THE USE OF FINTECH AS A MEDIATING VARIABLE OF FINANCIAL LITERACY ON THE DIGITAL SHOPPING BEHAVIOR OF GENERATION Z UNIVERSITY STUDENTS IN INDONESIA

PENGGUNAAN FINTECH SEBAGAI MEDIATOR LITERASI KEUANGAN TERHADAP PERILAKU BELANJA DIGITAL MAHASISWA GENERASI Z DI INDONESIA

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Abstract
This study examines the relationship between financial literacy, fintech usage, and digital shopping behavior among Generation Z university students in Indonesia, as well as the mediating role of fintech usage in this relationship. Data were collected from student respondents using purposive sampling and analyzed with path analysis. The results indicate that financial literacy significantly increases fintech usage, and fintech usage positively influences digital shopping behavior. The direct effect of financial literacy on digital shopping behavior becomes insignificant when fintech usage is included in the model, indicating that fintech usage fully mediates this relationship. These findings suggest that financial literacy encourages students to be more active in using fintech, and it is the intensity of fintech usage that drives their digital shopping behavior. This study highlights the importance of strengthening financial literacy and understanding financial technology to foster healthy financial behavior among students.
Keywords : Financial Literacy, Fintech Usage, Digital Shopping Behavior, Generation Z Students, Mediation.

Abstrak
Penelitian ini meneliti hubungan antara literasi keuangan, penggunaan fintech, dan perilaku belanja digital pada mahasiswa Generasi Z di Indonesia serta peran mediasi penggunaan fintech dalam hubungan tersebut. Data diperoleh dari responden mahasiswa melalui purposive sampling dan dianalisis menggunakan path analysis. Hasil menunjukkan bahwa literasi keuangan secara signifikan meningkatkan penggunaan fintech, dan penggunaan fintech selanjutnya berpengaruh positif terhadap

perilaku belanja digital. Pengaruh langsung literasi keuangan terhadap perilaku belanja digital tidak lagi signifikan saat penggunaan fintech dimasukkan ke dalam model, yang menunjukkan bahwa penggunaan fintech sepenuhnya memediasi hubungan ini. Temuan ini menegaskan bahwa literasi keuangan mendorong mahasiswa untuk lebih aktif menggunakan fintech, dan intensitas penggunaan fintech itulah yang kemudian mendorong perilaku belanja digital mereka. Penelitian ini menyoroti pentingnya penguatan literasi keuangan dan pemahaman teknologi finansial untuk membentuk perilaku keuangan yang sehat di kalangan mahasiswa.

Kata Kunci : Literasi Keuangan, Penggunaan Fintech, Perilaku Belanja Digital, Mahasiswa Generasi Z, Mediasi.

1. INTRODUCTION

Information and Communication Technology (ICT) has revolutionized the financial industry by increasing service cost efficiency as well as strengthening the integrity and transparency of financial systems (Asian Development Bank, 2020). This transformation has triggered a shift in consumer behavior from conventional financial services to digital finance. Suler et al. (2021) noted that the surge in internet users coupled with sophisticated smartphones has been a major catalyst for this change. Fintech services have emerged as a modern alternative that is fast, flexible, and aligned with the digital lifestyle—especially in developing countries like Indonesia, supported by positive regulations from the Financial Services Authority (OJK).

Fintech innovation has been supported by the OJK as a tool for national financial inclusion. Fintech integrates financial services with technology to provide more affordable, efficient, and 24/7 accessible access. It has been shown to support key aspects of financial inclusion and the achievement of the Sustainable Development Goals (UN SDGs) (Pazarbasioglu et al., 2020; Bollaert et al., 2021; Kuzior et al., 2022).

