

# MODELLING CONSUMER PLATFORM CHOICE IN DIGITAL APPAREL SHOPPING USING MULTINOMIAL REGRESSION

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## ***Abstract***

*The study explores how different features of social media marketing influence consumers' choice of platform when shopping for branded apparel online. Using data collected from 127 respondents in Gujarat, the research applies multinomial logistic regression to analyse the impact of various factors such as discounts, exclusive finds, brand updates, easy returns, timely delivery, trying new products, trusted reviews, price comparison, and user ratings. The results reveal that five factors—discounts, brand updates, easy returns, trying new products, and price comparison—significantly affect platform preference. Among the platforms studied, Instagram emerged as the most preferred and predictable choice for online shopping. The findings provide useful insights for marketers and content creators aiming to build stronger digital strategies.*

**Keywords:** Social Media Marketing, Platform Preference, Branded Apparel

## **INTRODUCTION**

In recent years, the increasing use of social media platforms has significantly transformed the way consumers discover, evaluate, and purchase products. With the rise of mobile internet, consumers are spending a substantial amount of time on social media platforms such as Instagram, Facebook, WhatsApp, and YouTube. These platforms are no longer used only for communication or entertainment; they have now become powerful digital marketplaces. Brands and businesses, especially in the fashion and apparel sector, have recognized this trend and are actively using these platforms for marketing and selling products.

Branded apparel is a product category that fits particularly well with social media marketing. Consumers today are highly influenced by visual content, influencer endorsements, product reviews, discount offers, and timely updates shared through social platforms. The convenience of browsing collections, comparing prices, reading user feedback, and even placing orders directly through social media apps has made these platforms an integral part of the online shopping experience.

In India, where internet usage is rapidly growing, especially among the youth, digital apparel shopping is becoming a norm. Consumers from diverse backgrounds, occupations, and education levels now rely on social media to explore new trends, evaluate clothing brands, and make purchase decisions. However, not all consumers prefer the same platform for their online apparel purchases. While some are more inclined toward Instagram due to its visual content and influencer culture, others may prefer WhatsApp for its personal communication and sharing features, or Facebook for community-based promotions and brand pages. Understanding what drives consumers to choose a particular platform for online apparel shopping is important for marketers, social media strategists, and e-commerce businesses. While demographic factors like age or gender may play a role, it is the nature of social media content—such as product discounts, exclusive finds, reviews, return policies, and timely delivery updates—that more directly influences consumer behaviour.

## **REVIEW LITERATURE**

Past studies highlight that social media plays a vital role in influencing consumer decisions in the fashion apparel sector. Their (2022) found that factors such as influencer marketing, social media reviews, discounts, and user-generated content strongly affect apparel purchase intentions.

Brokaw (2011) highlighted that customers respond positively to promotions and offers on social media, which helps build brand loyalty. Customers often prefer platforms where they can get more value for their money through discounts and deals. As shown in the study by Balakrishnan, Dahnil, and Yi (2014), online advertising with clear discounts increases both purchase intention and loyalty.

Customers enjoy finding unique products that are not easily available elsewhere. According to the blog by BlueSwitch (2018), when platforms offer limited or exclusive collections, it creates a sense of excitement and urgency among customers. This helps brands stand out and gives buyers a reason to stay connected to the brand for new and unique offers.

Customers want to stay updated about the latest collections and offers. Zhang, Qu, and Gao (2022) stated that consumers are emotionally connected with brands that share regular updates and stories. Sharing such updates increases engagement and makes customers feel more involved with the brand's journey.

The ease of returning or exchanging a product gives customers more confidence to shop online. The University of Texas at Dallas (2016) found that customers are more likely to purchase when they know they can return the product if needed. A flexible return policy makes the customer feel secure and promotes repeat buying.

Fast and reliable delivery is one of the key expectations in digital shopping. Anchanto (n.d.) emphasized that real-time tracking and on-time delivery build trust. When customers receive their orders on time, their overall satisfaction increases, encouraging them to shop again and recommend the platform to others.

Customers are also attracted to trying new products and brands. This desire for variety and exploration keeps them engaged. As stated by BlueSwitch (2018), platforms that show new arrivals and trendy collections encourage consumers to try something different, especially when paired with influencer promotions or stories.

