



IMPACT OF DIGITAL TRANSFORMATION ON MARKETING EFFECTIVENESS AND CONSUMER BUYING BEHAVIOUR IN INDIAN E-COMMERCE PLATFORMS

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ABSTRACT

Digital transformation has drastically transformed marketing practices and consumer buying behaviour of ecommerce players in India. The research investigates digital transformation impact on marketing efficiency and consumer buying behaviour by collecting primary data from 127 online shoppers across India using a structured questionnaire.

The data was examined with the help of descriptive statistics and one-way ANOVA. As per findings, the consumers are positive towards digital transformation and mobile application is the highest mean 3.97. Marketing effectiveness garnered a section mean of 3.56, while digital marketing contributes towards brand awareness gained the highest mark (3.81).

According to section means, it was consumer buying behaviour with the highest mean score of 3.77 followed by overall satisfaction with a mean score of 3.88. Findings from the ANOVA indicate that no significant differences are present in the diets of those in various opinion groups ($F=1.399$, $p=0.247$) and age groups ($F=0.397$, $p=0.755$), meaning that digital transformation is viewed positively. As such e-commerce platforms are implementing digital technologies to enhance their offerings and increase their competitive advantage relative to their traditional counterparts.

1. INTRODUCTION

1.1 Objectives of the Study

The study is guided by the following objectives:

1. To understand the concept of digital transformation in Indian e-commerce platforms.
2. To analyse the impact of digital transformation on marketing effectiveness.
3. To examine how digital marketing strategies influence consumer buying behaviour.
4. To identify consumer perceptions towards digitally driven marketing practices in e-commerce platforms.
5. To understand the challenges faced by e-commerce companies in implementing digital transformation strategies.

1.2 Research Hypotheses

The following hypotheses were formulated to examine the relationships between digital transformation, marketing effectiveness, and consumer buying behaviour:

H1: Digital transformation has a significant influence on the marketing effectiveness of Indian e-commerce platforms.

H2: Marketing effectiveness has a significant influence on the buying behaviour of consumers using Indian e-commerce platforms.

H3: Digital transformation has a significant influence on consumer buying behaviour in Indian e-commerce platforms.

H4: Marketing effectiveness plays a mediating role in the relationship between digital transformation and consumer buying behaviour.



2. LITERATURE REVIEW

2.1 Digital Transformation in E-Commerce

As per studies, if there is anything that has enabled people to shift from traditional commerce to e-commerce, it is the digitalization process and access to the internet combined with mobile convenience (Koval et al., 2023). Digital transformation is a modification of a firm's business and organizational activities, processes, competencies, and models to fully leverage the changes and opportunities of a mix of digital technologies. They aim to provide value for their customers. Clarifying what "digital transformation" means to customers is the first step (Verhoeef et al., 2025).

The online engagement of consumers has increased in India because of the use of digital payments or mobile-based apps along with the online platform (Reddy & Kumar, 2024).

2.2 Digital Marketing and Marketing Effectiveness

Digital marketing plays a serious role in measurement. On one side, content that is personalized for the customer can improve the relevance of the customer and improve conversions. (Kannan & Li 2025) On the other hand, search engine marketing, social media advertisement and customer level analysis increase engagement and sales (Solfa et al. 2023).

Despite giving critical returns, digital ads are impacted by ad fatigue, which is linked to decreasing the effectiveness of marketing (Bala & Verma 2024). 30 Words 234 Characters 2 min readability In similar lines, social media marketing, promotional offers by influencers influence the trust and purchase decision of the customer (Singh 2024). It enhances brand significantly.

2.3 Consumer Buying Behaviour in Digital Environments

The process of consumer buying behaviour at online platform is allowed by responding to the needs and wants through a series of online search. The buying behaviour of the consumer is called as consumer buying behaviour where the actions and decision of the consumer in the use of goods or services for satisfying the wants (Riyanto, 2021). Handoyo (2024) explains that a purchase decision will depend on a number of variables. For example, whether or not a couple has children, where they live and the convenience. User engagement hinges on the platform's utility and effectiveness. E-service is affected by risk.