The COVID-19 pandemic became a momentum for accelerating financial digitalization. Demirgüç-Kunt et al. (2021) reported a surge in fintech application downloads during global lockdown policies. Around 700 million government aid recipients did not have access to formal financial systems, and one-third of young people in developing countries undertook digital transactions for the first time (Demirgüç-Kunt et al., 2021; Fu & Mishra, 2022). Although fintech promises inclusive financial access, approximately 1.4 billion adults remain unbanked globally (Demirgüç-Kunt et al., 2021). In Indonesia, around 100 million citizens have yet to use formal financial services, despite internet penetration and smartphone usage exceeding 75% (Abraham et al., 2022). Barriers such as low financial literacy, limited infrastructure, low income, and social norms remain obstacles to inclusion (Tok & Heng, 2022).

Generation Z (born 1997–2012) is an important group to study as digital natives who actively use fintech (e-wallets, investment apps, PayLater). However, their financial literacy is often inadequate, resulting in impulsive and irrational digital spending behavior. Studies in Indonesia show that financial literacy is a strong predictor of healthy financial behavior, while fintech usage and self-efficacy also exert influence (Elsalonika & Ida, 2025). The use of

personal finance fintech among Gen Z students in Jakarta has been shown to significantly impact financial management (Nurina & Fitri, Jakarta data, SEM-PLS). A study in Bali revealed that financial literacy, fintech risk, and user interest interact to influence financial behavior (Jatiwardani et al., Bali accounts). Other research on QRIS usage among students, using the TAM framework, indicates that financial literacy and TAM variables (usefulness, ease of use, enjoyment) significantly influence the intention to adopt digital payments (Wijayanto et al., Semarang State Polytechnic). Meanwhile, research on PayLater products suggests that financial literacy does not significantly influence usage intention, whereas TAM variables are dominant (Nurfaidah et al.).

Theoretically, the Technology Acceptance Model (TAM) by Davis et al. (1989) has been widely used to explain the adoption of digital technology. Extensions of TAM now include variables such as financial literacy (Jünger & Mietzner, 2020), behavioral/subjective norms (Teka, 2020), consumer attitudes (Viet & Huynh, 2021), and emotional aspects such as enjoyment and informedness (Holdack et al., 2022). In the context of hybrid financial behavior in the post-pandemic era, habits in behavioral finance also become important variables (Yang & Zhang, 2022).

Global research has indicated a positive relationship between financial literacy and fintech adoption (Hasan et al., 2022; Morgan & Trinh, 2019; Yoshino et al., 2020). However, findings are not uniform—Chan et al. (2022) suggest that high financial literacy may reduce trust in fintech due to risk awareness, while Nathan et al. (2022) find that literacy is not significant because users are more influenced by ease of use and social influence. Furthermore, fintech's ease of access may encourage digital consumption and weaken saving habits. Studies such as Jiang (2022) show that mobile payment users tend to spend more than with cash due to reduced "pain of paying." A similar trend was observed in India with the adoption of UPI, increasing consumer spending intensity (Dev et al., 2024).

This study presents novelty by examining the mediating role of fintech usage in the relationship between financial literacy and digital spending behavior among Generation Z students in Indonesia, a cohort of digital natives with unique characteristics in the post-pandemic era. Unlike previous studies that focus more on direct relationships or moderating variables, this research integrates a mediation approach to explain the mechanism by which financial literacy influences digital consumption behavior through fintech utilization. Additionally, this study extends the Technology Acceptance Model (TAM) by incorporating aspects of behavioral finance and informedness to capture the complex dynamics of fintech adoption decisions in the context of digital financial inclusion in developing countries. This study also provides important empirical contributions to understanding ambiguous global research findings regarding the role of financial literacy in fintech usage, as well as offering evidence-based policy recommendations to enhance financial literacy and inclusion among Gen Z students in Indonesia. This study aims to determine the extent to which financial literacy influences digital shopping behavior among Generation Z students in Indonesia and to examine

the role of fintech usage as a moderating variable in the relationship between financial literacy and digital shopping behavior within this population.

2. RESEARCH METHOD

This study employs a quantitative approach using a correlational survey design to examine the influence of independent variables on a dependent variable as well as to test the moderating role of a specific variable. In this research, financial literacy serves as the independent variable (X), fintech usage as the moderating variable (Z), and digital shopping behavior as the dependent variable (Y).