Reviews play a big role in shaping customer decisions. Solanki and Choubey (2014) found that customers are more likely to trust a brand when they read positive feedback from other users. The presence of honest and detailed reviews makes consumers feel safe and confident about their purchase decisions.

Online shoppers actively compare prices across platforms. According to Balakrishnan et al. (2014), price transparency builds trust. If a platform allows users to compare prices or shows why their pricing is better, it helps customers feel they are making a smart choice.

Ratings are a quick way for consumers to judge the quality of a product. Mclean and Kofi (2017) stated that high ratings improve customer trust and satisfaction. When platforms highlight user ratings clearly, it helps buyers make quicker and more confident decisions.

Most previous studies have focused on general online shopping behavior or single factors like discounts or reviews. However, limited research has modeled how multiple social media marketing factors influence consumers' specific platform choice for purchasing branded apparel. This study fills that gap using multinomial regression in the context of Gujarat, India.

RESEARCH OBJECTIVES

- To examine the influence of social media marketing factors on consumers' choice of digital platforms for purchasing branded apparel.
- To model the relationship between consumer shopping behavior and platform preference using multinomial regression.

METHODOLOGY

The present study adopts a quantitative and descriptive research design to model the factors influencing consumers' social media platform choice for purchasing branded apparel. The primary data was collected using a structured questionnaire designed to gather demographic information, online purchase behaviour, platform preference, and the impact of various social media content factors.

The study included nine independent variables: Discounts, Exclusive Finds, Brand Updates, Easy Returns, Timely Delivery, Trying New Styles, Trusted Reviews, Price Comparison, and User Ratings. Respondents rated the influence of these variables on a Likert scale, and the data was analysed using multinomial logistic regression to identify which factors significantly affect the choice of social media platform.

A total of 127 valid responses (social media users) were collected from consumers residing in Gujarat, India, using a non-probability convenience sampling method. Data was analysed using SPSS, with statistical tools such as descriptive statistics, chi-square tests, and regression analysis.

A reliability analysis was conducted to assess the internal consistency of the 9-item scale measuring consumer motivations for digital apparel shopping (e.g., discounts, exclusive finds, brand updates, easy returns, etc.). The analysis yielded a **Cronbach's Alpha value of 0.720**, indicating an **acceptable level of internal consistency** among the items.

Analysis of Survey Data:

Table 1: Descriptive Statistics of the Demographic Variables

|  | Frequency | Percent | Valid | Cumulative | Mean | Std. |
|--|-----------|---------|-------|------------|------|------|
|--|-----------|---------|-------|------------|------|------|

|            |                            |    |      | Percent | Percent |      | Deviation |
|------------|----------------------------|----|------|---------|---------|------|-----------|
| Gender     | Male                       | 32 | 25.2 | 25.2    | 25.2    | 1.75 | .436      |
|            | Female                     | 95 | 74.8 | 74.8    | 100.0   |      |           |
| Age        | 11-18 years                | 12 | 9.4  | 9.4     | 9.4     | 3.57 | .980      |
|            | 18-25 years                | 63 | 49.6 | 49.6    | 59.1    |      |           |
|            | 25-36 years                | 19 | 15.0 | 15.0    | 74.0    |      |           |
|            | 36 or more years           | 33 | 26.0 | 26.0    | 100.0   |      |           |
| Occupation | Student                    | 59 | 46.5 | 46.5    | 46.5    | 2.28 | 1.505     |
|            | Service                    | 28 | 22.0 | 22.0    | 68.5    |      |           |
|            | Business Person            | 3  | 2.4  | 2.4     | 70.9    |      |           |
|            | Self Employed              | 20 | 15.7 | 15.7    | 86.6    |      |           |
|            | Other                      | 17 | 13.4 | 13.4    | 100.0   |      |           |
| Education  | Less than Higher Secondary | 13 | 10.2 | 10.2    | 10.2    | 4.46 | 1.452     |
|            | Higher Secondary           | 9  | 7.1  | 7.1     | 17.3    |      |           |
|            | Graduate                   | 54 | 42.5 | 42.5    | 59.8    |      |           |
|            | Post Graduate              | 32 | 25.2 | 25.2    | 85.0    |      |           |
|            | Professional Course        | 15 | 11.8 | 11.8    | 96.9    |      |           |
|            | Others                     | 4  | 3.1  | 3.1     | 100.0   |      |           |

