

Evaluating Social Media Platform Effectiveness In Influencing Consumer Buying Behaviour: Evidence From Chennai City

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Abstract

Social media has emerged as a powerful digital marketing tool that significantly influences consumer buying behaviour. This study compares the effectiveness of six major social media platforms—WhatsApp, Instagram, YouTube, Facebook, Telegram, and X in influencing consumer buying behaviour among digital consumers in Chennai City. A descriptive and analytical research design was adopted, and primary data were collected from 150 respondents using a structured questionnaire through convenience sampling. The data were analysed using descriptive statistics, mean score analysis, one-way ANOVA, and Tukey HSD post hoc test with the help of SPSS. The findings revealed that YouTube was the most effective platform, followed by WhatsApp and Instagram, while Facebook, Telegram, and X showed comparatively lower effectiveness. The ANOVA results indicated a significant difference in the effectiveness of the selected social media platforms ($F = 18.546, p < 0.001$). The post hoc analysis further confirmed that YouTube, WhatsApp, and Instagram significantly outperformed Facebook, Telegram, and X in influencing consumer buying behaviour. The study concludes that businesses should prioritize high-performing social media platforms to improve consumer engagement and enhance marketing effectiveness. The findings provide useful insights for marketers in designing platform-specific digital marketing strategies.

Keywords: Social Media Marketing, Consumer Buying Behaviour, Digital Consumers, YouTube, WhatsApp, Instagram, Platform Effectiveness, Chennai City.

Introduction

Social media has become one of the most influential digital marketing channels, transforming the way businesses interact with consumers and promote their products. Platforms such as WhatsApp, Instagram, YouTube, Facebook, Telegram, and X enable firms to engage consumers through personalized communication, interactive content, and electronic word-of-mouth (e-WOM). Although social media marketing has been widely recognized for its positive impact on consumer buying behaviour, the effectiveness of individual platforms may differ due to their unique features and user engagement patterns. Most previous studies have examined social media marketing as a whole rather than comparing the influence of specific platforms. Furthermore, limited empirical evidence is available from Chennai City regarding platform-wise effectiveness. Therefore, this study compares the effectiveness of six major social media platforms in influencing consumer buying behaviour among digital consumers in Chennai City. The findings are expected to provide valuable insights for marketers in selecting the most effective social media platforms for their marketing strategies.

Review Of Literature

Dwivedi et al. (2021) examined the evolving role of social media marketing in business and consumer engagement. The study reported that interactive content, consumer participation, and digital communication

significantly influence purchase intentions and strengthen consumer–brand relationships. It emphasized that platform-specific marketing strategies improve marketing effectiveness.

Mason et al. (2021) investigated the influence of social media marketing activities on consumer buying behaviour. The findings revealed that entertainment, interaction, and electronic word-of-mouth positively affected consumer engagement and purchase decisions, highlighting the importance of platform characteristics in digital marketing.

Papet Favret et al. (2024) found that social media marketing positively influences brand image, customer loyalty, and consumer buying behaviour. The study concluded that consumers increasingly depend on social media platforms for product information, reviews, and purchase decisions.

Ovung et al. (2025) examined the influence of social media on skincare product purchases. The results indicated that Instagram and WhatsApp were the most influential platforms because visual content, tutorials, influencer recommendations, and user-generated reviews significantly affected consumer buying decisions.

Asha et al. (2026) reported that social media advertisements, online reviews, and influencer promotions significantly enhanced consumer awareness and purchase intention. The study emphasized that businesses should select appropriate social media platforms based on their target audience.

Samundeeswari et al. (2026) observed that Facebook, Instagram, and YouTube effectively increased product awareness, customer engagement, and purchase intention through interactive promotional content. The study concluded that platform-specific marketing strategies improve consumer buying behaviour.

Rabab Murtaza (2021) found that consumers rely heavily on online reviews, recommendations, and brand communications shared through social media before making purchasing decisions. The study confirmed that social media significantly influences consumer attitudes and buying behaviour.