The population of this study consists of Generation Z students currently enrolled in higher education institutions in Indonesia. The sample was determined using purposive sampling based on the following criteria: students aged 18–25 years, having experience using fintech applications, and having conducted at least one digital transaction; the total sample consisted of 162 respondents. Data analysis was carried out using Path Analysis to test the direct effect of financial literacy on digital shopping behavior and the moderating effect of fintech usage on this relationship. The analytical steps include testing indicator validity and reliability (outer model), examining structural relationships among variables (inner model), testing the significance of path coefficients, and interpreting R^2, f^2, and Q^2 values to assess the model's contribution and predictive capability.

3. RESULT AND DISCCUSSION

a. The Effect of Financial Literacy (X) on Shopping Behavior (Y)

Variable	B	Beta	t	Sig.
Financial Literacy	0.417	0.245	3.191	**0.002**
Constant	15.852	—	2.942	0.004

The results of the simple linear regression analysis show that financial literacy has a positive and significant effect on digital shopping behavior among Generation Z students in Indonesia. The resulting regression equation is Y = 15.852 + 0.417X, where Y represents digital shopping behavior and X is financial literacy. The regression coefficient of 0.417 indicates that a one-unit increase in financial literacy score is estimated to increase the digital shopping behavior score by 0.417 units, assuming other variables remain constant. The constant value of 15.852 represents the predicted score of digital shopping behavior when financial literacy is zero on the measurement scale used.

The significance test shows that the t value for financial literacy is 3.191 with a significance level of p = 0.002, which is below the 0.05 threshold, indicating that the effect of financial literacy on digital shopping behavior is statistically significant. These findings mean that the higher the financial literacy possessed by students, the greater their tendency to engage in digital shopping behavior.

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b. The Effect of Financial Literacy (X) on Fintech Usage (Z)

Variable	B	Beta	t	Sig.
Financial Literacy	0.558	0.307	4.086	**0.000**
Constant	11.331	—	2.013	0.046

Based on the regression results between **Financial Literacy (X)** as the independent variable and **Fintech Usage (Z)** as the dependent variable, the following equation is obtained: **Z = 11.331 + 0.558X**

The simple linear regression analysis indicates that financial literacy has a **positive and significant effect** on fintech usage among Generation Z university students. The regression equation shows that each one-unit increase in the financial literacy score leads to an increase of **0.558 units** in the fintech usage score, assuming other variables remain constant. The constant value of **11.331** represents the predicted level of fintech usage when financial literacy is zero based on the measurement scale used.

The significance test reveals that the financial literacy coefficient has a **t-value of 4.086** with a **p-value of 0.000 (p < 0.05)**, indicating that the effect of financial literacy on fintech usage is **statistically significant**. These findings suggest that a higher level of financial literacy among students is associated with a greater tendency to use fintech applications or services in their daily financial activities.

The Simultaneous Effect of Financial Literacy (X) and Fintech Usage (Z) on Shopping Behavior (Y)

Variable	B	Beta	t	Sig.
Financial Literacy	0.057	0.033	0.559	0.577 (ns)
Fintech Usage	0.646	0.687	11.519	**0.000**
Constant	8.537	—	2.113	0.036

The results of the multiple regression analysis indicate that fintech usage has a positive and significant effect on the digital shopping behavior of Generation Z university students in Indonesia, whereas the effect of financial literacy on digital shopping behavior becomes insignificant after the fintech usage variable is included in the model.
The regression equation obtained is: Y = 8.537 + 0.057X + 0.646Z

