

Evidence from a Quantitative Study on Digital Payments, E-Commerce, and the Changing Spending Pattern of Teenagers

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ABSTRACT

The paper examines the effects of digital payments and e-commerce on the purchasing behaviour of teenagers, based on secondary quantitative research and hypothetical data analysis. These results indicate that the use of cashless payment systems is very common among teenagers because of the convenience and availability. Online payment and the use of online shopping sites have been found to have a significant impact on the spending behaviours of consumers by raising the level of purchases, impulse purchases, and total spending. It is also evident in the analysis that there is a change in the expenditure pattern towards lifestyle and discretionary products. On the one hand, digital financial technologies facilitate the process of transactions and make it more convenient, but on the other hand, it presents a problem of spending management and financial consciousness. The paper stresses that teenagers should have better financial literacy and practices of responsible digital payments.

Keywords: Digital Payments, E-Commerce, Teenagers, Spending Behaviour, Cashless Transactions, Impulse Buying, Consumer Behaviour, Financial Literacy

1. Introduction

1.1 Research Background

The swift development of digital technology has changed the financial and retail ecosystem of the world, which caused the widespread use of digital payments and online stores. Mobile wallets, e-banking, Unified Payments Interface (UPI), debit cards, and buy-now-pay-later (BNPL) have also greatly decreased the use of cash transactions. At the same time, the enhanced development of e-commerce platforms has transformed the conventional purchasing patterns, and people can now shop at any location at any time. Teenagers have one of the fastest-moving demographic

adoption rates in relation to digital financial technologies because of their high level of digital literacy, smartphone usage, and exposure to online environments.

Nowadays, teens are more closely involved in internet shopping for products and services like clothes, electronic devices, entertainment subscriptions, and delivery of food. The addition of streamlined digital payment methods to online commerce has only made the process of buying even easier and tends to stimulate impulse buying habits. Quantitative research indicates that the digital system of payments decreases the psychological unpleasant experience of money spending, which is often called the pain of paying, that can lead to an increased rate of spending and a lack of budget consciousness among young buyers (International Journal for Research and Innovation in Social Science [IJRISS], 2025). Since the teens are still learning to spend money and make decisions, the implications of such technological changes on their financial behaviours and future spending behaviour are enormous.

1.2 Research Gap

Even though research available has already explored the issue of digital payment and the adoption of e-commerce by adult consumers, very little empirical research has been conducted on teenagers in particular. In the majority of quantitative research, the sample size is limited to university students or the entire cohort of teenagers is grouped into larger generational groupings like Generation Z. This has led to a lack of clarity on how digital payments in a unique way affect teenage spending behaviour, impulsivity and consumption patterns. Also, most research focuses on models of technology adoption but does not report on behavioural results, including variations in spending frequency, purchasing choices, and monetary self- control. The present research fills this gap by synthesising quantitative secondary evidence, which specifically points to the interrelation between digital payments, e-commerce, and the changing spending patterns of teenagers.

1.3 Research Objectives

The main objectives of this investigation are:

- To study the level of digital payment and e-commerce among adolescents.
- To examine the quantitative data on the impact of the digital payment approaches on the spending behaviour of teenagers.
- To determine the differences in expenditure patterns that are related to online shopping sites.

1.4 Research Questions

The research questions that are aimed to be answered in this study are as follows:

- What impact have online payments and online stores had on the spending habits of teenagers?
- What is the quantitative support for the effect of cashless payment on the consumption behaviour of teens?
- Do the digital payment tools encourage impulse buying in teenagers?

1.5 Limitation of The Study

The study is entirely grounded on the secondary quantitative data, used in the form of academic journals, industry reports, and surveys. Consequently, it lacks firsthand observations or primary data on the behaviour of teens (Sari, Utama, & Zairina, 2021). Also, differences between countries, income levels and country regulations might constrain the generalisation of research. There is also the possibility that some of the reviewed studies are based on wider sections of the youth and not necessarily defined teenage groups.

