

Online Impressions and Buying Expressions: Impact of Digital FMCG Ads on Women Consumers

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Abstract

The digital revolution has transformed marketing communication, particularly within the Fast-Moving Consumer Goods sector (FMCG), where women consumers play a pivotal role. Digital advertising through search engines, social media, email, free content websites, and influencer marketing significantly shapes consumer impressions and buying behaviors. This study aims to validate a structured questionnaire assessing the impact of different digital advertising modes on women consumers' buying expressions, focusing specifically on digitally active individuals aged 18–35 years. A quantitative, descriptive research design was adopted. Data were collected through a structured 15-item questionnaire distributed across five digital advertising modes, using a 5-point Likert Scale. A pilot survey of 80 respondents was conducted, and data were analyzed using Cronbach's Alpha and basic descriptive statistics. The instrument demonstrated strong internal consistency, with Cronbach's Alpha values ranging from 0.862 to 0.893 for individual modes and 0.947 for the overall scale. Demographic analysis revealed that the majority of respondents were young, highly educated, and digitally active, aligning with the target population. The pilot study confirms the reliability of the questionnaire, providing a solid foundation for full-scale research. Future work will involve inferential analysis and behavioral outcome measurement among women FMCG consumers.

Keywords: Digital Advertising, Women Consumers, FMCG Sector, Buying Behavior, Reliability Analysis

Introduction

The fast-moving consumer goods (FMCG) sector has undergone significant change in the landscape of marketing communications, especially in the context of the digital revolution (Nipa et al., 2024). The traditional ways of advertising are disappearing and giving place to dynamic and personalized ads that are interacting with consumers in real time and directly (Zlatanov et al. 2023). The FMCG sector has experienced significant growth in the past two decades, driven by personalized goods and services, digital media marketing and the growing youth population. The organized sector is expected to grow with online portals playing a key role in entering the rural markets. By 2025, e-commerce is expected to contribute 10- 15% of FMCG sales (Chhabra and Farooque, 2018). A particularly influential demographic among these consumers is women who

frequently make the final decision in household purchases. Such platforms as search engines, social media, email campaigns, free content websites, influencer marketing, among others, have turned into key drivers of consumer impressions and purchase decisions (Xu, 2023). With the FMCG market becoming more and more competitive, it is important to know how digital impressions influence buying expressions, especially among women consumers, for brands to remain relevant and gain long-term loyalty (Morkūna, 2023).

With the rise of the digital consumer, there has been a revelation of brand perceptions not only through traditional advertising but through the constellation of online engagements (Kraus et al., 2021). In a complex media environment where women consumers are empowered by technology and access to information, digital impressions (such as banner ads and influencer endorsements) have a significant role in shaping their buying behavior (Hudders et al., 2021). Therefore, it is important to study the relationship between online impressions and real purchasing expressions in the FMCG sector to refine marketing strategies and improve the brand consumer relationships in a digital context.

Previous studies place a great emphasis on the place of digital advertising in influencing consumer behavior. According to Zhang & Guoqing (2023), social media marketing is good at creating an attitude towards a product among young people. In addition, Muharam et al. (2024) mention that digital platforms provide interactive and engaging marketing environments that help in brand recall and brand loyalty. In a notable sense, it has been pointed out that influencer marketing has caused a significant impact not only on consumers' purchase intention but also on their trust in influencers' testimonials against traditional brand messages (Karuppiah et al., 2024). Christy et al. (2023) also claim that advertisements placed in free content websites create more positive consumer perceptions because they are non-intrusive. As argued by Chang (2023), those who are digitally native, especially women at 18–35 years old, are more sensitive to various kinds of online brand communication and are likely to interact more with brands that provide a true and personalized digital experience. In all these studies, it collectively stresses how important it is for companies to change digital advertising strategies to adapt to new customer behaviors and preferences (Bharti et al., 2024). Modern consumers also buy their clothes from second hand stores both online and offline. They have multiple reasons for this as it is cheap and affordable yet stylish clothing, easy shopping, temptation most of the time and fast fashion (Srividya, N. et al., 2024). Accordingly (Jamal,S. et al., 2013), say fashion is a product of change with styles emerging, rising in popularity, and declining into obsolescence. Timing is crucial in the industry, with consumers following the fashion cycle and others imitating. Fashion can shift from high-end designs to lower prices and styles can be adopted from streets or mass-marketed.

