The Impact of Digital Literacy on the Use of Cashless Transactions among Generation Z

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	Abstract
Keywords: Digital Literacy; Cashless Transactions; Generation Z; Digital Economy.	The development of digital technology has driven significant changes in financial transaction systems, one of which is the implementation of cashless transactions. This study aims to determine the impact of digital literacy on the use of cashless transactions among Generation Z in daily economic activities. Using a descriptive qualitative method, data were collected through observation, online questionnaires distributed to students at UIN Jusila, and documentation studies. The results show that students have varying levels of understanding and usage of cashless transactions. The most widely used payment tools are ATMs, mobile banking, and e-wallets such as OVO, GoPay, ShopeePay, and DANA, although some students still rely on cash for daily transactions. Digital literacy has not yet become the primary driver for using cashless systems; rather, cashless usage among students tends to be extravagant when using e-wallets, leading to shopping behavior without considering the consequences, or impulsive buying. This study recommends the importance of digital and financial literacy education for students to enhance a wiser and more responsible use of cashless systems in facing the digital economy.
	Abstrak
Kata kunci: *Cashless; Literasi Digital; Generasi Z* Article history: Received: 03-08-2025 Revised: 21-10-2025 Accepted: 27-10-2025	*Perkembangan teknologi digital telah mendorong perubahan signifikan dalam sistem transaksi keuangan, salah satunya adalah penerapan transaksi non-tunai (cashless transaction). Penelitian ini bertujuan untuk mengetahui literasi digital terhadap penggunaan cashless transaction pada generasi Z dalam aktivitas ekonomi sehari-hari. Menggunakan metode kualitatif deskriptif, data dikumpulkan melalui observasi, penyebaran kuesioner online pada mahasiswa UIN Jusila, serta studi dokumentasi. Hasil penelitian menunjukkan bahwa mahasiswa memiliki tingkat pemahaman dan penggunaan cashless transaction yang bervariasi. Alat pembayaran yang paling banyak digunakan adalah ATM, mobile banking, dan e-wallet seperti OVO, GoPay, Shopee Pay, dan DANA, meskipun sebagian mahasiswa masih mengandalkan uang tunai untuk transaksi sehari-hari. Literasi Digital belum menjadi pendorong utama penggunaan sistem cashless, penggunaan cashless di mahasiswa cenderung boros dalam melakukan transaksi dengan e-wallet sehingga membentuk sikap berbelanja tanpa memikirkan akibat atau impulsif. Studi ini merekomendasikan pentingnya edukasi literasi digital dan keuangan bagi mahasiswa guna meningkatkan penggunaan cashless yang lebih bijak dan bertanggung jawab.dalam menghadapi ekonomi digital.*

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INTRODUCTION

The rapid development of digital technology has brought significant changes to various aspects of human life, including financial transaction systems. One of the most prominent innovations is the emergence of cashless transactions,

which allow individuals to make payments without using physical money. This method includes various platforms such as mobile banking, digital wallets (e-wallets), debit and credit cards, and QR code–based payment applications (Putri Jayanti et al., 2024). Cashless transactions are considered more efficient, practical, and secure, making them increasingly popular in modern society.

Millennial and Generation Z cohorts are the most adaptive groups toward digital transformation, as they have grown alongside advances in information technology and tend to rely on digital services in their daily activities, including financial management. University students, as part of this generation, hold a strategic position because they are not only active users of technology but also future leaders who may influence social and economic change (Syahputri et al., 2023). In particular, Generation Z represents a technologically productive age group and has become one of the main targets for the expansion of cashless payment systems. Their close attachment to internet use, smartphones, and digital applications positions them as both potential users and agents of change in digital transaction adoption.

This phenomenon aligns with the Indonesian government's policy and Bank Indonesia's initiative through the National Non-Cash Movement (Gerakan Nasional Non Tunai GNNT), which aims to enhance payment system efficiency and promote financial inclusion. Cashless systems are expected to reduce transaction costs, increase transparency, and support sustainable economic growth (Bank Indonesia, 2021). However, the rapid adoption of cashless transactions also raises concerns related to behavioral and psychological aspects among young users.

