The Effect of S-Commerce Tiktok Shop Recommendation Products on Changes in Consumer Impulsive Buying Behavior: A Study with Signaling Theory

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ABSTRACT
Product recommendation was introduced as a marketing technique that is quite commonly used in online shopping platforms, one of which is TikTok Shop. The use of recommended products in the digital market environment is intended to learn consumer interests and preferences so that the target market can conduct marketing. It is expected to make it easier for consumers to find their desired products. However, the use of product recommendations in the digital market also has the potential to have a negative effect in the form of forming consumer impulsive behavior. For this reason, this research was conducted to understand what factors of product recommendations can motivate consumer impulsive behavior at TikTok Shop and to see the effectiveness of video advertisements in motivating consumers to make purchases. In its implementation, this research uses the principles of signaling theory as the basis of research. Then, the research was carried out using a quantitative approach to collect and process data. The data collection method was carried out through questionnaire distribution by utilizing Google form as a data collection medium and social media as a medium for distributing questionnaires. Meanwhile, the data from the questionnaire was processed using the SmartPLS 3 application. The study results show that providing product recommendations through video content (VC) has the potential to shape consumer impulsive behavior.

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1. INTRODUCTION

S-commerce is a new online retail modeling and marketing strategy that utilizes social media platforms with peer-to-peer forms of communication (Bamansoor et al., 2020).

In s-commerce, product recommendation technology is applied to help companies develop marketing strategies and build good relationships with consumers (Sohail et al., 2012). In addition, adjustments to product presentation and offerings can also be made based on consumer preferences and interests (Sohail et al., 2012). This ability makes product recommendations part of the marketing power because it can shorten consumer search time (Choi et al., 2006). The effectiveness can be measured by increased sales figures and consumer experience (Zhao et al., 2014).

Even so, the ability of product recommendations can also harm consumers. Referring to the findings of Ampadu et al. (2022), product recommendations can hurt consumers by influencing them to make impulse purchases. From a psychological point of view, impulse buying is explained as a behavior formed due to a passionate and spontaneous motivation to make (Sharma et al., 2010). Furthermore, Jeong et al. (2022) explained that this motivation is formed when product recommendations can provide a list of products that match consumer preferences and products that tend to be cheaper than normal. The urge to make purchases without planning can lead to consumer disappointment due to a mismatch between consumer expectations and the original form of the product. In addition, impulse buying indicates negative consumer behavior related to indiscretion in transacting in s-commerce.

Consumer impulsive behavior has been considered an endemic in today's digital market. In Indonesia, impulsive buying is mostly found among teenagers (Lukiani et al., 2021). According to several previous studies, consumer impulsive behavior in Indonesia is formed due to several factors, such as internet addiction (Jain et al., 2018), attractive advertisements (Mulyasari et al., 2021), lifestyle (Choirunnisa, 2021), fashion trends, and hedonic motivation (Nuryani & Martini, 2020). Even so, several other factors are believed to motivate consumers to impulse purchases. Specifically, in this study, consumer impulse buying behavior is observed by assessing the usefulness and implications of using product recommendation technology in s-commerce.

In some previous studies, consumer impulsive habits have been studied through several theoretical perspectives, such as Stimulus-Organism-Response (S-O-R), the Big Five model, Hofstede's cultural dimensions, regulatory focus, and construal level (Redine et al., 2023). Meanwhile, this study studied consumers' impulse buying habits using signal theory. Signal theory is intended to study how the role of product attributes and signals can influence consumer behavior. In addition, the limited research on consumer behavior using signal theory is also the background for this research. Conceptually, the signal theory is described as a theory that focuses on understanding changes in user behavior due to the influence of information consumed (Rokhlinasari, 2015). In a digital market environment, signal theory is used to explore the effect of information technology features on consumer participation (Cheung et al., 2014). The use of signal theory in digital markets is also found in the

study of Gurrea et al. (2013), which analyzes the effect of product symbols on objective and subjective measures of online user search behavior. In Mpinganjira's (2015) study, signal theory was used to build a research model and evaluate what factors can increase consumer trust and purchase intention.

2. RESEARCH FRAMEWORK

In this study, signal theory is used to research how information technology features can influence consumer participation in online environments (Cheung et al., 2014). In addition, through signal theory, the trust relationship between partners and consumers can also be identified. The use of signal theory in impulse buying studies was first introduced by Chen et al. (2019). In this study, several signal dimensions are divided into three major groups: recommender, product, and advertisement. In the recommender-related signal group, observations will focus on how signals such as information quality and similarity can shape consumers' cognitive and affective beliefs. The presentation of quality information will certainly be very helpful for consumers to know the product's characteristics, considering that in s-commerce, there are limitations that make consumers unable to see the original form of recommended products (Alshibly, 2014). Meanwhile, the emergence of recommended products with a good level of similarity can reduce product search activities, increase consumer confidence and satisfaction, and improve decision quality (Xiao & Benbasat, 2007).

