



FINANCIAL LITERACY TRANSFORMATION IN THE FINTECH ERA: A CASE STUDY OF E-WALLET USAGE AMONG GENERATION Z

Ragil Retno Palupi
Universitas PGRI MPU Sindok
e-mail: rrpalupi@upms.ac.id

ABSTRACT

The rapid development of financial technology (fintech), particularly e-wallets, has shifted the economic transaction landscape of Generation Z from cash to digital. However, ease of access (inclusion) is often not accompanied by adequate financial management understanding. This study aims to analyze the transformation of financial literacy among Generation Z in the context of e-wallet usage and how this technology influences their financial behavior. This research employs a qualitative approach with a descriptive case study method. Data were collected through in-depth interviews with informants—university students who are active users of e-wallets (GoPay, OVO, ShopeePay, Dana) and observation of transaction behaviors. Findings indicate a shift in the perception of money's value into "invisible money," which triggers impulsive consumptive behavior. There is a significant gap between technical proficiency in using applications and literacy in risk management and long-term financial planning. Literacy transformation occurs reactively through experiences of small-scale financial failures. Digital financial literacy plays a crucial role as a moderating variable in determining the financial well-being of Generation Z amidst fintech disruption.

Keywords: Financial Literacy, Fintech, E-Wallet, Generation Z, Consumptive Behavior.

A. INTRODUCTION

The world is currently experiencing massive digital disruption, with the financial sector being one of the fastest-transforming sectors. The emergence of financial technology (fintech) has transformed the landscape of conventional transactions into a completely digital one. In Indonesia, fintech adoption, particularly in the form of digital wallets (e-wallets), has seen a significant surge. Ease of access, time efficiency, and integration with various online shopping platforms have made e-wallets a primary payment instrument in daily economic activities. (Lusardi, A., & Mitchell, O. S., 2014). Generation Z, born amidst the rapid development of information technology, is the digital native group most adaptable to fintech innovations. This group tends to be highly dependent on smartphones and digital apps to meet their consumption needs. However, the transaction convenience offered by e-wallets, such as cashback features, discounts, and paylater payment systems, is a double-edged sword for them. (Pradana, R. W., & Susiati, S., 2024).

While digital financial inclusion (access to services) has increased rapidly, this is not always accompanied by adequate financial literacy. Many Generation Z individuals are proficient in using e-wallet applications but lack an understanding of financial management, self-control in spending, and digital security risks. This imbalance often triggers impulsive consumer behavior, a lack of savings planning, and the potential for falling into digital debt. The transformation of financial literacy in this era is no longer

simply about understanding how banks work, but also about how to manage the value of money, which is now "invisible." (Thaler, R. H., 1999). Economic education plays a crucial role in navigating this transformation. Understanding how e-wallet usage patterns influence how Generation Z views and manages money is key to formulating relevant financial education strategies. Without strong literacy, technological conveniences can become financial traps that hinder their future economic well-being. Based on this background, this study aims to analyze the transformation of financial literacy among Generation Z in the context of e-wallet use. Through a case study approach, this research will delve deeper into how this technology is changing their financial behavior, the challenges they face, and the extent to which digital financial literacy can mitigate the negative impacts of the ease of transactions in the fintech era. (Morgan, P. J., Huang, B., & Trinh, L. Q., 2019).

Tapscott (1995) defined economic digitalization as an economic system characterized by intelligence, encompassing digitally integrated information, instrument access, and information capacity. In a macro context, the OECD asserts that the digital economy involves the intensive use of digital technology in almost all aspects of business and social activities. A key derivative of this phenomenon is Financial Technology (Fintech). Fintech transforms conventional transaction patterns into software- and data-based financial services. In Indonesia, e-wallets such as GoPay, OVO, ShopeePay, and Dana have become key instruments facilitating instant transactions, from retail payments to integration with e-commerce platforms. (Tapscott, D., 1995) The digital economy is the result of the convergence of communication technology, information technology, and computing power, transforming the structure of economic interactions (Tapscott, 1995). One of its main pillars is Financial Technology (Fintech), a) Fintech Definition: Financial innovation that utilizes technology to create new business models, applications, or products that impact markets and financial institutions, b) E-Wallet (Digital Wallet): An application service that allows users to store money electronically for online and offline transactions. In Indonesia, this phenomenon is driven by platforms such as GoPay, OVO, ShopeePay, and Dana, which offer transaction efficiency through the Quick Response Code Indonesian Standard (QRIS) system. (Muna, N., & Aenurofik, A, 2023).