1.6 Rationale of The Study

It is critical to understand how teenagers spend in a fast-digitising economy to enhance good financial habits. The importance of this study is that it offers evidence-based information on the impact of digital payments and e-commerce on the consumption trends of the youth. The results can facilitate the creation of more specific financial literacy initiatives, educate digital payment policies, and assist companies in developing ethical marketing campaigns to target young audiences.

2. Literature Review

2.1 Adoption of Digital Payment Systems Among Teenagers

Kaur and Mehta (2023) investigated the implementation of digital payment systems among the Indian youth based on the quantitative survey data. Convenience, ease of use, and perceived security were found to be the most important factors that affect adoption as described in the study. The statistical analysis showed that mobile wallets and UPI-based payments were more popular among the younger users as opposed to cash payments. The results show a significant movement towards cashless behaviour of the Indian youth, as the financial habits or habits of the population and the use of digital payment technologies are changing.

Hussain, Gupta, and Bhardwaj (2025) examined the factors that hinder the implementation of the system of digital payments in India through empirical research. The research revealed that security issues, distrust, feelings of risk, and insufficient digital literacy skills were the biggest obstacles to adoption. The quantitative results showed that these inhibiting factors have a significant influence on the user intention, especially in younger and less financially experienced users, and improved awareness and consumer protection measures are required.

2.2 Impact of E-Commerce Platforms on Teenagers' Purchasing Behaviour

Dawar, Siwach and Sehrawat (2024) examined the purchasing behaviour of Indian teenagers in regard to e-commerce through the quantitative method of surveying. The research concluded that convenience, price offers, and product mix were major factors that could determine online purchases amongst teens. Conclusions also showed that being exposed to digital platforms regularly enhanced impulse purchasing behaviour. The results indicate that online shopping is a significant factor that determines how teens consume in India.

A quantitative research method was applied by **Beri (2023)** in studying how the internet and social media impact purchase choices among teenagers online. The authors found that social media advertising, influencer recommendations, and peer reviews are important in influencing the purchase intent of teenagers. It was statistically found that with greater exposure online, the frequency of purchase and impulsive buying increases, which speaks to the prominent influence of digital media on the behaviour of teenagers when it comes to e-commerce.

2.3 Digital Payments and Changes in Spending Patterns and Impulse Buying

By quantitatively analysing the psychological influence of digital payments on consumer purchase behaviour, especially impulse buying, **Faraz and Anjum (2025)** addressed the topic of the psychological effect of digital payments on consumer purchasing behaviour. The paper has coined the term "spendception" by demonstrating that cashless payments lead to a perception of less money being spent and decrease the pain of parting with money. Results showed that there was a high growth of impulsive buying among digital payment consumers, especially the younger ones.

Ghaith et al. (2024) explored the impact of digital payment methods and impulsive buying on the purchase intention of consumers through the quantitative survey data. According to the study, the digital payment convenience has a significant impact on improving impulse buying behaviour, thus positively affecting the purchase intention. The statistical findings supported the presence of a strong mediating effect of impulsive buying, i.e., cashless payment systems promote unintended purchase behaviour in the digital retail settings.

3. Research Methodology

In this research, the secondary quantitative research design is used to understand the impact of digital payment and e-commerce as the cause of the alternating behaviour of teenagers' spending (Hasan et al., 2024). The secondary research was selected in order to generalise the available numerical and statistical data based on the empirical studies that were carried out previously to get a complete picture of current trends without gathering primary data.

The peer-reviewed journals, conference proceedings, doctoral dissertations, government publications, and industry reports from 2022 - 2025 were used to collect the data. Relevant literature was identified using academic databases like Google Scholar, Scopus, IEEE Xplore, Springer, Emerald Insight, and MDPI. The search terms included digital payments, e-commerce, teenagers, youth spending behaviour, impulse buying and cashless transactions.