This equation illustrates the partial contribution of each independent variable to the dependent variable. The regression coefficient for **fintech usage (Z)** is **0.646**, indicating that each one-unit increase in the fintech usage score leads to an increase of **0.646 units** in the digital shopping behavior score, assuming other variables remain constant. This effect is **statistically significant** ($t = 11.519$, $p = 0.000 < 0.05$). In contrast, the regression coefficient for **financial literacy (X)** is **0.057** and is **not statistically significant** ($t = 0.559$, $p = 0.577 > 0.05$), suggesting that after controlling for fintech usage in the model, financial literacy does not make a meaningful contribution to digital shopping behavior. The constant value of **8.537**

represents the predicted level of digital shopping behavior when both financial literacy and fintech usage are zero based on the measurement scale used. These findings confirm that **fintech usage is the dominant factor** in explaining students' digital shopping behavior, while **financial literacy tends to influence digital shopping behavior indirectly through fintech usage**.

c. Interpretation of Path Analysis

Variable	Shopping Behavior	Financial Literacy	Fintech Usage
Shopping Behavior	1.000	0.245*	0.698**
Financial Literacy	0.245*	1.000	0.307**
Fintech usage	0.698**	0.307**	1.000

The correlation test results indicate **linear relationships among the variables under study**. The correlation between **fintech usage and digital shopping behavior is very strong and positive**, with a Pearson correlation coefficient of **0.698 (p < 0.01),** indicating that the higher the level of fintech usage among students, the higher their digital shopping behavior.

The correlation between **financial literacy and fintech usage** is also **positive and significant**, with a coefficient of **0.307 (p < 0.01),** suggesting that better financial literacy is associated with increased fintech usage.

Furthermore, the correlation between **financial literacy and digital shopping behavior** shows a significant value of **0.245 (p < 0.01),** although the strength of this relationship is weaker compared to relationships involving fintech usage. This pattern of relationships supports the findings of the **path analysis**, indicating that financial literacy influences digital shopping behavior **through increased fintech usage**. In other words, the significant positive correlations between **X and Z** and between **Z and Y,** along with the initial correlation between **X and Y**, provide statistical evidence that **fintech usage serves as a strong mediator in the path model,** and that the **direct relationship between financial literacy and digital shopping behavior weakens when the mediating variable is taken into account**

d. Direct Effect X → Y

In the simple regression analysis, the relationship between X and Y is positive and significant ($\beta = 0.245$; p = 0.002). This indicates that without considering the mediating variable, financial literacy has a significant effect on digital shopping behavior. The results of the simple regression test between financial literacy (X) and digital shopping behavior (Y) show that financial literacy exerts a positive and significant influence on digital shopping behavior. This is evidenced by a standardized coefficient (β) of 0.245 with a significance value of p = 0.002 (p < 0.05). In other words, without accounting for the mediator, the higher the level of financial literacy possessed by students, the higher their tendency to engage in digital shopping behavior. These findings indicate that financial literacy plays an important role in shaping digital shopping patterns among Generation Z university students.

e. Effect of X → Z (Path a)

The results show a standardized coefficient of $\beta = 0.307$ with a significance value of p = 0.000, indicating a significant effect. This means that the higher the level of financial literacy, the higher the level of fintech usage among students. The regression analysis between financial literacy as the independent variable and fintech usage as the dependent variable yields a standardized coefficient (β) of 0.307 with p = 0.000 (p < 0.05). This result demonstrates that the relationship between financial literacy and fintech usage is positive and statistically significant. In other words, better financial literacy encourages students to utilize fintech services in their financial activities. These findings illustrate that a good understanding of financial literacy motivates students to adopt financial technology as part of their financial decision-making process.

f. Effect of Z → Y (Path b)

From the multiple regression analysis, the standardized coefficient is $\beta = 0.687$ with a significance value of p = 0.000, indicating a significant effect. This implies that fintech usage has a strong impact on digital shopping behavior. In the joint regression analysis of financial literacy and fintech usage on digital shopping behavior, fintech usage (Z) shows a positive and highly significant effect on digital shopping behavior (Y), with a standardized coefficient (β) of 0.687 and p = 0.000 (p < 0.05). These findings suggest that the more intensively students use fintech, the greater their tendency to engage in digital shopping. This result confirms the important role of fintech as a key factor influencing consumption behavior in the digital environment.

g. Effect of X → Y after Mediation (Path c′)

