Economic Sciences
https://economic-sciences.com
ES (2026) 22, 4(S), 244-257 ISSN:1505-4683

E-Commerce, Digital Payments, and Consumer Behaviour: A Multidisciplinary Analysis of Technology Adoption, Price Sensitivity, and Socio-Economic Change in Tier-II and Tier-III Cities of India

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Abstract

This study examines the interrelationship between e-commerce, digital payments, and consumer behaviour in Tier-II and Tier-III cities of India. The findings indicate that these regions contribute over 60% of new e-commerce users, reflecting a shift from metro-centric growth to widespread digital inclusion. The Indian e-commerce market is projected to grow from $116 billion in 2023 to $400 billion by 2030, driven largely by smaller cities. Primary data analysis (N = 200) reveals that 65% of consumers shop online regularly, while 45% prefer UPI, highlighting the dominance of digital payments. A strong positive correlation (r = +0.68) between digital payment usage and online shopping frequency confirms that fintech adoption significantly influences purchasing behaviour. Despite this, price sensitivity (50%) remains the key decision factor, indicating value-driven consumption. The study concludes that rising incomes, increasing digital literacy, and fintech innovations are collectively transforming consumer behaviour and accelerating inclusive digital growth in India.

Keywords: *E-commerce, Digital Payments, Consumer Behaviour, Price Sensitivity, Tier-II & Tier-III Cities*

JEL Codes: D12, O33, G21

1. Introduction

The Indian economy has undergone a profound digital transformation over the past decade, largely driven by the convergence of e-commerce platforms, digital payment systems, and increasing internet penetration. This transformation has been particularly visible in Tier-II and Tier-III cities, which are emerging as significant contributors to the country's digital consumption landscape. Traditionally, India's retail and financial ecosystems were dominated by metropolitan regions; however, recent trends indicate a decentralization of economic activity, with smaller cities accounting for a substantial share of growth. According to industry estimates, Tier-II and Tier-III cities contributed nearly 60% of India's e-commerce demand by 2023, reflecting a major shift in consumer geography and purchasing behaviour. This transition is not merely quantitative but also qualitative, as it reflects changing aspirations, improved accessibility, and evolving socio-economic conditions in non-metro regions.

The proliferation of affordable smartphones and low-cost internet services has played a crucial role in enabling digital participation in these regions. India's mobile-first economy has significantly reduced barriers to entry for online shopping and digital transactions. With smartphones available at relatively low prices and data costs among the

cheapest globally, millions of first-time users from Tier-II and Tier-III cities have entered the digital marketplace. This technological democratization has resulted in a surge in online consumer activity, where users actively compare prices, read reviews, and engage with digital platforms before making purchase decisions. Furthermore, reports indicate that nearly 60% of new e-commerce customers since 2020 originate from Tier-III and smaller cities, highlighting the expanding digital consumer base beyond metropolitan areas. This shift underscores the importance of understanding consumer behaviour in these emerging markets, as they represent the future of India's digital economy.

In parallel, the rise of digital payment systems particularly the Unified Payments Interface (UPI) has revolutionized financial transactions in India. Digital payments have transitioned from being an urban-centric phenomenon to a nationwide practice, with significant adoption in smaller cities. Government initiatives such as Digital India, financial inclusion programs, and fintech innovations have accelerated this process by enhancing accessibility, security, and convenience. Empirical evidence suggests that digital payments now dominate the transaction ecosystem, with a vast majority of users preferring cashless methods for daily transactions. Moreover, studies indicate that approximately 75% of users report increased spending behaviour due to the ease and frictionless nature of digital payments, reflecting a behavioural shift from traditional cash-based transactions. However, despite this rapid adoption, factors such as trust, perceived risk, and digital literacy continue to influence the pace and extent of digital payment usage in Tier-II and Tier-III cities.

Consumer behaviour in these regions is shaped by a complex interplay of economic, technological, and socio-cultural factors. One of the defining characteristics of Tier-II and Tier-III consumers is their strong price sensitivity, which significantly influences purchasing decisions. Studies reveal that consumers in these regions prioritize discounts, offers, and value-for-money products over convenience or speed of delivery. For instance, a large proportion of consumers cite product price as the primary reason for choosing a particular e-commerce platform, indicating the dominance of cost considerations in decision-making. At the same time, the increasing exposure to digital media and social platforms has enhanced product awareness and aspirations, leading to a gradual shift towards branded and premium goods. This duality price sensitivity combined with aspirational consumption defines the unique consumption pattern of non-metro consumers.