As it is said (Amir, Z. et al., 2013) that advertisements strongly influence youth's consumption patterns and lifestyles, particularly in the fast food and soft drinks industries. Despite concerns about economic, health and ethical aspects, middle class youth view these products as apart of modern lifestyle. The research suggests that fast food providers should focus on quality, variety, hygiene and nutrition to build health values in youth. Further women's lifestyles have evolved due

to increased financial independence and higher earnings. With a large share of household income, they have greater confidence in discretionary spending. Their exposure to new ideas has reshaped purchasing decisions, making them facilitators in family shopping (Maqbool, A., & Atiq, R. (2014).

Although research has been conducted on digital marketing, there is a gap in the literature that specifically looks at how individual and combined digital advertising modes affect women consumers' perceptions and buying behavior in the FMCG sector (Raji et al., 2017). Although digital advertising is an efficient method for reaching diverse consumer groups, there is a dearth of research on how women consumers perceive and react to various digital FMCG advertisements (Sinha et al., 2024). Most of the existing studies do not segment consumer behavior in terms of gender, platform specificity, or advertising mode. Additionally, consumer behavior models need to be constantly validated as the digital platforms evolve rapidly, and the models should be applicable in the current media environment (Suardana, 2025). Due to the absence of targeted research on women consumers' digital buying behavior, marketing literature and practice are lacking. Therefore, it is important to explore how various forms of digital advertising like search engine ads, social media promotions, email campaigns, free content site advertising, and influencer endorsements affect online impressions and, consequently, buying expressions among women. Closing this gap will give FMCG brands a sharper, data-backed strategy for converting this important consumer segment even in a crowded and ever-more digital market.

The objective of this study is to validate a structured questionnaire to measure the effect of different digital advertising modes on women consumers' buying behavior in the FMCG sector. In particular, the study aims to determine the reliability and internal consistency of the instrument across five major advertising modes, such as Search Engine Advertising, Social Media Advertising, Email Advertising, Free Content Website Advertising, and Influencer Advertising. Additionally, it seeks to analyze demographic characteristics of the digitally active women aged 18–35 years and how digital advertising impressions translate into buying expressions, which will serve as a basis for further inferential research.

Methodology

Study Design

The pilot study adopts a quantitative and descriptive research design. The primary objective of this pilot phase is to validate the reliability and internal consistency of the questionnaire developed to measure the impact of various modes of digital FMCG advertisements on women consumers. Rather than testing causal relationships at this stage, the study focused on instrument testing to ensure that the measurement scales perform satisfactorily for future full-scale deployment.

A descriptive design was particularly appropriate for this research, as it enabled a structured evaluation of how respondents perceive different online advertising modes without manipulating any variables. The design facilitates the collection of standardized data, which was essential for reliability analysis.

Sampling Technique

The pilot study adopted a convenience sampling method to select a sample of 80 respondents, suitable for preliminary reliability testing. The target population included digitally active consumers, with a focus on women consumers for the subsequent full-scale study. Respondents were selected from the age group of 18–35 years, with a preference for individuals holding at least a graduate or postgraduate qualification to ensure familiarity with digital platforms. The income bracket targeted primarily ranged up to ₹4 lakh annually, representing typical FMCG consumers. Participants were also expected to have 2–10 years of experience with social networking sites to ensure adequate exposure to digital advertisements.

