

The Impact of Social Media Algorithms on Consumer Buying Behaviour Among Young Consumers

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Abstract

In the digital era, consumer buying behaviour is no longer shaped only by personal preferences, advertisements, or word-of-mouth communication. Social media algorithms have emerged as powerful invisible systems that continuously influence what consumers watch, admire, desire, and purchase. By analyzing user behaviour such as likes, watch time, searches, shares, and engagement patterns, platforms curate highly personalized content feeds that subtly direct consumer attention toward specific products, brands, and trends. This study examines the impact of social media algorithms on consumer buying behaviour among young consumers, particularly focusing on how personalized recommendations, influencer-driven visibility, repetitive content exposure, and engagement-based feeds influence purchasing decisions. The research adopts a mixed-method approach using quantitative survey analysis and qualitative interpretation to understand both the behavioural and psychological dimensions of algorithmic influence. A total of 118 responses were collected from young consumers belonging primarily to the 18–30 age group. The findings reveal that algorithmic exposure significantly affects product awareness, brand recall, impulse buying tendencies, and trend-oriented consumption patterns. Young consumers are increasingly engaging in passive product discovery, where products are encountered unintentionally while scrolling through reels, short-form videos, and personalized recommendations. The study further highlights the growing role of emotional triggers such as fear of missing out (FOMO), social validation, and digital trend participation in shaping online purchases. An important observation is that although consumers are aware that algorithms manipulate visibility and influence preferences, they continue relying on social media platforms for shopping inspiration due to convenience, entertainment, and personalization. The study concludes that social media algorithms have transformed consumer behaviour from conscious decision-making to digitally conditioned consumption, where purchasing patterns are increasingly influenced by curated online environments rather than direct necessity.

Keywords: Social Media Algorithms, Consumer Buying Behaviour, Generation Z, Algorithmic Personalization, Digital Consumer Psychology

1. Introduction

The rise of social media has significantly transformed the way consumers discover, evaluate, and purchase products. Platforms such as Instagram, YouTube, and Snapchat are no longer limited to communication and entertainment; they have evolved into powerful digital marketplaces driven by algorithms that continuously shape user preferences and online behaviour. These algorithms analyze user activity including likes, searches, watch time, shares, and engagement patterns to curate highly personalized content feeds.

As a result, young consumers are repeatedly exposed to specific products, brands, influencers, and trends that align with their interests and emotions. This repeated exposure gradually influences consumer perception and buying decisions, often without conscious realization. Unlike traditional shopping behaviour where consumers actively searched for products, today's consumers frequently encounter products passively through reels, influencer promotions, targeted advertisements, and algorithm-based recommendations.

Among all demographic groups, Generation Z is the most influenced by algorithm-driven environments due to their high social media usage and digital dependency. Purchasing behaviour among young consumers has become increasingly trend-oriented, impulsive and emotionally influenced. Viral products gain popularity not only because of quality or necessity, but because algorithms amplify visibility and social relevance through continuous engagement. In many cases, consumers buy products due to familiarity, curiosity, fear of missing out (FOMO), or the desire for online validation.

At the same time, algorithmic influence has raised concerns regarding impulsive consumption, digital manipulation, and reduced independent decision-making. Although many young consumers are aware that social media feeds are curated for commercial purposes, they continue relying on these platforms for product discovery because of convenience, entertainment, and personalization.

This study examines the impact of social media algorithms on consumer buying behaviour among young consumers. It focuses on understanding how personalized

recommendations, influencer visibility, targeted advertisements, and engagement-based content affect purchasing decisions and consumer psychology. The study also explores the extent to which young consumers recognize algorithmic influence in their everyday buying behaviour.

2. Objectives of the Study

- To study the impact of social media algorithms on consumer buying behaviour among young consumers.
- To examine the role of personalized advertisements in influencing purchasing decisions.
- To analyze the impact of influencer marketing on consumer preferences and buying behaviour.
- To understand the relationship between social media engagement and impulse buying behaviour.
- To identify the extent to which young consumers rely on social media platforms for product discovery and purchase decisions.

3. Scope of the Study

The study focuses on young consumers who actively use social media platforms such as Instagram, YouTube and Facebook. It examines how algorithm-driven content, personalized advertisements and influencer promotions affect consumer buying behaviour, purchase intention and impulse buying tendencies. The research is limited to digital consumer behaviour within social media environments and does not extensively cover traditional offline purchasing influences.

4. Literature Review

The literature review examines previous studies related to social media algorithms, personalized advertising, influencer marketing and social commerce, with a particular focus on their impact on consumer buying behaviour among young consumers. It highlights how algorithm-driven content, repetitive digital exposure and influencer promotions shape purchase intention, brand awareness and impulse buying behaviour in the digital era.