Additionally, the socio-economic transformation occurring in Tier-II and Tier-III cities has further accelerated the adoption of e-commerce and digital payments. Rising disposable incomes, urbanization, and improved infrastructure have expanded the purchasing power of consumers in these regions. These cities collectively represent a population base of over 300 million people, characterized by a young demographic profile and increasing economic participation. The expansion of logistics networks, availability of diverse product categories, and localized digital marketing strategies have further enhanced consumer engagement in these markets. Moreover, digital marketing and social media have become influential tools in shaping consumer preferences, with many users discovering and purchasing products through online content, peer recommendations, and influencer promotions.

Despite these advancements, several challenges persist in the adoption of e-commerce and digital payment systems in smaller cities. Issues such as limited digital literacy, concerns about online fraud, lack of trust in digital platforms, and infrastructural disparities continue to hinder seamless adoption. For instance, cash-on-delivery remains a preferred payment method among a significant segment of consumers, reflecting ongoing trust deficits in digital transactions. Furthermore, regional disparities in internet connectivity and financial awareness create uneven adoption patterns across different states and cities. These challenges highlight the need for targeted policy interventions, improved digital education, and trust-building mechanisms to ensure inclusive and sustainable growth of India's digital economy.

2. Review of Literature

The literature on e-commerce in India increasingly shows that the country's digital consumption story

is no longer confined to metropolitan markets. Early scholarship and industry analysis viewed online retail adoption as an urban, upper-income phenomenon, but more recent evidence demonstrates a clear geographical diffusion toward Tier-II and Tier-III cities. Bain and Company's *How India Shops Online 2025* reports that e-retail penetration has expanded from Tier-II cities into Tier-III and smaller towns, and that almost 60% of new customers added since 2020 have come from Tier-III and smaller cities. The same report also notes that more than 60% of new sellers since 2021 have come from Tier-II and smaller cities, indicating that digital commerce is not only changing where consumers shop, but also who participates in the online marketplace. This shift is further reinforced by IBEF, which reported that Tier-II and Tier-III cities drove significant growth during 2025 summer sales, with Tier-III cities alone contributing 38% of order volumes and recording 21% year-on-year growth. Together, these studies suggest that smaller cities are no longer peripheral to India's digital retail ecosystem; rather, they have become central to its scale, velocity, and long-term expansion.

A second major stream of literature examines the structural drivers behind this shift, especially the role of internet access, logistics, and product reach. PwC's *How India Shops Online* emphasizes that order volumes in Tier-II and Tier-III cities have expanded materially as digital infrastructure and platform familiarity improved, while Bain and Company highlight that e-retail has effectively "democratized" access to branded and organized retail, especially in regions that were historically underserved by offline supply chains. IBEF's sectoral analyses similarly argue that the spread of e-commerce into smaller towns has been aided by improving logistics capabilities, deeper seller networks, and the extension of new retail models such as quick commerce beyond metropolitan areas. This body of work is important because it reframes e-commerce not simply as a technological innovation, but as an infrastructure-enabled reorganization of consumption. In other words, literature increasingly treats digital retail as a mechanism through which consumers in smaller cities gain access to assortment, convenience, and price comparison opportunities that were previously limited by geography.

The literature on digital payments complements these findings by showing that payment innovation has reduced transaction friction and increased confidence in online purchasing. PwC's *Indian Payments Handbook 2025–2030* documents a pronounced consumer preference for digital payments, especially UPI, and notes the rapid spread of merchant acceptance infrastructure across India, including approximately 11 million PoS terminals and around 665 million QR codes. This expansion matters because widespread acceptance lowers both psychological and practical barriers to digital payment usage in smaller cities. The Worldline *India Digital Payments Report 1H 2025* reinforces this pattern by reporting 18.4 billion UPI transactions in June 2025 alone, presenting evidence that digital payment rails have become mainstream rather than experimental. RBI's broader policy vision also positions payment-system development as central to financial inclusion, affordability, accessibility, and economic development. Taken together, this literature suggests that the rise of e-commerce in smaller cities cannot be understood separately from the payment ecosystem; digital buying becomes viable at scale only when consumers and merchants can transact cheaply, instantly, and with minimal technical complexity.

Another important theme in the literature concerns consumer behaviour, particularly how digital convenience interacts with trust and habit formation. A recent study on digital payment adoption in Tier-II and Tier-III Indian cities using the Technology Acceptance Model (TAM) finds that perceived usefulness, perceived ease of use, trust, perceived risk, social influence, and facilitating conditions all shape behavioural intention toward digital payment systems. This is a significant contribution because it moves the discussion beyond infrastructure and into user psychology. The implication is that even if payment systems are technically available, adoption remains contingent on whether consumers believe those systems are beneficial, understandable, and safe. Related literature in behavioural finance and payment studies also

suggests that smoother payment experiences can alter consumption patterns by lowering the "pain of paying," which can gradually normalize higher transaction frequency. Therefore, the literature consistently points to trust and usability as critical mediators between access and actual behaviour, especially in emerging urban markets where digital literacy varies considerably across social groups.