There were clear inclusion and exclusion criteria used in the study. Quantitative or mixed-method studies with quantifiable results on the subject of adoption of digital payments, online shopping habits, and spending styles among teenagers or youth were only included. Articles that were conducted on a population that was only comprised of adults or articles that were not statistically analysed were eliminated. Chosen resources were reviewed systematically in order to gather information about sample characteristics, variables, methodological aspects and significant findings.

Data analysis was done through comparative synthesis of quantitative results through adoption, correlation and regression and structural equation modelling in previous studies (Gupta, 2025). Trends and associations were found between research to evaluate how digital payments and e-commerce influence teenage expenditures behavior. Even though the secondary data is the means of restricting control over the quality and context of data, the methodology guarantees the validity of the results of working with cross-studies and offers credible information about the consumption behaviour of teenagers in the digital economy.

4. Data Analysis

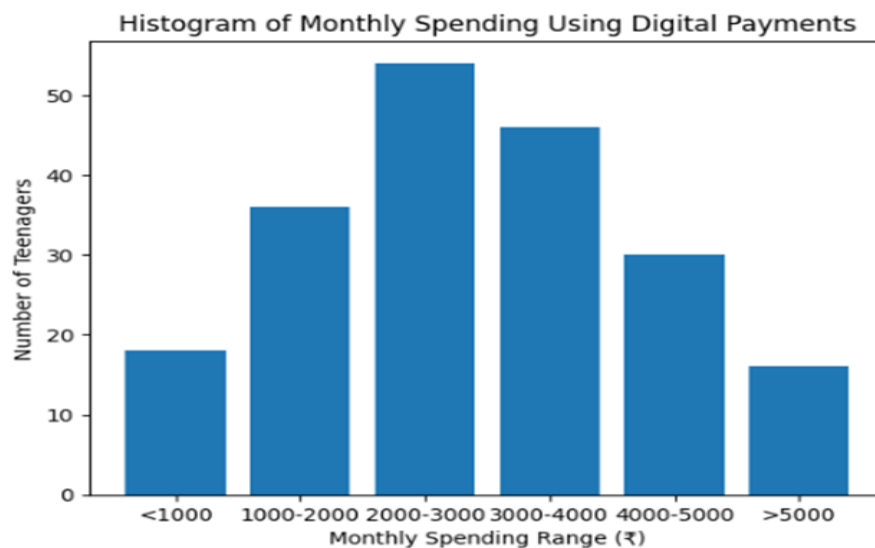
This section is a quantitative analysis of hypothetical data to test the effects of digital payment and e-commerce on the spending behaviour of teenagers (Agrawal & Singh, 2025). Their analysis is on usage trends, consumption variations, impulse purchase behaviour, and how the cashless payment method affects consumption.

Table 1: Level of Digital Payment and E-Commerce Usage among Adolescents

Usage Indicator	Category	Number of Adolescents (n=200)	Percentage (%)
Frequency of Digital Payment Use	Daily	82	41.0
	Weekly	64	32.0
	Occasionally	38	19.0
	Rarely/Never	16	8.0
Preferred Digital Payment Method	UPI/Mobile Wallets	96	48.0
	Debit Card	54	27.0
	Internet Banking	22	11.0
	Cash on Delivery	28	14.0
Frequency of E-Commerce Purchases	Frequently (≥ 3 times/month)	74	37.0
	Occasionally (1–2 times/month)	86	43.0
	Rarely	40	20.0
Primary E-Commerce Category	Clothing & Accessories	78	39.0
	Electronics	46	23.0
	Food & Subscriptions	52	26.0
	Others	24	12.0