4.1. Bhardwaj et al. (2024) - in their systematic literature review examined the role of influencer marketing in shaping consumer buying behaviour. The study found that trust, authenticity

and relatability are among the most important factors influencing consumer responses toward influencer-promoted products. The researchers concluded that consumers often perceive influencers as more relatable than celebrities or traditional advertisements, thereby increasing the effectiveness of influencer marketing campaigns. The study also highlighted that social media platforms have become powerful marketing ecosystems where influencer-generated content significantly impacts purchase intention.

4.2. Agrawal and Vazirani (2023) - studied the impact of influencer marketing on Generation Z consumers in the beauty industry. The research revealed that influencer expertise, trustworthiness, content quality and brand familiarity significantly affect consumer buying behaviour. The majority of respondents admitted purchasing beauty products based on influencer recommendations, indicating the increasing dependence of young consumers on digital personalities while making purchasing decisions. The study further emphasized that influencer marketing creates stronger emotional connections compared to traditional advertising methods.

4.3. Chetan Gaur and Dr. Sohan Singh Rawat (2025) - examined the influence of social media influencers on Generation Z consumers and identified content quality and source credibility as major predictors of purchase intention. The study found that repeated exposure to influencer content positively affects brand awareness and consumer engagement. It also highlighted that consumers are more likely to trust influencers who provide authentic and relatable content, thereby increasing the likelihood of online purchases.

4.4. Barari, Eisend and Jain (2025) - in their meta-analytic study analyzed factors affecting influencer marketing effectiveness. The findings revealed that audience engagement, emotional attachment and perceived authenticity strongly influence consumer responses toward influencer promotions. The study further explained that algorithm-driven content visibility increases the reach and impact of influencer marketing campaigns among young social media users.

4.5. Mathur, Narayanan and Chetty (2018) - focused on the transparency issues associated with influencer advertising on social media platforms. The study found that many influencer advertisements fail to clearly disclose sponsorships, making it difficult for consumers to

distinguish between genuine recommendations and paid promotions. The researchers argued that hidden sponsorships and misleading promotional practices may negatively affect consumer trust and raise ethical concerns regarding digital marketing practices.

4.6. Liu, Zhang, Huang, Zhang and Zhao - examined the relationship between product recommendations and impulse buying behaviour on social media platforms. The study found that personalized recommendations and repeated exposure to products significantly increase impulsive purchasing behaviour among consumers. The findings also suggested that consumer trust toward the recommender and emotional attachment toward products strongly influence purchase decisions.

Existing literature shows that social media algorithms, personalized advertising, influencer marketing and social commerce significantly influence consumer buying behaviour, particularly among young consumers. Previous studies have mainly focused on influencer credibility, targeted advertisements, consumer engagement and impulse buying behaviour. However, limited research examines the combined impact of algorithm-driven content delivery, repetitive digital exposure and influencer marketing on the purchasing decisions of young consumers. Therefore, the present study aims to address this research gap.

5. Methodology

5.1 Research Design

This study adopts a mixed-method research design combining quantitative analysis with qualitative interpretation to understand the impact of social media algorithms on consumer buying behaviour among young consumers. Since algorithmic influence affects both measurable behaviour and subconscious decision-making, the use of mixed methods helped in analyzing not only purchasing patterns but also the psychological influence behind them.

5.2 Quantitative Phase – Online Survey

Primary data for the study was collected through a structured online questionnaire created using Google Forms. The survey was distributed digitally through platforms such as WhatsApp and Instagram among young consumers aged between 18 and 30 years.

The questionnaire was designed using a 5-point Likert Scale ranging from Strongly Disagree to Strongly Agree. It focused on factors such as personalized recommendations,

repetitive exposure to products, influencer impact, targeted advertisements, impulse buying behaviour, and consumer awareness regarding algorithmic influence. A total of 118 valid responses were collected and analyzed using descriptive statistics, percentage analysis, charts, and correlation-based interpretation.

5.3 Qualitative Interpretation

To support the statistical findings, qualitative interpretation was used to understand behavioural and psychological patterns reflected in consumer responses. The analysis highlighted recurring themes such as fear of missing out (FOMO), emotional purchasing, trend-following behaviour, social validation, and passive product discovery through scrolling culture. The qualitative insights helped explain how algorithm-driven content subtly shapes consumer perception and purchasing decisions.

5.4 Sample Profile

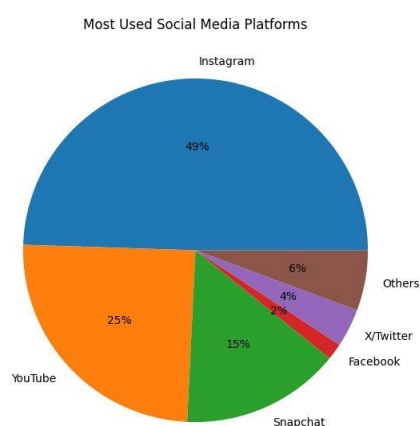
The study mainly focused on young consumers who actively use platforms such as Instagram and YouTube for entertainment, communication, and product discovery. The respondents primarily belonged to the 18–30 age group, representing digitally active consumers who are frequently exposed to personalized feeds, influencer content, and targeted advertisements.