Data Collection Instrument

Data for the pilot study was collected through a structured questionnaire specifically designed to measure the impact of different digital advertising modes on consumer buying behavior. The instrument comprised 15 items, systematically grouped into five distinct categories representing various online advertising modes: Search Engine Advertising, Social Media Advertising, Email Advertising, Free Content Website Advertising, and Influencer Advertising. Each advertising mode was assessed using three carefully designed items intended to capture respondents' perceptions, engagement levels, and impressions formed through exposure to that particular mode. All questionnaire items were measured using a 5-point Likert Scale, ranging from Strongly Disagree (1) to Strongly Agree (5). This scaling approach provided standardization in responses, enabling robust and reliable quantitative analysis. The design of the questionnaire was informed by insights from previous studies in digital marketing and consumer behavior research, thereby ensuring the content validity of the measurement tool for application in the broader research.

Statistical Analysis

The pilot study data were analyzed using reliability analysis, with Cronbach's Alpha as the primary statistical measure to assess the internal consistency of the scale items. A Cronbach's Alpha value above 0.7 was considered acceptable, between 0.8 and 0.9 desirable, and above 0.9 exceptionally reliable. Reliability coefficients were calculated separately for each online advertising mode and the overall 15-item scale. All analyses were conducted using SPSS (Statistical Package for the Social Sciences). Additionally, basic descriptive statistics such as means and standard deviations were computed to examine response patterns and ensure the data's suitability for further inferential analysis in the full-scale study.

Results

Demographic Profile of Respondents

The demographic profile of the respondents provides insights into the composition of the sample used for the pilot study. The sample comprised both female respondents, primarily belonging to younger age groups, with a relatively high level of education, middle-income levels, and substantial experience with social networking sites.

Table 1: Demographic Characteristics of Respondents

Demographic Variable	Category	Percentage (%)
Age	18–25 years	47.5%
	25–35 years	35.0%
	35–45 years	10.0%
	Above 45 years	7.5%
Education	Postgraduate	43.8%
	Above Postgraduate	25.0%
	Graduate	28.8%
	Below Graduate	2.5%
Income	Up to ₹2 lakh	52.4%
	₹2–4 lakh	25.0%
	₹4–6 lakh	11.3%
	Above ₹6 lakh	11.3%
Family Type	Nuclear	70.0%
	Joint	30.0%
SNS Experience	2–5 years	35.0%
	5–10 years	35.0%
	Up to 2 years	20.2%
	More than 10 years	8.8%

Table 1 summarizes the demographic profile of the pilot study respondents. The sample included a significant majority (82.5%) were aged between 18–35 years, representing digitally active consumers. Educationally, 43.8% were postgraduates and 25.0% held qualifications above postgraduate level, reflecting a highly literate sample familiar with online platforms. In terms of income, 52.4% earned up to ₹2 lakh, and 25.0% earned between ₹2–4 lakh, aligning with the typical FMCG consumer segment. Most respondents (70.0%) came from nuclear families, indicating independent decision-making patterns. Additionally, 70.0% of respondents had 2–10 years of social networking experience, suggesting substantial digital exposure relevant for evaluating online advertising impressions.

Reliability Analysis of Measurement Scales

The reliability of the measurement scales was evaluated using Cronbach's Alpha coefficient for each advertising mode as well as for the overall scale comprising fifteen items.

Table 2: Reliability Analysis for Advertising Modes

Mode of Advertising	Cronbach's Alpha	Reliability Status
Search Engine Advertising	0.878	Desirable
Social Media Advertising	0.862	Desirable
Email Advertising	0.862	Desirable
Free Content Website Advertising	0.893	Desirable
Influencer Advertising	0.890	Desirable
Overall Scale (15 items)	0.947	Exceptionally Reliable

Table 2 presents the reliability analysis of the measurement scales for different online advertising modes using Cronbach's Alpha. All individual advertising modes like Search Engine, Social Media, Email, Free Content Website, and Influencer Advertising achieved Cronbach's Alpha values between 0.862 and 0.893, indicating desirable reliability. The overall scale comprising fifteen items recorded a Cronbach's Alpha value of 0.947, reflecting exceptionally high internal consistency. These results confirm that the questionnaire items are reliably measuring consumer perceptions across various digital advertising modes, supporting the instrument's suitability for full-scale application.

