

Analysis of the Relationship Between Financial Literacy, Financial Technology, and the Financial Well-Being of Generation Z

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ABSTRACT

Financial literacy and financial technology have become two important factors influencing the financial well-being of Generation Z amid the rapid development of the digital economy. However, differences in financial knowledge and the intensity of financial technology utilization may produce varying impacts on individuals' financial well-being. This study aims to analyze the relationship between financial literacy, financial technology, and the financial well-being of Generation Z. The research employed a quantitative approach using a survey method involving Generation Z respondents selected through purposive sampling. Data were collected using a structured questionnaire and analyzed with Structural Equation Modeling-Partial Least Squares (SEM-PLS). The findings indicate that financial literacy has a positive and significant effect on financial well-being. Financial technology also demonstrates a positive and significant relationship with financial well-being by facilitating more effective financial management. Simultaneously, financial literacy and financial technology contribute significantly to improving the financial well-being of Generation Z. Therefore, strengthening financial literacy and promoting the responsible use of financial technology are essential strategies for enhancing the financial well-being of Generation Z.

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1. INTRODUCTION

Financial well-being has become one of the most important indicators of individual welfare in the digital economy, particularly among Generation Z. As the first generation to grow up in an era characterized by widespread internet access, mobile technology, and digital financial services, Generation Z demonstrates distinctive financial behaviors compared to previous generations. This generation actively utilizes financial technology (FinTech), including digital wallets, mobile banking, peer-to-peer lending, Buy Now Pay Later (BNPL) services, and online investment platforms. These technological advancements have significantly transformed financial transactions by making financial services more accessible, efficient, and convenient. However, the increased accessibility of digital financial products has also introduced new financial risks, including excessive spending, impulsive purchasing behavior, over-indebtedness, and inadequate financial planning. Consequently, improving financial well-being among Generation Z has emerged as an important concern for researchers, policymakers, financial institutions, and educational organizations.

Financial literacy has consistently been recognized as one of the most influential factors affecting financial well-being. Financial literacy refers to an individual's knowledge, understanding, confidence, and ability to make informed financial decisions regarding saving, budgeting, investing, debt management, and financial planning. Individuals possessing higher levels of financial literacy are

generally more capable of managing their income responsibly, preparing for financial emergencies, minimizing unnecessary debt, and achieving long-term financial security. Previous studies have demonstrated that financially literate individuals tend to exhibit healthier financial behaviors, resulting in greater financial satisfaction and improved overall well-being. Nevertheless, despite the increasing emphasis on financial education, numerous reports indicate that Generation Z continues to demonstrate relatively low financial literacy levels, even though they are highly familiar with digital technologies and online financial services.

Alongside financial literacy, the rapid development of financial technology has substantially reshaped the financial landscape. Financial technology enables users to conduct transactions anytime and anywhere while providing easy access to financial products that were previously unavailable or difficult to obtain. Digital payment systems, online investment platforms, robo-advisory services, crowdfunding, and digital lending have significantly increased financial inclusion. Although financial technology offers considerable benefits, its impact on financial well-being remains controversial. On one hand, FinTech facilitates efficient financial management, improves access to investment opportunities, and enhances financial inclusion. On the other hand, the convenience of digital financial services may encourage impulsive consumption, excessive borrowing, and poor financial discipline, particularly among young consumers who possess limited financial knowledge. Therefore, understanding how financial technology interacts with financial literacy to influence financial well-being is increasingly relevant within today's digital economy.

Although numerous empirical studies have investigated financial literacy, financial technology adoption, and financial well-being independently, several research gaps remain unresolved. First, most previous studies have examined the direct relationship between financial literacy and financial well-being without simultaneously incorporating financial technology as an important explanatory variable. Second, many studies have focused on adult workers, university students, or the general population, while relatively limited attention has been devoted specifically to Generation Z, whose financial characteristics differ considerably from older generations due to their high dependence on digital financial ecosystems. Third, previous findings regarding the influence of financial technology on financial well-being remain inconsistent. Several studies suggest that financial technology positively improves financial well-being by increasing financial inclusion and promoting efficient financial management, whereas other studies indicate that excessive reliance on digital financial services may worsen financial conditions by encouraging unnecessary consumption and debt accumulation. These inconsistent findings indicate the necessity for further investigation into the combined influence of financial literacy and financial technology on the financial well-being of Generation Z.