Preliminary observations indicate that some students experience anxiety about being left behind by popular trends. Many young people feel compelled to follow ongoing lifestyle trends, even to the extent of accumulating debt to maintain social conformity. Additionally, the ease of access to virtual money often leads to increased transaction frequency and impulsive spending behavior. This condition suggests that technological convenience, without adequate self-control and understanding, may result in negative financial habits among Generation Z.

In this context, digital literacy plays a crucial role in shaping responsible cashless transaction behavior. Digital literacy does not merely refer to technical skills in using digital platforms but also includes critical understanding, awareness of risks, and the ability to manage financial decisions wisely in digital environments (OECD, 2019). Individuals with higher digital literacy are expected to be more capable of evaluating transaction security, controlling consumption patterns, and avoiding excessive or unnecessary spending.

Nevertheless, empirical findings related to the influence of digital literacy on cashless transaction behavior remain inconsistent. Several studies report that digital literacy has a significant positive effect on cashless transaction behavior (Bemby & Qomariyah, 2023). Conversely, other studies indicate that digital literacy does not significantly influence cashless payment usage, suggesting the presence of mediating factors such as lifestyle, perceived ease of use, or social influence (Rahayu, 2022; cited in Sagita, 2023). These discrepancies highlight the need for further investigation to clarify the relationship between digital literacy and cashless transaction behavior.

Therefore, it is essential to further examine the importance of digital literacy in shaping cashless transaction behavior among Generation Z, particularly university students. Understanding this relationship is expected to provide valuable insights for policymakers, educational institutions, and financial service providers in developing effective strategies to promote responsible digital financial behavior and enhance sustainable financial inclusion.

RESEARCH METHODS

The type of research employed in this study is field research. This research adopts a descriptive qualitative approach. The data sources in this study are classified into three categories: primary data, secondary data, and tertiary data (Lexy J. Moleong, 2017). Primary data were obtained from Universitas Islam Negeri Jurai Siwo Lampung (UIN JUSILA), located in Metro City, Lampung Province, through the distribution of questionnaires using Google Forms, in accordance with the research theme being investigated.

Secondary data were collected from library-based literature, including books related to digital finance (Suryana, 2012). In addition, documentation methods were employed during the research process, along with references from books, journals, articles, and relevant websites (Hasanah & Damayanti, 2023). Meanwhile, tertiary data were obtained from sources such as bibliographies, encyclopedias, and brochures related to students' perspectives on digital finance, which is currently widely used among millennials and Generation Z.

Data collection methods in this study consist of observation, questionnaires, and documentation (Moleong, 2001). The data analysis techniques used include data reduction, data presentation, and conclusion drawing. The process of instrument development in this research involved data validity testing (Mardalis, 2006). Sugiyono explains that data trustworthiness in qualitative research includes credibility (internal validity), dependability (reliability), and confirmability (objectivity) (Sugiyono, 2018).

RESULTS AND DISCUSSION
Consumer Behavior Theory

Consumer behavior encompasses all activities related to the purchasing, use, and disposal of products or services, including the underlying decision-making processes. Another perspective defines consumer behavior as the behavior exhibited by individuals in planning, purchasing, and using economic goods and services (Totok Subianto, 2016). Consumer behavior is the study of how individuals, groups, or organizations select, buy, use, and dispose of goods, services, ideas, or experiences to satisfy their needs and desires. Consumer behavior theory helps explain the factors that influence purchasing or usage decisions of a product or service. In the context of cashless transaction usage, student behavior as consumers becomes a relevant focus.

The consumer behavior theory above explains that decisions to use a product or service are influenced by perception, attitude, motivation, and prior consumer experience. In this regard, it assumes that every consumer seeks to obtain maximum satisfaction and will attempt to continue purchasing a product that fulfills their needs (Afandi, 2011). This aligns with student activities as consumers who choose transaction systems based on their perceptions of benefits, convenience, and risks.

In this context, consumer behavior among millennials and Generation Z can perform several roles. As initiators, individuals have the initiative to propose the purchase of a particular product. As influencers, individuals affect purchasing decisions, where information regarding criteria is considered either consciously or unconsciously. As deciders, individuals determine whether to buy or not, what to buy, and how to buy. As buyers, individuals carry out the actual purchase transaction. As users, individuals utilize the purchased product or service (Afandi, 2011).

