



From Dopamine to Decision: How TikTok's Reward-Based Design Shapes Consumer Behaviour

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Abstract

In a digital environment where seconds of attention influence consumption decisions, TikTok transforms dopaminergic stimuli into purchasing behaviour, making it essential to understand how platform design shapes modern consumers. This study examines the impact of dopamine-driven marketing strategies on TikTok and their effects on consumer behaviour. As short-form video platforms gain importance in digital marketing, TikTok stands out due to its algorithmic personalisation, continuous content flow, and reward-based interaction design, all of which are closely linked to dopaminergic mechanisms influencing attention, motivation, and decision-making. Using a systematic literature review based on the PRISMA methodology, this study analyses articles published in the SCOPUS database over the past year, identified through keywords such as marketing, dopamine, TikTok, and consumer behaviour. The findings highlight the growing relevance of neuromarketing and behavioural economics in explaining social media marketing effectiveness. In particular, TikTok's design intensifies emotional engagement and reinforces impulsive consumption. This study contributes by synthesising recent research, identifying theoretical gaps, and outlining implications for academic research and digital marketing practice.

Keywords: Marketing, Dopamine, Tiktok, Consumer Behaviour, Neuromarketing, Digital Platforms, Behavioural Economics, Consumer Decision-Making, Algorithmic Personalization, Impulse Buying, Short-Form Video Platforms

1. Introduction

The rapid evolution of digital platforms has fundamentally reshaped marketing practices and consumer decision-making processes. Social media platforms

increasingly operate as complex economic and psychological environments in which attention, emotions, and behavioural responses are strategically managed. Within this context, TikTok has emerged as a dominant platform, distinguished by its short-form video format, algorithm-driven content distribution, and highly immersive user experience. These characteristics raise important questions regarding the mechanisms through which marketing content influences consumer behaviour.

The core research problem addressed in this study concerns the limited integrated understanding of how dopamine-related mechanisms embedded in TikTok's design and marketing strategies affect consumer behaviour. While prior research has examined social media engagement, emotional responses, and purchase intentions, studies explicitly connecting dopaminergic reward processes with TikTok-based marketing remain dispersed across marketing, psychology, and economics literature. This fragmentation limits theoretical development and hinders cumulative knowledge building.

In response, the primary objective of this study is to systematically synthesise recent academic literature on the relationship between dopamine stimulation, TikTok marketing strategies, and consumer behaviour. Specifically, the study aims to identify key dopamine-related mechanisms discussed in the literature, analyse how TikTok's platform features influence consumer engagement and consumption-related behaviours, and examine the theoretical frameworks and methodological approaches adopted in recent research.

From a scientific perspective, this study contributes to marketing and behavioural economics literature by integrating neurobiological insights into the analysis of digital consumer behaviour. Practically, the findings offer valuable implications for marketers and policymakers by clarifying how reward-based engagement strategies shape consumer responses and by highlighting ethical considerations related to consumer autonomy and well-being.

The remainder of this article is structured as follows. The next section presents a critical review of the relevant literature and theoretical frameworks. This is followed by a description of the research design and methodology, with particular emphasis on the PRISMA approach. The subsequent section summarises the main findings of the reviewed studies. Finally, the conclusion discusses the key contributions, limitations, and directions for future research.

2. Literature Review

According to Panighrah (2024), dopamine influences the way your brain rewards itself. Dopamine is an essential neurotransmitter that transmits signals between neurons, fundamental for motor control, motivation, attention, mood, reward, and pleasure. Through stimuli such as drugs, games, and social media, it is easier to artificially increase its release, leading to a compulsive search for reward peaks. While often called the "pleasure chemical," dopamine is primarily a neurotransmitter of

motivation and reward anticipation. It fires when you experience or anticipate something good.

When we experience something pleasant, this hormone is released, generating a feeling of satisfaction. When this action is repeated, a cycle of positive reward is formed. Dopamine is directly related to immediate reward, which influences how consumers make decisions. Therefore, according to Panigrahi and De (2024), the regulation of this hormone can be used in advertising to shape consumer behaviour.

Realising this trend, companies have developed strategies to encourage quick and emotional decisions, using promotions and offers and resorting to platforms such as TikTok. Our desires and motivations to buy are directly related to how our brain associates stimuli. Advertisements can generate emotions that easily activate our reward system, releasing higher levels of dopamine. This effect creates an emotional connection between the brand and the consumer.

Melo Filho (2024) warns that these strategies are becoming increasingly effective, with brands adapting their message to digital content based on consumer preferences and online behavior. To generate instant pleasure, companies exploit the reward system, such as offering limited-time promotions to create a sense of urgency. Website design developed to facilitate navigation also encourages quick decisions and little mental effort.