The theoretical foundation of this study is primarily based on Human Capital Theory, Behavioral Finance Theory, and the Financial Capability Framework. Human Capital Theory argues that financial knowledge and education constitute valuable forms of human capital that improve individuals' decision-making abilities and long-term economic outcomes. Behavioral Finance Theory explains that financial decisions are not solely determined by rational considerations but are also influenced by psychological biases, technological convenience, and behavioral tendencies. Meanwhile, the Financial Capability Framework emphasizes that financial well-being depends not only on financial knowledge but also on the ability to apply that knowledge effectively within an increasingly digital financial environment. Previous empirical research generally supports the positive relationship between financial literacy and financial well-being, indicating that financially literate individuals demonstrate better budgeting behavior, higher savings, and improved financial security. Similarly, several studies have found that financial technology enhances financial inclusion, financial management efficiency, and investment participation. Nevertheless, other researchers have reported that the misuse of financial technology may contribute to financial vulnerability through excessive borrowing and impulsive purchasing behavior. These contrasting findings highlight the need for further empirical verification.

The novelty of this research lies in its integrated examination of financial literacy and financial technology as simultaneous determinants of financial well-being among Generation Z. Unlike previous studies that primarily investigate each variable independently, this study proposes a more comprehensive analytical framework by assessing the combined effects of financial literacy and financial technology within the context of today's digital financial ecosystem. Furthermore, this research specifically focuses on Generation Z, a demographic group that represents the largest users of digital financial services while simultaneously facing increasing financial challenges related to consumption behavior, digital credit utilization, and financial planning. By integrating traditional financial literacy with modern financial technology perspectives, this study contributes to the expanding literature on

financial behavior in the digital era and provides a more contemporary understanding of the determinants of financial well-being among young consumers.

Based on these considerations, the primary objective of this research is to analyze the relationship between financial literacy, financial technology, and the financial well-being of Generation Z. Specifically, the study aims to examine the influence of financial literacy on financial well-being, evaluate the effect of financial technology utilization on financial well-being, and investigate the simultaneous contribution of both variables toward improving financial well-being among Generation Z. The findings are expected to provide empirical evidence regarding the relative importance of financial literacy and financial technology in promoting sustainable financial welfare.

The expected contributions of this research are both theoretical and practical. Theoretically, this study enriches the existing literature concerning financial behavior by integrating financial literacy and financial technology within a unified conceptual framework for explaining financial well-being among Generation Z. It also contributes to extending Behavioral Finance Theory and the Financial Capability Framework in the context of digital financial transformation. Practically, the findings may assist policymakers in designing more effective financial education programs, support financial institutions in developing responsible digital financial products, and encourage educational institutions to strengthen financial literacy curricula that are aligned with technological developments. Furthermore, the results may help Generation Z improve their financial decision-making abilities, optimize the utilization of financial technology, and ultimately achieve greater financial well-being.

2. RESEARCH METHOD

This study employed a quantitative approach using a cross-sectional survey design to examine the relationship between financial literacy, financial technology (FinTech), and the financial well-being of Generation Z. The target population consisted of Generation Z individuals aged 18–27 years who actively use digital financial services. Data were collected through a structured online questionnaire distributed using purposive sampling. The questionnaire comprised four sections: respondent demographics, financial literacy, financial technology usage, and financial well-being. All measurement items were adapted from validated scales in previous studies and assessed using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Prior to hypothesis testing, the instrument was evaluated through validity and reliability tests. The collected data were analyzed using Structural Equation Modeling–Partial Least Squares (SEM-PLS) with SmartPLS software. The analysis included the assessment of the measurement model through convergent validity, discriminant validity, composite reliability, and Cronbach's alpha, followed by evaluation of the structural model using path coefficients, coefficient of determination (R^2), effect size (f^2), predictive relevance (Q^2), and bootstrapping procedures to test the proposed hypotheses. This analytical approach was selected because it is suitable for examining complex relationships among latent constructs and provides robust estimates even when the data do not fully satisfy multivariate normality assumptions.

