Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 7, 383-393
2025
Publisher: Learning Gate
DOI: 10.55214/25768484.v9i7.8587

The influence of TikTok daily reward gamification and social presence on impulsive buying behavior: The mediating role of emotional arousal on social commerce platforms

Agam Rahman Hatta[1*], Aby Miesvontoko[1], Desman Hidayat[2]
[1]Management Department, BINUS Business School Undergraduate Program, Bina Nusantara University Jakarta, Indonesia 11480; agam.hatta@binus.ac.id (A.R.H.) aby.miesvontoko@binus.ac.id (A.M.)
[2]BINUS Entrepreneurship Center, Management Department, BINUS Business School Undergraduate Program, Bina Nusantara University, Jakarta, Indonesia 11480; d4906@binus.ac.id (D.H.).

Abstract: This study explores the influence of TikTok's Daily Reward gamification, user experience, and social presence on impulsive buying behavior within social commerce, with emotional arousal as a mediating variable. The research addresses the growing prevalence of impulsive consumer behavior driven by interactive and emotionally engaging platform features such as gamification and live streaming. Using a quantitative approach, data were collected from 127 TikTok Shop users through an online survey and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The results indicate that both Daily Reward gamification and social presence significantly affect emotional arousal, which in turn moderately influences impulsive buying behavior. However, emotional arousal was only found to significantly mediate the relationship between gamification and impulsive buying behavior, while its mediating role between social presence and impulsive buying was not statistically supported. These findings underscore the importance of emotionally engaging platform features in stimulating unplanned consumer purchases and provide strategic insights for businesses aiming to enhance user interaction and conversion rates on social commerce platforms.

Keywords: *Emotional arousal, Gamification, Impulsive buying, Social commerce, Social presence, TikTok shop.*

1. Introduction

The digital era has brought about a significant transformation in the landscape of commerce, with social commerce emerging as a phenomenon that fundamentally changes modern consumer shopping behavior. The integration between social media platforms and e-commerce has created a more interactive and engaging commercial ecosystem, in which TikTok has emerged as a dominant player in this revolution [1]. According to recent data, TikTok surpassed 1.5 billion active global users in 2023, with transactions on TikTok Shop growing by 600% year-over-year in the first quarter of 2023 [2]. This phenomenon marks a new era in digital commerce, presenting both challenges and opportunities for businesses and researchers to understand the dynamics of consumer behavior on social commerce platforms.

In an effort to increase engagement and drive transactions, TikTok has implemented various gamification elements, with the daily reward system being one of the most prominent features. This system is designed to create a habit loop and enhance user retention by providing daily incentives to users [3]. The implementation of gamification in the context of social commerce not only serves as a tool to boost engagement but also plays a role in shaping emotional arousal that can influence consumers' purchasing decisions. Recent studies show that gamification elements can increase users' dopamine levels, creating a sense of excitement and urgency that has the potential to trigger impulsive buying behavior [4].

History: Received: 5 May 2025; Revised: 10 June 2025; Accepted: 13 June 2025; Published: 4 July 2025
* Correspondence: agam.hatta@binus.ac.id

Social presence is another important dimension that influences user behavior on social commerce platforms like TikTok Shop. Social presence refers to the extent to which users feel the social presence of others when interacting on a digital platform. This social presence can be manifested through features such as user reviews, live streaming, or real-time comments, which allow users to experience interpersonal connections even in a virtual environment. Studies show that social presence plays a significant role in building consumer trust and increasing purchase intentions by mediating trust and positive attitudes toward the platform [5, 6]. In the context of TikTok Shop, these features not only create a more personalized shopping experience but also strengthen the users' emotional engagement with the platform, thereby encouraging impulsive buying behavior [7].

Although some previous studies have explored the impact of gamification on consumer behavior in the context of conventional e-commerce, there is still a significant gap in understanding the interaction between the daily reward system, social presence, and emotional arousal in the specific context of social commerce like TikTok Shop. For example, [8] highlight that while gamification can enhance consumer-brand engagement, the moderating effects of environmental gamification in social media marketing remain underexplored, especially regarding impulse buying in social commerce contexts. Additionally, research by Khoi, et al. [9] demonstrates that emotional arousal plays a mediating role in the relationship between social presence and impulsive buying behavior during live-streaming social commerce, supporting the need for further investigation into these dynamics in platforms such as TikTok Shop. Furthermore, Xiang, et al. [10] emphasize the influence of social relationship factors, such as parasocial interaction, on impulse buying in social commerce.