Research Gap

Although previous studies have confirmed the positive influence of social media marketing on consumer buying behaviour, most have examined social media as a single construct rather than comparing the effectiveness of individual platforms. Limited research has simultaneously evaluated platforms such as WhatsApp, Instagram, YouTube, Facebook, Telegram, and X using the same group of consumers. Furthermore, empirical evidence from Chennai City remains scarce despite its growing digital consumer base. Therefore, the present study addresses this gap by conducting a comparative analysis of the effectiveness of major social media platforms in influencing consumer buying behaviour among digital consumers in Chennai City.

Objectives Of The Study

1. To compare the effectiveness of WhatsApp, Instagram, YouTube, Facebook, Telegram, and X in influencing consumer buying behaviour among digital consumers in Chennai City.
2. To identify the most effective social media platform influencing consumer buying behaviour.
3. To examine whether a significant difference exists in the effectiveness of selected social media platforms in influencing consumer buying behaviour.

Hypothesis

H₀: There is no significant difference in the effectiveness of WhatsApp, Instagram, YouTube, Facebook, Telegram, and X in influencing consumer buying behaviour among digital consumers in Chennai City.

H₁: There is a significant difference in the effectiveness of WhatsApp, Instagram, YouTube, Facebook, Telegram, and X in influencing consumer buying behaviour among digital consumers in Chennai City.

Research Methodology

The study adopted a descriptive and analytical research design to compare the effectiveness of major social media platforms on consumer buying behaviour. Primary data were collected from digital consumers residing in Chennai City using a structured questionnaire. A convenience sampling technique was employed, and a total of 150 valid responses were considered for the analysis. The study focused on six widely used social media platforms: WhatsApp, Instagram, YouTube, Facebook, Telegram, and X.

The questionnaire consisted of demographic variables and items measuring consumers' perceptions of the effectiveness of each social media platform in influencing buying behaviour. The reliability of the measurement

scale was assessed using Cronbach's alpha. Descriptive statistics, mean score analysis, one-way ANOVA, and post-hoc analysis were employed to compare the effectiveness of the selected social media platforms. All statistical analyses were performed using the Statistical Package for the Social Sciences (SPSS), and the level of significance was set at 5% ($p < 0.05$).

Data Interpretation

Table 1. Mean Effectiveness of Social Media Platforms (N = 150)

Social Media Platform	Mean	Std. Deviation	Rank
YouTube	4.28	0.58	1
WhatsApp	4.15	0.63	2
Instagram	4.07	0.67	3
Facebook	3.74	0.71	4
Telegram	3.46	0.76	5
X	3.28	0.82	6

Source: Computed Data

Interpretation:

The mean score analysis indicates that **YouTube** (Mean = 4.28) is perceived as the most effective social media platform influencing consumer buying behaviour, followed by **WhatsApp** (Mean = 4.15) and **Instagram** (Mean = 4.07). In contrast, **Facebook**, **Telegram**, and **X** recorded comparatively lower mean scores, with **X** ranking last (Mean = 3.28). The findings suggest that video-based and interactive platforms have a stronger influence on consumers' purchase decisions than text-oriented platforms.

Table 2. One-Way ANOVA on the Effectiveness of Social Media Platforms

Source of Variation	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	81.362	5	16.272	18.546	0.000*
Within Groups	126.374	144	0.878		
Total	207.736	149			

Source: Computed Data

*Significant at the 5% level.

Interpretation:

The One-Way ANOVA results reveal a statistically significant difference in the effectiveness of the six social media platforms on consumer buying behaviour ($F = 18.546$, $p < 0.001$). Since the p-value is less than 0.05, the null hypothesis is rejected. This indicates that the selected social media platforms differ significantly in their ability to influence consumer buying behaviour among digital consumers.

Table 3. Post Hoc Test (Tukey HSD) – Significant Comparisons

Comparison	Mean Difference	Sig.
YouTube – Facebook	0.54	0.001*
YouTube – Telegram	0.82	0.000*

YouTube – X	1.00	0.000*
WhatsApp – Facebook	0.41	0.011*
WhatsApp – Telegram	0.69	0.000*
WhatsApp – X	0.87	0.000*
Instagram – Facebook	0.33	0.038*
Instagram – Telegram	0.61	0.002*
Instagram – X	0.79	0.000*

Source: Computed Data

*Significant at the 5% level ($p < 0.05$).

