Influence of Personalized Advertising towards Consumer Loyalty: The Mediating Effect of Satisfaction and Moderating Effect of Perceived Quality

Cherrilyn dela Peña, Shulamite Ongue, Arneene Stella Redo, Jupert Jasser Abellana*, Shiny Rose Narit

Department of Business and Innovation, Mindanao State University - Iligan Institute of Technology, Philippines.
*Email: jupertjasser.abellana@g.msuiit.edu.ph

ABSTRACT

This study examines the relationship between personalized advertising and consumer loyalty, with a focus on the mediating role of satisfaction and the moderating effects of perceived quality on social media platforms. A quantitative research design was employed, which collected data from 385 respondents in Lanao del Norte, Northern Mindanao, Philippines. Partial Least Squares Structural Equation Modeling (PLS-SEM) was used to analyze the relationships between personalized advertising, perceived quality, satisfaction, and consumer loyalty. Results indicate that personalized advertising significantly enhances consumer satisfaction, a key driver of loyalty. Respondents exposed to personalized advertisements were more likely to develop stronger brand attachment, with perceived quality as a catalyst in its mediating role. However, perceived quality did not moderate the relationship between personalized advertising and loyalty, suggesting a more direct influence than previously established. The study further highlights that consumer satisfaction is essential for building loyalty, which emphasizes the importance of delivering relevant, high-quality advertisements. These findings highlight the strategic value of personalized advertising in digital marketing. Businesses can use these insights to refine their advertising strategies, enhance customer engagement, and build long-term brand loyalty. Future research should explore the sustained effects of personalized advertising and its impact across different demographic segments.

Keywords: Consumer Loyalty, Perceived Quality, Personalized Advertising, Satisfaction, Social Media Platforms
JEL Classifications: M31, M37, L81, C38

1. INTRODUCTION

The all-time high level of marketing competition has pushed businesses to increasingly recognize the strategic importance of promoting customer loyalty to ensure long-term success. One of the most effective ways to promote loyalty is through advertising, which not only encourages repeat purchases but also strengthens emotional connections by consistently delivering insightful and compelling messages (Awasthi et al., 2024; Sitindaon et al., 2024). These messages highlight the brand, emphasize product benefits, and evoke positive emotions, all of which contribute to long-term consumer commitment (Rai, 2024).

However, while advertising holds significant influence, building customer loyalty requires more than just compelling promotions. Businesses must develop a deep understanding of their customers, as stronger relationships lead to higher trust, enhanced brand attachment, and sustained growth (Bansal and Pruthi, 2021). This shift from traditional advertising toward a more consumer-centric approach is particularly evident in the digital age, where businesses leverage data-driven strategies to enhance engagement and personalize user experiences. In the digital era, businesses rely on data-driven strategies to improve customer engagement and personalize user experiences. The widespread practice of online monitoring has led companies to track user

activity, integrate datasets, and tailor web interactions to improve personalization (Bodle, 2019). One of the most powerful tools in this regard is the personalization algorithm, which modifies content, recommendations, and user experiences based on individual preferences, traits, and behavioral patterns (Wulandari, 2022). It leverages data analysis, machine learning, and artificial intelligence to deliver targeted marketing messages, customized content, and product recommendations. These capabilities enhance user satisfaction and increase conversion rates on digital platforms (Taylor et al., 2024)

In this regard, personalized advertising has emerged as a significant factor influencing consumer loyalty. Personalization in marketing refers to creating and designing in ways that align with consumer preferences (Chandra et al., 2022a). One effective approach is recognizing each customer's individuality by offering a range of products customized to their preferences (Merlin, 2024). This strategy enables marketers to deliver more engaging and relevant content which increases the likelihood that consumers will pay attention and make purchasing decisions influenced by these tailored experiences (Shanahan et al., 2019). A significant understanding of the connection between personalized advertising and consumer loyalty is the main motivation of the current study though research has indicated that personalized advertising has a favorable impact on satisfaction which in turn improving customer loyalty (Shanahan et al., 2019). Despite these insights, critical knowledge gaps remain, particularly in understanding the mechanisms that drive this connection.