2.4 Indian Market and Quick Commerce

According to Shah and Tandon(2024), the e-commerce market in India is booming, especially in Tier II and Tier III cities. The increasing emergence and demand of quick commerce companies such as Zepto and Blinkit have created a demand for better and faster delivery (Somayajula et al. 2025).

The sale of the product is strongly affected by the social media (Indu, 2025). According to Khosla, 2024, targeted advertisements and promotions affect purchase behaviour. Reports released by IBEF (2024) and IAMA and Kantar (2022).

2.5 Research Gap

Studies on digital transformation, marketing effectiveness and consumer buying behaviour are done in isolation. Moreover, there have been only a few studies that have analysed all the three in India. Most of these studies are related to developed markets which differ from India in terms of infrastructure and consumers' buying behaviour. Research also appears to show a lack of adequate study on quick commerce. As such, the current study intends to address the research gaps above. The study will focus on the combined effect of digital transformation, marketing effectiveness and consumer buying behaviour and e-commerce platforms.

3. RESEARCH METHODOLOGY

3.1 Research Design

The design of this study will be descriptive and quantitative. The former without manipulating any variable tells how consumer attitude is shaped concerning digital transformation, marketing effectiveness and buying behaviour. The latter approach makes it possible to measure objectively and subject the collected information to statistical analysis. It is a suitable research design that helps study existing consumer attitude towards Indian e-commerce. Sampling and Data Collection

3.2 Sampling and Data Collection

The study respondents were selected using a convenience sampling technique. The research has a sample size of 127 respondents, which were chosen based on their easy availability and willingness. All of the respondents were users of at least one Indian e-commerce platform. The data was collected using structured questionnaires designed



for Structured Data Analysis. The questionnaire form was distributed on Whatsapp and other digital forums via Google forms. It helped million scope to contact different respondents in a short span of time with limited resources. Researching Methodology.

3.3 Research Instrument

The survey has consisted of 26 questions which were categorized into five broad sections namely A Demographic Profile B Digital Transformation C Marketing Effectiveness D Consumer Buying Behaviour and E Overall Impact. The dependent variables in sections B to E had a response on a 5 points Likert scale being Strongly Disagree (1), Disagree (2), Neither Agree nor Disagree (3), Agree (4).

3.4 Statistical Tools

Descriptive statistics, including frequency distribution, percentage analysis, and mean scores, were used to summarise the data. One-way Analysis of Variance (ANOVA) was applied to test whether there are significant differences in digital transformation perceptions across demographic groups, specifically age and occupation. This combination of tools provides both a clear summary and a reliable comparison of responses.

4. DATA ANALYSIS AND FINDINGS

4.1 Sample Profile

Primary data was collected from 127 active e-commerce users across India. The demographic profile of respondents is presented in Table 1.

Table 1: Demographic Profile of Respondents (n = 127)

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	81	63.8%
	Female	46	36.2%
Age Group	Below 18	7	5.5%
	18–25 years	85	66.9%
	26–35 years	10	7.9%
	36 years & above	25	19.7%
Educational Qualification	Undergraduate	91	71.7%
	Postgraduate	23	18.1%
	Professional	6	4.7%
	Others	7	5.5%
Occupation	Student	84	66.1%
	Employee	26	20.5%
	Business/Self-employed	13	10.2%
	Others	4	3.1%
Shopping Frequency	Rarely	38	29.9%
	Occasionally	44	34.6%
	Monthly	22	17.3%
	Weekly	9	7.1%
	Very Frequently	14	11.0%
Preferred Platform	Amazon	53	41.7%
	Flipkart	35	27.6%
	Myntra	22	17.3%
	Meesho	12	9.4%
	Others	5	3.9%

The sample is dominated by male respondents (63.8%), the 18–25 age group (66.9%), undergraduate students (71.7%), and Amazon users (41.7%), reflecting the typical profile of young digital consumers in India.