3. RESULTS AND DISCUSSIONS

3.1 The Relationship Between Financial Literacy and the Financial Well-Being of Generation

The findings indicate that financial literacy has a significant positive relationship with the financial well-being of Generation Z. Respondents with higher levels of financial knowledge consistently demonstrated stronger financial management behaviors, including budgeting, saving, debt control, and long-term financial planning. Statistical analysis revealed that financial literacy significantly predicts financial well-being, supporting the hypothesis that individuals who understand financial concepts are better equipped to make rational economic decisions. The regression results showed a positive coefficient with a significance level below 0.05, confirming that improvements in financial literacy contribute directly to higher levels of financial security and satisfaction among Generation Z. Descriptive statistics further revealed that respondents generally possessed moderate financial literacy.

Most participants understood basic financial concepts such as budgeting, emergency savings, and responsible spending; however, more advanced topics including investment diversification, retirement planning, taxation, and risk management remained relatively unfamiliar. This finding reflects the current financial education gap experienced by many young adults, despite increased access to financial information through digital platforms. The discussion highlights that financial literacy functions as a critical foundation for achieving financial well-being. Individuals with greater financial knowledge tend

to evaluate financial alternatives more carefully before making purchasing or investment decisions. They are also more likely to establish financial goals, monitor expenses regularly, and avoid unnecessary debt. Such behaviors reduce financial stress and increase confidence in managing personal finances, ultimately improving subjective financial well-being. These findings are consistent with the financial capability framework, which argues that knowledge and financial skills encourage responsible financial behavior and lead to improved financial outcomes.

Generation Z faces increasing economic challenges, including rising living costs, inflation, and the rapid expansion of digital financial products. Consequently, adequate financial literacy enables young adults to navigate these complexities more effectively. Universities, educational institutions, financial regulators, and financial service providers therefore play an essential role in strengthening financial education through formal curricula, digital learning platforms, and practical financial training. Improving financial literacy among Generation Z not only enhances individual financial well-being but also contributes to greater financial resilience and sustainable economic development. Overall, the results confirm that financial literacy serves as one of the most influential determinants of financial well-being among young adults in the digital economy.

3.2. The Relationship Between Financial Technology and the Financial Well-Being of Generation Z

The empirical results demonstrate that financial technology (FinTech) has a significant positive effect on the financial well-being of Generation Z. The statistical analysis shows that the utilization of digital financial services—including mobile banking, digital wallets, online payment systems, investment applications, and budgeting platforms—positively influences respondents' ability to manage their finances. The hypothesis proposing a positive relationship between financial technology adoption and financial well-being was therefore accepted, with regression analysis indicating a significant positive coefficient ($p < 0.05$). Descriptive analysis revealed that Generation Z exhibits a high level of financial technology adoption. Most respondents regularly use mobile payment applications for daily transactions, while many also utilize digital banking services for saving, transferring funds, and monitoring financial activities.

Nevertheless, the use of more sophisticated financial technologies such as digital investment platforms, automated financial planning tools, and retirement planning applications remains relatively limited. This indicates that although digital financial access is widespread, the utilization of FinTech for comprehensive wealth management has not yet reached its full potential. The discussion suggests that financial technology contributes to financial well-being by increasing accessibility, convenience, and efficiency in financial management. Digital financial applications enable users to monitor expenditures in real time, automate savings, conduct cashless transactions securely, and access financial services regardless of geographical constraints. These technological advantages simplify financial decision-making and encourage better financial discipline. Furthermore, many financial applications provide educational features, spending analyses, and personalized financial recommendations, indirectly improving users' financial awareness.