This study aimed to address these gaps by analyzing how personalized advertising strategies function across major social media platforms such as Facebook, Instagram, and TikTok. It examined the mediating role of satisfaction in linking personalized advertising to consumer loyalty and explored how perceived quality moderates this relationship. These factors shape user responses to personalized advertising and ultimately influence their brand loyalty. Through empirical data collection and rigorous analysis, this research aimed to offer a comprehensive understanding of how these variables interacted within the context of personalized advertising. Identifying key determinants of consumer loyalty and evaluating their impact on user experiences, the marketers and entrepreneurs could refine their advertising strategies to better resonate with their target audience and foster stronger connections on social media platforms.

2. LITERATURE REVIEW

The study is supported by the Stimulus-Organism-Response (S-O-R) Theory and a Theoretical Approach, which identifies the Determinants of Consumer Loyalty. In this study, the researchers build on the theoretical framework proposed by Bobâlcă (2014), which identifies the key Determinants of Consumer Loyalty. According to Bobâlcă, the determinants include satisfaction, trust, commitment, involvement, perceived risk, switching costs, and habit. These factors are positively correlated with loyalty and provide a comprehensive understanding of the various elements that influence consumer loyalty. Through the utilization of this framework, researchers can investigate the influence of

personalized advertising on social media platforms on these factors and, as a result, on consumer loyalty. Personalized advertising has the potential to boost satisfaction by better meeting consumer needs, establish trust through pertinent and consistent communication, and heighten engagement by providing tailored content. Furthermore, it can impact perceived risk, switching costs, and habitual behavior by crafting a more personalized and gratifying consumer experience. Hence, Bobâlcă's framework enables researchers to methodically analyze how personalized advertising can enhance consumer loyalty, serving as a solid basis for our study.

Figure 1 illustrates the Stimulus-Organism-Response (S-O-R) Theory presented by Mehrabian & Russell (1974) which explains how organisms act as intermediaries between stimuli and responses. This framework highlights the different mechanisms that trigger individuals' cognitive and emotional states, ultimately influencing their behavioral responses (Criscuolo et al., 2022). (Mehrabian and Russell, 1974) suggested that the exposure of consumers to environmental stimuli (S) evokes emotional reactions (O), ultimately influencing their behavioral responses (R). According to Yu et al. (2021), the S-O-R framework defines "stimuli" as environmental factors that influence an individual's cognitive and emotional reactions. Conversely, "organisms" refer to the internal processes such as perception, physiology, emotions, and cognition that serve as intermediaries between external stimuli and the resulting behavioral responses. Ultimately, the "response" represents the final decisions made by consumers, which can be observed as either approach or avoidance behaviors.

The literature on personalized advertising highlights its influence on consumer loyalty, particularly on platforms such as Facebook, Instagram, and TikTok. Key strategies, including online behavioral and synced advertising, rely on algorithms to tailor ads based on user data to increase engagement and relevance. Facebook emphasizes demographic targeting, Instagram focuses on geo-targeting, and TikTok utilizes algorithm-driven recommendations. Satisfaction plays a crucial role in fostering loyalty, as it arises when advertisements meet consumer expectations. Perceived quality further strengthens these relationships. However, gaps remain in understanding the long-term effects of personalized advertising and platform-specific strategies, underscoring the need for further research to optimize marketing efforts.

2.1. The Influence of Personalized Advertising on Satisfaction

Personalized advertising is defined as 'strategic creation, modification, and adaptation of content and distribution to optimize the fit with personal characteristics, interests, preferences, communication styles, and behaviors (Bol et al., 2018). At its core, personalized advertising relies on algorithms to achieve this tailored approach. An algorithm, in this context, is a set of rules and statistical models used by a computer to analyze user data and select the most appropriate advertisements to display. This selection process is based on a user's own ID tags or previous history. As a result, when a business is producing the contents for an advertisement, the characteristics of the target group should be considered to make users believe that this advertisement

is personalized for their needs and preferences (Chia-Jo Chu et al., 2023). In this premise, personalized advertising on social media platforms significantly enhances satisfaction through tailoring ads to individual preferences using extensive user-data. Personalized offers that rely on personal data fit in perfectly with users' browsing experiences. These advertisements increase satisfaction by reducing weariness and increasing engagement (Chandra et al., 2022b). De Keyzer et al. (2024) and Grigorios et al. (2022) demonstrated that emotionally resonant personalized ads significantly enhance consumers' overall experience, leading to greater satisfaction. Moreover, Arth Dave et al. (2022) pointed out that personalized advertising develops trust and credibility, which are crucial for improving satisfaction.