This study aims to comprehensively analyze how the daily reward gamification and social presence influence impulsive buying behavior through the mediation of emotional arousal. A deeper understanding of this relationship will not only contribute theoretically to the development of digital consumer behavior models but also provide practical insights for the development of more effective social commerce strategies.

2. Literature Review

2.1. Gamification in Social Commerce

Gamification has become a strategic instrument in the evolution of social commerce, defined as the use of game design elements in a non-game context to enhance user engagement and motivation. In the context of TikTok Shop, the daily reward system serves as a concrete manifestation of gamification implementation, aiming to create a behavioral loop and increase user retention Huseynov [11]. This system adopts the principles of operant conditioning, where users are given positive reinforcement through rewards that can be redeemed for discounts or shopping vouchers. Recent studies show that the implementation of the daily reward system can increase the frequency of visits by up to 45% and purchase intention by 32% on social commerce platforms [12]. Furthermore, gamification elements like daily rewards not only enhance user engagement but also influence impulsive buying behavior through the mediation of emotional responses, with perceived enjoyment and social interaction as key factors that strengthen this relationship [13].

H_1: TikTok's daily reward gamification has a positive effect on users' emotional arousal.

2.2. Social Presence in Social Commerce

Social presence refers to the user's perception that they are interacting with real people on a digital platform, not just with systems or algorithms. In the context of social commerce, social presence can be enhanced through features such as comment sections, live streaming, user reviews, and direct interactions with sellers or influencers. This social presence creates a sense of community and trust, which in turn strengthens the emotional connection between users and the platform [14]. Research shows that high social presence can increase perceived trust and engagement, thereby influencing impulsive buying decisions [15]. In addition, social presence can also trigger more intense emotional

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 7: 383-393, 2025
DOI: 10.55214/25768484.v9i7.8587

responses, such as a sense of urgency or social involvement, which ultimately encourages consumers to make impulsive purchases without deep rational consideration [16].

H_2: Social presence has a positive effect on users' emotional arousal.

2.3. Emotional Arousal in the Digital Context

Emotional arousal is a psychological condition characterized by increased emotional activation and physiological readiness. In the context of digital commerce, emotional arousal can be triggered by various stimuli such as visual merchandising, time-limited offers, and social proof [9, 17]. Neuropsychological research shows that high levels of arousal can affect decision-making processes by increasing impulsivity and reducing critical thinking [9]. Recent studies indicate that emotional arousal triggered by elements of social commerce platforms can increase the likelihood of impulsive buying behavior. In fact, in the context of platforms like TikTok, gamification design (such as daily rewards) and dynamic social interactions can strengthen emotional arousal, creating a cycle of emotional stimulation that shortens the cognitive evaluation process and encourages spontaneous buying actions [18].

H_3: Emotional arousal has a positive effect on impulsive buying behavior.

H_4: Emotional arousal mediates the effect of daily reward gamification on impulsive buying behavior.

H_5: Emotional arousal mediates the effect of social presence on impulsive buying behavior.

H_6: TikTok's daily reward gamification influences impulsive buying behavior through the mediating role of emotional arousal.

H_7: Social presence influences impulsive buying behavior through the mediating role of emotional arousal.

2.4. Impulsive Buying Behavior in Social Commerce

Impulsive buying behavior is defined as an unplanned, spontaneous purchase driven by external stimuli and strong emotional responses. In the context of social commerce, this phenomenon is reinforced by a combination of social influence, personalized content, and psychological triggers [19]. Platforms like TikTok Shop optimize these elements to create an environment conducive to impulsive buying. Research shows that purchases on social commerce platforms tend to be more impulsive compared to planned purchases [20]. "Furthermore, the immersive interface design on platforms like TikTok Shop—with a combination of autoplay videos, personalized recommendation algorithms, and integrated 'Shop Now' features—creates a 'flow state' experience that reduces users' ability to control shopping impulses, thereby reinforcing the tendency for impulsive buying behavior [21].