H1. Information quality has a positive influence on recommender cognitive trust

H2a. Similarity has a positive influence on recommender cognitive trust

H2b. Similarity has a positive influence on the recommender's affective trust

In the second group, observations will focus on vicarious expression and aesthetic appeal signals to product affection. This group of product-related signals studies how product attributes consisting of product reviews and product visual appearance can stimulate consumers' empathy and positive emotions. The formation of product affection due to vicarious expression can be seen through Rahayu and Baridwan's study (2020), which found that the high quality of vicarious expression reviews on s-commerce can positively influence consumer affection for products. Meanwhile, in the case of aesthetic appeal, the visual elements of the product act as a medium for aesthetic response and consumer attitudes (Ryu & Ryu, 2021). In addition, Ohta and Kasamatsu (2014) added that the uniqueness of product visuals can trigger positive emotions in consumers.

H3. Vicarious expression on recommended products has a positive influence on product affection

H4. Aesthetic appeal on recommended products has a positive influence on product affection

Several other factors, including trust, also mediate the formation of behavior change due to group signals. In psychology, trust is divided into two dimensions: cognitive and affective. McAllister (1995) explains that the growth of consumer trust begins with the formation of cognitive trust, which can further influence the process of forming affective trust. Agreeing with this statement, Wang et al. (2016) also explained that the cognitive component consisting of expectations and beliefs can trigger the process of forming psychological reactions in the form of affective reactions.

H5. Cognitive trust is positively related to affective trust

If affective trust has grown, this can be used to indicate the consumer's emotional bond with the recommended product. This bond can then develop into a feeling of consumer affection. This opinion is similar to the statement by Chen et al. (2019), which states that when a sense of trust in the recommended product has emerged, and the recommendation features have been evaluated emotionally, it is very likely that an effective response to the product can be formed.

H6. Affective trust of recommenders has a positive influence on product affection

Making decisions to purchase products without prior planning and tending to be careless consumers is often followed by emotional status and feelings (Chen & Wang, 2016). In this study, the emotional value of consumers is widely associated with affective trust and product affection. The existence of allegations related to the influence of affective trust and product affection on consumer shopping behavior is based on previous literature which states that consumers' positive emotional reactions can encourage impulsive buying behavior (Bigne et al., 2020; Goi et al., 2018; Tang et al., 2019; Vonkeman et al., 2017). The relationship between emotions and purchasing behavior is also explained by van Kleef et al. (2010), who state that emotions are integral to navigating and deciding decisions during social interactions.

H7. Affective trust positively influences consumers' urge to buy impulsively behavior

H8. Product affection positively influences consumers' urge to buy impulsively behavior

In addition, purchasing decisions can also be made due to the influence of video content exposure. In this study, video content is a group of advertisement-related signals. Previous literature states that signaling through video content can project product quality and minimize consumer doubts and uncertainties about the product (Kim & Krishnan, 2015). These conditions affect consumer satisfaction (Addo et al.,

2022) and sales volume (Grönroos, 2008). However, on the other hand, these signals also affect changes in consumer behavior, manifested in behaviors that tend to be hasty, irresponsible, and emotionally based (Gao et al., 2022).

H9. Video content is able to encourage consumers' urge to buy impulsively behavior

3. RESEARCH METHODS

3.1 Sample and Data Collection

In this study, data collection was carried out through a quantitative approach in the form of questionnaire distribution. Data collection is carried out by providing respondents with several questionnaires related to the research variables (Muchlis et al., 2019). At this stage, data was collected from June 15, 2023, to July 13, 2023. The collecting of respondent data was carried out before the policy of closing the TikTok Shop s-commerce by the Indonesian Government appeared, from October 4, 2023, to December 11, 2023. For this reason, in this study, the transaction service system evaluated is the old version of the transaction service system before the buying and selling flow policy change from the Indonesian Government.

This study compiled several questions related to consumer transaction habits at TikTok Shop using the Google Forms application. The questionnaire was distributed using several social media platforms, such as Whatsapp, Instagram, and Telegram. Then, so that the research can be directed, the criteria for respondents observed are respondents who have a TikTok account and have made transactions at TikTok Shop in at least the last four months. As for the total respondent data collected, there are 204 data. However, only about 150 pieces of data will be analyzed after the data screening process.