H_1: Personalized advertising on social media platforms has a significant effect on satisfaction.

2.2. Perceived Quality as a Moderating Variable on Personalized Advertising's effect on Satisfaction.

Perceived quality, which involves consumers' individual judgments about a brand's overall excellence and advantage Pooya et al. (2020) and Salameh et al. (2022) plays a crucial role in moderating the relationship between personalized advertising and consumer satisfaction. Significant perceived quality can increase the beneficial impacts of personalized advertising on customer satisfaction due to individuals who have strong perceptions of quality are more likely to find tailored material appealing (Zhang et al., 2020). According to (Yang et al., 2019; Zhao et al., 2022), there is a clear correlation between perceived quality and user happiness when it comes to personalized ads on social media platforms. Higher quality is associated with increased engagement and loyalty. Perceived quality, therefore, helps tailored advertising work better by influencing consumer attitudes and increasing brand loyalty, which in turn makes the overall satisfaction with these marketing strategies better.

H_2: Perceived quality has a significant moderating effect on the relationship between personalized advertising and satisfaction.

2.3. The Influence of Personalized Advertising on Consumer Loyalty

Personalized advertising, the practice of tailoring marketing messages and offers to individual customer preferences, has a demonstrably positive impact on consumer loyalty. This hypothesis is supported by numerous studies that highlight the various ways personalized advertising influences consumer behavior and strengthens brand relationships. Studies by Chandra et al. (2022), ran et al., (2023) and Lee and Yun (2015) collectively demonstrate this influence. Tailoring marketing messages and offers to individual preferences reduces customer fatigue, increases engagement, and enhances brand equity (Chandra et al., 2022b; Tran et al., 2023). Personalized advertising also leads to improved customer satisfaction and repeat purchases, highlighting its crucial role in consumer loyalty and retention (Ha et al., 2011; Lee & Yun, 2015). Furthermore, personalized advertising effectively shapes consumer perceptions of product benefits and costs, contributing to the development of consumer loyalty (Boerman et al., 2021; Khoa & Huynh, 2023). These

findings underscore the significant positive impact of personalized advertising on consumer loyalty, demonstrating its ability to strengthen brand relationships and foster long-term engagement with consumers.

H_3: Personalized advertising on social media platforms has a significant effect on Consumer Loyalty.

2.4. The Influence of Satisfaction on Consumer Loyalty

Ensuring customer satisfaction is essential for building loyalty. According to Ballantyne et al. (2006), satisfied customers show a dedication to consistently choosing the same brand, thus transforming into loyal customers. When customer satisfaction is achieved, consumer loyalty naturally comes along with it. Satisfying customers with a company's products or services can encourage frequent purchases and recommendations to potential customers (Cardoso et al., 2022). Therefore, satisfaction plays a pivotal role in fostering loyalty, emphasizing the necessity for customers to experience a high level of satisfaction. In the context of personalized advertising, it is crucial for enhancing consumer satisfaction, which is essential for fostering consumer loyalty, as supported by several research studies. Tarifi and Bakhsh (2024 observed that personalized ads that emotionally resonate with consumers significantly improve their overall experience, leading to greater satisfaction and, consequently, strengthening consumer loyalty.

H_4: Satisfaction has a significant effect on Consumer Loyalty.

