DIJEFA: Dinasti International Journal of Economics, Finance & Accounting
https://dinastipub.org/DIJEFA dinasti.info@gmail.com +62 811 7404 455
E-ISSN: 2721-303X
P-ISSN: 2721-3021
DOI: https://doi.org/10.38035/dijefa.v6i4

The Cashless Payment Paradox in Sustainable Consumption Trends: Between Efficiency and Overconsumption

Fitriyani Fitriyani[1*], Yogi Hady Afrizal[2]
[1]Institut Teknologi dan Bisnis Kalla, Makassar, Indonesia, fitriya@kallainstitute.ac.id
[2]Institut Teknologi dan Bisnis Kalla, Makassar, Indonesia, yogi@kallainstitute.ac.id

[*]Corresponding Author: fitriya@kallainstitute.ac.id[1]

Abstract: This study aims to examine the contradictory nature between the benefits and risks arising from the use of cashless payment systems in relation to sustainable consumption patterns in society. Employing a qualitative approach, this research seeks to explore in depth the contradictory aspects between the convenience offered by cashless payments and the principles of sustainable consumption, which emphasize environmental preservation. The research is centered in the city of Makassar. The findings reveal that cashless payment systems function as a double-edged sword: on one hand, they provide efficiency and ease in transactions; on the other hand, they carry significant, often hidden, risks of promoting overconsumption, especially in the absence of strong self-control and adequate systemic interventions in the use of such digital payment technologies. The implications of this research are expected to offer valuable insights for policymakers, business practitioners, and consumers on how to harness digital payment technologies to support more sustainable consumption patterns, while mitigating the risks of overconsumption that may be detrimental to both individuals and the environment.

Keywords: Consumer behavior, Cashless payment, Sustainable consumption, Green economy, Fintech.

INTRODUCTION

Consumer transaction habits have shifted alongside the rapid advancement of internet technology. The transition from cash to cashless payments has become widespread, driven by both consumers and producers, fostering the emergence of a cashless society (Afrizal et al., 2023).

Cashless payment methods have begun to reshape the landscape of financial transactions in Indonesia's digital era, offering unprecedented convenience and efficiency. These methods—including credit cards, e-wallets, and online bank transfers—have accelerated purchasing processes and eliminated physical constraints in conducting transactions (Kashyap et al., 2024). However, behind the convenience of cashless payments lies a trap that fosters consumerist behavior. Studies have shown that cashless payments can drive impulsive buying, particularly on e-commerce platforms due to the ease they offer (Fitriyani & Afrizal, 2024). Consumers increasingly prefer cashless payment methods due to their practicality, efficiency, financial transparency, and the incentives they provide (Afrizal et al., 2023).

Concurrently, a growing movement toward sustainable consumption has gained momentum, supported by Indonesia's national development agenda through the Asta Cita program outlined in the government's 2025 vision and mission. This aligns with the green economy pillar, emphasizing economic development that is conscious and responsible toward environmental preservation (Wijayanti & Sari, 2024). Consumers, particularly among the younger generations, are increasingly aware of the environmental impact of their shopping habits and are striving to make more responsible choices (Agustina et al., 2024).

Figure 1. Reasons for Using Environmentally Friendly Products
Source: (Snapcart. 2024)

According to Indonesian Consumers' Interest Toward Sustainable Products 2024 report, 38% of Indonesian consumers have become aware of and choose to use environmentally friendly and sustainable products, primarily to protect the environment and the planet.

E-commerce platforms and payment service providers now face the challenge of balancing innovation in payment convenience with the promotion of more environmentally sustainable consumption practices. This aligns with previous research that emphasizes the importance of offering environmentally friendly products or services (Syarif & Paramita, 2022).). It also suggests integrating information about the environmental impact of products into the purchasing process or providing incentives for eco-friendly choices.

Previous studies examining the relationship between cashless payment usage and sustainable consumption trends remain limited. Most research has focused on the impact of cashless payments on consumer spending levels (Schomburgk et al., 2024), the influence of cashless payments on Indonesia's economic growth (Christianti, 2024), the effect of electronic payments on consumer purchasing habits (Ghaith & Ghaith, 2022), and the role of digital payments in shaping impulsive buying behaviors in e-commerce (Fitriyani & Afrizal, 2024).