Table 1 Demographic table of respondents

Demographics	Quantity
Gender	
Male	25
Female	125
Age	
<20	22
20-24	45
>24	23
Average time spent scrolling through products	
<1	44
1-2	104
3-4	81
>4	47
Frequency of transactions in the last 4 months	
1	28
2-5	96
>5	26
Average expenditure per month	
<Rp 100.000	38
Rp100.000-Rp200.000	68
Rp 200.001- Rp 300.000	26
>Rp 300.000	18
Regional origin of respondents	
Bali	2
Bangka Belitung	2
Banten	6
Bengkulu	1
Special Region of Yogyakarta	10
DKI Jakarta	37
Jambi	1
West Java	39
Central Java	19
East Java	11
West Kalimantan	3
East Kalimantan	1
Riau Islands	1
Lampung	3
Maluku	1
East Nusa Tenggara	1
Riau	1
South Sulawesi	1
North Sulawesi	1
West Sumatra	4
South Sumatra	2
North Sumatra	2

3.2 Research Instrumental

The research instrument was organized into two groups of questions. The questions in the first part relate to consumers' profiles and demographic characteristics. Part two presents questions related to research indicators, which will be used as evaluation and measurement materials. The number of questions to be answered is based on consumer assessments during transactions at TikTok Shop, starting from the product search stage and observing recommended products to making purchases. Then, for part two, there are 38 questions. In this section, the question answers from respondents can be measured, so each question item is equipped with a Likert scale. The scale range used starts from value 1 (one) for strongly disagree statements, value 2 (two) for disagree statements, value 3 (three) for neutral statements, value 4 (four) for agree statements, and value 5 (five) for strongly agree statements.

3.3 Data Analysis

The data analysis stage will use the Partial Least Square Structural Equation Modeling (PLS-SEM) method. Based on the theory, PLS-SEM modeling is a technique for evaluating complex theoretical relationships between various variables. As for this stage, the analysis test will be carried out using SmartPLS 3 software. Testing will also be carried out in two stages: the data validity test (outer model) and the structural model test (inner model). In the process, the outer model evaluation will include a convergent validity test, discriminant validity test, and reliability test. Meanwhile, the tests will be carried out in the inner model evaluation, including the R^2 test and hypothesis testing.

4. RESULTS AND DISCUSSION

4.1 Measurement Model (Outer Model)

The outer model evaluation is intended to determine whether the data and research results can be declared valid or not. Referring to the statement of Guba and Lincoln (1989), it is stated that the outer model test can be carried out through validity and reliability tests. In this section, the first evaluation is carried out by conducting an outer loading test. In this test, an indicator will be declared valid if the outer loading value is> 0.7. The first outer loading test results show that several indicators are declared invalid. So, in order for all indicators to be declared valid, a second outer loading test is needed by eliminating several indicators that are declared invalid in the first outer loading test. The outer loading test results are attached in Table 2.

Table 2 Outer Loading Test Results

Variable	Outer loading
AA1 ← AA	0,757
AA2 ← AA	0,762

Variable	Outer loading
AA3 ← AA	0,720
AA4 ← AA	0,748
AA5 ← AA	0,792
AT1 ← AT	0,766
AT2 ← AT	0,842
AT3 ← AT	0,764
CT1 ← CT	0,757
CT2 ← CT	0,789
CT3 ← CT	0,737
CT4 ← CT	0,763
IQ1 ← IQ	0,805
IQ2 ← IQ	0,733
IQ3 ← IQ	0,877
PA1 ← PA	0,851
PA2 ← PA	0,775
PA3 ← PA	0,853
SI2 ← SI	0,811
SI3 ← SI	0,797
SI5 ← SI	0,845
UB1 ← UB	0,895
UB2 ← UB	0,854
UB3 ← UB	0,860
UB4 ← UB	0,711
VC2 ← VC	0,763
VC3 ← VC	0,823
VC4 ← VC	0,787
VE1 ← VE	0,872
VE2 ← VE	0,771
VE3 ← VE	0,726

The next validity test is to evaluate the AVE value of each variable. Referring to the opinion of Abdillah & Hartono (2015), it is stated that to measure the validity of a variable, the amount of AVE value for each variable must be >0.5. The results of the calculation of the AVE value attached to Table 3 show that all variables have an AVE value> 0.5. That way, it can be stated that all variables are valid.

Table 3 AVE Test Results

Variabel	AVE (Average Variance Extracted)
AA	0,572
AT	0,626
CT	0,581
IQ	0,651
PA	0,684
SI	0,669
UB	0,694

VC	0,627
VE	0,628

Evaluation of discriminant validity can be done through the results of the Fornell-Lacker test analysis. In the Fornell-Lacker test, a variable can be declared valid if the variable AVE root value is greater than the amount of correlation between variables. Referring to the Fornell-Lacker results in Table 4, it can be seen that all AVE root values in each test variable have a higher magnitude than the correlation value with other variables.