2.5. Satisfaction as a Mediating Variable on the Relationship between Personalized Advertising and Consumer Loyalty

Grounded in the understanding that customer satisfaction, a key internal measure for customer-centric organizations, arises from the consumer's response to the consumption or purchase of a product, shaped by their pre-purchase expectations (Agarwal, 2023; Freund et al., 2024). Several research studies support the idea that personalized advertising plays a crucial role in enhancing consumer satisfaction, which is vital for fostering consumer loyalty (Chhabria et al., 2023; Saputra et al., 2024)). These studies indicate that increased satisfaction from personalized advertising is linked to higher rates of repeat purchases and brand advocacy, thereby strengthening consumer loyalty, providing evidence for the mediating role of satisfaction in the relationship between personalized advertising and consumer loyalty.

H_5: Satisfaction has a significant mediating effect on the relationship between personalized advertising and satisfaction.

The Figure 2 presents these relationships through a conceptual framework showing the variables personalized advertising as a dependent variable, satisfaction as a mediating variable between personalized advertising and customer loyalty, perceived quality as a moderating variable between personalized advertising and satisfaction, and customer loyalty as a dependent variable.

3. RESEARCH METHODOLOGY AND DATA

This study used a quantitative research design to examine the research hypotheses and answer the research questions. The research design applied non-probability sampling, specifically convenience and snowball sampling, to collect data from 385 respondents in Lanao del Norte, Northern Mindanao, Philippines, who had made purchases influenced by personalized advertising on Facebook, Instagram, and TikTok. The researchers conducted an online survey using Google Forms to reach a larger number of respondents. They distributed the survey through social media, online communities, and email invitations. This method allowed participants to complete the survey at their convenience, increasing the likelihood of participation. Face-to-face data collection took place in physical locations to engage with participants and improve response rates. The researchers analyzed the collected data using Partial Least Squares Structural Equation Modeling (PLS-SEM). This statistical tool assessed the relationships between personalized advertising and consumer loyalty while accounting for multiple predictor variables. PLS-SEM measured the direct

4. DATA ANALYSIS

4.1. Demographic Profile

Table 1 shows that a total of 385 qualified respondents participated in this study. The findings reveal that 80.5% of respondents are between 14 and 20 years old, followed by 17.2% in the 21–30 age group. Only 1.4% are aged 31 and above, with negligible representation from older demographics (41 and above). The concentration of respondents in the 14–20 age range highlights the study's emphasis on younger individuals, which aligns with research indicating that younger individuals are generally more active social media users (Alonzo et al., 2025; Politte-Corn et al., 2023). Similarly, the study's gender distribution shows that 70.6% of respondents identify as female, 28.3% as male, and 1% as "others." This gender imbalance suggests that the results may be skewed toward female perspectives, potentially affecting the applicability of findings to a more gender-balanced population. Such an imbalance is particularly relevant for social media-related studies, where understanding gender-specific preferences and engagement is essential for accurate interpretation.

The data also reveals that respondents are primarily concentrated in Baroy (41.10%) and Tubod (33.5%) while other areas, such as Bacolod, Kapatagan, and Kolambugan, have minimal representation. This suggests that the findings may be more reflective of respondents from these two locations, potentially due to higher accessibility, awareness, or willingness to participate in the study. In terms of social media platform preferences, TikTok emerges as the dominant platform, with 75.3% of respondents using it, while Facebook (4.9%), Facebook with TikTok (12.2%), and Instagram (2.1%) show comparatively lower engagement. The high popularity of TikTok may be attributed to its appeal among younger users, its user-friendly interface, and its engaging short-video format. Sahata et al. (2024) highlight TikTok's innovative video-centric approach, which fosters higher user engagement compared to other platforms. Similarly, a study by Adobe underscores that TikTok's personalized short-video delivery resonates strongly

with younger generations, making it particularly influential among this demographic (Xie, 2024). The declining usage of Facebook and Instagram among younger users further suggests a shift in social media preferences, reinforcing TikTok's role as the leading platform for this age group. This trend carries significant implications for social media marketing, emphasizing the need for targeted content strategies that align with TikTok's unique engagement model.