In contrast, studies on sustainable consumption often center on factors influencing consumers' green purchasing intentions (Syarif & Paramita, 2022), pathways to sustainable consumption among Gen Z and Millennials in Indonesia—highlighting the role of health awareness, lifestyle, and trust (Agustina et al., 2024), and the role of retailers in addressing consumers' psychological barriers to promote sustainable practices (Saha et al., 2024)). This research offers a new perspective by exploring in greater depth the paradoxical relationship between cashless payment use and sustainable consumption patterns. It aims to examine the balance between benefits and risks while analyzing how digital payment technologies can be leveraged to support more sustainable lifestyles.

The paradox between the benefits and risks of cashless payments in shaping sustainable consumption patterns raises a critical question: do cashless payments help consumers spend more efficiently or, conversely, encourage overconsumption? This research seeks to explore how consumers can better understand the impacts of their purchasing decisions in this digital era.

METHOD

To address the paradoxical nature of the benefits and risks posed by cashless payments on sustainable consumption patterns, this study adopts a qualitative research method with a phenomenological approach. This approach allows researchers to explore, in depth, the perspectives, experiences, and interpretations of research subjects using techniques such as in-depth interviews, participant observation, and document analysis. The phenomenological approach is particularly effective in uncovering the complex meanings behind social phenomena and understanding the contextual background of individual or community responses to specific issues (McCusker & Gunaydin, 2015).

This study focuses on consumers residing in Makassar, selected using purposive sampling. The key criteria for inclusion are: consumers who have lived in the research location for at least one year, have actively used cashless payment methods in the last three months, and demonstrate awareness of and a commitment to environmental preservation.

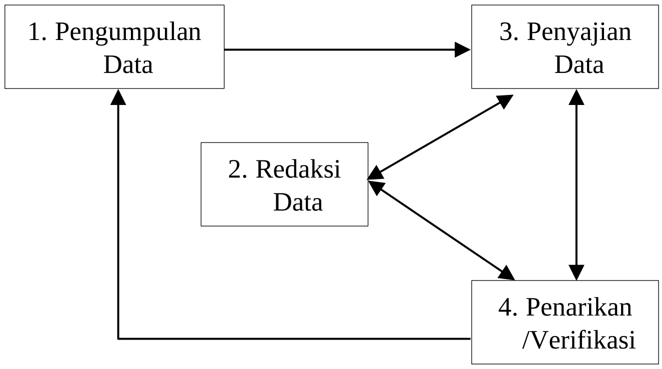
Data collection involved conducting in-depth interviews with selected informants, along with observation, note-taking, and documentation. To ensure data validity, the study employed triangulation techniques by comparing findings from multiple sources, including interview data, observational notes, and relevant documents (Lexy, 2006). Source triangulation was used to cross-verify data from different informants, enhancing the accuracy and consistency of findings (Alfansyur & Mariayani, 2020).

Table 1. List of Informan

No.	Initial	Profession	Cashless payment usage period	Informant Type
1	Rez	Businessman	4 years	Key
2	Lil	Civil servant	5 years	Key
3	Yan	Lecturer	6 years	Key
4	Yag	Student	2 years	Key
5	Fit	Employee	3 years	Key

Source: Research data

This study employed the interactive analysis model developed by Miles and Huberman, allowing real-time data analysis. The data analysis process consists of several stages: data collection, data reduction, data display, verification, and conclusion drawing.



Source: (Miles dan Huberman. 1992)
Figure 2. Data Analysis Method Flowchart

During the data collection phase, interviews were conducted with purposively selected informants. In the reduction phase, raw data were condensed by filtering relevant and significant information and structuring it into a more coherent form. Data display was done systematically to facilitate analysis and conclusion drawing. Data verification involved assessing meanings, patterns, regularities, and relationships between variables to ensure the validity of findings. Conclusions were drawn in the form of descriptive narratives, causal or interactive relationships, hypothesis formulation, or theory development (B. Matthew & Michael, 1992).

RESULTS AND DISCUSSION

The development of cashless payment methods has significantly transformed the landscape of digital economic transactions, providing widely acknowledged convenience and efficiency. However, behind this ease lies a contradictory potential that raises concerns regarding increasing consumerist behavior and weakening the spirit of sustainable consumption.

Performance Expectancy dan Digital Consumption Behavior

From the performance expectancy perspective, most informants confirmed that cashless payment methods offer convenience and speed in transactions. This reflects high performance expectations, as indicated by statements emphasizing ease, such as "faster and easier" and "not too complicated." The ability to make transactions without being physically tied to cash or wallets becomes an appealing feature that facilitates transactions. This aligns with the performance expectancy perspective, which posits that technology use will benefit consumers in carrying out specific activities (Venkatesh et al., 2012).