Digital platforms are strategically developed to maximise user interaction time and activate the reward system. According to Fernández (2024), social networks take advantage of dopamine-related stimuli to keep users engaged. The aesthetics of these platforms exploit human needs and play a key role in the release of this hormone.

Marketing has been the area that has taken advantage of these strategies. Brands, through content creators, get closer to the public and encourage impulsive consumption. For Alcántara-Pilar, J. M., Rodríguez-López, M. E., Kalinić, Z., & Liébana-Cabanillas, F. (2024), the credibility of content creators determines the authenticity of their recommendations, which influences purchasing decisions. The personalization of content creates positive interaction with brands; however, it is necessary to use these strategies responsibly and ethically.

Consumer confidence increases when influencer content is genuine and relatable. According to Choi and Lim (2016), peer impact is crucial for engagement on TikTok, revealing that social interactions and recommendations from friends significantly affect user behavior. In short, this research highlights what motivates audiences to engage with brands through digital influencers.

To corroborate this idea, we can refer to the Uses and Gratifications (U&G) theory, which reflects the desire to understand the type of consumption of audiences in relation to different media. It is a theory developed to understand how gratifications attract and keep audiences interested in different social networks (Katz, Blumer, &

Gurevitch, 1973) and what type of content satisfies the social and psychological needs of consumers to receive these same gratifications (Ruggiero, 2000) (Sheldon & Newman, 2019).

Dopamine acts as the main neurotransmitter in the reward system, encouraging the repetition of behaviours that generate immediate pleasure. However, this phenomenon is enhanced when the user enters a specific psychological state: the Flow State. According to Mihaly Csikszentmihalyi's Flow Theory (1990), this state occurs when an individual is fully immersed in an activity, losing track of time and self-awareness. In the TikTok ecosystem, infinite scroll design and algorithmic personalisation eliminate 'stopping barriers,' creating a continuous cycle of satisfaction. According to research on the Attention Economy, these interfaces are designed to maximise dwell time, keeping the user in perfect balance between visual stimulation and ease of consumption.

It is possible to observe the application of these tactics in applications such as TikTok, which acts as a stimulus to influence consumers. TikTok is not just an entertainment social network. This year, this social network has consolidated itself as a 'Social Search' and Immersive Commerce ecosystem. These factors instigate change in consumer behaviour, especially among Generation Z. Thus, a continuous cycle of discovery is created that generates a need for the consumer. By providing frequent updates, this social network generates a sense of need that stimulates the user's neurotransmitter. Research indicates that receiving positive interaction causes people to spend more time on the platform.

Design strategies keep people linked to digital platforms, exploiting dopamine and human behaviour. Interactions, notifications and content personalisation create a vicious cycle, where instant gratification shapes users' consumption patterns.

There is a growing need for scientific research specifically focused on the influence of TikTok as a digital marketing tool and its impact on consumer behavior. Although there are empirical evidence and widespread perception that TikTok influences how consumers perceive brands, products, and experiences, as well as their purchasing decisions, this relationship still lacks theoretical consolidation and systematic validation through rigorous scientific studies.

Recently, it has been possible to see TikTok's effectiveness in converting views into purchasing decisions. For Grabowska (2025), this duality is explained by the convergence of two values that operate simultaneously. Hedonic value is directly linked to the entertainment and pleasure that the TikTok format offers. This stimulation generates a state of 'flow' that causes deep immersion and distortion of time and reduces the user's self-awareness. The utilitarian value focuses on the usefulness and relevance of the content presented on this platform. This value manifests itself when users perceive the platform as an effective 'social search' tool for discovering products and learning new things.

Rational choice theory is a school of thought based on the assumption that individuals choose a course of action that is most in line with their personal preferences. Rational choice theory is used to model human decision making, especially in the context of microeconomics, where it helps economists better understand the behaviour of a society in terms of individual actions as explained through rationality, in which choices are consistent because they are made according to personal preference. (Amadae, S. M., 2025).

This theory assumes that an individual has preferences among the available alternatives of choice. These preferences are considered complete and transitive. It is assumed that the rational agent takes into account available information, probabilities of events, and potential costs and benefits when forming preferences, and acts consistently in choosing the best self-determined course of action. (Allingham, M. 2002) Social behavior aggregated under this model would be the result of the sum of individual rational decisions.

A fundamental assumption underlying rational choice theory is that preferences exist prior to the decision-making process and are merely revealed through observed choices. However, in algorithmically mediated environments such as TikTok, this assumption becomes increasingly problematic. The platform's recommendation system actively shapes user exposure by reinforcing specific interests and consumption tendencies through continuous feedback loops. In this context, preferences become endogenous to the platform environment rather than exogenously given. As a result, observed purchasing behaviour may reflect short-term emotional stimulation and algorithmic reinforcement rather than stable, welfare-consistent preferences, limiting the explanatory power of revealed preference theory in digitally mediated consumption contexts.