When financial literacy (X) and fintech usage (Z) are tested simultaneously in a single regression model on digital shopping behavior (Y), the results show that the direct effect of financial literacy on digital shopping behavior becomes insignificant, with a standardized coefficient (β) of 0.033 and a significance value of p = 0.577 (p > 0.05). This indicates that after the mediating variable of fintech usage is included in the model, the direct relationship between financial literacy and digital shopping behavior weakens and is no longer statistically significant. These findings indicate that the effect of financial literacy on digital shopping behavior occurs through fintech usage, meaning that the direct path is no longer a significant factor. Therefore, fintech usage acts as a full mediator in the relationship between financial literacy and digital shopping behavior among Generation Z university students in Indonesia.
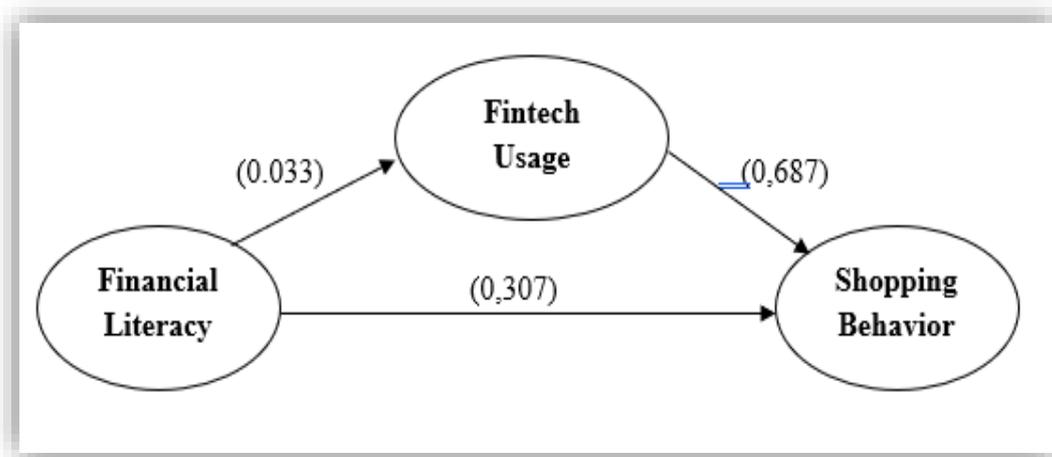
Figure 1. Path Analysis Results

When X and Z were tested simultaneously, Financial Literacy did not have a significant effect on Y ($\beta = 0.033$; $p = 0.577$). This indicates that the direct path from X → Y weakened and became statistically insignificant after the mediator (Z) was included in the model.

h. Path Conclusion (Mediation Effect)

Based on the mediation criteria:

Mediation Requirement	Fulfilled
X → Y significant without mediator	✓ (Model 1)
X → Mediator (Z) significant	✓
Mediator → Y significant	✓
X → Y becomes insignificant after mediator is included	✓

Based on the mediation criteria applied in this study, all requirements for full mediation are satisfied. First, the relationship between financial literacy (X) and digital shopping behavior (Y) was found to be significant when the mediator was not included in the model, indicating a direct effect of financial literacy on digital shopping behavior. Second, financial literacy was shown to have a significant effect on fintech usage (Z), which serves as the mediator in this research model. Furthermore, fintech usage had a significant effect on digital shopping behavior, demonstrating that the mediator meaningfully contributes to the dependent variable. Fourth, after fintech usage was incorporated into the model, the direct effect of financial literacy on digital shopping behavior became insignificant. These findings indicate that the effect of financial literacy on digital shopping behavior occurs through the pathway of fintech usage, thereby confirming the presence of full mediation. Thus, fintech usage functions as the mechanism through which financial literacy translates into digital shopping behavior among Generation Z students in Indonesia.

