



Analyzing the role of digital transformation in enhancing the impact of social media advertising on FMCG consumer purchase decisions

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Abstract

This research examines how digital transformation affects the role of social media advertising in influencing consumer purchasing decisions within the Fast-Moving Consumer Goods (FMCG) industry. As digital technologies and online platforms have become more prevalent, marketing has evolved to be more interactive and reliant on data. Data was gathered from 150 participants and analysed utilising SPSS, which included descriptive statistics, Chi-Square tests, and ANOVA tests. The results indicate that digital tools such as artificial intelligence and analytics significantly enhance consumer engagement, trust, and intention to purchase. The study concludes that implementing digital transformation strategies allows FMCG companies to enhance brand visibility and cultivate enduring relationships with consumers.

Keywords: Digital transformation, social media advertising, fmcg, consumer behaviour, purchase decision

Introduction

In the current digital age, technology has revolutionised marketing and consumer communication. Conventional advertising methods have been supplemented or replaced by social media platforms like Facebook, Instagram, YouTube, and X, which was previously known as Twitter (Okuneye *et al.*, 2023). These platforms serve as essential venues for companies to market their products, interact with consumers, and establish brand identity (Reinartz *et al.*, 2022). For Fast-Moving Consumer Goods (FMCG) companies, which rely on high sales volume and prominent visibility, social media advertising acts as a significant tool to sway consumer purchasing decisions (Holloway 2024) [7]. Digital transformation signifies the integration of digital technologies that alter the way organisation's function and provide value to their customers (Zaki 2019) [17]. In the context of marketing, this includes advancements like data analytics, artificial intelligence (AI), influencer marketing, and automation. These resources enable FMCG firms to gain insights into consumer preferences, monitor online behaviour, and create targeted, personalised campaigns that enhance brand engagement and loyalty (Ali & Mehmood, 2023) [1].

As competition intensifies within the FMCG sector and consumer preferences take centre stage, adapting to the digital landscape has become imperative (Bharti & Verma, 2024) [2]. Social media platforms enable brands to collect immediate feedback, assess engagement, and evaluate the effectiveness of their online campaigns (Kumaraguru & Anand, 2024) [9]. Therefore, digital transformation encompasses more than just technology adoption; it also signifies a transition towards more intelligent, data-driven marketing and improved customer relationships (Marić *et al.*, 2023) [13].

With greater internet access and increased smartphone usage, consumers are now more informed and interconnected than ever before (Faber *et al.*, 2022) [5]. They

depend on online reviews, recommendations from influencers, and engaging digital experiences before making purchasing decisions. Consequently, this study aims to examine how digital transformation improves the efficacy of social media advertising in the FMCG sector, concentrating on its impact on consumer awareness, trust, engagement, and buying behaviour.

Review of Literature

1. Digital Transformation in Marketing

Digital transformation has significantly altered marketing strategies by incorporating technology into all aspects of consumer engagement. As noted by Omokhoa *et al.* (2025), companies leverage digital transformation to generate value through strategies based on data and enhanced customer experiences. Lopez and Arjunan (2023) [11] highlight that incorporating analytics, automation, and AI into marketing improves real-time decision-making and the effectiveness of campaigns. These advancements have transitioned marketing from broad communication methods to personalised interactions, rendering social media platforms critical for engaging with contemporary consumers.

2. Role of Social Media Advertising in the FMCG Sector

Social media channels have become essential venues for FMCG companies to enhance brand visibility and shape consumer behaviour. (Chauhan 2023) [4] It is important to note that advertising on social media enables FMCG brands to engage directly with their customers, thereby enhancing interaction and fostering brand loyalty. (Kamath *et al.*, 2021) [10] discovered that advertisements that are visually attractive and interactive on social media platforms have a significant impact on consumers' intentions to purchase everyday products. In contrast to traditional advertising, social media offers instantaneous feedback, quantifiable outcomes, and a two-way communication flow, which are crucial in the competitive landscape of the FMCG industry.