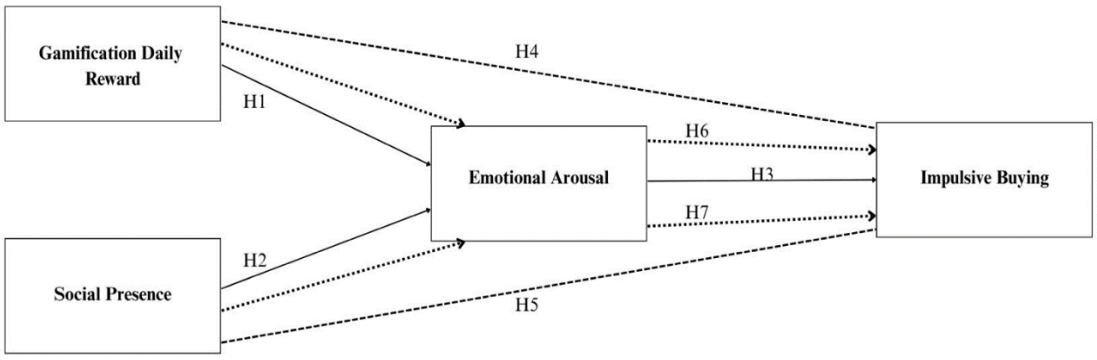

Figure 1.
Research Model.

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 7: 383-393, 2025
DOI: 10.55214/25768484.v9i7.8587

3. Research Methodology

3.1. Research Design and Approaches

This study focuses on analyzing and proving how Gamification Feature, Social Presence, and User Experience has a positive relationship to Emotional Arousal and could positively affecting impulsive buying behavior. The study uses a non-probability sampling method, specifically employing purposive sampling with judgmental sampling, where potential respondents are filtered based on pre-established criteria and characteristics. An online survey questionnaire will be distributed to respondents through Google Forms. All respondent data will be processed using Partial Least Squares Structural Equation Modeling (PLS-SEM) through SmartPLS Version 4 software.

3.2. Research Instrument

The variables in this study are based on several instruments designed as the foundation for the questions in the questionnaire. These instruments are derived from previous relevant studies and have been selected based on their relevance to this research. The measurements for Gamification of Daily Reward adapted from Meng and Leung [22]. Social Presence from Wang, et al. [23]. Emotional Arousal from Qu, et al. [17]; Zhang, et al. [18]; Wang, et al. [23] and Gu, et al. [24] and Impulsive Buying Behavior from Pranata, et al. [25] and Nilam and Amelindha [26]. The study will use a five-point Likert scale in the questionnaire, allowing respondents to select a scale from 1 to 5 to indicate how they relate to the items in each instrument.

Table 1.
Research Instrument.

Construct		**Item**
Gamification of Daily Reward	GR1	I feel motivated to use the TikTok app because of the daily reward feature.
	GR2	I want to use the TikTok app more frequently to receive bonuses from the daily reward.
	GR3	The rewards I receive on TikTok are an important factor in my decision to purchase an item.
	GR4	I feel happy when redeeming the rewards I earn.
	GR5	I feel challenged to keep collecting daily rewards on TikTok.
Social Presence	SP1	I feel like there's direct interaction with others when watching live streaming on TikTok.
	SP2	I am aware of other users who are interested in the products during live streaming.
	SP3	I feel that live streaming on TikTok provides a real social interaction experience.
	SP4	I feel comfortable communicating with the streamer during live streaming.
	SP5	I feel more connected with others when watching live streaming on TikTok.
Emotional Arousal	EA1	I feel excited to collect more rewards on TikTok so they can be used in transactions.
	EA2	I feel stimulated to make a purchase when I see attractive promotions on TikTok, especially after receiving daily rewards.
	EA3	I feel excitement when having an enjoyable shopping experience on TikTok Shop.
	EA4	I feel emotionally driven when receiving daily rewards from TikTok.
	EA5	I feel urged to use the rewards or discounts I receive before they expire.
	EA6	I feel more enthusiastic to buy products when I see many people interacting in the live streaming.
Impulsive Buying	IB1	When shopping on TikTok Shop, I tend to buy items that I had not planned to purchase.
	IB2	If I see something new and trending on TikTok Shop, I want to buy it.
	IB3	When I find something very interesting on TikTok Shop, I buy it without considering the consequences.
	IB4	Sometimes when shopping on TikTok Shop, I buy an item not out of necessity, but for enjoyment.
	IB5	I feel that making spontaneous purchases on TikTok Shop is an enjoyable experience.

4. Results and Discussion

A total of 127 respondents were able and agreed to fill out the online survey questionnaire, selected based on standardized criteria and characteristics. These respondents were grouped according to gender, age, length of employment, and job level. The responses were 51% male and 49% female, with the majority in the age range of 21-30 years. Most of the respondents were undergraduate students,

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 7: 383-393, 2025
DOI: 10.55214/25768484.v9i7.8587

with an average work experience of less than 10 years and an average salary of less than IDR 5 million, working in the Jakarta area. The job levels were as follows: 38% staff officer, 15% supervisor, 10% senior manager to general manager, 13% associate manager to manager, 7% associate director to director, and 13% director.