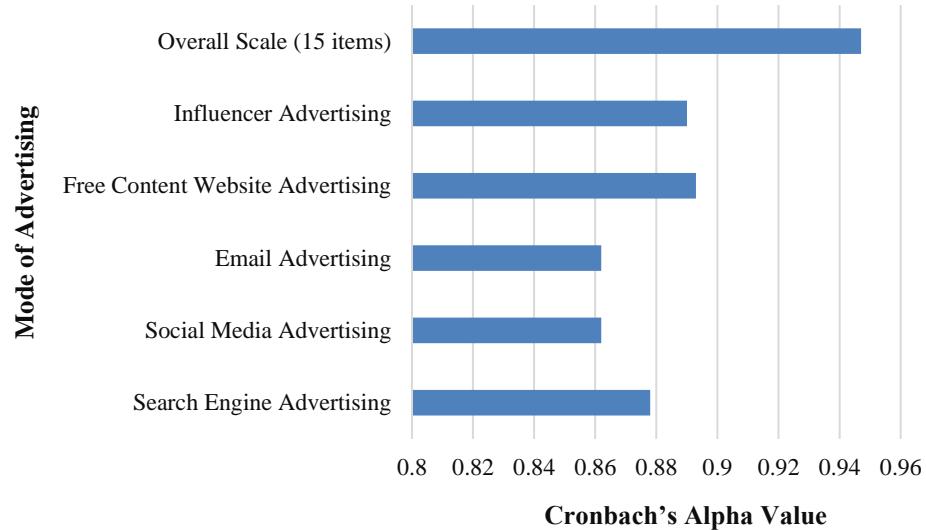
**Figure 1: Cronbach's Alpha Values Across Different Advertising Modes**

Figure 1 compares the internal consistency reliability of different advertising modes assessed in the pilot study. The Free Content Website Advertising and Influencer Advertising exhibited slightly higher Cronbach's Alpha values compared to Social Media and Email Advertising, though

all modes maintained desirable reliability levels above 0.86. The overall scale achieved the highest reliability at 0.947, indicating exceptional internal consistency.

Statistical Analysis

Basic descriptive statistics were calculated to assess the distribution of responses across survey items. The mean scores indicated a general tendency toward agreement with statements regarding online advertising modes. Standard deviation values were within acceptable ranges, suggesting consistent patterns of response.

Discussion

This pilot study aimed to validate the reliability and internal consistency of the questionnaire developed to assess the impact of different digital FMCG advertising modes on women consumers. The purpose of this study was to determine whether the scale items under five advertising types, Search Engine Advertising, Social Media Advertising, Email Advertising, Free Content Website Advertising, and Influencer Advertising, were appropriate to use in the upcoming full-scale research. In addition, the study had a goal of gaining initial demographic patterns and consumer response tendencies of a digitally active population.

The pilot study findings showed that the instrument had strong internal reliability for all advertising modes. Values of Cronbach's Alpha were between 0.862 for Social Media Advertising and Email Advertising to 0.893 for Free Content Website Advertising, 0.878 for Search Engine Advertising, and 0.890 for Influencer Advertising. The Cronbach's Alpha value of 0.947 on the overall scale of fifteen items indicates that the instrument items collectively measured consumer impressions across various digital formats. Demographically, it was found that the majority of the respondents (82.5%) were between 18 and 35 years of age, thus constituting a digitally native consumer segment. The sample was highly literate in terms of education, with 43.8% holding a postgraduate degree, plus 25.0% having qualifications beyond postgraduate level. The income analysis showed that 52.4% of respondents had an income of up to ₹2 lakh, 25.0% had an income between ₹2–4 lakh, which is in line with the typical FMCG target demographic. About digital experience, 70% of the respondents had 2 – 10 years of experience with social networking sites, implying a great deal of experience with online platforms. Descriptive statistics also supported that respondents generally had favorable perceptions regarding online advertising, with mean scores towards moderate to high agreement levels and standard deviations indicating consistency in responses with little variability.