However, the findings also indicate that financial technology alone cannot guarantee better financial well-being. Without adequate financial literacy, users may become vulnerable to excessive online spending, impulsive purchasing behavior, digital fraud, and overreliance on Buy Now, Pay Later (BNPL) facilities or consumer credit. Therefore, the benefits of financial technology largely depend on users' ability to evaluate financial risks and make informed financial decisions. These results support the Technology Acceptance Model and financial capability theory, suggesting that technological accessibility enhances financial outcomes when accompanied by sufficient knowledge and responsible financial behavior. Consequently, policymakers and financial institutions should continue promoting digital financial inclusion while simultaneously improving financial education to ensure that financial technology contributes positively to the long-term financial well-being of Generation Z.

3.3. The Combined Influence of Financial Literacy and Financial Technology on the Financial Well-Being of Generation Z

The results of the multiple regression analysis indicate that financial literacy and financial technology simultaneously exert a significant positive influence on the financial well-being of Generation Z. The F-test demonstrates that the regression model is statistically significant ($p < 0.05$), confirming that the two independent variables jointly explain variations in financial well-being. Furthermore, the

coefficient of determination (R^2) suggests that a substantial proportion of financial well-being can be explained by the combined contribution of financial literacy and financial technology, while the remaining variance is influenced by other factors such as income level, employment status, financial attitudes, lifestyle, self-control, and economic conditions. The standardized regression coefficients reveal that financial literacy contributes more strongly to financial well-being than financial technology.

This finding indicates that financial knowledge forms the primary basis for making sound financial decisions, while financial technology serves as an enabling tool that facilitates the implementation of effective financial management practices. Individuals possessing both adequate financial literacy and active utilization of digital financial services consistently reported higher levels of financial confidence, lower financial stress, stronger saving habits, and greater satisfaction with their financial condition. The discussion demonstrates that financial literacy and financial technology complement one another rather than functioning independently. Financial literacy enables individuals to evaluate financial products, assess risks, interpret financial information, and establish realistic financial goals. Financial technology, meanwhile, provides efficient digital platforms that support budgeting, saving, investing, and transaction monitoring. When these two factors are integrated, they create a stronger financial capability that improves financial decision-making and enhances overall financial well-being. These findings reinforce the financial capability theory, which emphasizes that financial outcomes are determined by the interaction between financial knowledge and access to financial services.

Generation Z, as the first fully digital generation, relies heavily on technology in managing daily financial activities. However, digital accessibility without sufficient financial literacy may encourage irresponsible financial behavior, including excessive consumption, digital borrowing, and poor investment decisions. Conversely, individuals with high financial literacy but limited technological adoption may not fully benefit from the efficiency and convenience offered by modern financial services. Therefore, improving financial well-being requires a balanced approach that simultaneously strengthens financial education and promotes responsible utilization of financial technology. Educational institutions, governments, fintech providers, and financial regulators should collaborate to develop integrated financial education programs and digital financial literacy initiatives that empower Generation Z to achieve sustainable financial well-being and long-term financial independence.

Discussion

The findings indicate that financial literacy has a significant positive relationship with the financial well-being of Generation Z. Individuals with higher levels of financial knowledge tend to demonstrate better financial decision-making, including budgeting, saving, debt management, and long-term financial planning. This result supports the premise that financial literacy equips young adults with the ability to evaluate financial alternatives rationally and minimize the risk of poor financial choices. As Generation Z enters adulthood, they are increasingly confronted with complex financial products and responsibilities, making financial competence a critical determinant of financial stability. These findings are consistent with previous studies suggesting that financial literacy enhances individuals' confidence in managing personal finances, ultimately improving financial satisfaction and reducing financial stress. Moreover, financially literate individuals are more likely to establish emergency savings, invest prudently, and avoid excessive borrowing. In the context of rapid economic and technological changes, financial literacy serves as a protective factor against impulsive consumption and financial vulnerability. Therefore, educational institutions, governments, and financial organizations should strengthen financial education initiatives targeting Generation Z. Enhancing financial literacy from an early age can contribute to sustainable financial behaviors and improve overall financial well-being, enabling young adults to achieve greater financial security and resilience in an increasingly dynamic economic environment.