4.2. Measurements

4.2.1. Measurement model (outer model) assessment

The measurement model analysis evaluates the reliability and validity of the study's constructs. Table 2 presents the factor loadings, Cronbach's alpha, composite reliability (CR), and average variance extracted (AVE) for Consumer Loyalty, Personalized Advertising, Perceived Quality, and Satisfaction. All factor loadings exceed 0.60, which confirms that the indicators align with their respective constructs (Hair et al., 2021). Consumer Loyalty loadings range from 0.800 to 0.847, Personalized Advertising from 0.662 to 0.835, Perceived Quality from 0.668 to 0.793, and Satisfaction from 0.820 to 0.863. Cronbach's alpha values range from 0.755 to 0.815, which meets reliability standards (Nunnally and Bernstein, 1994). Composite reliability (CR) values exceed 0.70, which indicates internal consistency (Fornell and Larcker, 1981). The AVE values for all variables surpass 0.50, with Satisfaction showing the highest AVE (0.714), followed by Consumer Loyalty (0.679), Perceived Quality (0.579), and Personalized Advertising (0.576). These values confirm convergent validity (Henseler et al., 2015).

Furthermore, Table 3 presents discriminant validity results using the Fornell-Larcker criterion. The square root of the AVE

Table 1: Respondent's demographic profile

Profile	Criteria	Percentage
Gender	Female	70.60
	Male	28.30
	Other	1.00
Age	18–20 years old	80.50
	21–30 years old	17.20
	31–40 years old	1.40
	41–50 years old	0.60
	51–55 years old	0.60
City/Municipality	Bacolod	0.50
	Baroy	41.10
	Iligan City	1.60
	Kapatagan	2.30
	Kauswagan	1.30
	Kolambugan	3.20
	Lala	19.50
	Magsaysay	0.60
	Poblacion	0.30
	Salvador	0.30
	Tubod	33.50
Social media	Facebook	4.94
	Facebook; Instagram; TikTok	1.56
	Facebook; TikTok	12.21
	Instagram	2.08
	Instagram; Tiktok	3.90
	TikTok	75.32

Table 2: Measurement model analysis

Variables	Indicators	Factor loadings	Cronbach's alpha	Composite reliability	AVE
Consumer loyalty	CL1	0.847	0.766	0.778	0.679
	CL2	0.800			
	CL3	0.825			
Personalized advertising	PA1	0.808	0.755	0.82	0.576
	PA 2	0.835			
	PA 3	0.662			
	PA 4	0.725			
Perceived quality	PQ1	0.772	0.815	0.77	0.579
	PQ2	0.793			
	PQ3	0.782			
	PQ4	0.773			
	PQ5	0.668			
Satisfaction	SA1	0.863	0.799	0.799	0.714
	SA2	0.850			
	SA3	0.820			

Table 3: Discriminant validity (Fornell-Larcker) analysis

	Consumer loyalty	Perceived quality	Personalized advertising	Satisfaction
Consumer loyalty	**0.824**			
Perceived quality	0.562	**0.759**		
Personalized advertising	0.564	0.546	**0.761**	
Satisfaction	0.581	0.541	0.565	**0.845**

for each construct exceeds its correlation with other constructs, which confirms discriminant validity (Fornell and Larcker, 1981). Consumer Loyalty has the highest AVE square root (0.824), followed by Satisfaction (0.845), Perceived Quality (0.759), and Personalized Advertising (0.761). The correlation values among constructs, such as Consumer Loyalty and Perceived Quality (0.562), Consumer Loyalty (0.824) and Personalized Advertising (0.564), and Consumer Loyalty and Satisfaction (0.581), reflect moderate relationships while maintaining construct distinction. These results confirm that the measurement model is reliable and valid, which supports further structural model analysis (Hair et al., 2021).

4.2.2. Structural model (inner model) assessment
The model fit analysis presented in Table 4 evaluates the overall fit of the structural model using two key indices: the Standardized Root Mean Square Residual (SRMR) and the Normed Fit Index (NFI). SRMR, as defined by Hu and Bentler (1999), measures the difference between observed and predicted correlations, with values closer to zero indicating a better fit. The obtained SRMR value of 0.81 falls within the recommended range of 0.80–1.00, suggesting that the model provides a reasonable approximation of the data and adequately captures the relationships among the constructs. Similarly, the NFI, introduced by Bentler and Bonett (1980), is a comparative index that assesses the proportion of variance explained by the model relative to a baseline model. The NFI value of 0.925 indicates strong model fit, as values approaching 1.00 suggest a better-fitting model. This result implies that the model effectively explains a substantial proportion of the variance in the data.