Table 2.
Convergent Validity.

	EA	GDR	PPI	SP
EA 1	0.844			
EA 2	0.864			
EA 3	0.631			
EA 4	0.864			
EA 5	0.855			
EA 6	0.687			
GDR 1		0.887		
GDR 2		0.838		
GDR 3		0.856		
GDR 4		0.848		
GDR 5		0.827		
IBB 1			0.764	
IBB 2			0.835	
IBB 3			0.827	
IBB 4			0.837	
IBB 5			0.789	
SP 1				0.703
SP 2				0.665
SP 3				0.733
SP 4				0.790
SP 5				0.813

The Structural Equation Modeling (SEM) model used several methods to assess the convergent validity of the indicators used in measuring the constructs. One of these methods is Outer Loading, which is a regression coefficient showing the relationship between an indicator and the latent construct in the SEM model. High outer loading, typically greater than 0.70, indicates a strong relationship. Indicators with outer loading values lower than 0.70 may need to be reconsidered for improvement or removal [27]. From the table, it can be concluded that all indicators have high outer loading (> 0.7), which means they have a strong relationship with the measured construct.

Table 3.
Discriminant Validity.

	EA	GDR	PPI	SP
EA	0.796			
GDR	0.894	0.852		
IBB	0.663	0.645	0.811	
SP	0.592	0.544	0.595	0.743

Based on Fornell and Larcker [28] each construct must have an AVE > the square of the correlation with other constructs. Therefore, it can be concluded that all indicators are valid in terms of discriminant validity, where the AVE value for each model is greater than the square of the correlation with other constructs, specifically $0.796 > (0.663, 0.592)^2$, $0.852 > (0.645, 0.544)^2$, $0.811 > 0.595^2$, and 0.743.

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 7: 383-393, 2025
DOI: 10.55214/25768484.v9i7.8587

Table 4.
Construct Reliability.

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
SP	0.799	0.826	0.859	0.551
IBB	0.870	0.879	0.906	0.657
EA	0.881	0.895	0.911	0.634
GDR	0.905	0.906	0.930	0.725

In Savitri, et al. [29] the reliability assessment of the outer model in Partial Least Squares Structural Equation Modeling (PLS-SEM) can be done using two main indicators: Cronbach's Alpha and Composite Reliability. A Cronbach's Alpha value greater than 0.70 is considered good, while values below 0.60 indicate low internal consistency. A good Composite Reliability value is usually above 0.70. A higher CR value than 0.70 suggests that the construct has good reliability and the items used in the measurement mutually support the construct. Based on the table above, the values for both Cronbach's Alpha and Composite Reliability (rho_c) exceed the standard, which means the variables have good reliability and mutually support each other.

Table 5.
R-Square.

	R-square	R-square adjusted
EA	0.815	0.811
IBB	0.514	0.501

The R-Square value in the inner model indicates the proportion of variance explained by independent constructs regarding the dependent constructs in the model [29]. R-square values are interpreted as follows: 0.19 (weak), 0.33 (moderate), and 0.67 (strong) [29].