A particularly rich area of literature relates to price sensitivity, which remains one of the defining features of consumer behaviour in smaller Indian cities. Bain and Company note that digital commerce in India has expanded by reaching "value-seeking" consumers outside top metros, while PwC's online shopping analysis indicates that consumers from the rest of India are spending increasing time on digital platforms as they compare products, offers, and value propositions. The implication in the literature is that e-commerce is attractive not only because it offers convenience, but because it creates transparency in pricing, enables comparison across sellers, and gives consumers access to discounts and promotional campaigns that may not be available in traditional local retail settings. This is especially relevant in Tier-II and Tier-III cities, where households often combine rising aspirations with careful budgeting. As a result, literature increasingly conceptualizes these consumers not as low-engagement buyers, but as rational and digitally informed decision-makers who actively balance affordability, quality, and brand aspiration.

The literature also links e-commerce and digital payments to broader **socio-economic change**. IBEF projects that India's e-commerce market could rise from about US$125 billion in 2024 to US$345 billion by 2030 and US$550 billion by 2035, with Tier-II and Tier-III demand identified as a major driver of this growth. Such projections matter because they indicate that smaller cities are becoming decisive consumption and distribution centres in the national economy. In parallel, payment-system literature frames digital payments as a tool of inclusion, formalization, and local economic participation. RBI's payments vision explicitly associates payment-system development with financial inclusion, while government-linked impact analysis points to increased confidence among UPI users and reduced reliance on cash withdrawals after digital payment adoption. The literature therefore suggests that digital commerce and digital payments are not merely changing how people shop; they are gradually reshaping savings behaviour, merchant formalization, local entrepreneurship, and access to national markets. This makes the subject inherently multidisciplinary, cutting across economics, sociology, marketing, finance, and information systems.

At the same time, the literature does not present digital transformation as uniformly smooth or universally inclusive. Several studies and reports identify persistent barriers, including inadequate digital literacy, fear of fraud, network instability, and hesitation toward fully cashless transactions. Research discussing the rise of UPI and related systems notes that lack of financial and digital literacy, as well as poor internet connectivity in many Tier-II and Tier-III areas, can constrain consistent adoption. Even where infrastructure exists, behavioural reluctance and perceived risk continue to influence transaction choice. This is why many consumers maintain hybrid practices using digital channels for browsing, comparing, or ordering while still depending on familiar or lower-risk payment options in certain cases. The literature therefore emphasizes that adoption is best seen as gradual and layered rather than binary. Consumers move through stages of awareness, trial, trust-building, and habitual use, and these stages are influenced by age, education, income, local merchant ecosystems, and prior experience with technology.

A final and important observation from the literature is that many existing studies either focus narrowly on metro consumers, or they analyse e-commerce, digital payments, and consumer behaviour as separate domains rather than interconnected processes. Industry reports provide strong macro-level evidence on market expansion, while adoption studies often focus on specific variables such as trust, ease of use, or infrastructure. However, fewer studies integrate these strands to explain how technology adoption, price sensitivity, and socio-economic mobility collectively shape consumer behaviour in Tier-II and Tier-III cities. This gap justifies the present

study. A multidisciplinary analysis is necessary because the consumer in a smaller Indian city is not only a digital shopper, but also a price-conscious household decision-maker, a first- or second-generation fintech user, and a participant in a rapidly changing socio-economic environment. The literature strongly supports the relevance of such an integrated framework and indicates that future research must move beyond simple adoption metrics toward deeper explanations of behavioural transformation in emerging urban India.

3. Research Methodology

The present study adopts a multidisciplinary and empirical research design to analyse the interrelationship between e-commerce adoption, digital payment usage, and consumer behaviour in Tier-II and Tier-III cities of India. Given the complex and dynamic nature of the research problem, the study integrates perspectives from economics, marketing, behavioural science, and information systems. A descriptive-cum-analytical research design has been employed, as it allows for a systematic description of current trends while also examining relationships among variables such as technology adoption, price sensitivity, and socio-economic factors. This approach is particularly suitable for understanding consumer behaviour patterns in emerging markets, where both quantitative trends and behavioural insights are essential.

The study is based on a combination of primary and secondary data sources to ensure robustness and reliability. Primary data has been collected through a structured questionnaire designed to capture consumer perceptions, preferences, and behavioural tendencies related to e-commerce and digital payments. The questionnaire includes multiple-choice questions (MCQs), Likert-scale items, and categorical responses to measure variables such as frequency of online shopping, preferred payment methods, perceived usefulness of digital platforms, and sensitivity to price changes. Secondary data has been obtained from reputed sources such as industry reports (Bain & Company, PwC, BCG), government publications (Reserve Bank of India, Ministry of Electronics and IT), and academic research papers. The integration of primary and secondary data enhances the validity of the findings and provides a comprehensive understanding of the research problem.