6. Results and Discussion

6.1 Platform usage and passive discovery

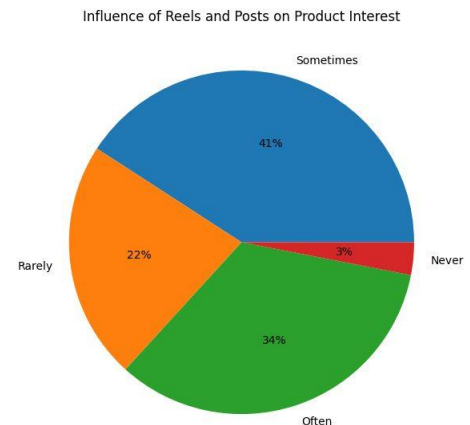
Instagram's dominance among respondents ($\approx 96\%$ users; pie chart shows $\sim 49\%$ share of “most used”) positions it as the primary arena where shopping cues are encountered. High daily use (1–3 hours for most) creates frequent, low-friction exposure to product content.

Insights from 18–30-year-olds suggest discovery is mostly accidental: products grow appealing through repeated, multi-format exposure rather than intentional search. This supports the study's framing of social media as a passive shopping environment.



6.2 Repetition, familiarity, and interest formation

Reels/short-form content nudge interest for a majority: “often” (~34%) plus “sometimes” (~41%) together outnumber “rarely/never.” This distribution shows that repetition and snackable formats do not need to persuade explicitly; they accumulate familiarity that later reads as preference.



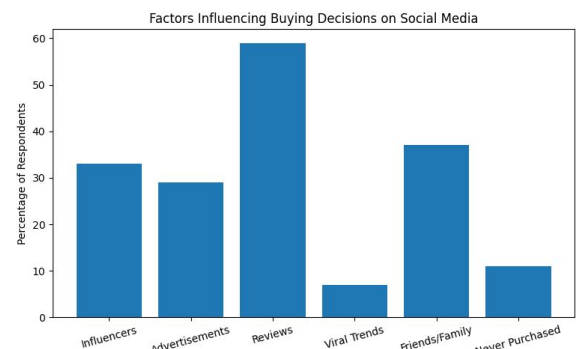
Participants described products as feeling “normal” or “widely accepted” after repeated visibility. This normalization effect explains why interest can rise without an initial need state—familiarity acts as a heuristic for safety, popularity, and relevance.

6.3 Sources of influence: social proof over ads

The factors chart places “Reviews” highest (~59%), ahead of “Friends/Family” (~37%) and “Influencers” (~33%), with “Advertisements” lower (~29%).

Two points follow:

- People trust what peers say in reviews more than they trust paid advertisements.
- Influencers matter, but the effect is amplified when multiple cues converge (reviews, trends, aesthetic demos) rather than from a single endorser.



This “collective digital familiarity” suggests influence is networked: repeated sighting across accounts and formats builds a diffuse trust that individual creators or ads alone cannot match.

6.4 Influencers and trend dynamics

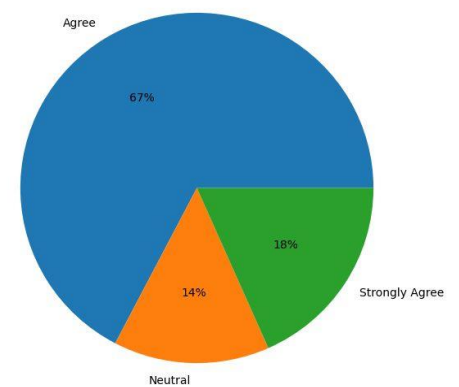
About two-thirds perceive influencers as stronger than traditional ads. Qualitative comments link this to lifestyle integration—products are shown in use, not merely promoted.

Emotional triggers include joining trends and the fear of missing out.; momentum invites conformity. Purchases become partly performative—keeping pace with the conversation as much as solving a functional need.

6.5 Awareness of manipulation vs continued engagement

A large majority agree that algorithms encourage unnecessary spending (agree ~67% + strongly agree ~18% ≈ 85% in your chart), yet usage remains high. This awareness–behavior gap indicates that entertainment value and personalization offset skepticism. It also implies that disclosure alone may not curb impulse buying when cues are embedded in leisure.

Do Social Media Algorithms Encourage Unnecessary Spending?



6.6 Implications for buying behaviour

Algorithmic feeds shift consumers from active search to reactive selection: products reach consumers, not the reverse. This reorders the purchase funnel—awareness and consideration now occur inside the scroll, not at store shelves or search results.