The results from the pilot study are supported by existing literature and can be used to understand some of the new forms of influence in such fields as digital marketing and consumer behaviour. Indeed, prior studies have proven that online advertising platforms like social media, influencer marketing, search engine advertisements, as well as other advertising platforms are deeply related to decision making, especially for a younger, more digitally literate population (e.g., Szakal et al., 2023; Nyrhinen et al., 2024). Recent literature also finds that influencers rely on increasing trust

and emotional bond with consumers compared to traditional brand communication, and therefore, influencer advertising items present high reliability (Almahdi et al., 2022). Likewise, the robust internal consistency of free content website advertisements as found by Zhang & Jing (2017) is supported by findings that content-integrated non-intrusive advertisements are more positively viewed by consumers. Additionally, the demographic profile of the study, namely the prevalence of the 18–35 age bracket and higher education levels, matches those observed by Rani (2023) to the effect that digitally native consumers are more receptive to different types of online brand communication. As a result, the pilot results not only validate the questionnaire internally but also externally support broader patterns of consumer behaviour as documented in modern literature. The pilot study also has several important implications for both academic research and marketing practice. This internal consistency of the questionnaire across all advertising modes confirms that the questionnaire can capture the nuances of consumer perceptions in the digital advertising landscape. From a marketing perspective, the initial positive impressions about various digital advertising modes indicate that FMCG brands can safely use a mix of search engine, social media, email, content website, and influencer marketing to engage with women consumers. Influencer and free content website advertising is notably high in reliability, and therefore, brands need to invest more in authentic, content-driven marketing efforts.

The pilot study has some limitations that need to be acknowledged despite the encouraging outcomes. The sample was diverse, but it contained both male and female respondents, whereas the main study is focused on women consumers. The full-scale research will be enhanced in precision and relevance by having a more focused female-only sample. Moreover, the sample size of eighty respondents is relatively small for broader generalizations, and, therefore, a larger and more varied sample is needed for statistical significance in future analyses. At the pilot phase level of analysis of the study, we only performed internal consistency and basic descriptive statistics like averages and standard deviations, but did not practice inferential methods such as regression modeling or factor analysis. Also, like most survey-type studies, it depends upon self-reported data, thus may include social desirability, or may be inaccurate, potentially affecting the objectivity.

Avenues for future research to strengthen the investigation that were built on from the pilot study findings are recommended. The validated questionnaire should be used to collect full-scale data on women consumers only and with a broader representation of age groups, income levels, and educational backgrounds. Future research should utilize advanced statistical methods such as exploratory and confirmatory factor analysis, regression analysis, and structural equation modeling to further validate the factor structure of the scale and also to rigorously test the relationship between the digital impressions and buying expressions. A deeper approach would be to try a comparison across demographic subgroups, such as different age bands, urban versus rural consumers, to understand how different digital advertising perceptions are.

Conclusion

The reliability and internal consistency of the questionnaire used to assess consumers' responses in different digital advertising modes were successfully validated in the pilot study. The instrument showed good internal reliability with Cronbach's Alpha values from 0.862 to 0.893 for individual advertising types and 0.947 for the overall scale. In addition, the demographic profile of the respondents was dominated by young people (18–35 years of age), educated, and digitally active respondents, indicating the instrument's contextual relevance to study digitally engaged consumer behavior. It was found that consumers have generally favorable perceptions towards all five advertising modes (Search Engine, Social Media, Email, Free Content Website, and Influencer Advertising), thus indicating the evolving role of the integrated digital marketing strategies in consumer buying behavior. The pilot results are close to what is found in the literature as additional evidence of trendy content, influencer, and platform-specific marketing that are becoming increasingly important among younger, tech-capable consumers. These promising results were limited by the disadvantages of the pilot study, such as a mixed gender sample, small size, and restricted broad generalization. However, the study offers a solid foundation for full-scale research. Future work should be conducted on women consumers only, with the use of advanced inferential analyses, behavioral outcomes, as well as self-reported perceptions. To sum up, this pilot study verifies that the questionnaire is statistically sound and ready to be sent out to a larger, more specific sample. It provides a solid base for future research on how digital advertising impressions translate to women consumers' buying expressions. In this way, it provides practical advice to marketers who want to create more effective, platform-adjusted campaigns for the new generation of digitally educated audience members.

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