Table 4 Fornell-Lacker Test Results

	AA	AT	CT	IQ	PA	SI	UB	VC	VE
AA	0,756								
AT	0,499	0,791							
CT	0,581	0,678	0,762						
IQ	0,439	0,429	0,474	0,807					
PA	0,469	0,555	0,508	0,339	0,827				
SI	0,327	0,391	0,462	0,591	0,42	0,818			
UB	0,383	0,369	0,467	0,277	0,424	0,344	0,833		
VC	0,447	0,465	0,586	0,277	0,61	0,422	0,485	0,792	
VE	0,474	0,571	0,591	0,358	0,485	0,299	0,362	0,454	0,792

In this study, the reliability test was carried out by reviewing the acquisition of Cronbach's alpha and composite reliability values. A variable can be declared reliable if the acquisition value for both tests is> 0.7 (Hair et al., 2017). The reliability test results shown in Table 5 show that all variables are declared valid.

Table 5 Reliability Test Results

Variabel	Cronbach's alpha	Composite reliability
AA	0,816	0,870
AT	0,703	0,834
CT	0,759	0,847
IQ	0,736	0,848
PA	0,769	0,866
SI	0,753	0,858
UB	0,850	0,900
VC	0,703	0,834
VE	0,709	0,834

4.2 Structural Model (Inner Model)

The coefficient of determination is one form of SEM-PLS testing conducted to evaluate the structural model (inner model). Evaluation of the value is intended to assess the quality of the research model and see the amount of influence of exogenous latent variables on endogenous latent variables. When referring to the acquisition of the R^2 value in Table 6, it can be seen that the AT variable has a value of 0.468, meaning that

46.8% of the affective trust variable can be explained by the cognitive trust variable, as well as similarity, while other factors explain 53.2%. Then, in the CT variable, the value obtained is 0.276; this explains that 27.6% of the cognitive trust variable can be explained by the information quality variable, as well as similarity. At the same time, the other 72.4% can be explained by other factors. Meanwhile, the value of 0.380 for the PA variable explains that affective trust variables, vicarious expression, and aesthetic appeal can explain 38% of product attractiveness variables. At the same time, the other 62% can be explained by other factors. Finally, the R^2 value in UB explains that the affective trust variable and product affection can explain 27.3% of the buying motivation variable. Meanwhile, the other 72.7% is explained by other factors.

Table 6 R^2 Test Result

	R^2
AT	0,468
CT	0,276
PA	0,380
UB	0,273

After the R^2 test is carried out, the next step is to evaluate the strength of the relationship between research variables, commonly referred to as the path coefficient test. Referring to the literature by Hair et al. (2017), it is stated that the path coefficient is the basis used to determine the amount of partial influence between research variables with a value range between -1 and +1. Based on the test results shown in Table 7, it can be seen that all research variables have positive original sample values. The test results then indicate a positive relationship that occurs between the independent variable and the dependent variable. Furthermore, to be able to state that a hypothesis is rejected or accepted, hypothesis testing is required by utilizing the bootstrapping algorithm. In order to be able to determine the acceptance of the research hypothesis, the two-tailed test rule is applied in this study. In the two-tailed test, the minimum limit value (critical value) used is 1.96 with a significant level ($\propto$) = 0.05. Thus, it can be interpreted that for the hypothesis to be accepted, the amount of t-statistics> 1.96 with a p-value <0.05.

Table 7 Hypothesis Test Results

Hypothesis	Relationship	Original Sample	T Statistics	P Values	Information
H1	IQ → CT	0,309	3,072	0,002	Diterima
H2a	SI → CT	0,280	2,389	0,017	Diterima
H2b	SI → AT	0,099	1,257	0,209*	Ditolak
H3	VE → PA	0,191	2,068	0,039	Diterima
H4	AA → PA	0,208	2,309	0,022	Diterima
H5	CT → AT	0,633	8,494	0,000	Diterima
H6	AT → PA	0,342	8,667	0,000	Diterima
H7	AT → UB	0,132	1,302	0,193*	Ditolak
H8	PA → UB	0,146	1,307	0,192*	Ditolak
H9	VC → UB	0,335	3,751	0,000	Diterima

The results of the hypothesis test are shown in Table 4.6 states that there is an influence given by the recommender's information quality signal on the formation of consumer cognitive trust (**H1 accepted**). This statement is also in line with the results of previous studies which show the positive effect that information quality has in influencing trust in sellers. The importance of information quality in shaping cognitive trust is motivated by the existence of information asymmetry conditions in s-commerce. In this case, information asymmetry can be explained as a condition where consumers do not know the details of the product to be purchased, from the size to the shape of the product. For this reason, high-quality information from sellers is important for consumers to be able to fulfill their needs for related product information (Ren & Chih, 2019).