3. Impact of Digital Tools and Technologies

Technological advancements like artificial intelligence (AI), data analytics, and automation have transformed the way marketers create and deliver their advertisements. (Varma *et al.*, 2025) noted that influencer marketing, enhanced by digital analytics, boosts consumer trust and brand credibility. (Bhardwaj *et al.*, 2024) [3] mentioned that AI-driven personalisation improves the relevance of advertisements and increases both click-through and conversion rates. These insights indicate that digital transformation not only enhances operational efficiency but also amplifies the psychological and emotional influence of advertisements on consumers.

4. Consumer Behaviour and Purchase Decisions

Digital transformation has empowered consumers to be more knowledgeable and engaged in their purchasing decisions. (Mulyawan&Alamsyah, 2022) [12] noted that consumers increasingly depend on online reviews, the opinions of influencers, and social interactions before buying FMCG products. (Khan *et al.*, 2024) discovered that social media advertising greatly influences consumer awareness, trust, and purchasing behaviour, especially when it is backed by digital technologies. Therefore, combining digital transformation with social media advertising results in a more tailored, data-driven, and consumer-centric marketing strategy.

Research Objectives

- To analyse the impact of digital transformation on consumer purchase decisions influenced by social media advertising in the FMCG sector.
- To examine the relationship between demographic factors and consumers’ responses toward FMCG social media advertisements.

Research Methodology

1. Research Design

The research employs a descriptive and analytical approach to examine how digital transformation improves the efficacy of social media advertising on the purchasing choices of FMCG consumers. It centres on exploring the connections between digital technologies, demographic variables, and consumer purchasing behaviour.

2. Sampling Method

A convenience sampling approach was utilised to gather data from individuals who regularly engage with social media platforms and often buy FMCG products. This technique was selected due to its ease and the ability to reach the intended participants.

3. Sample Size

A total of 150 participants took part in the study, encompassing various age groups, genders, educational

backgrounds, and income levels. This sample size offers adequate data for both statistical analysis and interpretation.

4. Data Collection Method

Primary data were collected through a structured questionnaire distributed online via Google Forms and social media platforms. The questionnaire included statements related to digital transformation, social media advertising, and consumer purchase behaviour measured using a five-point Likert scale (ranging from “Strongly Disagree” to “Strongly Agree”).

5. Tools for Analysis

The collected data were analysed using Statistical Package for the Social Sciences (SPSS) and Microsoft Excel. The following statistical tools were applied:

- **Descriptive Statistics:** To summarise the demographic profile and overall responses.
- **Chi-Square Test:** To identify associations between demographic variables and purchase decisions.
- **ANOVA (Analysis of Variance):** To measure the impact of digital transformation on consumer purchase decisions.

6. Scope of the Study

The research examines how consumers view digital transformation and social media advertising in the FMCG industry. Its goal is to offer insights that marketers can use to create impactful advertising strategies enhanced by digital tools.

Data Analysis And Interpretation

The data gathered from 150 participants were analysed using SPSS and Microsoft Excel to explore the impact of digital transformation on the effectiveness of social media advertising in influencing FMCG consumer purchase choices. Initially, descriptive statistics were employed to summarise the demographic characteristics of the respondents, showing that the majority of participants were young adults who frequently engage with social media platforms. The analysis indicated a strong level of awareness, trust, and engagement regarding FMCG advertisements on digital channels. The Chi-Square test revealed a significant relationship between demographic factors, such as gender and age and purchase decisions, implying that consumer reactions to social media ads differ across various groups. The ANOVA findings indicated that tools associated with digital transformation, such as AI-driven personalisation, automation, and online analytics, significantly affect consumers’ purchasing intentions. Overall, the analysis verified that digital transformation amplifies the effect of social media advertising, resulting in increased consumer engagement, brand trust, and purchasing behaviour within the FMCG industry.