However, these perceived benefits are not without risks. The ease and smoothness of transactions can potentially reduce financial awareness and weaken spending control. As informant Yan admitted, using cashless payments made them feel “more wasteful” and “spending more,” indicating the "pain of paying" phenomenon where users feel regret after transacting with digital money (Reshadi & Fitzgerald, 2023). The intangible nature of digital money lowers psychological barriers to spending, leading to less conscious purchases and triggering impulsive, unplanned buying behavior (Faraz & Anjum, 2025). This paradox places consumers in a situation where transaction efficiency blurs financial efficiency.

This study categorizes consumer behavior in using cashless payments that significantly influence sustainable consumption into several clusters:

Table 2. Consumer Behavior Clusters in Cashless Payment Usage and Its Impact on Sustainable Consumption

Variabel	Strict Discipline	Controlled Impulsivity	Digital Overspending

Feature Usage	Manual budgeting, avoids PayLater	Weekly transaction checks, uninstalls apps when triggered	PayLater dependence, rarely checks transactions
Promo Response	Rejects non-essential discounts	Tempted by flash sales	Overspends due to FOMO
Environmental Awareness	Consistent in waste minimization	Contradictory (uses tumbler but buys non-eco products)	Minimal environmental consideration
Control Mechanism	Monthly financial planning	Uninstall apps	No control mechanism

Source: Research data

The table above shows consumer behavior clusters in the use of cashless payments in relation to sustainable consumption. Most informants fall under digital overspending or controlled impulsivity, mainly driven by promotional stimuli—especially flash sale programs—and FOMO (fear of missing out) triggered by trends and ads on social media. Only one informant demonstrated strict discipline, emphasizing the role of budget planning as a key variable in curbing consumerist behavior caused by digital payments (Purwaningtyas & Sari, 2025). Informants with low self-control reported difficulty limiting expenses. Informant Lel, for instance, had to delete specific apps to restrict herself. Abundant discounts and promotions on digital platforms positively correlate with hedonic consumption, overriding rational considerations (Anggarwati et al., 2023). Conversely, informants like Rez showed that cashless payments could still support financial efficiency if coupled with financial literacy and budgeting discipline.

Meanwhile, awareness of sustainable consumption remains partial. Some informants stated they began considering sustainability due to exposure from their work environment and social media educational content. However, in practice, they are still easily swayed by promotional incentives—such as informant Fit, who was influenced to purchase a tumbler due to workplace encouragement. This indicates that performance expectancy focused solely on ease and speed is not yet balanced by the integration of sustainability values. Without supportive interventions like eco-labeling or spending alerts, consumers remain vulnerable to consumption behaviors that contradict responsible consumption ideals. Informant Yan stated, “there should be labels or promo programs on sustainable products to attract consumers,” reinforcing the idea that proper education and labeling can guide sustainable choices.

Apart from behavior, the availability of features in apps is another contributing factor. Most informants expressed the need for daily spending limit alerts or excessive purchase notifications. Informants Yan and Lel suggested that “there should be some kind of notification” or “reminder features like an alarm in the app,” reflecting the necessity of systemic support to enable wiser financial decisions. Apps with such control features would enhance performance perceptions among users concerned with financial management and sustainability.

The Journey of Cashless Payments Towards Sustainable Consumption

In the context of sustainable consumption, awareness alone is insufficient. Practical mechanisms and digital ecosystems must encourage actionable change. Labeling environmentally friendly products, carbon footprint comparison features, or incentives for green purchases could become part of the solution supporting behavioral transformation. Informant Lel acknowledged that “there are no indicators for sustainable products,” limiting consumers’ ability to choose sustainable alternatives. Without such tools, sustainable consumption will remain sporadic and easily overshadowed by tech-facilitated consumer impulses.

Environmental concerns are a key dimension of this study. Cashless payments have the potential to reduce carbon emissions by up to 80% compared to cash-based transactions, which require printing, distribution, and physical storage (Chandra Agarwal et al., 2024). However, behaviors of informants like Lel, Fit, and Yag—who use sustainable products like tumblers to reduce waste yet are still lured by non-eco product promotions—highlight the inconsistency between intention and action in sustainable consumption.

In response, informant Lel proposed technology-based solutions such as an Eco-Mode feature, aligning with OECD recommendations for eco-labeling systems (Gruère, 2013).