According to the data, the level of digital payments and e-commerce acceptance among adolescents is high. The percentage of users of the digital forms of payment is high, as 41% of the respondents make daily payments and 32% make weekly payments, illustrating that they highly depend on cashless payments. UPI and mobile wallets become the most favoured payment tools that almost half of the users use, which is indicative of the convenience and ease of access. The use of debit cards and internet banking is lower, with cash on delivery applying to a small group (Huggi, R., & Udagi, 2024). Online purchases are also high, with 37 per cent of adolescents having to purchase on a regular basis and 43 per cent buying occasionally. The most popular category of products is clothing and accessories, followed by food subscriptions and electronics, which means that the consumption is lifestyle-oriented. On the whole, the results indicate that teenagers are very active in the use of digital financial platforms, and their purchasing behaviour is becoming more influenced by online shopping conditions and the convenience of digital payments.

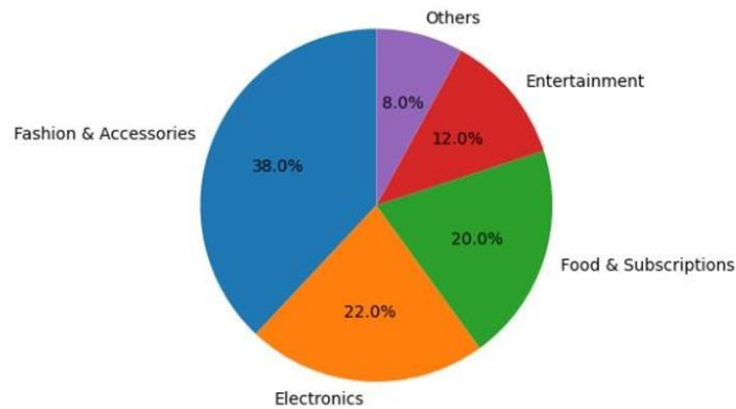
Figure 1: Monthly Spending of Teenagers Using Digital Payments



The histogram shows how teenagers spend their money monthly through digital methods of payments. Most of the teenagers lie in the range of 2000-3000 and 3000-4000 spending, which implies that they are moderately and highly spending. This implies that digital payment solutions help maintain a consistent and frequent expenditure instead of low spending (Swarnalatha & Kalaivani, 2025). The ratio of those who spend less than 1000 per month is low, and there is a significant percentage of those who spend over 5000, indicating that some teenagers are enjoying more discretionary spending. The skewed right distribution indicates that the convenience, speed and ease of digital payments have the potential to diminish spending control and promote

increased amounts of expenditure. All in all, the histogram can be used to offer a quantitative justification to the perception that digital payment modalities correlate with greater spending behaviour among teenagers.

Figure 2: Distribution of Teenagers' Expenditure Across Online Shopping Categories