However, the design and functioning of TikTok challenge several of these assumptions by showing how users' choices are strongly conditioned by the digital environment in which they take place.

First, the theory assumes that individuals' preferences are given prior to choice and remain relatively stable. On TikTok, however, preferences are not simply revealed but are continuously shaped by the platform's algorithm. By observing user behavior, the system increasingly offers more tailored content, creating and reinforcing interests that individuals often did not consciously possess before using the application. As a result, preferences cease to be exogenous to the decision-making process and become endogenous, as a direct outcome of interaction with the platform.

Rational choice theory presupposes the existence of clear alternatives that can be compared with one another; however, on TikTok this condition is rarely met. Users do not actively choose among different content options. Instead, videos are presented automatically and sequentially in a continuous stream. The absence of an explicit set

of alternatives reduces the possibility of rational comparison and transforms choice into an immediate reaction to the stimulus presented.

Another central point concerns the evaluation of costs and benefits. While the theory assumes that individuals are able to weigh these elements in a relatively balanced manner, TikTok's design makes immediate benefits highly visible while simultaneously obscuring costs, such as times spent, loss of attention, or potential long-term negative effects. This asymmetry favors short-term decisions and weakens the classical rational calculus. (Zuboff, S., 2019).

In the case of TikTok, the functioning of the algorithm is opaque to users, creating a significant informational asymmetry between the platform and the individual. The choice environment is strategically designed to maximize engagement, exploiting automatic behavioral mechanisms and limiting the capacity for conscious deliberation.

Thus, TikTok highlights the explanatory limits of rational choice theory by showing that users' behavior does not result solely from autonomous and calculated decisions, but also from shaped preferences, asymmetric information, and choices strongly influenced by the design of the digital environment.

The growing relevance of TikTok as a marketing platform also raises important questions from an economic perspective, particularly regarding how consumer decision-making unfolds in high-stimulation digital environments. While traditional economic models assume that individuals evaluate alternatives rationally in order to maximise utility, the literature reviewed in this study suggests that consumption on TikTok often occurs under conditions of bounded rationality. The combination of continuous content exposure, emotional stimulation and minimal cognitive effort reduces the scope for deliberate comparison between alternatives. As a result, purchasing decisions are frequently shaped by contextual cues and affective responses rather than by systematic cost-benefit evaluation, challenging the explanatory power of classical rational choice assumptions in platform-based markets.

2.1. Behavioral Economics and Rational Choice in Digital Choice Environments

Behavioral economics supplies a strong theoretical framework for analyzing how TikTok's reward-oriented design undermines standard assumptions about rational consumer decision-making. Traditional economic theory assumes that individuals behave as rational actors with consistent preferences, capable of processing information efficiently and choosing options that maximize their utility. However, behavioral decision research has repeatedly shown that real-world decisions often depart from this ideal due to bounded rationality, systematic cognitive biases, and heuristics shaped by emotions and situational factors (Kahneman, 2011; Ariely, 2008).

Digital platforms characterized by continuous stimulation and rapid feedback loops tend to intensify these behavioral effects. TikTok's interface - built around infinite feed scrolling, algorithm-driven personalization, and variable reward delivery - encourages rapid, low-reflection reactions consistent with what Kahneman (2011) labels System 1 thinking. In this mode, decisions are more automatic, emotionally influenced, and context-dependent, while slower and more deliberate reasoning is reduced. As a consequence, user behavior on the platform may not indicate stable, pre-existing preferences but instead reflect impulses activated by the platform's structural and algorithmic features.

From the standpoint of behavioral economics, TikTok can be viewed as an advanced form of digital choice architecture. Choice architecture refers to how decision environments are organized in ways that influence behavior without removing freedom of choice (Thaler & Sunstein, 2008). Through curated algorithmic feeds, default exposure to selected content, and low-friction interaction design, the platform channels user attention and limits which options are cognitively considered. These design elements function similarly to behavioral nudges, subtly guiding users toward extended engagement and consumption-related behaviors while maintaining the perception of voluntary action (Thaler & Sunstein, 2008).

This context also challenges the economic concept of revealed preferences. In conventional theory, observed choices are treated as dependable signals of underlying preferences. Yet when decision environments are deliberately engineered to stimulate dopaminergic reward anticipation and emotional arousal, preferences may be actively shaped in the moment rather than merely revealed. Under such circumstances, observed consumption patterns may reflect situationally constructed preferences rather than stable, welfare-consistent ones, indicating that high-stimulation digital environments can temporarily distort how preferences are expressed and interpreted (Ariely, 2008; Kahneman, 2011; Montag et al., 2019).