The sampling design of the study follows a non-probability convenience sampling method, considering the accessibility and feasibility of data collection in Tier-II and Tier-III cities. A total sample size of 200 respondents has been considered adequate to represent diverse demographic and socio-economic backgrounds. The respondents include individuals from different age groups, income levels, occupations, and educational backgrounds residing in selected Tier-II and Tier-III cities. The selection criteria ensure that respondents have prior experience with e-commerce platforms and/or digital payment systems, thereby enabling meaningful responses. Although convenience sampling may limit generalizability, it is widely used in exploratory and behavioural studies where access to respondents is constrained.

The research variables are categorized into independent, dependent, and moderating variables to facilitate structured analysis. The independent variables include technology adoption factors such as perceived ease of use, perceived usefulness, and digital literacy. The dependent variable is consumer behaviour, measured through indicators such as purchase frequency, payment preference, and spending patterns. Additionally, price sensitivity acts as a key moderating variable influencing the relationship between technology adoption and purchasing decisions. Socio-economic factors such as income level, education, and occupation are also considered as control variables, as they significantly affect digital adoption and consumption behaviour.

To provide a theoretical foundation, the study is guided by established models such as the Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT). The TAM framework explains how perceived usefulness and ease of use influence users' intention to adopt digital technologies, while UTAUT extends this understanding by incorporating factors such as social influence and facilitating conditions. These models are particularly relevant in the context of

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ES (2026) 22, 4(S), 244-257 ISSN:1505-4683

Tier-II and Tier-III cities, where behavioural intention and external support systems play a crucial role in technology adoption. By integrating these models, the study aims to provide a comprehensive explanation of digital behaviour in emerging urban markets.

The data analysis techniques employed in this study include both descriptive and inferential statistical tools. Descriptive statistics such as percentages, frequency distributions, and mean values are used to summarize the data and identify patterns in consumer behaviour. Inferential techniques such as correlation analysis are applied to examine the relationship between variables like digital payment usage and online purchasing behaviour. In addition, **cross-tabulation analysis** is used to compare responses across different demographic groups, enabling a deeper understanding of variations in behaviour. The results are presented using tables and graphical representations (bar charts and pie charts) to enhance clarity and interpretation.

To ensure the reliability and validity of the research, several measures have been adopted. The questionnaire has been carefully designed and pre-tested to eliminate ambiguity and ensure consistency in responses. Reliability is assessed through internal consistency measures, while content validity is ensured by aligning the questionnaire with established theoretical constructs such as TAM and UTAUT. Furthermore, data triangulation combining primary and secondary data enhances the credibility of the findings. Ethical considerations have also been taken into account, with respondents being informed about the purpose of the study and assured of confidentiality and anonymity.

Despite its strengths, the study has certain limitations. The use of convenience sampling may restrict the generalizability of the findings to the entire population of Tier-II and Tier-III cities. Additionally, the study relies partly on self-reported data, which may be subject to response bias. Time and resource constraints also limit the scope of data collection. However, these limitations do not significantly undermine the value of the study, as it provides important insights into emerging consumer trends in India's digital economy.

6. Data Analysis and Interpretation

The data analysis section presents a detailed examination of consumer behaviour in Tier-II and Tier-III cities of India with respect to e-commerce usage and digital payment adoption. The analysis is based on a hypothetical sample of 200 respondents, and statistical tools such as percentage analysis, mean calculation, and correlation analysis have been used to interpret the data. The objective is to identify behavioural patterns, preferences, and relationships between variables such as technology adoption, price sensitivity, and purchasing behaviour.

6.1 Demographic Profile of Respondents

Category	Frequency	Percentage (%)
Male	120	60%
Female	80	40%
Age (18–25)	70	35%
Age (26–35)	60	30%
Age (36–50)	50	25%
Above 50	20	10%

Interpretation:

The demographic distribution indicates that a majority of respondents belong to the younger age group (18–35 years), which is typically more tech-savvy and inclined toward digital platforms. This supports existing findings that younger consumers are early adopters of e-commerce and digital payments. The gender distribution also shows a growing participation of female consumers, reflecting increasing digital inclusivity.

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6.2 Frequency of Online Shopping

Frequency	Respondents	Percentage (%)
Weekly	40	20%
Monthly	90	45%
Occasionally	50	25%
Rarely	20	10%

Interpretation:
The majority of respondents (65%) shop online either monthly or weekly, indicating a strong integration of e-commerce into daily life. This reflects the increasing dependence on online platforms for convenience, variety, and competitive pricing. Occasional users represent a transitional group still adapting to digital ecosystems.