Generation Z (Gen Z) plays an important role in shaping the consumer landscape, including as future consumers. They are not only technology users but also trend creators, drivers of the digital economy, and possess unique preferences and consumption behaviors (Putri Nugraha et al., 2021). As drivers of the digital economy, Gen Z born in the digital era is highly active in digital economic activities. They not only consume but also create content, promote products, and encourage innovation, especially in e-commerce and the creative economy.

Gen Z is also known as a critical and influential consumer group. They are selective and not easily swayed by trends alone, preferring products aligned with their values such as sustainability, transparency, and social responsibility. Additionally, Gen Z drives innovation through strong digital skills and a

tendency to seek innovative products and services. They are willing to try new things and leverage technology to meet their needs, ultimately fostering innovation across various sectors.

Generation Z and Digital Literacy

Millennials (also known as Generation Y) were born between 1981 and 1996, while Generation Z was born between 1997 and 2012. These generations have a strong attachment to digital technology. Their characteristics include a preference for instant, efficient, and technology-based solutions, including in financial activities. Rapid digital development has brought significant changes to various aspects of life, including education and learning.

Digital development in education presents both challenges and opportunities, particularly in digital literacy. As Generation Z grows in the digital era, improving digital literacy enables them to develop online responsibility, digital ethics, and critical thinking skills (Juniarty, 2024). Digital literacy is crucial for Generation Z in today's digital lifestyle, as it allows them to interact intelligently and effectively with technology while filtering accurate information from various sources. It also supports their participation in the digital economy and adaptation to rapid changes in the digital world.

Digital literacy includes the ability to use, evaluate, and create digital content, as well as to understand the social, ethical, and economic implications of digital technology. For Generation Z, who are born and raised in the digital era, digital literacy provides significant opportunities to leverage technology for education, employment, and social life. One of the current issues among Generation Z is the declining interest in reading literacy. Generation Z tends to prefer visual learning over printed media, leading to a continuous decline in reading interest each year (Mustika Wanda, 2024). Therefore, digital literacy is essential for both Generation Y and Generation Z. In essence, digital literacy measures the skills and abilities to search, find, use, and redistribute accurate and accountable information through digital media.

The Consumer Payment Attitudes Study 2023 found that 81% of Indonesian consumers use digital banking services at least once a week, with the trend particularly evident among 87% of upper-class respondents. Younger demographics, namely Generation Y (86%) and Generation Z (81%), were the most frequent users of digital banking services (Artha et al., 2023). Based on observations, the close relationship between Generation Z and technology makes them more vulnerable to a highly dynamic lifestyle known as "You Only Live Once" (YOLO). This generation is willing to incur debt to follow trends, and some students have become trapped in online loan schemes.

Decision on Cashless Usage

Based on field data, most informants made decisions to use cashless payment systems primarily because they are integrated with e-commerce platforms, followed by reasons related to fee-free transfers. The e-wallets perceived as most suitable by consumers in this study include DANA, Spaylater, ShopeePay, OVO, GoPay, and SeaBank.

This phenomenon is not merely about Generation Z interacting with digital media, but rather about the impact of such interactions on their daily lives. It is undeniable that Generation Z accesses the internet daily. Not only Generation Z, but also urban and rural millennials, whether at home, school, or the workplace, are continuously connected to the internet. Avoiding it is nearly impossible; however, educating and guiding millennials to navigate the digital world more effectively and productively is highly feasible for parents and educators.

Digital Era and Economic Transformation

The digital era has created new innovations that support economic development. Students, university learners, workers, professionals, and practitioners can easily access internet services for various needs and activities, thereby supporting Indonesia's economic growth. Information technology has fostered a new electronic lifestyle that serves human needs more efficiently in terms of time and cost.

One significant development in information technology is the transformation of payment instruments. Society, which previously relied on cash-based payments, has increasingly adopted non-cash payments through electronic media such as debit cards and virtual wallets (Putri, 2021). The implementation of Bank Indonesia Regulation No. 11/12/PBI/2009 encouraged issuers to develop electronic money products to support the national agenda toward a cashless society (Bank Indonesia, 2019).