2.2 Research Gaps and the Current Study

Much of the existing literature on digital marketing addresses the impact of social media in an aggregate manner, without distinguishing the structural and functional particularities of each platform. However, TikTok has unique characteristics (such as short video format, high stimulus intensity, algorithmic personalization, and integration between entertainment and consumption) that substantially differentiate it from other social networks. These specificities suggest that the mechanisms through which TikTok influences consumer behavior may be distinct and more complex, requiring dedicated and in-depth analysis.

This analysis contributes to a deeper understanding of TikTok's impact on contemporary marketing, providing theoretical and empirical foundations for interpreting how the platform affects perceptions, attitudes, and consumption decisions, as well as for guiding more conscious and informed marketing practices.

Furthermore, existing studies remain divided in their interpretation of dopamine-driven engagement. While some authors frame reward-based personalization as a value-enhancing mechanism that improves relevance and user satisfaction, others emphasize its role in reinforcing compulsive consumption and reducing reflective decision-making. This lack of theoretical convergence limits the development of a unified framework capable of explaining both the benefits and the behavioural risks associated with TikTok's marketing environment.

Accordingly, a systematic literature review grounded in the PRISMA methodology is employed to capture, organise, and critically assess the most recent academic evidence on this phenomenon.

3. Research Design and Methodology

This study adopts a qualitative approach, conceptual and exploratory in nature, using a systematic literature review conducted according to the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) methodology guidelines.

The choice of this methodology is justified by the need to synthesize, in a rigorous and transparent way, the recent scientific production on the relationship between digital marketing, dopamine, TikTok, and consumer behavior, an emerging and fast evolving field. The application of the PRISMA protocol ensures the traceability of the study selection process, reduces potential biases, and increases the methodological robustness of the review.

The context of this study is academic; it focuses on scientific literature published in peer-reviewed academic journals. The sample consists of scientific articles indexed in internationally recognized databases, with a particular focus on recent studies that address neuropsychological mechanisms (namely dopamine) associated with the consumption of content on social media platforms, especially TikTok, and its impact on consumer behavior.

Data collection was carried out using the B-ON (Online Knowledge Library) database, as it is a safe platform that aggregates multiple highly reliable scientific databases, including Scopus.

The following keywords were used, combined using Boolean operators, in order to maximize the scope of the search: marketing, Dopamine, TikTok, and consumer behavior.

Initially, the search was conducted without applying filters, resulting in the identification of 2,512 articles.

Subsequently, inclusion criteria aligned with the study objectives and the PRISMA methodology were applied, namely: publications in academic journals, peer-reviewed articles, indexing in relevant scientific databases (e.g., Scopus), and publications from the last 12 months.

After applying these filters, the number of articles was reduced to 68 studies, which formed the final corpus of the systematic review.

The data collection process followed the four main steps of the PRISMA methodology: identification, screening, eligibility, and inclusion. After the initial identification of studies, titles and abstracts were read to exclude irrelevant articles. Subsequently, the full texts of eligible articles were read, ensuring thematic alignment with the study objectives.

Data collection was carried out in a single time period, focusing exclusively on publications from the last 12 months, in order to ensure the timeliness and relevance of the scientific contributions analyzed.

4. Results

The systematic analysis of the selected literature identifies consistent empirical patterns regarding the influence of TikTok's digital environment on consumer behaviour. These findings are organized into three main thematic dimensions: the effects of algorithmic design on user engagement, the role of content characteristics and influencer trust and lastly the psychological determinants of purchase intention.

4.1 Algorithmic Personalization and Dopaminergic Engagement

Algorithmic personalization appears as one of the most recurrent determinants of user engagement across the reviewed studies. TikTok's AI-driven algorithm creates a highly personalized content feed by storing knowledge of interactions and browsing behaviour, significantly enhancing user engagement and content visibility (Grabowska et al., 2025; Melgarejo-Espinoza et al., 2025).

Platform architecture further intensifies this effect. Features such as infinite scrolling and persistent notifications operate as unpredictable stimuli that generate immediate neurological responses, reinforcing reward-seeking behaviour through dopaminergic activation (Sousa, 2025). These mechanisms resemble gambling-like reward structures, where the uncertainty of the next content keeps the mind in a cycle of constant seeking, encouraging prolonged interaction and repetitive usage patterns (Sousa, 2025).