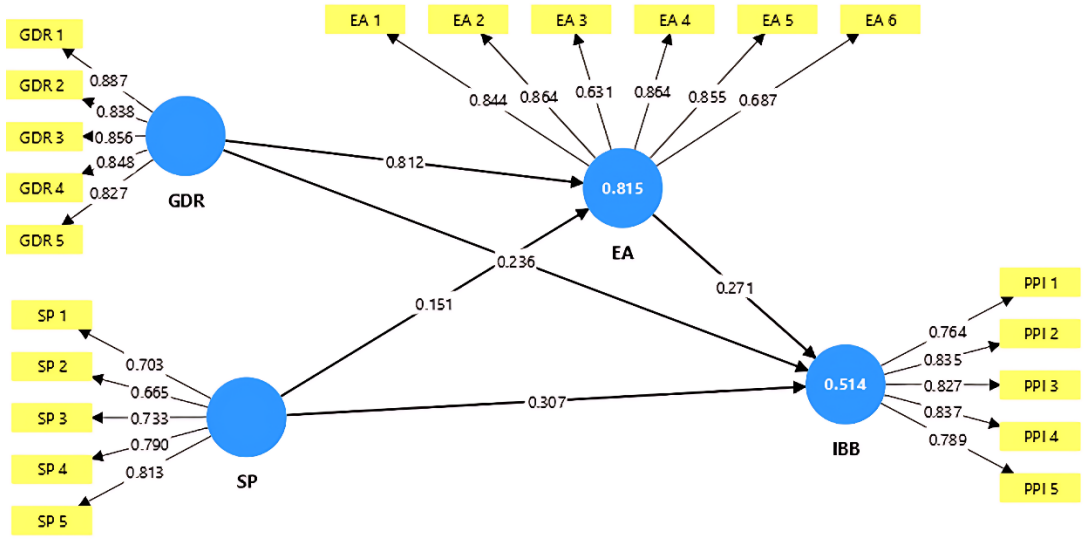

Figure 2.
R-Square Output: This figure shows the explained variance in Emotional Arousal and Impulsive Buying Behavior from the independent variables.

From the R-Square table, Emotional Arousal has an R-square value of 0.815, meaning that 81% of the variance in emotional arousal is explained by the GDR and SP variable. Impulsive Buying Behavior has an R-square value of 0.514, meaning that 51% of the variance in work engagement is explained by

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 7: 383-393, 2025
DOI: 10.55214/25768484.v9i7.8587

GDR and SP. The remaining 49% is explained by factors outside this study, indicating that GDR and SP has a moderate influence on Impulsive Buying Behavior.

Table 6.
Effect Size (f-square).

	EA	GDR	IBB	SP
EA			0.028	
GDR	2.502		0.023	
IBB				
SP	0.087		0.125	

The effect size (f-square) in the inner model aims to measure the magnitude of the impact that the independent variable has on the dependent variable [29]. Effect size is an important measure to assess the strength of the relationship between variables in the model, which in turn helps evaluate how much an independent variable affects the change in the dependent variable [29]. The interpretation guidelines for f^2 are as follows: 0.02 is considered a small effect, 0.15 is considered a moderate effect, and 0.35 is considered a large effect [29]. Based on the effect size table, the following interpretations can be made:

- Emotional Arousal has a small effect on Impulsive Buying Behavior with an f-square value of 0.028.
- Gamification of Daily Reward has a large effect on Emotional Arousal with an f-square value of 2.502.
- Gamification of Daily Reward has a small effect on Impulsive Buying Behavior with an f-square value of 0.023.
- Social Presence has a small to moderate effect on both, Emotional Arousal and Impulsive Buying Behavior with 0.087 and 0.125 respectively.

Table 7.
Path Coefficients.

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values	Results
GDR → EA	0.812	0.811	0.042	19.349	0.000	H1 Accepted
SP → EA	0.151	0.150	0.057	2.626	0.009	H2 Accepted
EA → IBB	0.271	0.276	0.159	1.706	0.088	H3 Accepted
GDR → IBB	0.236	0.225	0.156	1.507	0.132	H4 Rejected
SP → IBB	0.307	0.314	0.075	4.094	0.000	H5 Accepted

Path coefficients measure the extent to which the independent variable can directly affect the dependent variable. The larger the path coefficient value, the stronger the influence of the independent variable on the dependent variable [29]. Path coefficients are divided into direct influence and indirect influence. . The significance of the path coefficient is interpreted if the p-value is smaller than 0.1 or the t-statistic value is greater than 1.645 with a significance level of 10%, indicating that the relationship between the variables is significant [29]. In this research, the p-value was used to assess the significance. The hypothesis results for the independent, dependent, and mediator variables are summarized in the table, as follows:

- Gamification Daily Reward has a significant influence on Emotional Arousal (H1) with a p-value of 0.000 < 0.1, so H1 is Accepted. The original sample of H1 is 81.2% variance, meaning this influence is strong, with 18.8% of the variance explained by other factors.
- Social Presence has a significant influence on Emotional Arousal (H2) with a p-value of 0.009 < 0.1, so H3 is Accepted. The original sample of H3 is 15.1% variance, meaning this influence is moderate, with 84,9% of the variance explained by other factors.

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 7: 383-393, 2025
DOI: 10.55214/25768484.v9i7.8587

- Emotional Arousal has a significant influence on Impulsive Buying Behavior (H3) with a p-value of 0.088 < 0.1, so H3 is Accepted. The original sample of H3 is 27.1% variance, meaning this influence is moderate to strong, with 72,9% of the variance explained by other factors.
- Gamification Daily Reward does not have a significant influence on Impulsive Buying Behavior (H4) with a pvalue of 0.132 > 0.1, so H4 is Rejected. The original sample of H4 is 23,6% variance, meaning this influence is moderate to strong, with 76,4% of the variance explained by other factors.
- Social Presence has a significant influence on Impulsive Buying Behavior (H5) with a p-value of 0.000 < 0.1, so H5 is Accepted. The original sample of H5 is 30,7% variance, meaning this influence is moderate to strong, with 69,3% of the variance explained by other factors.