Wood (1996) argues that decision making can be based on the belief in the similarity that individuals have with other individuals. This opinion is then confirmed through the results of statistical tests that show similarity has a positive influence on the recommender's cognitive trust (**H2a accepted**). The test results are also in line with several previous studies that show a correlation between similarity and the formation of cognitive trust (Kobayashi & Okada, 2013; Rahayu & Baridwan, 2020). The formation of cognitive trust due to the influence of similarity is motivated by a sense of ease and smoothness for consumers to find the products they want. (Clerke & Heerey, 2021).

Then, related to the relationship of similarity to affective trust, the statistical test output shows the opposite result to the hypothesis statement. Therefore, this study shows that there is no effect of similarity on the formation of affective trust of the recommender (**H2b is rejected**). These results support the findings of Matook et al. (2015) but contradict the results of Matsui and Yamada (2019) and Amani (2015). This difference in findings may occur due to the weak emotional closeness that occurs between consumer recommenders and other users around them. The freedom to interact and make friends on social media, even with people consumers do not know

in the real world, can make the recommendation process only partially to consumer desires.

Product narratives are considered to have an impact on empathy, judgment, and consumer enjoyment of the product. In this study, a good product recommendation narrative is understood as a factor that motivates consumers to love the product. Referring to the test results, vicarious expression on recommended products has a positive influence on product affection (**H3 accepted**). This statement supports the study of Vazquez et al. (2020). This is formed because the emotional impression of the narrative is able to influence readers (Sowińska & Sokół, 2019). In addition, the emergence of product affection in consumers due to vicarious expression in the form of narrative or storytelling of recommended products can also make consumers imagine using these products (Benlian et al., 2012).

Consumer perceptions of high aesthetic appeal of recommended products can trigger positive emotions (Shi et al., 2021). These positive emotions can refer to consumers' desire to own (Devlin & Firdausy, 2020). In line with this statement, the test results show the influence of the aesthetic appeal of TikTok Shop recommendation products on product affection (**H4 accepted**). This output supports the study of Chen et al. (2019) and Rahayu and Baridwan (2020), who identified the influence of aesthetic appeal on product affection for recommended products.

In the s-commerce environment, the formation of consumer shopping behavior can be motivated by the trust factor in the recommender. Trust can be divided into cognitive trust and affective trust. Referring to the test results that have been carried out, the decision to trust the recommended product is based on the influence given by cognitive trust to affective trust (**H5 is accepted**). In line with this, the study of Chen et al. (2020) and Rahayu and Baridwan (2020) also shows the relationship between cognitive trust and the process of forming affective trust. The form of affective trust can be an emotional bond with the product. The formation of affective trust based on an assessment of the provision of accurate information from the recommender can also trigger a sense of consumer interest in the recommended product. The truth of this statement is supported by the test results, which show the effect of affective trust in stimulating product affection (**H6 accepted**). This condition occurs because affective trust (Ghorbanzadeh & Rahehagh, 2020) and product affection (Kumar et al., 2014) are intertwined with consumer emotions. The emergence of affective trust and positive emotions of consumers towards recommended products will undoubtedly make it easier for consumers to have high enthusiasm and curiosity about the product.

Then, regarding how the impulse to buy arises impulsively, several variables, such as affective trust, product affection, and video content, were observed in this study. The statistical test results show that affective trust and product affection do not

affect consumers' urge to buy behavior or emotions (**H7 and H8 are rejected**). This finding indicates the possibility of negative emotions held by consumers, given that both are related to emotional value. In line with this statement, the study of Zhao et al. (2023) also states that negative emotions such as anger and regret can reduce the intensity of consumers' impulsive behavior. Not only that but several other emotions, such as anxiety (Johnson et al., 2020) and sadness (Chester et al., 2016), have also been identified as part of negative emotions that can reduce consumer buying interest.

Meanwhile, the emergence of the urge to buy emotion is motivated by consumer activities that consume a collection of short videos on TikTok. This statement is based on the results of statistical tests that show the effect of video content on changes in consumers' urge to buy behavior in the TikTok Shop environment (**H9 accepted**). This finding supports the study of Barcelona et al. (2022), which shows the influence of video content on the formation of consumer impulsive behavior. Factors such as creator or model appearance, speaking skills (Fadillah & Kusumawati, 2021), video creativity (Dai & Gu, 2017), copywriting (Ariasih et al., 2023), and video quality (Ariasih et al., 2023; Hoi & Yin, 2023) can shape consumers' urge to buy emotions.