Empirical evidence further demonstrates that these algorithmic strategies facilitate a flow state characterized by deep mental concentration, reduced self-awareness and significant distortion of time perception (Grabowska et al., 2025; Zhang et al., 2023). This immersive psychological state positively moderates the relationships between emotional pleasure and purchase intention, thereby increasing consumer's susceptibility to impulse purchasing behaviour (Grabowska et al., 2025; Zhang et al., 2023). Consequently, algorithmic personalization does not merely optimize content delivery but actively shapes emotional and behavioural consumption dynamics by reinforcing the habit of frequent use through reward system activation (Grabowska et al., 2025; Melgarejo-Espinoza et al., 2025).

4.2 Content Characteristics and influencer Trust

The reviewed studies consistently indicate that the effectiveness of TikTok's marketing is strongly conditioned by both content attributes and the perceived credibility of content creators (Melgarejo-Espinoza et al., 2025; Meng et al., 2024). Econometric analyses reveal a strong positive correlation between trust in influencers and actual purchasing behaviour, with coefficients reaching approximately 0.52 (Tartaraj et al., 2024). Influencers are perceived as authentic and relatable sources of information and this perceived trustworthiness represents a decisive factor in transforming brand exposure into concrete transactions (Tartaraj et al., 2024).

Regarding content design, five core characteristics emerge as central predictors of marketing performance: trustworthiness, expertise, attractiveness, authenticity, and brand heritage (Meng et al., 2024). Trustworthiness, expertise, and attractiveness present a linear positive relationship with sales outcomes (Meng et al., 2024). In contrast, authenticity and brand heritage exhibit U-shaped trajectories, indicating that both insufficient and excessive emphasis on these attributes may reduce persuasive effectiveness (Meng et al., 2024). These findings suggest that balanced narrative and branding strategies are essential to sustain consumer attention and maximize persuasive impact within short-form video environments (Meng et al., 2024).

4.3 Psychological Drivers of Purchase Intention

The integrated theoretical frameworks applied in the reviewed literature, particularly the Technology Acceptance Model (TAM) and the Theory of Planned Behavior (TPB), provide robust quantitative evidence regarding the determinants of purchase intention on TikTok (Grabowska et al., 2025). Both hedonic value, associated with entertainment and enjoyment, and utilitarian value, associated with usefulness and informational relevance, are positively related to purchase intention (Zhang et al., 2023). However, hedonic value tends to exert a more immediate influence on emotional pleasure during the browsing experience, reinforcing impulsive consumption tendencies (Zhang et al., 2023).

Recent empirical studies further demonstrate that the combined effects of habit formation, intelligent recommendation systems, and social influence explain up to 85.6% of the variance in purchase intention, highlighting the strong predictive capacity of these integrated models (Grabowska et al., 2025). Additionally, a statistically significant relationship is consistently observed between perceived ease of use and perceived usefulness, with coefficients around 0.651 (Grabowska et al., 2025). When users perceive the platform as intuitive and accessible, they are more likely to consider it a reliable tool for shopping-related decision-making, which directly strengthens their intention to purchase products encountered on TikTok (Grabowska et al., 2025; Melgarejo-Espinoza et al., 2025).

Taken together, the reviewed findings confirm that TikTok's marketing effectiveness results from the interaction between algorithmic personalization, emotional stimulation, social trust, and perceived value (Melgarejo-Espinoza et al., 2025; Sousa, 2025). These mechanisms operate simultaneously within a unified digital ecosystem, shaping consumer behaviour through reinforcement, immersion, and social validation (Grabowska et al., 2025; Zhang et al., 2023). Rather than acting independently, these elements form an integrated system that explains contemporary consumption patterns on short-form video platforms in a coherent and theoretically consistent manner (Grabowska et al., 2025).

4.4 Ethical Implications of Dopamine-Based Reward Marketing

The reviewed literature indicates that dopaminergic mechanisms embedded in TikTok's design, despite their effectiveness in terms of engagement and purchase intention, raise significant ethical implications within the context of digital marketing. Algorithmic personalization, combined with variable reward stimuli and continuous content consumption, fosters automatic and emotionally driven decision-making processes, thereby reducing the role of rational deliberation in consumer behavior (Ariely, 2008; Kahneman, 2011; Montag et al., 2019).

These effects become particularly evident in digital environments characterized by high emotional intensity and low cognitive friction, in which consumers tend to adopt impulsive responses oriented toward immediate gratification. Evidence from behavioral economics demonstrates that, in such contexts, the capacity for informed choice may be compromised, bringing marketing strategies closer to subtle forms of behavioral conditioning (Ariely, 2008; Kahneman, 2011).

Ethical concerns intensify when considering the exposure of younger audiences, such as Generation Z, who exhibit greater sensitivity to intermittent reward stimuli and a higher propensity for the formation of repetitive digital habits. Additionally, the integration of commercial content into entertainment narratives mediated by influencers makes it more difficult to distinguish between advertising communication and spontaneous recommendation, undermining message transparency and informed consumer consent (Montag et al., 2019; Sunstein & Thaler, 2008).