**Table 2: Descriptive Statistics of Consumer Social Media Engagement and Purchase Behaviour**

|                     |                               | Frequency | Percent | Valid Percent | Cumulative Percent | Mean | Std. Deviation |
|---------------------|-------------------------------|-----------|---------|---------------|--------------------|------|----------------|
| Purchase Frequency  | Rarely                        | 4         | 3.1     | 3.1           | 3.1                | 3.23 | .789           |
|                     | Occasionally                  | 16        | 12.6    | 12.6          | 15.7               |      |                |
|                     | Frequently                    | 54        | 42.5    | 42.5          | 58.3               |      |                |
|                     | Very Frequently               | 53        | 41.7    | 41.7          | 100.0              |      |                |
| Platform Preference | Instagram                     | 58        | 45.7    | 45.7          | 45.7               | 1.87 | .984           |
|                     | Facebook                      | 39        | 30.7    | 30.7          | 76.4               |      |                |
|                     | WhatsApp                      | 18        | 14.2    | 14.2          | 90.6               |      |                |
|                     | YouTube                       | 12        | 9.4     | 9.4           | 100.0              |      |                |
| Content Influence   | Influence Promotions          | 15        | 11.8    | 11.8          | 11.8               | 3.94 | 1.376          |
|                     | Paid Advertisements           | 8         | 6.3     | 6.3           | 18.1               |      |                |
|                     | Customer reviews and comments | 9         | 7.1     | 7.1           | 25.2               |      |                |
|                     | Brand posts and stories       | 32        | 25.2    | 25.2          | 50.4               |      |                |
|                     | Discounts and Offers          | 63        | 49.6    | 49.6          | 100.0              |      |                |

From the above table, it is seen that the gender distribution showed a mean of 1.75 (on a binary scale), indicating a higher proportion of female respondents. The average age group was 3.57, suggesting that most participants were in the middle age range of the coded categories. Respondents represented a diverse range of occupations (Mean = 2.28, SD = 1.505) and education levels (Mean = 4.46), indicating that participants had at least undergraduate to postgraduate education, with variation observed (SD = 1.452).

In terms of shopping behavior, the average response for frequency of branded apparel purchases online was 3.23, suggesting that most respondents frequently or very frequently shop online. Regarding platform preference, the average score was 1.87 (on a coded scale where 1 = Instagram, 2 = Facebook, etc.), indicating that Instagram and Facebook were the most preferred platforms for purchasing branded apparel. The mean score for social media content influence was 3.94 (on a scale of 1 to 5), with a standard deviation of 1.376, which implies that influencer promotions, brand posts, discounts, and reviews strongly influence purchasing decisions for most respondents.

Table 3 reveals that discounts and offers are the most influential content type, especially on Instagram and Facebook, followed by brand posts and stories. WhatsApp and YouTube show minimal influence across all content categories.

**H<sub>0</sub>: There is no significant influence of social media marketing factors on consumers' choice of social media platform for purchasing branded apparel.**

In the multinomial regression analysis conducted in this study, the dependent variable was the social media platform (Instagram, Facebook, WhatsApp, and YouTube). The platform preference was treated as a categorical variable with YouTube set as the reference category. The independent variables are Discounts, Exclusive Finds, Brand Updates, Easy Returns, Timely Delivery,

Trying New Styles, Trusted Reviews, Price Comparison, and User Ratings.

**Table 3 : Cross tabulation of Social Media Content Influence and Preferred Platform for Branded Apparel Purchase**

|                               | Platform Preference |          |          |         | Total |
|-------------------------------|---------------------|----------|----------|---------|-------|
|                               | Instagram           | Facebook | WhatsApp | YouTube |       |
| Influence Promotions          | 7                   | 4        | 3        | 1       | 15    |
| Paid Advertisements           | 7                   | 1        | 0        | 0       | 8     |
| Customer reviews and comments | 3                   | 2        | 2        | 2       | 9     |
| Brand posts and stories       | 14                  | 11       | 5        | 2       | 32    |
| Discounts and Offers          | 27                  | 21       | 8        | 7       | 63    |
| Total                         | 58                  | 39       | 18       | 12      | 127   |

**Table 4 : Chi-Square Tests**

|                              | Value              | df | Asymp. Sig. (2-sided) |
|------------------------------|--------------------|----|-----------------------|
| Pearson Chi-Square           | 9.952 <sup>a</sup> | 12 | .620                  |
| Likelihood Ratio             | 11.009             | 12 | .528                  |
| Linear-by-Linear Association | .535               | 1  | .464                  |
| N of Valid Cases             | 127                |    |                       |

a. 13 cells (65.0%) have expected count less than 5. The minimum expected count is .76.