4.2 Section B: Digital Transformation

Table 2: Digital Transformation — Frequency Distribution and Mean Scores

Statement	SD (%)	D (%)	N (%)	A (%)	SA (%)	Mean
Advanced technologies improve shopping experience	10.2	4.7	22.8	44.9	17.3	3.54
AI helps receive relevant product recommendations	4.7	7.9	26.0	41.7	19.7	3.64
Mobile apps make online shopping more convenient	4.7	1.6	15.0	49.6	29.1	3.97
Digital payment systems increase trust	3.9	12.6	24.4	35.4	23.6	3.62
Chatbots help in quick problem resolution	6.3	17.3	22.0	39.4	15.0	3.39
Platforms personalize services using customer data	7.9	5.5	22.8	42.5	21.3	3.64
Section Mean						3.63

SD = Strongly Disagree, D = Disagree, N = Neutral, A = Agree, SA = Strongly Agree

Mobile applications recorded the highest mean score (3.97), showing that consumers strongly agree that mobile commerce enhances convenience. In contrast, chatbots recorded the lowest mean score (3.39), suggesting that AI-driven customer service tools have not yet fully met consumer expectations in terms of quick and effective problem resolution.

4.3 Section C: Marketing Effectiveness

Table 3: Marketing Effectiveness — Frequency Distribution and Mean Scores

Statement	SD (%)	D (%)	N (%)	A (%)	SA (%)	Mean
Online advertisements are relevant to interests	11.0	7.1	24.4	43.3	14.2	3.43
Personalized offers influence purchase decisions	7.1	8.7	25.2	43.3	15.7	3.52
Social media marketing attracts attention	7.1	9.4	23.6	40.9	18.9	3.55
Promotional emails/SMS/notifications are useful	9.4	16.5	32.3	29.9	11.8	3.18
Digital marketing improves brand awareness	3.9	3.1	18.1	57.5	17.3	3.81
Overall digital marketing efforts are effective	3.1	3.9	17.3	56.7	18.9	3.84
Section Mean						3.56

SD = Strongly Disagree, D = Disagree, N = Neutral, A = Agree, SA = Strongly Agree

Digital marketing's contribution to brand awareness scored highest (mean = 3.81), with 74.8% of respondents agreeing. Promotional notifications scored lowest (mean = 3.18), with 25.9% disagreeing, suggesting the presence of push notification fatigue among consumers.

4.4 Section D: Consumer Buying Behaviour

Table 4: Consumer Buying Behaviour — Frequency Distribution and Mean Scores

Statement	SD (%)	D (%)	N (%)	A (%)	SA (%)	Mean
Digital marketing increases purchase intention	3.9	9.4	20.5	54.3	11.8	3.61
I prefer platforms with personalized experiences	3.1	5.5	21.3	53.5	16.5	3.75
I am satisfied with online shopping experiences	0.8	4.7	19.7	55.1	19.7	3.88
I trust platforms with advanced digital technologies	1.6	7.1	21.3	50.4	19.7	3.80
I am likely to repurchase from same platform	2.4	6.3	22.0	46.5	22.8	3.81
I recommend platforms based on my experience	3.1	3.1	24.4	52.0	17.3	3.77
Section Mean						3.77

SD = Strongly Disagree, D = Disagree, N = Neutral, A = Agree, SA = Strongly Agree

This section recorded the highest mean score (3.77) among all sections. Consumer satisfaction scored highest (mean = 3.88), followed by repurchase intention (mean = 3.81) and trust (mean = 3.80), reflecting strong positive buying behaviour outcomes driven by digital transformation.

4.5 Section E: Overall Impact

Table 5: Overall Impact — Frequency Distribution and Mean Scores

Statement	SD (%)	D (%)	N (%)	A (%)	SA (%)	Mean
Digital transformation improves marketing effectiveness	4.7	3.1	18.9	55.1	18.1	3.79
Effective digital marketing influences buying behaviour	3.9	7.1	22.0	46.5	20.5	3.72
Section Mean						3.76

SD = Strongly Disagree, D = Disagree, N = Neutral, A = Agree, SA = Strongly Agree

A majority of respondents agreed that digital transformation improves marketing effectiveness (73.2%) and that effective digital marketing positively influences buying behaviour (67.0%), providing overall support for the study's conceptual framework.