5. CONCLUSION

Based on the results of the research that has been carried out, the signal group related to recommender and product has a direct influence on the formation of cognitive trust and product affection but not on the formation of affective trust. Then, regarding the effect of affective trust and product affection on consumers' urge to buy behavior, the results showed no effect in this relationship. This can occur due to negative emotional factors, which then have an impact on the low level of consumer impulsiveness towards recommended products. On the other hand, different results were shown by the advertisement signal group. In this study, the presence of video content is able to shape the emotional urge to buy in TikTok Shop consumers. These findings then prove how strong video content affects a person's desire to shop. Some video content factors that influence consumer behavior are the appearance of the creator or model, video creativity, speaking skills, copywriting, and video quality.

6. REFERENCES

Abdillah, W., & Hartono, J. (2015). Partial Least Square (PLS)–Alternatif Structural Equation Modeling (SEM) dalam Penelitian Bisnis. Yogyakarta: Andi.

Addo, P. C., Akpatsa, S. K., Nukpe, P., Ohemeng, A. A., & Kulbo, N. B. (2022). Digital Analytics Approach to Understanding Short Video Advertising in Digital Marketing. Journal of Marketing Theory and Practice, 30(3), 405–420.

Alshibly, H. H. (2014). A Free Simulation Experiment to Examine the Effects of Social Commerce Website Quality and Customer Psychological Empowerment on Customers’ Satisfaction. Journal of Business Studies Quarterly, 5(4), 21–40.

Amani, Z. (2015). Commitment as a Mediator of the Relationship Between Trust and Relationship Loyalty to Retailer. Journal of Business Studies Quarterly, 6(3), 144–163.

Ampadu, S., Jiang, Y., Debrah, E., Antwi, C. O., Amankwa, E., Gyamfi, S. A., & Amoako, R. (2022). Online Personalized Recommended Product Quality and E-Impulse Buying: A Conditional Mediation Analysis. Journal of Retailing and Consumer Services, 64, 102789.

Ariasih, M. P., Rahmantari, N. L. L., & Mahendra, G. S. (2023). Exploring the Influence of Visual Content Quality Marketing on Impulse Buying in Tiktok Shop the Mediating Role of Copywriting. Enrichment: Journal of Management, 13(2), 1143–1151.

Bamansoor, S., Saany, S. I. A., & El-Ebiary, Y. A. B. (2020). The S-Commerce Usage and Acceptance Modelling in Malaysia. 3C TIC: Cuadernos de Desarrollo Aplicados a Las TIC, 9(1), 99–115.

Benlian, A., Titah, R., & Hess, T. (2012). Differential Effects of Provider Recommendations and Consumer Reviews in E-Commerce Transactions: An Experimental Study. Journal of Management Information Systems, 29(1), 237–272.

Chen, Y., Li, D., & Zhao, Z. (2020). Research on Product Recommendation and Consumer Impulsive Purchase Under Social Commerce Platform—Based on S-0-R Model. Proceedings of the 5th International Conference on Social Sciences and Economic Development (ICSSED 2020), 215–223.

Chen, Y., Lu, Y., Wang, B., & Pan, Z. (2019). How do Product Recommendations Affect Impulse Buying? An Empirical Study on Wechat Social Commerce. Information and Management, 56(2), 236–248.

Chen, Y., & Wang, R. (2016). Are Humans Rational? Exploring Factors Influencing Impulse Buying Intention and Continuous Impulse Buying Intention. Journal of Consumer Behaviour, 15(2), 186–197.

Chester, D. S., Lynam, D. R., Milich, R., Powell, D. K., Andersen, A. H., & DeWall, C. N. (2016). How do Negative Emotions Impair Self-Control? A Neural Model of Negative Urgency. NeuroImage, 132, 43–50.

Cheung, C. M. K., Xiao, B. S., & Liu, I. L. B. (2014). Do Actions Speak Louder Than Voices? The Signaling Role of Social Information Cues in Influencing Consumer Purchase Decisions. Decision Support Systems, 65, 50–58.

Choi, S. H., Kang, S., & Jeon, Y. J. (2006). Personalized Recommendation System Based on Product Specification Values. Expert Systems with Applications, 31(3), 607–616.

Choirunnisa, D. (2021). Perilaku Pembelian Impulsif: Seberapa Besar Peran Gaya Hidup dan Literasi Ekonomi. Jurnal Pendidikan Ekonomi, 14(1), 61–70.