Table 4: Model fit analysis

Criteria	Value	Recommended value	Conclusion
Standardized root mean square residual	0.810	Between 0.80–1.00	Model is fit
Normed fit index	0.925	The closer to 1, the better the model is	Model is fit

Taken together, these findings confirm that the structural model demonstrates a good fit to the data, reinforcing its suitability for hypothesis testing.

The path coefficient results presented in Table 5 assess the strength and significance of the relationships among the constructs in the model. As cited by Hair et al. (2019), a path coefficient (sample mean) exceeding 0.1 typically indicates a meaningful relationship, while t-values >1.96 and P-values below 0.05 confirm statistical significance. According to the analysis, personalized advertising exerts a significant positive effect on satisfaction ($\beta = 0.375$, $t = 5.918$, $P = 0.000$), which supports the hypothesis that targeted advertising enhances customer satisfaction. This finding aligns with previous studies that emphasize the role of personalization in improving consumer experiences and increasing satisfaction levels.

As observed in the results, the interaction between perceived quality and personalized advertising does not significantly affect satisfaction ($\beta = -0.055$, $t = 1.556$, $P = 0.120$), as this indicates that perceived quality does not moderate the impact of advertising on satisfaction. This outcome suggests that the effect of personalized advertising on customer satisfaction remains independent of consumers' assessments of product or service quality. Furthermore, the indirect effect of personalized advertising on customer loyalty through satisfaction is statistically significant ($\beta = 0.144$, $t = 4.461$, $P = 0.000$), in which confirms that satisfaction serves as a critical pathway through which personalized advertising strengthens long-term customer commitment.

Additionally, personalized advertising has a significant influence on customer loyalty ($\beta = 0.347$, $t = 7.06$, $P = 0.000$), as does satisfaction ($\beta = 0.386$, $t = 7.479$, $P = 0.000$). These findings highlight the essential role of satisfaction in fostering loyalty, as customers who experience higher levels of satisfaction are more likely to exhibit continued brand commitment. The results further support the argument that effective personalization strategies not only enhance immediate consumer engagement but also contribute to long-term customer retention.

4.2.3. Mediation assessment
The findings of this study provide empirical support for the relationship between personalized advertising, customer satisfaction, and customer loyalty. The analysis confirms that personalized advertising exerts a significant direct effect on customer loyalty ($\beta = 0.347$, $t = 7.06$, $P = 0.000$), suggesting that consumers who receive relevant and targeted advertisements are more likely to develop brand commitment. This result is consistent with prior research emphasizing the role of personalized marketing in fostering stronger consumer-brand relationships.

Table 5: Path coefficient results

Relationship	Sample mean (coefficient of influence)	t-value	P-value	Results
Personalized Advertising → Satisfaction	0.375	5.918	0.000	Significant
Perceived Quality x Personalized Advertising →Satisfaction	−0.055	1.556	0.120	Not Significant
Personalized Advertising → Customer Loyalty	0.347	7.06	0.000	Significant
Satisfaction → Customer Loyalty	0.386	7.479	0.000	Significant
Personalized Advertising → Satisfaction → Customer Loyalty	0.144	4.461	0.000	Significant

Table 6: Mediation effect analysis

Relationship	Sample mean (coefficient of influence)	t-value	P-value	Results
Personalized Advertising → Customer Loyalty	0.347	7.06	0.000	
Personalized Advertising → Satisfaction → Customer Loyalty	0.144	4.461	0.000	Partial mediation

Moreover, Table 6 shows that the study establishes satisfaction functions as a mediating variable in the relationship between personalized advertising and customer loyalty. The indirect effect of personalized advertising on customer loyalty through satisfaction is statistically significant (β = 0.144, t = 4.461, P = 0.000), confirming partial mediation. These results indicate that while personalized advertising directly influences loyalty, its impact is further strengthened when customers derive satisfaction from their advertising experiences. This supports the view that consumer satisfaction plays a pivotal role in reinforcing the effectiveness of personalized marketing strategies.