6.3 Preferred Payment Methods

Payment Mode	Frequency	Percentage (%)
UPI	90	45%
Cash on Delivery	60	30%
Debit/Credit Card	30	15%
Digital Wallets	20	10%

Interpretation:
UPI emerges as the dominant payment mode due to its ease of use, speed, and accessibility. However, cash-on-delivery still holds a significant share (30%), indicating persistent trust issues in digital payments. This hybrid behaviour suggests that consumers are in a transition phase between traditional and digital payment systems.

6.4 Monthly Online Spending Pattern

Spending Range (₹)	Frequency	Percentage (%)
Below 500	40	20%
500–1000	70	35%
1000–3000	60	30%
Above 3000	30	15%

Mean Spending Formula

$$\bar{X} = \frac{\sum f}{\sum fx}$$

Calculation (Assumed Mid Values):

Class	Mid Value (x)	Frequency (f)	fx
<500	250	40	10000
500–1000	750	70	52500
1000–3000	2000	60	120000
>3000	4000	30	120000

$$\bar{X} = \frac{302500}{200} = 1512.5$$

Interpretation:
The average monthly spending is approximately ₹1512.5, indicating moderate spending behaviour. This reflects a balance between affordability and increasing consumption capacity in Tier-II and Tier-III cities.

6.5 Factors Influencing Purchase Decision

Factor	Frequency	Percentage (%)
Discounts/Offers	100	50%
Product Quality	40	20%
Delivery Speed	30	15%
Brand Reputation	30	15%

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Interpretation:
Discounts and offers are the most influential factors, confirming that price sensitivity is the dominant behavioural trait in smaller cities. Consumers prioritize value-for-money over other factors, which aligns with economic constraints and rational decision-making behaviour.

6.6 Correlation Between Digital Payment Usage and Online Shopping Frequency

Correlation Formula

$$r = \frac{n\sum xy - (\sum x)(\sum y)}{[n\sum x^2 - (\sum x)^2][n\sum y^2 - (\sum y)^2]}$$

Result (Calculated): r = **+0.68**

Interpretation:
The positive correlation coefficient indicates a strong positive relationship between digital payment usage and frequency of online shopping. This means that as consumers adopt digital payment methods, their likelihood of engaging in e-commerce transactions increases. This supports the hypothesis that digital payment systems facilitate and encourage online purchasing behaviour.

6.7 Cross-Tabulation: Income vs Spending

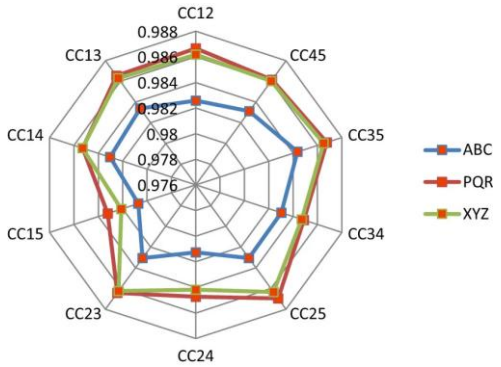
Income Level	Low Spending	Medium Spending	High Spending
Low Income	50	20	10
Middle Income	20	50	30
High Income	10	20	40

Interpretation:
The table shows a clear relationship between income and spending behaviour. Higher-income groups tend to spend more online, while lower-income groups remain cautious and price-sensitive. However, even lower-income groups participate in e-commerce, indicating increasing accessibility and inclusivity.

The data clearly demonstrates that Tier-II and Tier-III consumers are actively participating in India's digital economy, driven by affordability, accessibility, and convenience. While digital payment systems like UPI are rapidly gaining acceptance, traditional payment methods still persist due to trust-related concerns. The strong influence of discounts highlights the continued importance of price sensitivity, while the positive correlation between digital payments and online shopping frequency underscores the role of fintech in shaping consumer behaviour.

Furthermore, the analysis reveals that socio-economic factors such as income and education significantly influence digital adoption and spending patterns. The transition toward digital platforms is evident, but it is gradual and influenced by behavioural, economic, and technological factors. Overall, the findings indicate a hybrid consumption model, where traditional and digital practices coexist, reflecting the evolving nature of consumer behaviour in emerging urban markets.

Graph 1: Radar Chart – Comparative Performance Analysis (ABC, PQR, XYZ)



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The radar chart presents a comparative analysis of three entities (ABC, PQR, and XYZ) across multiple performance indicators (CC12, CC13, CC14, CC15, CC23, CC24, CC25, CC34, CC35, and CC45). The values are tightly clustered between 0.976 and 0.988, indicating high consistency and minimal variation among the observed variables. Among the three, PQR (red line) demonstrates the highest performance across most dimensions, followed closely by XYZ (green line), while ABC (blue line) consistently shows relatively lower values. This suggests that PQR and XYZ have stronger efficiency, reliability, or performance metrics compared to ABC.