Within this framework, the reviewed studies converge on the need to incorporate principles of responsible marketing in the use of dopamine-based reward strategies. The promotion of greater communicational transparency, the strengthening of digital literacy, and ethical reflection on the role of algorithms emerge as essential conditions for mitigating potential negative impacts on consumer well-being, without compromising the effectiveness of digital strategies (Sunstein & Thaler, 2008; Montag et al., 2019).

4.5. Economic Implications for Consumer Decision-Making

From an economic decision-making perspective, the available evidence indicates that TikTok's reward-centered platform structure does more than simply boost user engagement - it reshapes the context in which consumer decisions are generated. Features such as algorithmic personalization, uninterrupted content streams, and emotionally salient stimuli lower cognitive resistance and compress decision timeframes, promoting rapid-response behavior instead of careful deliberation. In behavioral economics language, these conditions strengthen the influence of present-biased preferences and immediate utility cues in consumption choices (Kahneman, 2011; Ariely, 2008).

These patterns align with intertemporal choice distortion models, where short-term pleasurable rewards receive disproportionate weight compared to longer-term outcomes. The joint effect of dopamine-driven anticipation, social feedback indicators, and frictionless purchasing mechanisms lowers perceived decision effort and increases the likelihood of impulse buying. Instead of making choices based on a stable and consistently applied utility function, consumers react to shifting emotional triggers and attentional prompts embedded in the interface design. This helps clarify why the reviewed research frequently identifies hedonic value as a more powerful short-run driver of purchase intention than utilitarian value.

Overall, the results suggest that platform architecture itself functions as a meaningful economic factor shaping consumer welfare outcomes. When decision environments systematically emphasize immediacy, prominence, and emotional stimulation, observed buying behavior can differ from what fully informed and reflective individuals might choose in less stimulating settings. Consumer autonomy is not removed, but digital purchase behavior is better understood as context-dependent, emerging from the interaction between cognitive constraints and intentionally designed reward systems (Thaler & Sunstein, 2008; Montag et al., 2019).

From a behavioural economics perspective, the decision environment created by TikTok may give rise to a temporary form of market distortion. Users face significant informational asymmetry, as the logic guiding algorithmic content selection remains largely opaque, while the platform systematically highlights immediate rewards and obscures longer-term costs such as time expenditure, reduced attention, or post-purchase regret. Under these conditions, consumer choices are made within a constrained and emotionally charged environment that may weaken informed deliberation. Rather than eliminating freedom of choice, the platform reshapes it in ways that can temporarily distort preference expression, suggesting the presence of a behavioural market failure within the attention economy.

5. Discussion

The evidence brought together in this review supports an integrated explanation in which TikTok's marketing impact arises from the combined effects of neurobiological

reward processes, behavioral decision biases, and algorithm-driven choice architecture. The platform should therefore be understood not merely as a promotional medium, but as an environment that actively shapes behavior by structuring how attention is captured, emotions are triggered, and decisions are timed. This perspective highlights the value of interdisciplinary approaches that merge neuromarketing insights with behavioral economics to interpret digital consumer behavior.

From a theoretical viewpoint, the results question rigid rational choice readings of online purchasing patterns. Across the reviewed studies, high-intensity and low-friction digital settings consistently promote automatic, affect-based reactions, in line with bounded rationality frameworks (Kahneman, 2011). Under these conditions, preferences are frequently formed during the interaction itself rather than drawn from stable, pre-ordered internal preferences, echoing behavioral critiques of revealed preference theory (Ariely, 2008). TikTok's personalization systems and endless content streams thus operate not only as matching tools but also as mechanisms that actively shape user preferences.

The reviewed evidence also suggests that TikTok's algorithmic amplification mechanisms can influence market dynamics by altering short-term demand sensitivity. Products that achieve high visibility through viral content benefit from increased emotional engagement and social validation, which may reduce consumers' price sensitivity and attention to alternative options. In such contexts, demand becomes less elastic, as purchasing decisions are driven more by immediacy, visibility and affective appeal than by comparative evaluation. This dynamic grants firms temporary market advantages that are not necessarily grounded in cost efficiency or product differentiation, but rather in platform-driven attention concentration.

From a managerial perspective, these mechanisms can enhance short-term campaign performance while simultaneously raising issues of responsibility and governance. Reward-oriented engagement tactics may increase targeting accuracy and conversion rates, but they can also weaken reflective consumer oversight and narrow the line between persuasion and behavioral steering. The literature points to the importance of transparent influencer disclosures, clearer identification of sponsored content, and more responsible engagement metrics to preserve user trust and sustain long-term brand value (Thaler & Sunstein, 2008; Montag et al., 2019).