Table 8.
Path Coefficient.

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values	Results
GDR → EA → IBB	0.220	0.225	0.131	1.676	0.094	H6 Accepted
SP → EA → IBB	0.041	0.042	0.031	1.320	0.187	H7 Rejected

Path coefficients are used to measure the extent to which the independent variable indirectly affects the dependent variable through a mediating variable. According to Savitri, et al. [29] the significance of the path coefficient can be assessed using either the p-value (should be < 0.1) or the t-statistic (should be > 1.645) at a 10% significance level. If these criteria are met, the mediating effect is considered statistically significant. If not, the mediation is deemed insignificant, indicating that the mediating variable does not play a significant role in the relationship.

In this study, Emotional Arousal (EA) was examined as a mediating variable between two independent variables—Gamification of Daily Reward (GDR) and Social Presence (SP)—and the dependent variable Impulsive Buying Behavior (IBB). The results are summarized as follows:

- GDR → EA → IBB, The original sample value for this path is 0.220, with a sample mean of 0.225 and a standard deviation of 0.131. The t-statistic is 1.676, and the p-value is 0.094. Since the p-value is less than 0.1 and the t-statistic is greater than 1.645, the mediating effect of Emotional Arousal between Gamification of Daily Reward and Impulsive Buying Behavior is statistically significant (H6). Meaning this influence is moderate to strong, the result does support the hypothesis that Emotional arousal significantly mediates this relationship .
- SP → EA → IBB, The original sample value for this path is 0.041, with a sample mean of 0.042 and a standard deviation of 0.031. The t-statistic is 1.320, and the p-value is 0.187. Since the p-value is greater than 0.1 and the t-statistic is less than 1.645, the mediating effect of Emotional Arousal between Social Presence and Impulsive Buying Behavior is not statistically significant (H7) . meaning this influence is weak, the result does not support the hypothesis that Emotional Arousal significantly mediates this relationship.

In conclusion, based on the results of the mediation analysis, Emotional Arousal is not confirmed as a significant mediating variable in the relationship between Gamification of Daily Reward or Social Presence and Impulsive Buying Behavior. These findings suggest that while Emotional Arousal may be conceptually relevant, its mediating effect is not statistically supported in this study.

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 7: 383-393, 2025
DOI: 10.55214/25768484.v9i7.8587

Table 9.
(GOF).

	AVE	R-square
GDR	0.725	
SP	0.551	
EA	0.634	0.811
IBB	0.657	0.501
Average	0.64175	0.656

Note: GOF= 0.64884.

Goodness of Fit (GoF) measures the extent to which the model can represent the relationships between the constructs in both the outer model (measurement) and inner model (structural) [30]. The formula is: GoF= √(AVE x R2). The GoF value can be categorized as follows: GoF ≥ 0.36: Model has a very good fit (large fit). 0.25 ≤ GoF < 0.36: Model has a moderate fit. GoF < 0.25: Model has a poor fit. Based on the table above, the GoF value is 0.424, which is greater than 0.36, indicating that the model has a large fit. Therefore, it can be concluded that the SEM model tested through both the outer and inner models is able to represent the relationships between the constructs well.

5. Conclusion

This study aimed to analyze the influence of TikTok's Daily Reward Gamification, User Experience, and Social Presence on Impulsive Buying Behavior, with Emotional Arousal serving as a mediating variable. Using Partial Least Squares Structural Equation Modeling (PLS-SEM), the results confirm several significant findings while also highlighting notable limitations.

Firstly, the findings indicate that Gamification of Daily Reward (GDR) significantly influences Emotional Arousal**,** and Social Presence (SP) also has a significant but weaker direct effect on Emotional Arousal. Emotional Arousal, in turn, exhibits a weak to moderate but statistically significant direct influence on Impulsive Buying Behavior (IBB)**.**

Moreover, the mediating role of Emotional Arousal in the relationships between both GDR → IBB and SP → IBB was found to be statistically insignificant, as reflected by p-values above 0.1 and t-statistics below the threshold of 1.645. This indicates that Emotional Arousal, while influential in direct pathways, does not act as a significant mediator between these constructs in this model. The results point toward a more complex behavioral mechanism in which emotional arousal operates independently rather than as a bridge between marketing stimuli and consumer behavior.

