. By improving their ability to control impulses and make wise financial decisions, Generation Z can build a more stable financial future. It is hoped that the integration of fintech with the enhancement of self-control skills will help Generation Z improve their saving habits and financial management, contributing positively to their future financial well-being.

For further research, in-depth studies can be conducted on other factors in the financial lives of Generation Z. Research can also be expanded to other generations or used for intergenerational comparisons. Additionally, further research can explore other factors that directly or indirectly influence the saving behavior of a generation, such as literacy, risk management, and lifestyle.

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