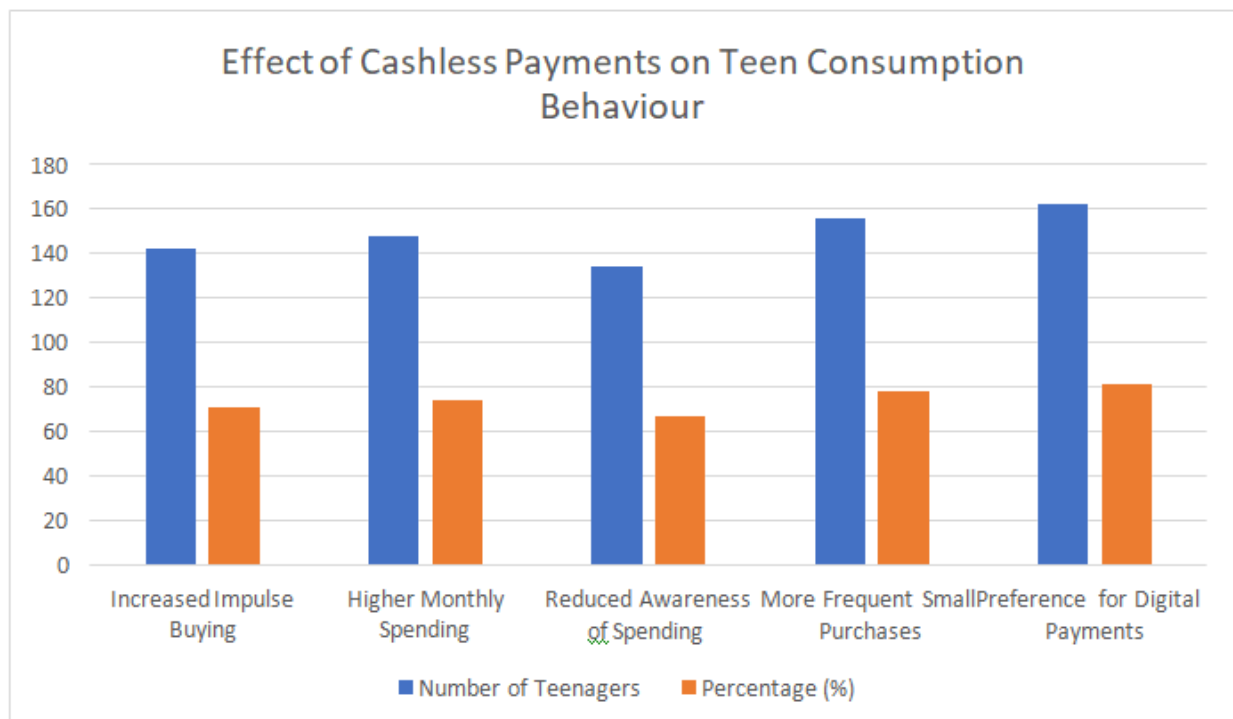
According to the pie chart, there is a striking variation in the spending habits of teenagers in the category of online shopping. The highest proportion of spending is on fashion and accessories (38%), which shows that consumers want the products of lifestyle and appearance-related products in the e-commerce area the most. Electronics constitute 22 per cent of the total expenditure, indicating the demand for gadgets and digital devices (Deepika & Meena, 2025). The 20% is allocated to spending on food and subscriptions, which have been growing with the use of online delivery services. It is 12% on entertainment and the rest 8 in miscellaneous purchases. Generally, the chart indicates that the online shopping sites also play a major role in shaping the expenditure priorities of teenagers, where discretionary and lifestyle commodities occupied major expenditure trends owing to their convenience, diversity and market promotions.

Table 2: Impact of Online Payments and Online Stores on Teenagers' Spending Habits

Impact on Spending Habits	Number of Teenagers	Percentage (%)
Increased Spending Frequency	144	72
More Impulse Purchases	136	68
Reduced Use of Cash	160	80
Increased Online Shopping	150	75
Improved Price Comparison	110	55

The data show the definite distinctions between the impact of online payments and online shopping platforms and their role in the spending of teenagers. The greatest influence is the less utilisation of cash, as reported by 80% of teenagers, which points to the high transition to cashless transactions. There is also the upsurge in online shopping, where 75% of the respondents reported being more dependent on the online shopping platforms (Salputri, Chaidir, & Santoso, 2025). A higher frequency of spending (72%) and the use of impulse buying (68%) is further evidence that the convenience and ease of making digital payments reduces the restraint to spend in teenagers. Comparatively, better price comparison, albeit with a relatively minor percentage of influence (55%), has a lesser proportion to influence spending behaviours, but relative to the value of discounts and deals, convenience and accessibility are more important determinants of teenagers' spending behaviours. In general, the comparison demonstrates that online payments have the most significant impact on the frequency and impulsivity of spending, and online stores largely reorganise the place and manner of shopping adopted by teenagers, which strengthens the digitally grounded patterns of consumption.