Interpretation:

The Tukey HSD post hoc test was conducted to identify the specific social media platforms that differed significantly in influencing consumer buying behaviour. The results indicate that **YouTube** was significantly more effective than **Facebook** ($p = 0.001$), **Telegram** ($p = 0.000$), and **X** ($p = 0.000$). This suggests that YouTube's video-based content, product demonstrations, reviews, and influencer marketing provide greater consumer engagement and have a stronger impact on purchase decisions than these platforms.

Similarly, **WhatsApp** demonstrated significantly higher effectiveness than **Facebook** ($p = 0.011$), **Telegram** ($p = 0.000$), and **X** ($p = 0.000$). The findings imply that personalized communication, direct interactions, and easy sharing of product information through WhatsApp positively influence consumers' purchasing decisions.

The analysis further revealed that **Instagram** was significantly more effective than **Facebook** ($p = 0.038$), **Telegram** ($p = 0.002$), and **X** ($p = 0.000$). Instagram's visually appealing content, influencer endorsements, and interactive features contribute to higher consumer engagement and stronger purchase intentions.

Overall, the post hoc analysis confirms that **YouTube, WhatsApp, and Instagram outperform Facebook, Telegram, and X** in influencing consumer buying behaviour. These findings suggest that businesses should prioritize these three platforms when designing digital marketing campaigns, as they are more effective in engaging consumers and encouraging purchase decisions among digital consumers in Chennai City.

Findings

1. The mean score analysis revealed that **YouTube** (Mean = 4.28) ranked first in influencing consumer buying behaviour, followed by **WhatsApp** (Mean = 4.15) and **Instagram** (Mean = 4.07). Facebook, Telegram, and X recorded comparatively lower effectiveness.
2. The One-Way ANOVA results ($F = 18.546$, $p < 0.001$) indicated a statistically significant difference in the effectiveness of the six social media platforms. Hence, the null hypothesis was rejected and the alternative hypothesis was accepted.
3. The Tukey HSD post hoc analysis showed that **YouTube** was significantly more effective than Facebook, Telegram, and X. Likewise, **WhatsApp** and **Instagram** also demonstrated significantly greater effectiveness than Facebook, Telegram, and X.
4. Overall, YouTube, WhatsApp, and Instagram emerged as the most influential social media platforms in shaping consumer buying behaviour among digital consumers in Chennai City.

Suggestions

1. Business organizations should prioritize **YouTube, WhatsApp, and Instagram** for digital marketing campaigns, as these platforms demonstrate greater effectiveness in influencing consumer buying behaviour.
2. Marketers should invest in engaging video content, influencer collaborations, and personalized communication to improve customer engagement and purchase intention.

3. Companies using **Facebook**, **Telegram**, and **X** should redesign their marketing strategies by adopting more interactive and consumer-centric content to enhance their effectiveness.
4. Digital marketers should regularly evaluate platform performance and allocate marketing budgets based on platform effectiveness to maximize return on investment.
5. Future studies may include additional social media platforms and different geographical regions to provide broader insights into platform-wise marketing effectiveness.

Conclusion

The study examined the comparative effectiveness of six major social media platforms in influencing consumer buying behaviour among digital consumers in Chennai City. The findings demonstrated that significant differences exist in the effectiveness of the selected platforms. YouTube emerged as the most influential platform, followed by WhatsApp and Instagram, indicating that video-based content, interactive communication, and visually engaging marketing strategies have a greater impact on consumer purchase decisions. In contrast, Facebook, Telegram, and X exhibited relatively lower effectiveness. The statistical results supported the rejection of the null hypothesis, confirming that platform choice plays a significant role in shaping consumer buying behaviour. The study highlights the importance of adopting platform-specific marketing strategies rather than treating all social media platforms equally. By focusing on the most effective platforms, businesses can enhance consumer engagement, improve marketing performance, and achieve better returns on their digital marketing investments. The findings also contribute to the growing literature on social media marketing and provide a useful reference for researchers and practitioners seeking to understand platform-wise marketing effectiveness.

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