At the policy level, tiered PayLater models—such as those applied by Singapore's Monetary Authority—can protect vulnerable consumers from sudden debt accumulation (Singapore's Buy Now, Pay Later Regulatory Landscape, 2025). This is supported by Bank Indonesia's regulatory efforts aimed at curbing overconsumption risks, especially in the digital era (Erwin Haryono, 2021). Consumer-oriented regulations are essential to protect vulnerable groups with low financial control so that digital payment systems do not become consumption traps.

Hence, digital payment methods are a double-edged sword that consumers must approach cautiously in today's digital era. On one hand, cashless payments offer high efficiency and meet consumers' performance expectations. On the other, they carry significant hidden risks of overconsumption if not accompanied by strong self-control and systemic interventions. The challenge lies in transforming expectations from a focus on speed and convenience to also include contributions toward a wiser and more sustainable lifestyle.

CONCLUSION

This study examines the paradox between the benefits and risks of using cashless payment methods in relation to sustainable consumption patterns, particularly regarding transaction efficiency and consumerist tendencies. The findings indicate that cashless payments facilitate ease and speed in transactions, aligning with user performance expectations as outlined in the performance expectancy theory.

However, this convenience also lowers psychological barriers to spending (the "pain of paying"), thereby increasing impulsive purchase risks. Features such as PayLater further reinforce these tendencies. The negative impacts of cashless payments are largely influenced by the user's self-control. Consumers with strong financial literacy exhibit wiser and more sustainability-oriented consumption behavior, while others struggle to regulate their expenses due to the ease offered.

Sustainable consumption awareness has not yet become a dominant factor in shopping decisions. Although some informants expressed environmental concerns, decisions were still largely driven by promotional incentives and the ease of cashless payments. This suggests that without self-control and supportive technology systems, cashless payment use may weaken responsible consumption practices.

The results underscore the importance of redesigning digital payment systems not only to focus on efficiency but also to support prudent financial management. Integrating features such as spending alerts, daily transaction limits, and environmental product labeling are strategic measures.

Improving digital financial literacy, especially among younger demographics, is crucial to raise awareness of the consequences of impulsive, technology-mediated consumption. Such education is also vital in fostering reflection on the social and ecological impacts of every digital transaction.

Future research should adopt a quantitative approach with a broader population scope to yield more representative insights. Comparative analyses based on demographic variables and experimental studies on the effectiveness of digital control features are also recommended to enrich understanding of the interplay between technology, self-regulation, and sustainable consumption.

REFERENCES

Afrizal, Y. H., Yahya, S. D., Zakiyabarsi, F., & Artikel Abstrak, I. (2023). Menelaah Adopsi Konsumen Pada Cashless Payment Pasca Pandemi Sebagai Upaya Menuju Cashless Society. *Jurnal Ilmiah Akuntansi Peradaban*, *IX*(2), 2023. https://doi.org/10.24252/jiap.v8i1.41293.

Agustina, T., Susanti, E., & Rana, J. A. S. (2024). Sustainable consumption in Indonesia: Health awareness, lifestyle, and trust among Gen Z and Millennials. *Environmental Economics*, *15*(1), 82–96. https://doi.org/10.21511/ee.15(1).2024.07.

Alfansyur, A., & Mariayani. (2020). SENI MENGELOLA DATA: PENERAPAN TRIANGULASI TEKNIK INFO ARTIKEL ABSTRAK. *Jurnal Kajian, Penelitian & Pengembangan Pendidikan Sejarah*, *5*(2), 146–150. https://doi.org/10.31764/historis.vXiY.3432.

Anggarwati, D., Agus Hermawan, & Wening Patmi Rahayu. (2023). The Effect of Price Discount and Promotion on Impulse Buying Through Hedonic Shopping Motivation as An Intervening Variable on Shopee Consumers. *LITERACY : International Scientific Journals of Social, Education, Humanities*, *2*(1), 34–49. https://doi.org/10.56910/literacy.v2i1.411.

B. Matthew, M., & Michael, H. (1992). *Analisis Data Kualitatif: Buku Sumber Tentang Metode Metode Baru*. UI Press.

Chandra Agarwal, S., Shukla, V., & Awasthi, A. (2024). Digital Payment Dynamics: Unveiling the Impacts on Sustainable Development, Environmental Protection, and Social Inclusion. *International Journal of Trend in Scientific Research and Development*, *8*(1). www.ijtsrd.com/papers/ijtsrd63442.pdf.