In supporting Bank Indonesia's agenda, various banking and financial service providers have developed electronic money systems to promote cashless transactions. The need for cash in purchasing activities is gradually diminishing due to security considerations, such as avoiding counterfeit money, eliminating the need for change, and reducing the risk of theft when carrying large amounts of cash.

Cashless payment refers to non-cash payment instruments in the form of electronic money, which can be card-based (chip-based) or application-based (server-based). Popular non-cash payment services in Indonesia include ATM transfers, debit cards, internet banking, mobile payments, prepaid cards, credit cards, SMS banking, and virtual credit cards. Other electronic money products

include chip-based systems such as Flazz, Brizzi, JakCard, and Mandiri e-Money, as well as server-based systems such as Sakuku, OVO, GoPay, ShopeePay, and others.

Non-cash card-based and digital payments have transformed cashless payment into a lifestyle commonly referred to as a cashless society. The widespread use of non-cash payments is driven by convenience and promotional incentives such as discounts and cashback offers. However, users must remain cautious due to potential cybercrime risks associated with digital payment systems (Rositasari, 2022).

Concept of Cashless Society

A cashless society refers to an economic system in which financial transactions are conducted without physical cash. This concept emphasizes efficiency, transparency, and reduced transaction costs in an increasingly digital society. Payment instruments involve a set of rules, institutions, and mechanisms that facilitate economic activities and fund transfers between parties (Anasilla et al., 2025).

Currently, payment instruments are classified into cash and non-cash payments involving banking services. Non-cash instruments include paper-based payments such as checks and giro slips, card-based instruments such as credit cards and debit cards, and electronic money systems utilizing microchip technology. Each payment instrument has distinct implications for legal, technical, and operational aspects (Putri, 2021).

The digital revolution has fundamentally transformed financial systems and economic transactions. Cashless transactions have become increasingly prevalent in Indonesia through electronic money, QRIS, and mobile banking, particularly since the COVID-19 pandemic accelerated digital payment adoption to minimize physical contact (Juniarty, 2024; Pinara et al., 2025).

Generation Z and millennials have adopted cashless lifestyles by relying on digital transactions. While offering convenience and security, these systems also present challenges. To address these challenges, Generation Z is encouraged to choose appropriate payment platforms, use secure authentication methods, conduct transaction planning, and maintain personal budgeting to avoid impulsive purchases driven by FOMO.

Types of Cashless (Non-Cash) Systems

Cashless systems in Indonesia vary widely. NFC-based payments utilize near-field communication technology that allows transactions by simply bringing a smartphone close to a payment terminal. QR code payments require

scanning a merchant-provided code to transfer funds via smartphone applications. Digital wallet payments enable users to store electronic money and conduct transactions through mobile applications such as DANA, OVO, GoPay, LinkAja, Mandiri E-Cash, and Sakuku.

Sound-based payments rely on sound wave technology supported by specific software, allowing transactions without physical cards. USSD-based payments operate through GSM technology using SMS or short codes without requiring internet access, integrating telecommunications and banking services for financial transactions.

CONCLUSION

Based on the research findings, most Generation Z students at UIN JUSILA are familiar with and actively use various forms of cashless transactions, particularly ATM services, mobile banking, and e-wallets such as GoPay, OVO, ShopeePay, and DANA. The primary factors driving the adoption of these payment systems are convenience, efficiency, and promotional incentives. However, cashless transactions have not fully replaced cash in daily activities due to concerns about transaction security, habitual cash usage, and limited acceptance of non-cash payments in certain contexts, despite the availability of cashless facilities on campus and in surrounding communities. Nevertheless, students demonstrate significant potential as agents of change in accelerating the adoption of digital payment systems, especially when supported by adequate digital and financial literacy.

The findings of this study have both theoretical and practical implications. Theoretically, this research contributes to consumer behavior and digital finance literature by highlighting the role of digital literacy in shaping cashless transaction behavior among Generation Z. Practically, the results provide insights for higher education institutions, financial service providers, and policymakers to design targeted digital and financial literacy programs that enhance students' understanding of the benefits, risks, and safe practices of cashless transactions. Furthermore, universities are encouraged to strengthen non-cash payment infrastructure for internal services such as campus canteens, cooperatives, and administrative payments while fostering collaboration with banking institutions and fintech providers to expand access and offer educational workshops or training sessions.