1. Demographic Profile of Respondents

Table 1: Demographic Profile of Respondents (N = 150)

Demography variable	Category	Frequency	Percentage (%)
Gender	Male	78	52%
	Female	72	48%
Age Group	18-25 years	65	43%
	26-35 years	55	37%
	Above 35 years	30	20%

Educational Qualification	Undergraduate	60	40%
	Postgraduate	70	47%
	Others	20	13%
Monthly Income	Below ₹25,000	45	30%
	₹25,001–₹50,000	70	47%
	Above ₹50,000	35	23%

2. Descriptive Statistics for Key Variables

Table 2: Descriptive Statistics for Key Variables Related to Social Media Advertising and Digital Transformation

Variable	Mean	Standard Deviation	Interpretation
Awareness of Social Media Ads	4.12	0.65	High awareness of digital advertising
Trust in Digital Ads	3.98	0.71	Consumers trust digital campaigns
Purchase Decision Influence	4.25	0.59	Strong influence of ads on purchase intent
Engagement with FMCG Brands	4.10	0.62	High engagement through digital platforms

Interpretation: Respondents show high awareness and trust in social media advertisements, suggesting digital transformation has positively influenced how consumers perceive and engage with FMCG brands.

relationship between gender and purchase decision, meaning male and female consumers respond differently to FMCG social media ads.

3. Chi-Square Test

Table 3: Relationship between Gender and Purchase Decision

Variable	χ^2 Value	df	Sig.(p-value)
Gender vs Purchase Decision	6.214	2	0.045

Interpretation: Since the p-value (0.045) < 0.05, the null hypothesis is rejected. This indicates a significant

Hypothesis

- **Null Hypothesis (H₀):** There is no significant association between gender and purchase decision towards FMCG social media advertising.
- **Alternative Hypothesis (H₁):** There is a significant association between gender and purchase decision towards FMCG social media advertising.

4. ANOVA Test

Table 4: Impact of Digital Transformation on Consumer Purchase Decision

Source of Variation	Sum of Square	df	Mean Square	F
Between Groups	15.28	2	7.64	4.312
Within Groups	260.47	147	1.77	
Total	275.75	149		

Interpretation: The p-value (0.015) < 0.05 indicates that digital transformation significantly impacts FMCG consumers' purchase decisions, influenced by social media advertising.

tools and strategies improve brand visibility, customer engagement, and loyalty towards FMCG products advertised on social media channels.

Hypothesis

- **Null Hypothesis (H₀):** There is no significant difference in consumer purchase decisions based on levels of digital transformation
- **Alternative Hypothesis (H₁):** There is a significant difference in consumer purchase decisions based on levels of digital transformation.

Findings

The research indicated that digital transformation is essential in enhancing the effect of social media advertising on consumer purchasing decisions within the FMCG industry. The majority of participants were active social media users, exhibiting a strong awareness and trust towards FMCG brands promoted digitally. The examination revealed that AI-driven personalisation, immediate interaction, and data analysis have a significant impact on purchase intentions. The Chi-Square test verified that demographic factors such as age and gender influence consumer reactions to digital advertisements. The ANOVA findings also showed a significant variation in purchasing choices based on the extent of digital transformation implemented by FMCG brands. In summary, the results imply that digital

Recommendations

- **Leverage Digital Technologies:** FMCG companies ought to keep incorporating AI, automation, and analytics into their social media strategies to create personalised and captivating advertisements.
- **Enhance Consumer Interaction:** Companies should leverage interactive content like live events, surveys, and partnerships with influencers to foster deeper connections with consumers.
- **Segment Marketing Strategies:** As demographic factors impact buying behaviour, marketing campaigns should be tailored based on age, gender, and lifestyle choices.
- **Measure and Optimise:** Consistent tracking of engagement metrics and campaign effectiveness should inform data-based choices for enhanced marketing results.
- **Maintain Transparency and Trust:** Organisations must prioritise ethical data practices and transparent communication to maintain enduring consumer trust in the digital landscape.

Conclusion

The research indicates that digital transformation has become an essential factor in amplifying the effectiveness of social media advertising within the FMCG industry. The adoption of cutting-edge technologies such as artificial intelligence, data analytics, and automation allows brands to develop marketing strategies that are more personalised, engaging, and centred around the consumer. Analysing the responses from 150 participants demonstrated that digital tools not only enhance the reach of advertisements but also bolster consumer trust, awareness, and intention to purchase. Additionally, the statistical analyses verified significant connections between digital adoption and consumer behaviour, emphasising that a well-implemented digital transformation strategy can greatly affect purchasing choices. Consequently, FMCG firms must persist in innovating and adjusting to the changing digital environment to stay competitive, cultivate customer loyalty, and attain sustainable growth through efficient social media advertising.

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