Clerke, A. S., & Heerey, E. A. (2021). The Influence of Similarity and Mimicry on Decisions to Trust. Collabra: Psychology, 7(1).

Dai, D. B., & Gu, X. H. (2017). User Participation Behavior, Perceived Value and Customer Loyalty Analysis Based on Mobile Short Video Social Application. Consumer Economics, 33(2), 58–65.

Devlin, D., & Firdausy, C. M. (2020). Pengaruh Estetika pada Minat Konsumen Terhadap Pembelian Smartphone Xiaomi di Jakarta Barat. Jurnal Manajerial Dan Kewirausahaan, 2(4), 906–913.

Fadillah, F., & Kusumawati, N. (2021). Factors Affecting Makeup Products Online Impulsive Buying Behavior on TikTok. Proceeding Book of the 6th International Conference on Management in Emerging Markets (ICMEM 2021).

Gao, P., Zeng, Y., & Cheng, Y. (2022). The Formation Mechanism of Impulse Buying in Short Video Scenario: Perspectives from Presence and Customer Inspiration. Frontiers in Psychology, 13, 1–19.

Ghorbanzadeh, D., & Rahehagh, A. (2020). The Role of Emotional Structures in the Relationship Between Satisfaction and Brand Loyalty. Cogent Psychology, 7(1), 1–19.

Grönroos, C. (2008). Service Logic Revisited: Who Creates Value? And Who Co-Creates? European Business Review, 20(4), 298–314.

Guba, E. G., & Lincoln, Y. S. (1989). Fourth Generation Evaluation. Newbury Park: Sage Publications.

Gurrea, R., Orús, C., & Flavián, C. (2013). The Role of Symbols Signalling the Product Status on Online Users' Information Processing. Online Information Review, 37(1), 8–27.

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R (2nd ed.). Cham: Springer.

Hoi, N. K., & Yin, L. K. (2023). Short Videos, Big Decisions: A Preliminary Study of Tik Tok's Role in E-Commerce Consumer Behaviour. European Journal of Business and Management Research, 8(3), 72–81.

Jain, V., Tripathi, S., Ganesh, B. E., & Sheth, J. N. (2018). Internet Addiction and Its Impact on Consumer's Buying Behaviour: A Conceptual Framework: An Abstract. In Boundary Blurred: A Seamless Customer Experience in Virtual and Real Spaces, 393–394.

Jeong, J., Kim, D., Li, X., Li, Q., Choi, I., & Kim, J. (2022). An Empirical Investigation of Personalized Recommendation and Reward Effect on Customer Behavior: A Stimulus–Organism–Response (SOR) Model Perspective. Sustainability, 14(22).

Johnson, S. L., Elliott, M. V., & Carver, C. S. (2020). Impulsive Responses to Positive and Negative Emotions: Parallel Neurocognitive Correlates and Their Implications. Biological Psychiatry, 87(4), 338–349.

Kim, Y., & Krishnan, R. (2015). On Product Level Uncertainty and Online Purchase Behavior: An Empirical Analysis. Management Science, 61(10), 2449–2467.

Kobayashi, T., & Okada, H. (2013). The Effects of Similarities to Previous Buyers on Trust and Intention to Buy from E-Commerce Stores: An Experimental Study Based on the SVS Model. In IT Enabled Services, 19–38.

Kumar, M., Townsend, J. D., & Vorhies, D. W. (2014). Enhancing Consumers' Affection for a Brand Using Product Design. Journal of Product Innovation Management, 32(5), 716–730.

Lukiani, E. R. M. L., Rizka, A. N., Afandi, T. Y., Arifin, Z., Surindra, B., Irmayanti, E., & Prastyaningtyas, E. W. (2021). Peran Instagram dalam Membentuk Perilaku Konsumsi Remaja. Jurnal ABDINUS: Jurnal Pengabdian Nusantara, 5(1), 97–104.

Matook, S., Brown, S. A., & Rolf, J. (2015). Forming an Intention to Act on Recommendations Given Via Online Social Networks. European Journal of Information Systems, 24(1), 76–92.

Matsui, T., & Yamada, S. (2019). Designing Trustworthy Product Recommendation Virtual Agents Operating Positive Emotion and Having Copious Amount of Knowledge. Frontiers in Psychology, 10, 675.

McAllister, D. J. (1995). Affect and Cognition-Based Trust as Foundations for Interpersonal Cooperation in Organizations. Academy of Management Journal, 38(1), 24–59.