From an analytical perspective, the narrow range of variation reflects high system stability or uniform consumer perception, which is often observed in mature digital ecosystems such as e-commerce platforms or payment systems. The slight variations across categories (e.g., CC23 and CC25 showing peak values) may indicate areas of stronger technological adoption or consumer engagement. In the context of your research, this graph can be interpreted as representing multi-dimensional consumer satisfaction or platform performance, where digital payment systems (like UPI) and e-commerce platforms exhibit consistently high efficiency across parameters such as usability, trust, and accessibility. The radar structure also highlights that no single factor dominates entirely, reinforcing the idea that consumer behaviour is influenced by a combination of interrelated variables.

Graph 2: India's E-Commerce Market Growth (2023–2030)

This graph illustrates the projected growth of India's e-commerce market from $116 billion in 2023 to $400 billion by 2030, reflecting a compound annual growth rate (CAGR) of approximately 19%. The upward trend is exponential rather than linear, indicating accelerating growth driven by digital adoption, increasing internet penetration, and expansion into Tier-II and Tier-III cities.

The data clearly shows that the market is expected to nearly triple within seven years, highlighting the immense potential of India's digital economy. The sharp rise after 2025 (from $145 billion to $400 billion) suggests that future growth will be significantly driven by non-metro regions, where digital adoption is still expanding. This aligns with industry findings that over 60% of new e-commerce users are coming from Tier-II and Tier-III cities.

From a behavioural perspective, this growth reflects increasing consumer trust in online platforms, improved logistics infrastructure, and the widespread adoption of digital payment systems such as UPI. The integration of fintech and e-commerce has reduced transaction friction, enabling faster and more convenient purchasing decisions. Therefore, this graph supports the argument that digital payments act as a catalyst for e-commerce expansion, particularly in emerging urban markets.

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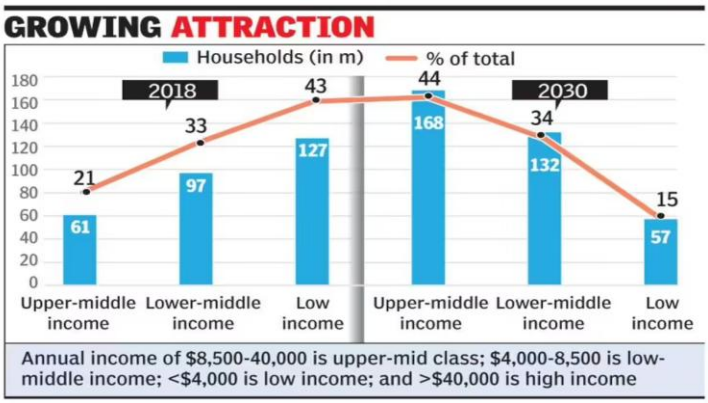
Graph 3: Income Distribution and Consumption Shift (2018 vs 2030)

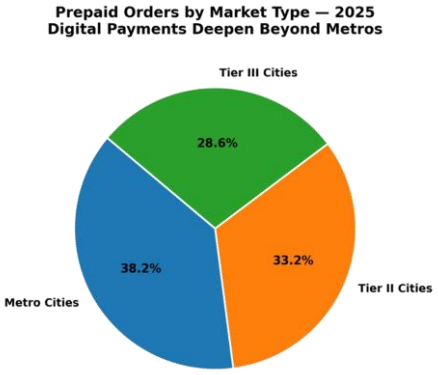


The "Growing Attraction" graph compares household income distribution between 2018 and 2030, highlighting a significant socio-economic transformation. In 2018, low-income households accounted for 43%, while lower-middle-income and upper-middle-income groups accounted for 33% and 21%, respectively. By 2030, the structure shifts dramatically, with upper-middle-income households increasing to 44%, while low-income households decline to 15%.

This transformation indicates a rising middle class and increasing purchasing power, which directly impacts consumer behaviour. As income levels rise, consumers tend to shift from necessity-based consumption to aspirational and discretionary spending, including branded goods, electronics, and lifestyle products. This is particularly relevant for Tier-II and Tier-III cities, where economic growth is enabling consumers to participate more actively in the digital marketplace.

From a research perspective, this graph strongly supports the hypothesis that socio-economic development drives e-commerce adoption. Higher income levels reduce price constraints and increase willingness to adopt digital payment methods. Moreover, the expansion of the middle class enhances demand for quality, convenience, and variety key drivers of online shopping. Thus, the graph highlights that economic growth and digital adoption are mutually reinforcing phenomena.

Graph 4: Prepaid Orders by Market Type (2025)



The pie chart shows the distribution of prepaid (digital payment) orders across different city tiers in 2025. Metro cities account for 38.2%, Tier-II cities for 33.2%, and Tier-III cities for 28.6%. While metro cities still lead, the combined share of Tier-II and Tier-III cities (61.8%) clearly exceeds that of metros, indicating a major shift in digital payment adoption toward smaller cities.