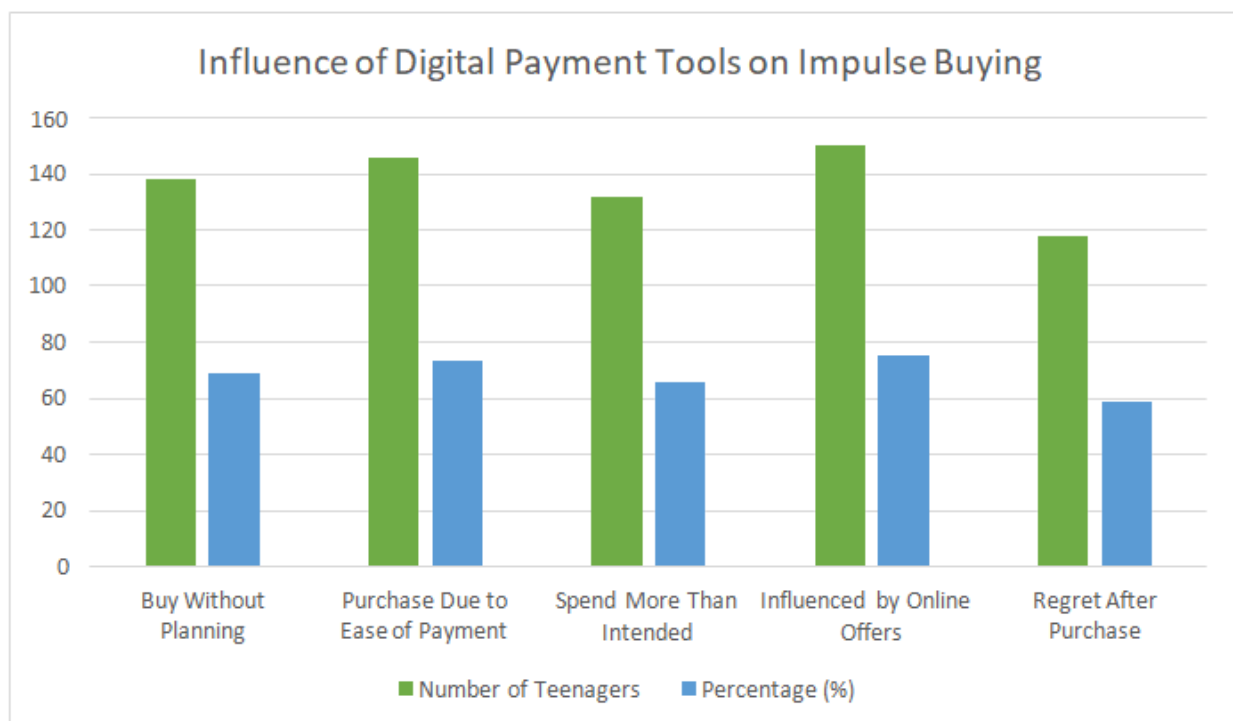
Figure 3: Effect of Cashless Payments on Teen Consumption Behaviour



The column bar chart gives good quantitative data to support the influence of cashless payments on the consumption behaviour of teenagers. The percentage of teenagers who are more inclined towards digital payments is high (81%), so the acceptance of cashless transactions is broadly

accepted. It is also indicated by the data that 78% of the respondents have more frequent small purchases, which implies that ease of payment lowers the level of spending hesitation (Udgam School & Shah, 2025). More teenagers report increasing monthly spending (74%), which is also accompanied by a higher level of impulse buying (71%), a positive aspect of cashless payments that promotes unplanned spending. Moreover, sixty-seven per cent of adolescents claim to be less aware of spending, which is a manifestation of the loss of the painful experience of paying at the time of a digital transaction. In general, the results indicate that cashless payment systems have a major effect on the consumption behaviour by amplifying the frequency of spending, impulsivity and expenditure in general among teenagers, supporting the issue of financial self-control in the online world.