Christianti, A. (2024). The Impact of Cashless Payment on Economic Growth in Indonesia. *Jurnal Aplikasi Bisnis Dan Manajemen*. https://doi.org/10.17358/jabm.10.1.151.

Erwin Haryono. (2021). *Importance of Consumer Protection in the Digital Economy Era*.

Faraz, N., & Anjum, A. (2025). Spendception: The Psychological Impact of Digital Payments on Consumer Purchase Behavior and Impulse Buying. *Behavioral Sciences*, *15*(3). https://doi.org/10.3390/bs15030387.

Fitriyani, & Afrizal, Y. H. (2024). Use of Cashless Payment and Its Implications for Impulsive Buying: Examining Consumer Behavior Patterns in the Digital Era in E-Commerce. *Sentralisasi*, *14*(1). https://doi.org/https://doi.org/10.33506/sl.v14i1.3818.

Ghaith, M. M., & Ghaith, Y. M. (2022). Impact Of E-Payment System On Consumer Buying Behavior: A Study In Jordan. *Journal of Positive School Psychology*, *6*(8), 3813–3824. http://journalppw.com.

Gruère, G. (2013). *A Characterisation of Environmental Labelling and Information Schemes*. https://doi.org/10.1787/5k3z11hpdgq2-en.

Indonesian Consumers' Interest Toward Sustainable Products: Part 2. (2024).

Kashyap, N., Rohilla, N., & Das, S. (2024). The Evolution and Impact of Online Payment Systems on E-commerce. *International Journal for Multidisciplinary Research (IJFMR)*, *6*(3). https://doi.org/https://doi.org/10.36948/ijfmr.2024.v06i03.20579.

Lexy, M. (2006). *Metodologi Penelitian Kualitatif*. PT.Rosdakarya.

McCusker, K., & Gunaydin, S. (2015). Research using qualitative, quantitative or mixed methods and choice based on the research. *Perfusion (United Kingdom)*, *30*(7), 537–542. https://doi.org/10.1177/0267659114559116.

Purwaningtyas, P., & Sari, D. E. (2025). Financial Literacy and Digital Payment Adoption as Economic Drivers of Consumer Shopping Behavior and Self-Control. *International*

Journal of Economics Development Research (IJEDR), *6*(2), 724–735. https://doi.org/10.37385/ijedr.v6i2.7329.

Reshadi, F., & Fitzgerald, M. P. (2023). The pain of payment: A review and research agenda. *Psychology and Marketing*, *40*(8), 1672–1688. https://doi.org/10.1002/mar.21825

Saha, V., Jebarajakirthy, C., Sreen, N., Goyal, P., Mani, V., & Deshpande, S. (2024). Developing a Framework of Sustainable Consumption in Retailing Contexts. *Australasian Marketing Journal*, *32*(2), 178–188. https://doi.org/10.1177/14413582231185361.

Schomburgk, L., Belli, A., & Hoffmann, A. O. I. (2024). Less cash, more splash? A meta-analysis on the cashless effect. *Journal of Retailing*, *100*(3), 382–403. https://doi.org/10.1016/j.jretai.2024.05.003.

Singapore's Buy Now, Pay Later Regulatory Landscape. (2025).

Syarif, R., & Paramita, A. J. (2022). INTENSI PEMBELIAN HIJAU (GREEN PURCHASING): KERANGKA TEORI SOSIALISASI KONSUMEN DAN PERAN MODERASI KEBUTUHAN AKAN KEUNIKAN KONSUMEN. *Jurnal Ilmiah Mahasiswa Ekonomi Manajemen TERAKREDITASI SINTA*, *4*(4), 804–820. http://jim.unsyiah.ac.id/ekm.

Venkatesh, V., Walton, S. M., & Thong, J. Y. L. (2012). Quarterly Consumer Acceptance and Use of Information Technology: Extending the Unified Theory of Acceptance and Use of Technology1. *MIS Quarterly*, *36*(1), 157–178. https://doi.org/https://doi.org/10.2307/41410412.

Wijayanti, Y. R., & Sari, I. C. (2024). Reinvigorating Sustainable Green Economics in Indonesia: Exploring the Nexus between Global Green Economy Index and SDG 8. *The Journal of Indonesia Sustainable Development Planning*, *5*(3), 203–216. https://doi.org/10.46456/jisdep.v5i3.612.