i. Coefficient of Determination

The results of the coefficient of determination test are presented in the Model Summary table, which reports the values of R, R Square, and Adjusted R Square for the regression model examining the effects of financial literacy and fintech usage on digital shopping behavior. The value of R = 0.698 reflects a strong overall linear relationship between the independent variables (financial literacy and fintech usage) and the dependent variable (digital shopping behavior). Furthermore, the R Square value of 0.488 indicates that approximately 48.8% of the variation in digital shopping behavior can be jointly explained by the two independent variables in the model. After adjusting for the number of predictors and sample size, the Adjusted R Square value of 0.481 indicates that approximately 48.1% of the variation in digital shopping behavior is explained by the model, while the remaining 51.9% is attributable to other variables outside the model or random factors. Therefore, the regression model demonstrates a moderate predictive capability in explaining students' digital shopping behavior.

j. Discussion

Pearson correlation analysis was conducted to examine the linear relationships among the research variables, namely financial literacy (X), fintech usage (Z), and digital shopping behavior (Y). The results of the correlation analysis indicate that the relationship between fintech usage and digital shopping behavior is very strong and positive, with a correlation coefficient of r = 0.698 and a significance value of p = 0.000 (p < 0.01). This finding suggests that the higher the intensity of fintech service usage among Generation Z students, the stronger their tendency to engage in digital shopping behavior. Furthermore, the correlation between financial literacy and fintech usage is also positive and significant (r = 0.307; p = 0.000). This result indicates that students with higher levels of financial literacy tend to be more active in utilizing fintech applications or services in their financial activities. Meanwhile, although weaker compared to the other relationships, the correlation between financial literacy and digital shopping behavior remains positive and significant, with a correlation coefficient of r = 0.245 and a significance value of p = 0.001. This finding implies that there is a positive relationship between financial literacy and digital shopping behavior, although the strength of this relationship is relatively modest.

The pattern of relationships among variables revealed by the correlation analysis is consistent with the results of the path analysis. In the simple path model, financial literacy appeared to have a significant direct effect on digital shopping behavior. However, when fintech usage was included as a mediator in the model, the direct effect of financial literacy on digital shopping behavior became insignificant. This result aligns with the correlation findings, which show that the direct association between financial literacy and digital shopping behavior is weaker than the association between financial literacy and fintech usage, as well as between fintech usage and digital shopping behavior.

Thus, the positive and significant relationships among these variables support the theoretical framework that fintech usage acts as a mediating variable that bridges the effect of financial literacy on digital shopping behavior among students. The significant correlations

between X and Z, and between Z and Y, provide strong evidence that the influence of financial literacy on digital shopping behavior is transmitted through fintech usage. This finding contributes empirical evidence to the literature on digital financial behavior, particularly in the context of Generation Z students in Indonesia, and demonstrates that higher financial literacy encourages fintech adoption, which subsequently reinforces students' digital shopping behavior.

4. CONCLUSION

Based on the results of the analysis, it can be concluded that financial literacy plays an important role in influencing digital shopping behavior among Generation Z students in Indonesia; however, this influence does not occur directly. Financial literacy has been proven to enhance fintech usage among students, and fintech usage, in turn, has a positive and significant effect on digital shopping behavior. When fintech usage is included in the model, the direct relationship between financial literacy and digital shopping behavior becomes insignificant, indicating that financial literacy affects digital shopping behavior through fintech usage rather than directly. In other words, fintech usage fully mediates the relationship between financial literacy and digital shopping behavior: students with higher financial literacy tend to use fintech more actively, and this increased intensity of fintech usage subsequently drives their digital shopping behavior.

Based on these findings, it is recommended that students continue to improve their financial literacy knowledge and skills in order to utilize fintech services more wisely and responsibly, so that their digital shopping behavior remains well controlled. Higher education institutions are encouraged to incorporate financial literacy education and comprehensive fintech usage training into curricula or learning activities to equip students with strong digital financial management skills. In addition, fintech application developers are advised to introduce educational features that help users understand the risks and financial implications associated with digital shopping behavior. Future research is also recommended to consider additional variables, such as risk attitudes or cultural influences on consumption, and to employ longitudinal research designs to strengthen the understanding of relationships among variables over a longer period.

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