From a practical standpoint, these findings hold valuable implications for both the educational and professional/entrepreneurial sectors:

- Educational Sector**:** This research provides a comprehensive example of applying digital consumer behavior theory using Structural Equation Modeling. It can be used as a teaching case for marketing, behavioral economics, or digital business courses to understand how psychological and technological constructs interact in a real-world social commerce setting. Students can learn how gamification, emotional triggers, and user interaction metrics are modeled and measured in practice.
- Professional Sector / Entrepreneurs**:** For entrepreneurs and business practitioners, especially those operating in e-commerce or social commerce, this study highlights the strategic importance of gamification and social interaction features. TikTok's Daily Reward system demonstrates strong potential to stimulate emotional engagement, which in turn can drive impulsive purchases. However, emotional pathways do not always mediate other marketing efforts, which suggests that designing user experiences should go beyond aesthetics and usability to integrate emotionally engaging content. Entrepreneurs are advised to consider interactive elements like live streaming, reward loops, and community engagement as mechanisms to enhance emotional arousal and consumer impulsivity.

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 7: 383-393, 2025
DOI: 10.55214/25768484.v9i7.8587

In conclusion, while not all hypotheses were supported, the study contributes to the growing understanding of how emotional mechanisms function in gamified social commerce platforms. Future research should consider exploring different mediators or moderating factors such as personality traits, time sensitivity, or peer influence to better map the dynamics of impulsive behavior in digital consumer contexts.

Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

Copyright:

References

[1] Z. R. F. Nur, I. N. N. Rabbiana, T. Diba, and F. Fitroh, "TikTok shop: Unveiling the evolution from social media to social commerce and its computational impact on digital marketing," *Journal of Computer Science and Engineering*, vol. 4, no. 2, pp. 88-96, 2023.

[2] N. M. Ariffin, A. Fikry, N. D. M. Shobri, and I. S. C. Ilias, "A review of tiktok livestreaming commerce," *Information Management and Business Review*, vol. 16, no. 3S, pp. 67–77, 2024. https://doi.org/10.22610/imbr.v16i3S(I)a.4121

[3] A. Faganel, F. Pačarić, and I. Rižnar, "The impact of gamification on slovenian consumers' online shopping," *Administrative Sciences*, vol. 14, no. 5, p. 86, 2024. https://doi.org/10.3390/admsci14050086

[4] G. Wiwoho, "Determinan pembelian impulsif di marketplace: peran e-environment dan efektivitas iklan dan shopping enjoyment," *Jurnal E-Bis*, vol. 5, no. 1, pp. 15-30, 2021.

[5] F. A. B. Thesia and D. T. H. Aruan, "The effect of social presence on the trust and repurchase of social commerce tiktok shop users," *Journal of Social Research*, vol. 2, no. 10, pp. 3776-3785, 2023.

[6] L. Purwianti and E. Yulianto, "The influence of social presence on purchase intention in social commerce: The mediating roles of trust and attitude," *International Journal of Applied Research in Business and Management*, vol. 5, no. 2, 2024. https://doi.org/10.51137/wrp.ijarbm.2024.lpts.45613

[7] R. M. Rashid, A. H. Pitafi, M. A. Qureshi, and A. Sharma, "Role of social commerce constructs and social presence as moderator on consumers' buying intentions during COVID-19," *Frontiers in Psychology*, vol. 13, p. 772028, 2022.

[8] M. Huang, M. S. M. Saleh, and I. A. Zolkepli, "The moderating effect of environmental gamification on the relationship between social media marketing and consumer-brand engagement: A case study of Ant Forest Gen Z users," *Heliyon*, vol. 10, no. 4, p. e25948, 2024. https://doi.org/10.1016/j.heliyon.2024.e25948

[9] N. H. Khoi, A. N.-H. Le, and P. N. Dong, "A moderating–mediating model of the urge to buy impulsively in social commerce live-streaming," *Electronic Commerce Research and Applications*, vol. 60, p. 101286, 2023.

[10] L. Xiang, X. Zheng, M. K. Lee, and D. Zhao, "Exploring consumers' impulse buying behavior on social commerce platform: The role of parasocial interaction," *International Journal of Information Management*, vol. 36, no. 3, pp. 333-347, 2016.

[11] F. Huseynov, "Gamification in e-commerce: Enhancing digital customer engagement through game elements," in Digital innovations for customer engagement, management, and organizational improvement: IGI Global. https://doi.org/10.4018/978-1-7998-5171-4.ch008, 2020, pp. 144-161.