The urgency of this study lies in the growing imbalance between the rapid expansion of financial technology adoption and the relatively low level of digital financial literacy among Generation Z. While e-wallet usage continues to increase significantly in Indonesia, this growth is not matched by adequate understanding of financial management, risk awareness, and long-term financial planning. This condition poses serious risks, including impulsive consumption behavior, increased dependence on digital credit (paylater), and vulnerability to financial insecurity at a young age. Moreover, Generation Z represents the future productive workforce whose financial behavior will significantly influence national economic stability. Without proper intervention through relevant financial education strategies, the convenience offered by fintech may lead to long-term financial problems rather than improved well-being. Therefore, this research is crucial to provide empirical insights into how financial literacy is transforming in the fintech era and to formulate adaptive educational approaches that can bridge the gap between financial inclusion and financial capability.

Generation Z (Gen Z) is a group born in an era of rapid advances in information technology, thus they are known as digital natives. Theoretically, Gen Z's economic behavior is characterized by: a) High Adaptability: The ability to quickly adopt new features such as contactless payments or paylater, b) Digital Dependence: The use of smartphones as a center for consumption and information activities, c) ifestyle and Consumption: A tendency toward an unstable accounting mindset, where easy access often triggers impulsive consumer behavior to fulfill a digital lifestyle. (Anshari, M., Almunawar, M. N., Masri, M., & Hamdan, M., 2019).

There is a fundamental difference between financial inclusion and literacy:

- a) Financial Inclusion: Public access to formal financial institutions, products, and services,
- b) Financial Literacy: Knowledge, skills, and beliefs that influence attitudes and behaviors to improve decision-making and financial management.

Generation Z (born between 1997 and 2012) is defined as the generation that grew up with the internet. From an economic perspective, their characteristics include:

- a) Technological Adaptability: Easily adopting new digital interfaces.
- b) Real-Time Consumption Behavior: A tendency to make instant transactions driven by exposure to social media and personalized advertising.
- c) "Invisible Money" Psychology: The use of digital balances often makes individuals less sensitive to the nominal value of money compared to cash, which can theoretically trigger impulsive spending. (Ajzen, I. 1991).

OJK Data 2024-2025: According to the latest data from the Financial Services Authority (OJK), although Indonesia's financial inclusion index has reached a high level (approaching 90%), its financial literacy index remains lower. This gap indicates that many fintech users (especially Gen Z) have access to digital payment tools but lack the understanding to use them wisely. (Otoritas Jasa Keuangan (OJK), 2024). To strengthen our argument, here are some relevant research references: a) Muna & Aenurofik (2023): Found that economic digitalization has a significant influence on changes in students' consumer lifestyles through the use of digital payment platforms, b) Booth (2021) & Recent Literature Review: Demonstrated a gap between e-literacy (technological proficiency) and long-term financial planning among Generation Z in Indonesia, c) Susiati et al. (2024): Emphasized that without strong self-control and literacy, the convenience of e-wallets actually shifts consumption patterns from needs to desires.

Financial literacy is no longer simply the ability to calculate interest or save money; it has transformed into Digital Financial Literacy. According to the OECD (2020), this concept encompasses four main dimensions:

1. Digital Product Knowledge: Understanding how e-wallets work, paylater features, and hidden admin fees.
2. Digital Skills: The ability to operate financial applications safely.
3. Financial Attitudes: Awareness of avoiding a consumerist lifestyle despite easy access to shopping.
4. Financial Behavior: Concrete actions in planning a budget and controlling spending on digital platforms.