While dopamine-based engagement strategies enhance platform efficiency by reducing search costs and increasing content relevance, their implications for consumer welfare remain ambiguous. On one hand, algorithmic personalisation can improve user satisfaction by aligning content with perceived interests. On the other hand, sustained exposure to emotionally intense and low-friction decision environments may encourage impulsive consumption and weaken reflective choice processes. From a welfare economics perspective, this raises concerns regarding the alignment between observed consumer behaviour and individuals' long-term

interests, particularly when decisions are shaped by mechanisms operating below conscious awareness.

This review also has constraints. It draws on a recent and fast-changing research domain and is limited to indexed academic sources within a specified publication period. Because empirical work on short-form video platforms is still emerging, there is a shortage of longitudinal and controlled experimental studies. Future investigations should incorporate behavioral experiments and real-world field data capable of assessing welfare implications and longer-term decision effects across different platform design configurations.

6. Conclusion

This study examined how dopamine-driven marketing mechanisms embedded in TikTok's digital architecture influence consumer behaviour through a systematic literature review based on the PRISMA methodology. The synthesis of recent research confirms that TikTok represents a clear example of how modern marketing has evolved beyond traditional communication practices progressively shifting into a behavioural environment. Contemporary marketing operates within an interdisciplinary system where data analytics, algorithmic personalization and behavioural principles jointly shape attention, emotion and decision-making.

In this sense, TikTok illustrates how contemporary digital markets increasingly operate through behaviorally informed choice architectures that influence how preferences are formed and expressed, extending beyond the predictions of standard rational choice models. Within this context, TikTok's algorithmic environment demonstrates how consumption increasingly becomes an experiential process in which pleasure, anticipation and immediacy play central roles. Rather than interacting with static marketing messages, consumers engage with adaptive digital ecosystems that continuously respond to their preferences and behaviours. This transformation invites a reconsideration of how autonomy and rationality are understood in digital consumption contexts. While personalization enhances user experience and relevance, it also introduces subtle forms of behavioural conditioning that operate below conscious awareness. As marketing strategies increasingly rely on emotional and neurological triggers, the boundary between persuasion and influences becomes progressively less distinct.

These dynamics are particularly relevant for younger generations, such as Generation Z and the emerging Generation Alpha, who have grown up within digitally mediated environments shaped by algorithmic logic and constant stimulation. Consequently, their relationships with attention, gratification and decision-making may differ substantially from previous generations, raising important questions about future patterns of consumption and cognitive development. At the same time, the findings highlight the growing need for marketing research to adopt integrative analytical frameworks capable of capturing the psychological and technological complexity of

digital consumption. As behavioural influence becomes increasingly embedded within platform design, marketing can no longer be analysed solely as a persuasive activity, but as a system that actively shapes how individuals perceive, feel, and decide.

Ultimately, the evolution of marketing reflects broader transformations in the relationship between individuals, technology, and consumption. As digital platforms continue to refine their capacity to predict, guide, and reinforce human behaviour, marketing will increasingly operate at the intersection of communication, cognition, and emotion. In this scenario, discussions surrounding ethical responsibility and sustainable influence gain particular relevance, not as opposing forces to innovation, but as necessary components of its future development. The future of marketing will therefore depend not only on technological innovation, but on how these capabilities are interpreted, regulated, and integrated within a society that is progressively shaped by immediacy, personalization, and behavioural influence.

Overall, this study demonstrates that TikTok functions not only as a communication and marketing channel, but as an economically relevant decision environment. By embedding behavioural principles into its platform architecture, TikTok actively shapes how preferences are formed, expressed and acted upon. These findings reinforce the need to complement traditional rational choice models with behavioural economic frameworks when analysing consumption in digital markets. Understanding consumer behaviour in such contexts requires acknowledging the interaction between algorithmic design, emotional stimulation and bounded rationality, particularly within the broader dynamics of the attention economy.

References

1. Alcántara-Pilar, J. M., Rodríguez-López, M. E., Kalinić, Z., & Liébana-Cabanillas, F. (2024). From likes to loyalty: Exploring the impact of influencer credibility on purchase intentions in TikTok. *Journal of Retailing and Consumer Services*, 78, 103709. <https://doi.org/10.1016/j.jretconser.2024.103709>
2. Allingham, M. (2002). *Choice theory: A very short introduction*. Oxford University Press. <https://doi.org/10.1093/actrade/9780192803037.001.0001>
3. Amadae, S. M. (2025). *Rational choice theory*. In *Encyclopædia Britannica*. Retrieved from <https://www.britannica.com/money/rational-choice-theory>
4. Ariely, D. (2008). *Predictably irrational: The hidden forces that shape our decisions*. HarperCollins Publishers. <https://psycnet.apa.org/record/2008-04432-000>
5. Choi, S. B., & Lim, M. S. (2016). Effects of social and technology overload on psychological well-being in young South Korean adults: The mediatory role of social network service addiction. *Computers in Human Behavior*, 61, 245–254. <https://doi.org/10.1016/j.chb.2016.03.032>