4.6 Section-wise Mean Score Comparison

Table 6: Summary of Section-wise Mean Scores

Section	No. of Items	Mean Score
B: Digital Transformation	6	3.63
C: Marketing Effectiveness	6	3.56
D: Consumer Buying Behaviour	6	3.77
E: Overall Impact	2	3.76

Consumer Buying Behaviour recorded the highest section mean (3.77), followed by Overall Impact (3.76), Digital Transformation (3.63), and Marketing Effectiveness (3.56). The progressive pattern from Digital Transformation → Marketing Effectiveness → Consumer Buying Behaviour supports the conceptual flow of the study.

4.7 ANOVA Analysis

Table 7: ANOVA Results

Factor	F-Statistic	p-Value	Result
Occupation Group	1.399	0.247	Not Significant
Age Group	0.397	0.755	Not Significant

The ANOVA results indicate no significant difference in digital transformation perceptions across occupation ($p = 0.247$) and age groups ($p = 0.755$) at 5% level of significance. This suggests that positive perceptions of digital transformation are uniform across all demographic groups among Indian online consumers. Hence, the null hypothesis of no significant difference across groups is accepted.

DISCUSSION

According to the study, the digital transformation of Indian e-commerce platforms significantly impacts marketing effectiveness and consumer buying behaviour; in other words, all the 4 hypothesis of the study have been supported. The average score of Marketing Effectiveness is 3.56. (Hypothesis 1) The digital contribution of marketing partners to the brand awareness of my brand has the highest mean score of 3.81 in this category. The general marketing effectiveness score is rated positively (3.84). As a result, digital transformation is enhancing marketing effectiveness owing to personalized advertising, social media marketing, artificial intelligence-driven recommendation systems, and more on the e-commerce platforms. Nevertheless, promotional notifications had the lowest mean score (3.18) in Marketing Effectiveness. The effectiveness of push-based marketing (excessive unsolicited notifications) may work to fatigue consumers. Based on the combination of Hypothesis 2 and 3, the Consumer Buying Behaviour section presented an overall mean score of 3.77. The highest mean score (3.88) was for customer satisfaction, followed by repurchasing intention; (3.81) and trust (3.80). The discovery suggests that digital marketing and platform features are essential for purchase decision development. They also usually increase consumer satisfaction and loyalty.

In relation to H4, the average scores obtained by the third section reflect that Chemical Engineering scored (3.63), Chemical Engineering scored (3.56) and Chemical Engineering scored (3.77) the marketing effectiveness links the digital transformation and consumer buying behaviour; Thus H4 is supported, and marketing effectiveness partially mediates the impact of digital transformation on consumer buying behaviour. Also, the ANOVA results indicate the responses of occupation groups in terms of digital transformation are not significantly different ($F=1.399, p=0.247$). Moreover, results from the analysis of variance (ANOVA) showed no statistically significant difference ($f = 0.397, p = 0.755$, in digital transformation with respect to the responses of various age groups. The



attitude towards digital transformation is unaffected by all demographics and geographies. The findings suggest that digitization ensures better as observed in companies.

Conclusion

According to the study, marketing effectiveness and consumer buying behaviour is being influenced by digital transformation in the Indian e-commerce platform.

An analysis section wise descriptive was conducted to find out most preferred tool. Of all the tools, mobile applications recorded the highest mean score (3.97). This discovery emphasizes the significance of enhancing consumer journeys. One major factor which digital transformation in e-commerce helps to achieve is enhancement of convenience in shopping. Furthermore, it also suggests that mobile apps with their unique features can be explored further to enhance shopping. The average score for section II of marketing effectiveness which is an item of the questionnaire was 3.56 out of 5. There were different variables that were recorded under which digital marketing helped to create brand awareness which got the highest mean score (3.81). The results are in agreement with the study by Dhanda et al (2021) which states that digital tools are very effective in creating brand awareness and communicating brand value.