The results reveal that financial technology (FinTech) positively influences the financial well-being of Generation Z. The widespread adoption of digital payment systems, mobile banking, e-wallets,

investment applications, and online financial management platforms has significantly transformed how young consumers manage their finances. Financial technology increases accessibility, convenience, and efficiency in conducting financial transactions, allowing users to monitor expenditures, transfer funds, invest, and save with greater ease. These technological advancements encourage more effective financial management and support healthier financial behaviors. However, the findings also suggest that the positive impact of financial technology depends largely on how responsibly it is utilized. While FinTech offers numerous advantages, excessive dependence on digital payment systems and Buy Now Pay Later (BNPL) services may encourage impulsive spending and increase financial risk among users with inadequate financial discipline. Therefore, the benefits of financial technology are maximized when users possess sufficient financial awareness and self-control. These findings align with contemporary literature emphasizing that digital financial services can improve financial inclusion and financial well-being when accompanied by responsible usage. Consequently, policymakers and financial service providers should promote responsible digital financial practices while continuously improving financial technology literacy to ensure that technological innovation contributes positively to the long-term financial welfare of Generation Z.

The study demonstrates that financial literacy and financial technology jointly exert a significant positive influence on the financial well-being of Generation Z. Their combined effect is stronger than the influence of either variable individually, indicating that financial knowledge and technological accessibility complement one another in promoting sound financial management. Financial literacy enables individuals to understand financial concepts, assess risks, and make informed financial decisions, while financial technology provides practical tools that facilitate the implementation of these decisions through accessible digital financial services. Generation Z, as digitally native consumers, frequently utilizes mobile applications for payments, savings, investments, and financial planning. Nevertheless, technological convenience alone is insufficient to ensure financial well-being without adequate financial knowledge. Similarly, financial literacy may not produce optimal outcomes if individuals lack access to efficient financial technologies that support financial management. Therefore, the integration of financial education and digital financial innovation creates a synergistic effect that strengthens financial capability and improves financial outcomes. These findings imply that strategies aimed at enhancing the financial well-being of Generation Z should simultaneously focus on improving financial literacy and expanding responsible access to financial technology. Collaborative efforts among educational institutions, financial regulators, and FinTech providers are essential to develop comprehensive financial education programs and user-friendly digital financial services that encourage sustainable financial behavior and long-term financial resilience.

4. CONCLUSION

This study concludes that financial literacy and financial technology play significant roles in shaping the financial well-being of Generation Z. The findings indicate that individuals with higher levels of financial literacy demonstrate better financial decision-making, more effective budgeting practices, and stronger financial resilience. Likewise, the utilization of financial technology contributes positively to financial well-being by providing easier access to financial services, improving financial management, and encouraging more efficient financial transactions. Furthermore, the combined influence of financial literacy and financial technology explains a substantial proportion of the variation in the financial well-being of Generation Z. The hypothesis testing confirms that financial literacy has a positive and significant effect on financial well-being, financial technology also has a positive and significant effect on financial well-being, and both variables simultaneously exert a significant influence on the financial well-being of Generation Z. These findings support the view that financial knowledge and digital financial innovation complement one another in promoting responsible financial behavior and long-term financial stability among young adults. The practical implications of this study suggest that educational institutions, policymakers, and financial service providers should collaborate to enhance financial education while promoting the responsible adoption of financial technology. Such initiatives can improve financial capability and support sustainable financial well-being among Generation Z. In

addition, financial technology developers should design user-friendly and educational platforms that encourage responsible financial management rather than excessive consumption. Future research is recommended to include broader demographic coverage, larger sample sizes, and additional variables such as financial behavior, self-control, financial attitude, digital financial literacy, or income level. Longitudinal studies are also encouraged to provide a deeper understanding of how financial well-being evolves over time in response to changes in financial knowledge and technological advancement.

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