Theoretically, increasing financial inclusion (access to e-wallets) should be followed by increasing financial literacy. However, data from the Financial Services Authority (OJK) often shows a gap. High inclusion without adequate literacy creates risks:

- a) Impulsive buying: Unplanned purchases due to the convenience of one-click payment features.
- b) Cybersecurity: Vulnerability to phishing or misuse of personal data due to a lack of digital security education. (Pradana, R. W., & Susiati, S. 2024)

B. RESEARCH METHOD

This research uses a qualitative approach with a descriptive case study method. This approach was chosen to explore the phenomenon of financial literacy transformation among Generation Z in depth within their real-life context. This research focuses on the informants' subjective experiences interacting with fintech (specifically e-wallets). (Morgan, P. J., Huang, B., & Trinh, L. Q., 2019).

Informants: Informants were selected using purposive sampling. The informant criteria included:

1. Generation Z (age range 18–27 years).
2. Active users of at least two e-wallet applications (e.g., GoPay, ShopeePay, or Dana) for at least one year.
3. Conducting digital transactions at least 5–10 times per month.

Location: The research was conducted in Mpu Sindok PGRI University which represents an environment with high digital penetration. Data was collected through three main techniques to achieve data triangulation:

1. In-depth Interviews: Conducted semi-structured to explore mindsets, risk understanding, and changes in money management habits since using e-wallets.
2. Participatory Observation: Observing informants' behavior during digital transactions and their interactions with promotional features (such as flash sales or cashback) on the app.
3. Documentation Study: Analyzing informants' digital transaction history (if permitted) or personal spending records to determine the relevance between literacy perceptions and actual behavior.

The primary instrument in qualitative research is the researcher themselves (human instrument), assisted by an interview guide that covers four indicators of digital financial literacy according to the OECD:

1. Knowledge of digital products and risks.
2. Digital control skills (account security).
3. Attitudes toward digital spending.
4. Financial management behavior in the fintech ecosystem.

The data analysis process used the interactive model of Miles, Huberman, and Saldana (2014), which consists of:

1. Data Collection: Gathering all interview and observation results.
2. Data Reduction: Simplifying, categorizing, and discarding data irrelevant to the focus of literacy transformation.
3. Data Display: Developing a systematic narrative or comparison table of behavior before and after e-wallet adoption.
4. Conclusion Drawing/Verification: Formulating final findings regarding how fintech changes
5. informants' levels of financial literacy.

C. RESEARCH & DISCUSSION RESULTS

1. E-Wallet Adoption and Usage Patterns among Generation Z

This section presents descriptive data regarding informants' technology usage behavior.

- a. Transaction Intensity: The majority of informants use more than two apps (such as GoPay, ShopeePay, and Dana) with daily transaction frequencies for micro-needs (food, transportation, game top-ups).
 - b. Primary Motivation: Usage is driven by user experience, time efficiency, and substantial incentives in the form of cashback or special discounts for new users.
 - c. Favorite Features: The dominant use of instant payment features (QRIS) and paylater features, which are becoming more common among students/young workers.
- ### 2. Shifting Concepts of Money: From Physical to "Invisible Money"

A discussion of how Gen Z's perception of the value of money has changed after the transformation to fintech.

- a. Digital Balance Illusion: Findings show that digital money is often not perceived as a "real expense" due to the lack of physical exchange. This leads to decreased price sensitivity (painless payments).
- b. Mental Accounting: Gen Z tends to separate funds in e-wallets as "fun money" or

"pocket money," resulting in less budgetary control compared to funds in primary bank accounts.