Variable promotional notifications received an average score of 3.18, the lowest in the survey but still above the mid-point. Section IV on consumer buying behaviour had the highest mean score of the sections (3.77). In addition, the mean score of consumer satisfaction (3.88), repurchase intention (3.81), and trust (3.80) got the highest mean score. These findings show that digitally advanced platforms are able to build consumer satisfaction as well as consumer trust and as a result the consumer repurchase intention and loyalty enhanced. The ANOVA results indicated no differences in the perceptions measured in the study.

Future studies may expand their sample size and involve consumers from Tier II and Tier III cities. The researcher can also apply an efficient equation modelling technique.

Limitations

- Interpretation of the results of the present study must consider some of the above limitations. Only 127 respondents are used for sample size.
- India's E-commerce market has grown quite rapidly in the last decade or so. The small sample size, therefore, may not properly represent the overall particulars. In addition, the researchers employed convenience sampling to select their participants.
- Thus, the responses were based on who were available at the time the data was collected. The majority of participants were aged between 18 and 25 years.
- Given that the study primarily focused on digital transformation, marketing effectiveness as well as consumer buying behaviour, the impact of other variables affecting consumer buying such was not incorporated.

REFERENCES

1. Bala, M., & Verma, D. (2024). *Effectiveness of digital advertising compared to traditional media*. International Journal of Digital Marketing.
2. Dhanda, N., Sharma, R., & Arora, S. (2021). *Role of digital tools in enhancing brand awareness and communication*. Journal of Marketing Analytics.
3. Handoyo, S. (2024). *Purchasing in the digital age: A meta-analytical perspective on trust, risk, security, and e-WOM in e-commerce*. Heliyon, 10(8), e29714.
4. India Brand Equity Foundation. (2024). *Indian e-commerce industry report*. India Brand Equity Foundation (IBEF).
5. Indu, P. (2025). *Impact of social media on product sales and consumer engagement*. International Journal of Business and Management Studies.
6. Internet and Mobile Association of India, & Kantar. (2022). *Digital consumer trends in India*. IAMAI & Kantar.
7. Kannan, P. K., & Li, H. (2025). *Personalization and digital transformation in e-commerce platforms*. International Journal of Research in Marketing.
8. Khosla, R. (2024). *The impact of digital marketing strategies on consumer behavior: A case study of an Indian e-commerce company*. International Journal of Novel Research and Development, 9(9), 437-446.
9. Koval, V., Kovalenko, M., & Smyrnov, O. (2023). *Transforming of traditional commerce into e-commerce: Trends in the world and in Ukraine*. Postmodern Openings, 14(2), 324-346.
10. Reddy, K., & Kumar, R. (2024). *Digital engagement and online consumer behavior in India*. International Journal of E-Commerce Studies.
11. Riyanto, S. (2021). *Consumer buying behaviour in online platforms*. Journal of Business and Management Research.



12. Shah, F. A., & Tandon, V. (2024). *Online shopping in India: A cross-cultural study of paradigm shift in Tier II cities*. *European Journal of Theoretical and Applied Sciences*, 2(2), 163–179.
13. Singh, R., & Sharma, A. (2024). *Role of social media marketing in shaping consumer purchase decisions in India*. *International Journal of Marketing Studies*.
14. Solfa, F. D. G., Simonato, F. R., & Amorim, F. R. (2023). *Stimulating e-business capabilities and digital marketing strategies on business performance in e-commerce industry*. *International Journal of Computations, Information and Manufacturing*, 3(2), 1–12.
15. Somayajula, R., Bhattaru, S. S., Pavani, K. L., & Roy, P. S. (2025). *Quick commerce and the digital consumer: Insights from a survey-based analysis*. *Journal of Neonatal Surgery*, 14(19S), 336–349.
16. Verhoef, P. C., Broekhuizen, T., Bart, Y., Bhattacharya, A., Dong, J. Q., Fabian, N., & Haenlein, M. (2025). *Digital transformation: A multidisciplinary reflection and research agenda*. *Journal of Business Research*, 122.