The chi-square test results in Table 4 indicate that there is no statistically significant association between the type of social media marketing factors and the platform mostly used for purchasing branded apparel (Pearson  $\chi^2 = 9.952$ ,  $p = .620 > 0.05$ ). This suggests that content type does not significantly influence platform preference.

**Table 5 : Model Fitting Information**

| Model          | Model Fitting Criteria | Likelihood Ratio Tests |    |      |
|----------------|------------------------|------------------------|----|------|
|                | -2 Log Likelihood      | Chi-Square             | df | Sig. |
| Intercept Only | 176.035                |                        |    |      |
| Final          | 81.060                 | 94.975                 | 72 | .036 |

Table 5 shows that the p-value = .036 ( $< 0.05$ ) indicates that the final model is statistically significant.

**Table 6 : Goodness-of-Fit**

|          | Chi-Square | df | Sig.  |
|----------|------------|----|-------|
| Pearson  | 6.781      | 33 | 1.000 |
| Deviance | 8.313      | 33 | 1.000 |

Table 6 explains that the model fits the data as both the Pearson and Deviance tests have p-values of 1.000, which is much higher than 0.05.

**Table 7 : Pseudo R-Square**

|               |      |
|---------------|------|
| Cox and Snell | .527 |
| Nagelkerke    | .577 |
| McFadden      | .306 |

Table 7 shows the Nagelkerke R-square value of 0.577 means the model explains about 57.7% of the variance in social media platform choice. This indicates a strong relationship between the influencing factors and the platform consumers prefer.

Table 8 : Likelihood Ratio Tests

| Effect                  | Model Fitting Criteria             | Likelihood Ratio Tests |           |              |
|-------------------------|------------------------------------|------------------------|-----------|--------------|
|                         | -2 Log Likelihood of Reduced Model | Chi-Square             | df        | Sig.         |
| Intercept               | 81.060 <sup>a</sup>                | .000                   | 0         | .            |
| <b>Discounts</b>        | <b>97.884</b>                      | <b>16.824</b>          | <b>6</b>  | <b>.010*</b> |
| Exclusive Finds         | 90.311 <sup>b</sup>                | 9.251                  | 9         | .414         |
| <b>Brand Updates</b>    | <b>1.002E2<sup>b</sup></b>         | <b>19.165</b>          | <b>9</b>  | <b>.024*</b> |
| <b>Easy Returns</b>     | <b>102.277</b>                     | <b>21.217</b>          | <b>12</b> | <b>.047*</b> |
| Timely-delivery         | 91.439                             | 10.379                 | 6         | .110         |
| <b>Try New</b>          | <b>101.073</b>                     | <b>20.013</b>          | <b>9</b>  | <b>.018*</b> |
| Trusted Reviews         | 87.649 <sup>b</sup>                | 6.590                  | 6         | .360         |
| <b>Price Comparison</b> | <b>108.156</b>                     | <b>27.096</b>          | <b>9</b>  | <b>.001*</b> |
| User Ratings            | 81.903                             | .843                   | 6         | .991         |

The chi-square statistic is the difference in -2 log-likelihoods between the final model and a reduced model. The reduced model is formed by omitting an effect from the final model. The null hypothesis is that all parameters of that effect are 0.

- This reduced model is equivalent to the final model because omitting the effect does not increase the degrees of freedom.
- Unexpected singularities in the Hessian matrix are encountered. This indicates that either some predictor variables should be excluded or some categories should be merged.

Table 8 shows that among the nine factors analysed, five showed a statistically significant effect on platform selection: Discounts ( $p = .010$ ), Brand Updates ( $p = .024$ ), Easy Returns ( $p = .047$ ), Try New ( $p = .018$ ), and Price Comparison ( $p = .001$ ). In contrast, the factors Exclusive Finds ( $p = .414$ ), Timely Delivery ( $p = .110$ ), Trusted Reviews ( $p = .360$ ), and User Ratings ( $p = .991$ ) were not statistically significant, indicating that they do not differ meaningfully across platforms in influencing consumer choice. Overall, the analysis reveals that promotional features and perceived convenience are key drivers of platform preference in digital apparel shopping.