Impulse propensity rises where three conditions co-occur: high time-on-platform, repeated cross-format exposure, and socially endorsed signals (reviews/influencers/trends). Your data show all three are common in this cohort.

Trust is cumulative and ambient. Instead of one authoritative source, many lightweight exposures add up to a sense of authenticity, accelerating “I’ve seen this everywhere” into “it must be good.”

6.7 Links to study objectives

- Overall impact: Strong evidence that algorithms shape interest and intent indirectly via repetition and visibility.
- Personalized Ads: Ads matter less than socially coded content, suggesting personalization is most effective when it mimics peer signals rather than overt promotion.
- Influencers: Influencers influence more than traditional ads, but their impact is greatest when reinforced by reviews and trends.
- Engagement and Impulse: High daily engagement correlates with reported influence of short-form content and with perceived overspending, pointing to heightened impulse risk.

- Reliance on Social Platforms: With Instagram/YouTube leading usage and reviews driving decisions, respondents rely on platform-native cues for discovery and evaluation.

6.8 Practical takeaways

- For marketers: prioritize cross-format repetition and credible social proof (creator content + authentic reviews) over isolated ad bursts.
- For consumers and educators: media literacy should target the normalization mechanism—teach “repetition $\neq$ truth/quality,” and surface friction (wishlists, 24-hour delays, budgeting prompts) inside the scroll where decisions actually form.
- For platforms/policy: clearer labeling of sponsored content and review provenance could narrow the awareness–behavior gap, but design-level nudges may be necessary given entertainment-driven engagement.

6.9 Limitations and future directions

The sample centers on digitally active 18–30-year-olds; effects may differ for older cohorts or lower-use groups.

Self-reported influence and regret can understate or overstate true behavior. Linking survey responses with observed clickstream or purchase data would strengthen causal claims.

Future work could model dose–response effects of exposure frequency and map how mixed cues (reviews + influencer + trend) interact to tip purchase intent.

7. Suggestions and Recommendations

7.1 For Social Media Platforms

Social media platforms should prioritize transparency in algorithmic recommendations by allowing users to understand why specific products and advertisements repeatedly appear on their feeds. Features promoting healthier digital consumption, reduced manipulative advertising exposure, and greater user control over personalized recommendations can help create a more ethically balanced online environment.

7.2 For Brands and Marketers

Brands should move beyond aggressive algorithm-driven selling and focus on building authentic consumer relationships. Young consumers are increasingly aware of excessive

promotional content and repetitive digital targeting. Therefore, brands that combine personalization with authenticity, relatable storytelling, and genuine value are more likely to gain long-term consumer trust and engagement.

7.3 For Young Consumers

Young consumers should develop greater awareness regarding how algorithms influence attention, preferences, and purchasing behaviour. Understanding the difference between genuine need and digitally stimulated desire can help consumers make more conscious and financially responsible buying decisions. Practicing mindful consumption and limiting impulse purchases influenced by trends or social validation is becoming increasingly important in the algorithm-driven digital era.

7.4 For Educational Institutions and Researchers

Educational institutions should encourage digital literacy and consumer awareness programs that help students understand algorithmic influence, online manipulation, and digital consumer psychology. Further academic research can explore the long-term behavioural and psychological effects of algorithm-driven consumption patterns across different age groups and social backgrounds.

8. Conclusion

The study concludes that social media algorithms play a significant role in influencing consumer buying behaviour among young consumers. Platforms such as Instagram, YouTube and other social media applications have transformed from simple communication platforms into highly personalized marketing environments that continuously shape consumer preferences, interests and purchasing decisions. The findings of the study indicate that algorithm-driven content, influencer promotions and repeated exposure to advertisements strongly affect product awareness and purchase intention among users.

An important insight observed during the research is that young consumers are not entirely unaware of algorithmic influence. A majority of respondents acknowledged that social media algorithms encourage unnecessary spending and influence buying behaviour through repetitive and personalized content. However, despite this awareness, consumers continue to engage with algorithm-driven recommendations, influencer content and trending products.

This reflects a shift in modern consumer behaviour where purchasing decisions are influenced not only by need, but also by digital visibility, online engagement and social relevance.

The study also highlights that influencers are often considered more persuasive than traditional advertisements because consumers perceive them as relatable and trustworthy. In addition, visually engaging content such as reels, short-form videos and trending posts increases consumer interaction and contributes to impulse buying behaviour.

Overall, the research demonstrates that social media algorithms have become powerful tools in shaping modern consumer culture. While these algorithms provide convenience and personalized experiences, they also influence spending habits and purchasing behaviour in subtle yet impactful ways. Therefore, consumers should develop greater awareness regarding digital marketing practices, while businesses should focus on maintaining ethical and transparent marketing strategies in the evolving digital environment.

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