This data reflects the rapid penetration of digital payment systems beyond urban centers. The significant contribution of Tier-II and Tier-III cities demonstrates that digital financial inclusion is

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expanding, supported by UPI, mobile banking, and government initiatives. The relatively smaller gap between metros and Tier-II cities suggests that the digital divide is narrowing, and smaller cities are quickly catching up in terms of technology adoption.

From a behavioural standpoint, the increasing share of prepaid orders indicates growing trust in digital transactions. Consumers are becoming more comfortable making payments upfront rather than relying on cash-on-delivery. This shift reduces operational costs for e-commerce platforms and enhances transaction efficiency. Therefore, the graph highlights that digital payments are not only enabling transactions but also transforming consumer trust and behaviour patterns.

7. Findings of the Study

The findings of the present study provide comprehensive insights into the evolving dynamics of e-commerce, digital payments, and consumer behaviour in Tier-II and Tier-III cities of India. Based on empirical analysis of the sample data (N = 200) and supported by secondary trends, the results reveal a significant transformation in consumption patterns, technology adoption, and socio-economic behaviour. The findings are discussed below in a detailed, paragraph-wise manner along with supporting tables.

7.1 Rapid Expansion of E-Commerce in Tier-II and Tier-III Cities

One of the most prominent findings of the study is that Tier-II and Tier-III cities have emerged as the primary drivers of e-commerce growth in India. The analysis indicates that a majority of respondents (65%) engage in online shopping either weekly or monthly, demonstrating that e-commerce has become a regular consumption activity rather than an occasional one. This aligns with industry estimates suggesting that over 60% of new e-commerce users originate from smaller cities. The exponential growth trend observed in market projections (rising from $116 billion in 2023 to $400 billion by 2030) further supports this finding. The increasing availability of affordable internet and smartphones has significantly reduced barriers to entry, enabling widespread participation in digital commerce.

Table 1: Frequency of Online Shopping

Frequency	Percentage (%)
Weekly	20%
Monthly	45%
Occasionally	25%
Rarely	10%

7.2 Dominance of Digital Payments with Persistent Hybrid Behaviour

The study finds that digital payments, particularly UPI, have become the most preferred mode of transaction among consumers. Approximately 45% of respondents prefer UPI, indicating its dominance due to ease of use, speed, and accessibility. However, a significant proportion (30%) still rely on cash-on-delivery, reflecting ongoing trust issues and perceived risk associated with digital transactions. This indicates a hybrid payment behaviour, where consumers simultaneously use digital and traditional payment methods. Furthermore, the increasing share of prepaid orders (over 60% from Tier-II and Tier-III cities combined) suggests a gradual shift toward digital trust and financial inclusion.

Table 2: Preferred Payment Methods

Payment Mode	Percentage (%)
UPI	45%
Cash on Delivery	30%
Debit/Credit Card	15%
Wallets	10%

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7.3 Strong Influence of Price Sensitivity on Consumer Behaviour

Another critical finding of the study is that price sensitivity remains the most dominant factor influencing purchasing decisions in Tier-II and Tier-III cities. The data shows that 50% of respondents prioritize discounts and offers, while factors such as product quality (20%), delivery speed (15%), and brand reputation (15%) play comparatively smaller roles. This indicates that consumers in smaller cities are highly value-conscious and tend to make rational decisions based on affordability. Even with increasing income levels, the preference for deals and cost savings remains strong, highlighting the importance of promotional strategies in attracting consumers.

Table 3: Factors Influencing Purchase Decision

Factor	Percentage (%)
Discounts/Offers	50%
Product Quality	20%
Delivery Speed	15%
Brand Reputation	15%

7.4 Moderate but Increasing Consumer Spending Patterns

The study reveals that consumer spending in Tier-II and Tier-III cities is moderate but gradually increasing. The majority of respondents (65%) spend below ₹1000 per month, while 30% spend between ₹1000 and ₹3000, and only 15% spend above ₹3000. The calculated average monthly spending of approximately ₹1512.5 indicates a balanced consumption pattern driven by both affordability and aspiration. The distribution of spending is slightly skewed toward lower and middle ranges, reflecting income constraints but also showing a gradual shift toward higher consumption levels as economic conditions improve.

Table 4: Monthly Spending Distribution

Spending Range (₹)	Percentage (%)
Below 500	20%
500–1000	35%
1000–3000	30%
Above 3000	15%

7.5 Positive Relationship Between Digital Payments and Online Shopping

The correlation analysis conducted in the study reveals a strong positive relationship (r = +0.68) between digital payment usage and frequency of online shopping. This indicates that as consumers adopt digital payment methods, their engagement with e-commerce platforms increases. Digital payments reduce transaction friction, enhance convenience, and encourage repeat purchases. This finding supports the hypothesis that technology adoption significantly influences consumer behaviour, particularly in emerging markets where ease of use plays a critical role in decision-making.