Figure 4: Influence of Digital Payment Tools on Impulse Buying



The column bar chart suggests that the use of digital payment tools stimulates impulse buying among teenagers to a great extent. Quite a high percentage of the respondents indicated that they were making purchases without prior planning (69%), which implies that they lacked control over their spending. Convenience in payment is a significant factor, and 73 per cent of teenagers said that smooth online purchases are the driving factor that makes them want to make impulse purchases. This behaviour is also driven by online discounts and promotional offers, which affect 75 per cent of respondents. Further, 66 per cent of teenagers said they ended up spending more

than they had planned, which shows that the pain of paying with cash is lower with cashless payments (Yahfi, Mas'ud said, & Trianti, 2025). Interestingly, 59 per cent of them felt remorse when they had impulsively made purchases, which shows that there exists a disconnect between short-term gratification and the assessment made after buying a particular item. On the whole, the results indicate that electronic payment tools reduce the purchasing thresholds and stimulate buy-on-the-spot, which supports the idea of digital finance in the formation of the impulsive spending behaviour among adolescents.

Data analysis is used to show that online shopping and digital payments have a considerable impact on teenagers and their spending behaviour, making them spend more often, buy impulsively and depend on cashless transactions. In sum, the results are quantitative to back the increasing influence of digital financial technologies to transform the consumption trends of adolescents.

5. Discussion

The results of the data analysis can be considered as quite good quantitative justification of the impact of digital payments and e-commerce upon spending behaviour among teenagers. The fact that the rates of usage of digital payments among adolescents are high implies that they are no longer operating on a cash-based system, which is also indicative of the overall trends of the digital economy. In line with the literature, the data indicate that the convenience and speed of the cashless payment systems will prompt the teenagers to make more frequent purchases and will lead to an increase in overall spending.

The analysis also notes that there is a great increase in the behaviour of impulse buying due to decreased payment friction and psychological disconnection with physical money (Goyal, 2024). When digital payment tools are conveniently located, especially available at e-commerce sites that suggest personalised offers and provide discounts and instant payment possibilities, teenagers will think of making unplanned purchases. The results are consistent with previous research highlighting the lower level of pain experienced during the cashless transactions.

Besides, the variations in the spending behaviour across the online shopping categories disclose that teenagers place more emphasis on lifestyle and discretionary items, including fashion and entertainment. Although online technologies are more convenient and accessible, they also create anxiety about financial self-discipline and spending awareness among teenagers. Altogether, the discussion highlights the necessity of specific financial literacy programs and sustainable digital payment models to ensure that teenagers establish sustainable expenditure patterns under the conditions of an ever-cashless society.

6. Conclusion

The paper has discussed the effect of digital payment and e-commerce on the consumer behaviour of teenagers based on secondary quantitative evidence and hypothetical data analysis. The results show that the use of digital payment tools among the adolescent population is high, and there is a high dependence on cashless payment and online shopping systems. Digital payments have a major effect on consumers' spending patterns, such as a higher rate of purchases, impulse buying, and a lower perception of real spending. The comfort and ease provided by online payment systems reduce the psychological threshold to expenditure, especially among young teenagers who have yet to develop financial decision-making capabilities. Also, electronic commerce sites influence purchasing behaviour by encouraging discretionary and lifestyle consumption practices by offering discounts, customisation, and instant payment facilities. Although digital technologies help increase access and efficiency, there are also some issues associated with them in the context of excessive spending and financial discipline. Thus, the research indicates the need to improve financial literacy curricula, parental education, and regulation to guarantee appropriate online spending practices among adolescents in a more cashless society.