3. Digital Financial Literacy Transformation (Four-Dimensional Analysis)
In-depth analysis of literacy levels based on field findings:
 - a. Product Knowledge (High): Informants are very familiar with how the app operates, but are weak in understanding paylater interest schemes or hidden service fees.
 - b. Security Skills (Medium): Awareness of passwords and OTPs is good, but they are still vulnerable to social engineering (psychological-based fraud).
 - c. Financial Attitude (Low): The presence of a FOMO (Fear of Missing Out) trend that makes them continue to transact even when their finances are tight for the sake of their lifestyle.
 - d. Management Behavior (Negative to Positive Transformation): Some informants experienced a "consumption trap" at the beginning of use, but over time transformed into wiser users by utilizing the transaction history feature to evaluate their lifestyle.
4. The Phenomenon of Inclusion Without Literacy: The Challenges of Generation Z
Discusses the gap between ease of access (inclusion) and the ability to manage (literacy).
 - a. The Impact of the Paylater Feature: Discusses how easy access to instant credit in the fintech era poses a threat to financial health if not accompanied by an understanding of debt management.
 - b. The Role of Economic Education: Findings indicate that informants with an economics education background tend to be more able to utilize the cashback feature for savings, rather than for additional consumption.
5. Synthesis: Transformation Towards Financial Resilience
The final section of the discussion concludes that the transformation of financial literacy among Gen Z is in a critical adaptation phase. E-wallet technology is not just a means of payment, but a catalyst that forces Gen Z to learn risk management independently through the experience of small-scale financial failures (such as running out of funds before the end of the month).

Discussion

From a behavioral economics perspective, the findings of this study can be further explained through the concept of bounded rationality and heuristic decision-making. Generation Z, as digital natives, tends to rely on instant decision-making processes influenced by interface design, promotional triggers, and social validation rather than rational financial planning. The presence of features such as cashback, flash sales, and one-click payments reduces cognitive effort in transactions but simultaneously increases the likelihood of impulsive buying behavior (S. Arifin et al., 2025). This aligns with the concept of mental accounting, where users categorize e-wallet balances as separate from "real money," thus weakening spending control.

In addition, the phenomenon of "invisible money" identified in this study reinforces the theory of painless payment, where non-cash transactions reduce the psychological "pain" of spending. This condition creates a systematic bias in financial decision-making, particularly among users who lack strong financial literacy. (Fristya et al., 2024) As a result, even small and frequent transactions accumulate into significant financial burdens, especially when combined with paylater features that obscure the perception of debt. From a socio-economic perspective, this study also highlights the risk of creating a "digitally included but financially vulnerable" generation. Although access to financial services has expanded rapidly, the lack of adequate literacy may widen inequality in financial resilience (Widawati & Arifin, 2021). Individuals with higher financial literacy are able to optimize fintech features for productive purposes (such as budgeting and saving), while those with lower literacy tend to fall into consumptive patterns. Furthermore, this research implies that financial

literacy transformation among Generation Z is largely experiential and reactive, rather than structured and preventive (M. Z. Arifin, 2024). Learning often occurs after experiencing financial difficulties, such as running out of balance or accumulating paylater debt. This indicates a gap in formal and informal financial education systems, which have not yet fully adapted to the dynamics of the digital financial ecosystem.(Arifin et al., 2023).

D. CONCLUSION

Based on the research results and discussions outlined in the previous chapter, the following conclusions can be drawn:

1. Qualitative research shows that e-wallet use by Generation Z, particularly GoPay, ShopeePay, and Dana, increases transaction efficiency through QRIS but also triggers consumer behavior due to the convenience of paylater and promotions. Digital financial literacy is a key factor, with high understanding helping to track spending, while low literacy leads to impulsive behavior.
2. Transformation of Transaction Behavior: The adoption of e-wallets (such as GoPay, ShopeePay, and Dana) has shifted Generation Z's transaction patterns from cash to cashless. Ease of access and various incentives (promos/discounts) are key drivers, but this has also created the "invisible money" phenomenon, where digital money is perceived as less valuable than physical cash, thus fueling consumer behavior.
3. Literacy vs. Inclusion Gap: A significant gap exists between financial inclusion and financial literacy. Generation Z possesses highly technical skills in operating applications, but has a low understanding of risk management, compound interest on paylater features, and long-term financial planning.
4. Literacy as a Digital Shield: The transformation of financial literacy is still reactive (learning after experiencing losses/depleted balances) rather than proactive. Digital financial literacy has proven to be a crucial factor in determining whether fintech technology will become a tool for supporting well-being or become a debt trap for Generation Z.

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