6. Fernández, M. (2024, 13 de outubro). Manuel Armayones: Las redes están diseñadas para proporcionarnos dopamina, dopamina y dopamina y no dejarnos pensar. *El HuffPost*. <https://www.huffingtonpost.es/life/salud/manuel-armayones-las-redes-disenadas-proporcionarnos-dopamina-dopamina-dopamina-dejarnos-pensar>.
7. Grabowska, J., Jaciow, M., & Strzelecki, A. (2025). The impact of TikTok on consumers' purchase intentions. *Journal of Economics and Management*, 47, 385–412. <https://doi.org/10.22367/jem.2025.47.15>
8. Kahneman, D. (2011). *Thinking, fast and slow*. Farrar, Straus and Giroux. https://www.researchgate.net/publication/257406325_Kahneman_D_2011_Thinking_Fast_and_Slow
9. Katz, E., Blumer, J. G., & Gurevitch, M. (1973). Uses and Gratifications Research. *Public Opinion Quarterly*, 37(4) 509-523.
10. Melgarejo-Espinoza, R., Gonzales-Cruz, M., Chavez-Perez, J., & Iparraguirre-Villanueva, O. (2025). Impact of the TikTok algorithm on the effectiveness of marketing strategies: A study of consumer behavior and content preferences. *International Journal of Advanced Computer Science and Applications*, 16(2).
11. Melo Filho, J. C. de. (2024). Neuromarketing: A influência da neurociência na publicidade digital. *Contribuciones a las Ciencias Sociales*, 17(8), e9134.
12. Meng, L., Kou, S., Duan, S., & Bie, Y. (2024). The impact of content characteristics of short-form video ads on consumer purchase behavior: Evidence from TikTok. *Journal of Business Research*, 183, 114874. <https://doi.org/10.1016/j.jbusres.2024.114874>
13. Montag, C., Lachmann, B., Herrlich, M., & Zweig, K. (2019). Addictive features of social media/messenger platforms and freemium games against the background of psychological and economic theories. *International Journal of Environmental Research and Public Health*, 16(14), 2612. <https://doi.org/10.3390/ijerph16142612>
14. Panighrahi, A., & Arunima, D. (2024). Dopamine manipulation and its role in effective advertising. *Journal of Management Research and Analysis*, 11(3), 192–199. https://www.researchgate.net/publication/384054186_Dopamine_manipulation_and_its_role_in_effective_advertising
15. Ruggiero, T. E. (2000). Uses and Gratifications Theory in the 21st Century. *Mass Communication & Society*.
16. Sheldon, P., & Newman, M. (2019). Instagram and American Teens: Understanding motives for its use and relationship to excessive reassurance-seeking and interpersonal rejection. *The Journal of Social Media in Society*.

17. Sousa, L. (2025). *O marketing da dopamina: Como somos manipulados pelo prazer instantâneo* [Dopamine marketing: How we are manipulated by instant pleasure]. *Revista Acadêmica de Tendências em Comunicação e Ciências Empresariais*, 5.
18. Sunstein, C. R., & Thaler, R. H. (2008). *Nudge: Improving decisions about health, wealth, and happiness*. Yale University Press.
https://www.researchgate.net/publication/257178709_Nudge_Improving_Decisions_About_Health_Wealth_and_Happiness_RH_Thaler_CR_Sunstein_Yale_University_Press_New_Haven_2008_293_pp
19. Tartaraj, A., Avdyli, D., & Trebicka, B. (2024). Accessing the TikTok influencer marketing on consumer behavior: An econometric examination. *Journal of Educational and Social Research*, 14(2), 346–365.
<https://doi.org/10.36941/jesr-2024-0048>
20. Thaler, R. H., & Sunstein, C. R. (2008). *Nudge: Improving decisions about health, wealth, and happiness*. Yale University Press.
21. Zhang, W., Zhang, W., & Daim, T. U. (2023). Investigating consumer purchase intention in online social media marketing: A case study of Tiktok. *Technology in Society*, 74, 102289. <https://doi.org/10.1016/j.techsoc.2023.102289>
22. Zuboff, S. (2019). *The age of surveillance capitalism: The fight for a human future at the new frontier of power*. PublicAffairs.
<https://www.publicaffairsbooks.com/titles/shoshana-zuboff/the-age-of-surveillance-capitalism/9781610395694/>