[12] P. Singh, L. Khoshaim, B. Nuwisser, and I. Alhassan, "How information technology (it) is shaping consumer behavior in the digital age: a systematic review and future research directions," *Sustainability*, vol. 16, no. 4, p. 1556, 2024.

[13] G. Lei and X. Zhao, "The impact of gamification of m-commerce platforms on users' impulse buying behavior," *Academic Journal of Business & Management*, vol. 5, no. 24, pp. 28-35, 2023.

[14] D. Gefen and D. Straub, "Managing user trust in B2C e-services," *e-Service*, vol. 2, no. 2, pp. 7-24, 2003. https://doi.org/10.2979/esj.2003.2.2.7

[15] F. Biocca, C. Harms, and J. K. Burgoon, "Toward a more robust theory and measure of social presence: Review and suggested criteria," *Presence: Teleoperators & Virtual Environments*, vol. 12, no. 5, pp. 456-480, 2003. https://doi.org/10.1162/105474603322761270

[16] B. Lu, W. Fan, and M. Zhou, "Social presence, trust, and social commerce purchase intention: An empirical research," *Computers in Human Behavior*, vol. 56, pp. 225-237, 2016.

[17] Y. Qu, J. Khan, Y. Su, J. Tong, and S. Zhao, "Impulse buying tendency in live-stream commerce: The role of viewing frequency and anticipated emotions influencing scarcity-induced purchase decision," *Journal of Retailing and Consumer Services*, vol. 75, p. 103534, 2023.

[18] W. Zhang, W. Zhang, and T. U. Daim, "Investigating consumer purchase intention in online social media marketing: A case study of Tiktok," *Technology in Society*, vol. 74, p. 102289, 2023. https://doi.org/10.1016/j.techsoc.2023.102289

[19] M. M. Ibrahim, M. Ariyanti, and D. Iskamto, "The effect of sales promotion and hedonic shopping motivation on impulse buying behavior and the impact to customer loyalty in social commerce TikTok shop," *Journal of Multidisciplinary Academic Business Studies*, vol. 2, no. 2, pp. 399-415, 2025.

[20] N. T. H. Binh, "Impulse buying behavior of consumers through social commerce in Ho Chi Minh city," 2024. https://doi.org/10.31234/osf.io/62sfz

[21] L. Yang, N. Garcia de Frutos, and J. M. Ortega Egea, "Impulse buying behavior in live streaming e-commerce: A systematic literature review," *Available at SSRN 5081713*, 2025.

[22] K. S. Meng and L. Leung, "Factors influencing TikTok engagement behaviors in China: An examination of gratifications sought, narcissism, and the Big Five personality traits," *Telecommunications Policy*, vol. 45, no. 7, p. 102172, 2021.

[23] H. Wang, G. Li, X. Xie, and S. Wu, "An empirical analysis of the impacts of live chat social interactions in live streaming commerce: A topic modeling approach," *Electronic Commerce Research and Applications*, vol. 65, p. 101397, 2024.

[24] L. Gu, X. Gao, and Y. Li, "What drives me to use TikTok: A latent profile analysis of users' motives," *Frontiers in Psychology*, vol. 13, p. 992824, 2022.

[25] J. A. Pranata, M. R. P. Riyanto, S. Hendrawan, and W. Gunadi, "The effect of hedonic motivation and it affordance on impulsive buying decision in social commerce TikTok," *International Journal of Electronic Commerce Studies*, vol. 15, no. 2, pp. 62-102, 2024.

[26] F. Nilam and V. Amelindha, "Impulsive buying behavior: Scarcity impact of flash sale through arousal as mediating variable," *Jurnal Mantik*, vol. 7, no. 3, pp. 1766-1776, 2023.

[27] J. F. Hair, *A primer on partial least squares structural equations modeling (PLS-SEM)*. Thousand Oaks, CA: SAGE Publications, 2014.

[28] C. Fornell and D. F. Larcker, "Evaluating structural equation models with unobservable variables and measurement error," *Journal of Marketing Research*, vol. 18, no. 1, pp. 39-50, 1981. https://doi.org/10.2307/3151312

[29] C. Savitri, U. Buana, P. Karawang, and A. Mulyati, "Multivariate statistics in research," 2022. https://www.researchgate.net/publication/358087928

[30] M. Tenenhaus, V. E. Vinzi, Y.-M. Chatelin, and C. Lauro, "PLS path modeling," *Computational Statistics & Data Analysis*, vol. 48, no. 1, pp. 159-205, 2005. https://doi.org/10.1016/J.CSDA.2004.03.005