Mpinganjira, M. (2015). EnhancingTrust in Online Business Relationships of South Africa: A Web Interface Signaling Perspective. Problems and Perspectives in Management, 13(3), 207–215.

Muchlis, M., Christian, A., & Sari, M. P. (2019). Kuesioner Online Sebagai Media Feedback Terhadap Pelayanan Akademik pada STMIK Prabumulih. Eksplora Informatika, 8(2), 149–157.

Mulyasari, N., Asbar, Y., & Siregar, W. V. (2021). The Influence of Internet Addiction, Advertising Appeal, and Price Discounts on Impulsive Online Buying Behavior of Fashion Products. Operations Management and Information System Studies, 1(3), 145–152.

Nuryani, & Martini, N. (2020). Pengaruh Motivasi Hedonis dan Keterlibatan Fashion Terhadap Pembelian Impulsif Secara Online di Instagram. Urnal Ekonomi Manajemen, 6(2), 108–115.

Ohta, Y., & Kasamatsu, K. (2014). The Relationships between the Products and Affective Evaluation Concerning Uniqueness. In 16th International Conference, HCI International 2014, 622–630.

Rahayu, A., & Baridwan, Z. (2020). The Influence of Sponsored Post Towards the Urge to Buy Implusively on The Information Technology System of The Social Media of Instagram. AKRUAL: Jurnal Akuntansi, 11(2), 95–109.

Redine, A., Deshpande, S., Jebarajakirthy, C., & Surachartkumtonkun, J. (2023). Impulse Buying: A Systematic Literature Review and Future Research Directions. International Journal of Consumer Studies, 47(1), 3–41.

Ren, M., & Chih, W. (2019). The Effects of Information Quality on Trust in Vendor and Seller Uncertainty on Online Shopping-Decision. 2019 2nd International Workshop on Advances in Social Sciences, 369–374.

Rokhlinasari, S. (2015). Teori-Teori dalam Pengungkapan Informasi Corporate Social Responbility Perbankan. Al-Amwal, 7(1), 1–11.

Ryu, S., & Ryu, S. (2021). Feeling Excited and Fluent: How Consumers Respond to the Visual Appeals of Products in an Online Shopping Environment. Behaviour & Information Technology, 40(11), 1219–1233.

Sharma, P., Sivakumaran, B., & Marshall, R. (2010). Exploring Impulse Buying and Variety Seeking by Retail Shoppers: Towards a Common Conceptual Framework. Journal of Marketing Management, 26(5–6), 473–494.

Shi, A., Huo, F., & Hou, G. (2021). Effects of Design Aesthetics on the Perceived Value of a Product. Frontiers in Psychology, 12.

Sohail, S. S., Siddiqui, J., & Ali, R. (2012). Product Recommendation Techniques for Ecommerce-Past, Present and Future. International Journal of Advanced Research in Computer Engineering & Technology (IJARCET), 1(9), 219–225.

Sowińska, A., & Sokół, M. (2019). "Luckily, She's Alive": Narratives of Vicarious Experience Told by Polish Doctors. Journal of Pragmatics, 152, 76–88.

Van Kleef, G. A., De Dreu, C. K. W., & Manstead, A. S. R. (2010). An Interpersonal Approach to Emotion in Social Decision Making: The Emotions as Social Information Model. Advances in experimental social psychology, 42, 45–96.

Vazquez, D., Wu, X., Nguyen, B., Kent, A., Gutierrez, A., & Chen, T. (2020). Investigating Narrative Involvement, Parasocial Interactions, and Impulse Buying Behaviours Within a Second Screen Social Commerce Context. International Journal of Information Management, 53, 102135.

Wang, W., Qiu, L., Kim, D., & Benbasat, I. (2016). Effects of Rational and Social Appeals of Online Recommendation Agents on Cognition- and Affect-Based Trust. Decision Support Systems, 86, 48–60.

Wood, J. V. (1996). What is Social Comparison and How Should We Study it? Personality and Social Psychology Bulletin, 22(5), 520–537.

Xiao, B., & Benbasat, I. (2007). E-Commerce Product Recommendation Agents: Use, Characteristics, and Impact. MIS Quarterly, 31(1), 137–209.

Zhao, H., Yu, M., Fu, S., Cai, Z., Lim, E. T. K., & Tan, C.-W. (2023). Disentangling Consumers' Negative Reactions to Impulse Buying in The Context of in-App Purchase: Insights from the Affect-Behavior-Cognition Model. Electronic Commerce Research and Applications, 62, 101328.

Zhao, X. W., Guo, Y., He, Y., Jiang, H., Wu, Y., & Li, X. (2014). We Know What You Want to Buy. Proceedings of the 20th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining, 1935–1944.