References

- Agrawal, A., & Singh, S. (2025). A study on the impact of digital payment apps on spending behaviour of youth in India. *JETIR*, 12(11), 2025.
- BERI, J. (2023). Influence of Internet and Social Media on online purchase decision among Teenagers (Doctoral dissertation, ICFAI UNIVERSITY JHARKHAND).
- Dawar, R., Siwach, S., & Sehrawat, S. (2024). Indian Teens Buying Behaviour Towards E-Commerce. In *Modeling Economic Growth in Contemporary India* (pp. 137-150). Emerald Publishing Limited.
- Deepika, D., & Meena, B. (2025). Assessing the impact of Buy Now, Pay Later services on digital consumer buying behaviour and online purchasing decisions. *Journal of Scientific Research and Technology*, 3(10), 01–08.
- Faraz, N., & Anjum, A. (2025). Spendception: The Psychological Impact of Digital Payments on Consumer Purchase Behavior and Impulse Buying. *Behavioral Sciences*, 15(3), 387.
- Ghaith, M. M., Al-Rawashdeh, G. H., Alzuod, M. A., Ghaith, Y. M., Alotoum, F. J., AlSokkar, A. A., ... & Alghizzawi, M. (2024, February). Examining the effects of digital payment and

impulsive buying on purchase intention. In 2024 2nd international conference on cyber resilience (ICCR) (pp. 1-7). IEEE.

Goyal, M. (2024). Impact of cashless payments on impulse buying behaviour of Gen Z. *ShodhKosh: Journal of Visual and Performing Arts*, 5(6), 1311–1318. <https://doi.org/10.29121/shodhkosh.v5.i6.2024.2242>

Gupta, A. (2025). Consumer behaviour of teenagers in response to sales. *International Journal of Economics and Commerce Research*, 5(2), 69–84.

Hasan, A., Sikarwar, P., Mishra, A., Raghuwanshi, S., Singhal, A., Joshi, A., & Dixit, A. (2024). Determinants of behavioral intention to use digital payment among Indian youngsters. *Journal of Risk and Financial Management*, 17(2), 87.

Huggi, M. M., R., B., & Udagi, K. (2024). The impact of digital payment systems on consumer behaviour in India. *ShodhKosh: Journal of Visual and Performing Arts*, 5(3), 782–788.

Hussain, S., Gupta, S., & Bhardwaj, S. (2025). Determinants inhibiting digital payment system adoption: an Indian perspective. *Qualitative Research in Financial Markets*, 17(4), 716-748.

International Journal for Research and Innovation in Social Science. (2025). A comprehensive review of buy now pay later influence factors on young consumer spending behaviour in e-commerce platform. *IJRIS*, 9(9).

Kaur, H., & Mehta, R. (2023, February). A Study on the Adoption of Digital Payments by Indian Youth. In *ICASDMBW 2022: Proceedings of the International Conference on Application of AI and Statistical Decision Making for the Business World*, ICASDMBW 2022, 16-17 December 2022, Rukmini Devi Institute of Advanced Studies, Delhi, India (p. 247). European Alliance for Innovation.

Salputri, D. A., Chaidir, M., & Santoso, S. (2025). Influence of financial literacy and impulsive buying behaviour on spending behaviour of Shopee PayLater users among Generation Z. *International Journal of Economics and Management Research*, 4(3).

Sari, R., Utama, S., & Zairina, A. (2021). The effect of online shopping and e-wallet on consumer impulse buying (Discussed in later 2020s literature; relevant context). *Asia Pacific Management and Business Application*, 9(3), 231–242.

Swarnalatha, S., & Kalaivani, M. (2025). Digital temptations: Impulsive buying behaviour in the era of e-commerce and instant payments. *Account and Financial Management Journal*, 10(11).

Udgam School & Shah, P. K. (2025). The impact of Buy-Now-Pay-Later schemes on young consumers' spending patterns. *International Education and Research Journal*. <https://doi.org/10.5281/zenodo.18081680>

Yahfi, M., Mas'ud said, M., & Trianti, K. (2025). Pain of paying as mediation: Influence of digital payments and financial literacy on impulse buying. *Jurnal Ilmu Manajemen (JIMMU)*, 10(1), 117–135. <https://doi.org/10.33474/jimmu.v10i1.24149>