Table 9 : Parameter Estimates

| Platform Preference |               | B              | Std. Error | Wald | df | Sig.         | Exp(B)   | 95% Confidence Interval for Exp(B) |                |
|---------------------|---------------|----------------|------------|------|----|--------------|----------|------------------------------------|----------------|
|                     |               |                |            |      |    |              |          | Lower Bound                        | Upper Bound    |
| Instagram           | Intercept     | 26.173         | 1620.858   | .000 | 1  | .987         |          |                                    |                |
|                     | [Discounts=3] | 52.175         | 2347.428   | .000 | 1  | <b>.032*</b> | 4.565E22 | .000                               | . <sup>b</sup> |
|                     | [Discounts=4] | 36.343         | 946.848    | .001 | 1  | <b>.029*</b> | 6.078E15 | .000                               | . <sup>b</sup> |
|                     | [Discounts=5] | 0 <sup>c</sup> | .          | .    | 0  | .            | .        | .                                  | .              |

- The reference category is: YouTube.
- Floating point overflow occurred while computing this statistic. Its value is therefore set to system missing.
- This parameter is set to zero because it is redundant.

Table 9 shows a significant positive coefficient for Discounts (Sig. = .032 and .029) for Instagram suggests that consumers satisfied with discounts are more likely to use Instagram.

**Table 10 : Classification**

| Observed           | Predicted |          |          |         |                 |
|--------------------|-----------|----------|----------|---------|-----------------|
|                    | Instagram | Facebook | WhatsApp | YouTube | Percent Correct |
| Instagram          | 49        | 5        | 2        | 2       | 84.5%           |
| Facebook           | 28        | 10       | 0        | 1       | 25.6%           |
| WhatsApp           | 10        | 0        | 8        | 0       | 44.4%           |
| YouTube            | 6         | 0        | 2        | 4       | 33.3%           |
| Overall Percentage | 73.2%     | 11.8%    | 9.4%     | 5.5%    | 55.9%           |

Table 10 reveals that the model performs quite well for Instagram users, correctly classifying 84.5% of them. However, it shows lower accuracy for other platforms—44.4% for WhatsApp, 33.3% for YouTube, and only 25.6% for Facebook. This indicates that the model is better at identifying Instagram preferences based on the given factors.

## FINDINGS AND DISCUSSION

The study found that some social media features have a strong influence on which platform people choose to shop for branded clothes. Out of the nine features studied, Discounts, Brand Updates, Easy Returns, Try New, and Price Comparison were found to significantly affect the platform choice.

Among all the platforms, Instagram stood out as the most predictable and preferred platform. The model was able to correctly classify 84.5% of Instagram users. However, for other platforms like Facebook, WhatsApp, and YouTube, the prediction accuracy was lower.

## CONCLUSION

The main goal of this study was to understand what influences customers when they choose a social media platform to buy branded apparel online. The study used multinomial regression to find out which factors matter most in platform selection.

The results show that promotional content, convenience, and brand-related features affect the choice of platform. Instagram was found to be the most popular and predictable platform, meaning companies can use it effectively to reach their target customers. Overall, the study highlights the strong connection between marketing features and consumer behaviour on digital platforms.

## IMPLICATIONS

For marketers and social media managers, the findings suggest focusing on improving features like discount offers, price comparisons, and easy returns. These features are likely to attract more online shoppers. Since Instagram is highly preferred, it should be the primary focus of marketing strategies.

For content creators and brand strategists, the study shows the importance of sharing regular brand updates, promoting new products, and designing content that highlights deals and customer benefits. Engaging, informative, and visual content can increase consumer interest and trust.

## LIMITATIONS OF THE STUDY

One major limitation of this study is that it was conducted only in the Gujarat state, so the results may not apply to other regions. The preferences of people in other states or countries might be different. The study used a non-probability sampling method that limits the ability to generalize the results to the entire population. The research focused only on branded apparel shopping. Other types of products or categories were not included, so the findings are limited to this specific area.

## SCOPE FOR FUTURE RESEARCH

Future studies can be conducted in other regions to compare consumer behaviour across different areas. Researchers can also include other product categories beyond branded apparel, like electronics or home goods, to see if the influencing factors change.

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