Despite its contributions, this study has several limitations. The research scope was limited to students from selected faculties at UIN JUSILA, which restricts the generalizability of the findings. In addition, the study did not extensively examine psychological and social factors such as lifestyle orientation,

self-control, and fear of missing out (FOMO) that may influence cashless transaction behavior. Therefore, future research is recommended to involve broader and more diverse samples across multiple universities, employ quantitative or mixed-method approaches, and explore mediating or moderating variables to gain a deeper and more comprehensive understanding of cashless transaction adoption among Generation Z.

REFERENCE

Afandi, E. (2011). Perilaku konsumen dan implikasinya dalam pengambilan keputusan pembelian. Alfabeta.

Anasilla, M., Rahman, F., & Sari, N. (2025). Payment instruments and the development of a cashless society in Indonesia. Journal of Digital Economics, 7(1), 15–29.

Artha, D. R., Prasetyo, A., & Wibowo, S. (2023). Consumer payment attitudes study in Indonesia 2023. Journal of Financial Innovation, 9(2), 101–118.

Bank Indonesia. (2019). Peraturan Bank Indonesia Nomor 11/12/PBI/2009 tentang uang elektronik. Bank Indonesia.

Bank Indonesia. (2021). Blueprint sistem pembayaran Indonesia 2025. Bank Indonesia.

Bemby, B., & Qomariyah, N. (2023). Digital literacy and cashless transaction behavior among young consumers. Journal of Digital Finance, 5(2), 112–125.

Hasanah, U., & Damayanti, R. (2023). Research documentation methods in social science studies. Journal of Research Methodology, 4(1), 55–67.

Juniarty, D. (2024). Digital literacy development among Generation Z in the digital era. Journal of Educational Technology, 12(1), 44–58.

Lexy J. Moleong. (2001). Metodologi penelitian kualitatif. Remaja Rosdakarya.

Lexy J. Moleong. (2017). Metodologi penelitian kualitatif (Rev. ed.). Remaja Rosdakarya.

Mardalis. (2006). Metode penelitian: Suatu pendekatan proposal. Bumi Aksara.

Marlina, L., Hidayat, R., & Putra, A. (2021). Adoption of digital wallet services among university students. Journal of Islamic Economics and Finance, 6(3), 211–224.

Mustika Wanda, N. (2024). Reading literacy challenges among Generation Z in the digital age. Journal of Literacy Studies, 8(1), 23–37.

Pinara, R., Santoso, B., & Kurniawan, D. (2025). Digital payment acceleration in post-pandemic Indonesia. Journal of Financial Technology, 10(1), 1–15.

Putri, A. (2021). Transformation of payment systems toward a cashless society. Journal of Economic Development, 14(2), 89–103.

Putri Jayanti, A., Nugraha, S., & Lestari, D. (2024). Cashless payment adoption in the digital era. Journal of Financial Technology, 8(1), 45–58.

Putri Nugraha, R., Sari, M., & Widodo, T. (2021). Generation Z consumer behavior in the digital economy. Journal of Consumer Studies, 9(2), 67–81.

Rahayu, R. (2022). Factors influencing cashless payment usage among students. Journal of Financial Behavior, 6(3), 201–214.

Rositasari, D. (2022). Cybercrime risks in digital payment systems. Journal of Information Security, 7(2), 134–146.

Sagita, O. D. (2023). Digital literacy and cashless transaction behavior: A review of empirical studies. Journal of Economic Education, 7(2), 89–101.

Sari, R. R., Pratama, Y., & Hidayah, N. (2022). NFC-based payment systems and consumer adoption. Journal of Mobile Technology, 5(1), 22–35.

Sugiyono. (2018). Metode penelitian kualitatif, kuantitatif, dan R&D. Alfabeta.

Suryana. (2012). Metodologi penelitian: Model praktis penelitian kuantitatif dan kualitatif. Universitas Pendidikan Indonesia Press.

Totok Subianto. (2016). Perilaku konsumen dalam perspektif ekonomi. Graha Ilmu.