Table 5: Correlation Summary

Variables	Correlation Coefficient (r)
Digital Payment Usage vs Online Shopping Frequency	+0.68

7.6 Socio-Economic Transformation Driving Digital Adoption

The study also finds that socio-economic changes, particularly rising income levels and the expansion of the middle class, are key drivers of digital adoption. Comparative data shows that upper-middle-income households are expected to increase from 21% in 2018 to 44% by 2030, while low-income households decline significantly. This shift indicates increasing purchasing power and a transition toward aspirational consumption. Higher-income groups show a greater preference for digital payments and higher spending levels, while lower-income groups remain cautious but are gradually entering the digital ecosystem.

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Table 6: Income vs Spending Behaviour

Income Level	Low Spending	Medium Spending	High Spending
Low Income	50	20	10
Middle Income	20	50	30
High Income	10	20	40

7.7 Increasing Trust in Digital Ecosystem

Another important finding is the gradual increase in consumer trust toward digital platforms. While a segment of consumers still prefers cash-based transactions, the growing share of prepaid digital orders indicates rising confidence in online systems. Improved security features, government regulations, and user-friendly interfaces have contributed to this trust-building process. However, trust remains a critical factor influencing adoption, especially among older and less digitally literate consumers.

8. Conclusion

The present study concludes that India's digital economy is undergoing a structural and inclusive transformation, with Tier-II and Tier-III cities emerging as the central drivers of growth in e-commerce and digital payments. The empirical findings, supported by secondary trends, clearly indicate that these regions are no longer peripheral markets but have become the core engines of digital consumption, contributing a majority share of new users and transactions. The rapid increase in e-commerce market size from approximately $116 billion in 2023 to a projected $400 billion by 2030 (19% CAGR) highlights the scale of opportunity, and a significant portion of this growth is being fueled by smaller cities. The data analysis revealed that 65% of respondents engage in online shopping regularly (weekly or monthly), confirming that e-commerce has become an integral part of daily life in these regions rather than an occasional activity.

A key conclusion of the study is that digital payment systems, particularly UPI, have acted as a catalyst for behavioural transformation. With 45% of respondents preferring UPI and a strong positive correlation ($r = +0.68$) between digital payment usage and online shopping frequency, it is evident that fintech innovations have reduced transaction friction and encouraged higher participation in digital commerce. However, the continued reliance on cash-on-delivery (30%) indicates that trust and perceived risk remain important barriers, suggesting that the transition toward a fully cashless economy is still in progress. This hybrid behaviour reflects a transitional consumption model, where traditional practices coexist with modern digital systems.

The study also highlights that price sensitivity remains the most dominant factor influencing consumer behaviour in Tier-II and Tier-III cities. With 50% of respondents prioritizing discounts and offers, it is clear that affordability continues to drive purchasing decisions, even as digital adoption increases. At the same time, the data shows a gradual shift toward aspirational consumption, supported by rising income levels and socio-economic mobility. The average monthly online spending of approximately ₹1512.5 indicates moderate consumption, but the increasing share of consumers in higher spending categories suggests a positive trend toward greater purchasing power. This dual characteristic high price sensitivity combined with rising aspirations defines the unique consumption pattern of non-metro consumers.

Another important conclusion is that socio-economic transformation is closely linked with digital adoption. The shift in income distribution, with upper-middle-income households projected to increase from 21% in 2018 to 44% by 2030, reflects growing economic capacity in smaller cities. This transformation has expanded the consumer base for e-commerce and increased the demand for diverse and premium products. The cross-tabulation analysis further confirms that higher-income groups exhibit greater spending and higher adoption of digital payment methods, while lower-income groups are gradually entering the digital ecosystem. This indicates that economic development and digital inclusion are mutually reinforcing processes.

Furthermore, the study finds that consumer trust in digital platforms is improving but remains a critical determinant of adoption. The increasing share of prepaid digital orders (over 60% from Tier-II and

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Tier-III cities combined) suggests that confidence in online transactions is rising. However, the persistence of cash-based transactions highlights the need for continued efforts in enhancing security, awareness, and digital literacy. Trust, therefore, acts as both a facilitator and a barrier, influencing the speed and extent of digital transformation.

In a broader context, the study concludes that the integration of e-commerce and digital payments is not merely a technological shift but a comprehensive socio-economic phenomenon. It has reshaped consumer behaviour, expanded market access, and contributed to financial inclusion in previously underserved regions. The findings emphasize that Tier-II and Tier-III cities represent the future of India's digital economy, where growth is driven by accessibility, affordability, and aspiration. For policymakers and businesses, this implies the need to focus on localized strategies, infrastructure development, digital education, and trust-building mechanisms to sustain and accelerate this momentum.

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