The presence of partial mediation suggests that personalized advertising can influence loyalty both directly and indirectly. While effective personalization strategies may enhance customer commitment on their own, their impact is more substantial when they also contribute to positive consumer experiences. Businesses seeking to strengthen brand loyalty should focus not only on delivering personalized advertisements but also on ensuring that these advertisements generate positive consumer responses.

The R-squared (R^2) values are tabulated in Table 7, which quantify the proportion of variance explained by the independent variables in the model. As outlined by Cohen (2013) R^2 values of 0.19, 0.33, and 0.67 represent weak, moderate, and substantial explanatory power, respectively. The R^2 value for Satisfaction is 0.403, indicating that Personalized Advertising and Perceived Quality account for approximately 40.3% of the variance in Satisfaction. This result suggests that the independent variables included in the model contribute meaningfully to the variation in customer satisfaction. Similarly, the R^2 value for Customer Loyalty is 0.42, implying that Satisfaction and Personalized Advertising explain 42% of the variance in Customer Loyalty. These values reflect moderate explanatory power, indicating that while the model's predictors significantly influence Satisfaction and Customer Loyalty, other factors not captured in the model may also play a role in shaping these outcomes. Consequently, while the predictors included in the analysis are important, additional variables may contribute to the variance in both Satisfaction and Customer Loyalty, suggesting areas for further exploration in future research.

Figure 3 illustrates the structural equation model of the study. This shows the corresponding measures of each variable used in the study.

Table 7: R-squared (R^2)

Variables	R^2 value
Satisfaction	0.403
Customer loyalty	0.420

Figure 1: Stimulus-Organism-Response (SOR) Model
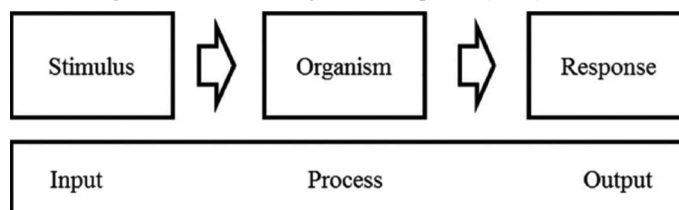
Figure 2: Research model/conceptual framework
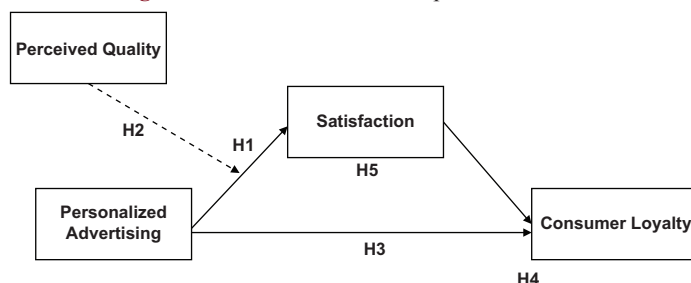
5. DISCUSSION

5.1. Hypothesis Testing
In this study, Table 8 shows that the hypotheses explore the relationships between personalized advertising, consumer satisfaction, and loyalty, while also examining the moderating effect of perceived quality. The results provide valuable insights into how these factors influence consumer behavior.

5.1.1. Hypothesis 1: Personalized advertising on social media platforms has a significant effect on satisfaction
Personalized advertising on social media platforms exerts a significant influence on consumer satisfaction. The analysis presents a coefficient of 0.375, a t-value of 5.918, and a P = 0.000, confirming a strong positive relationship. Prior research supports this outcome, as Bleier and Eisenbeiss (2015) found that personalized advertisements enhance satisfaction

Table 8: Hypothesis testing results

H#	Hypotheses	Sample mean (coefficient of influence)	t-value	P-value	Results
H_1	Personalized advertising on social media platforms has a significant effect on satisfaction.	0.375	5.918	0.000	H_1: Supported
H_2	Perceived quality has a significant moderating effect on the relationship between personalized advertising and satisfaction.	−0.055	1.556	0.120	H_2: Not Significant
H_3	Personalized advertising on social media platforms has a significant effect on Consumer Loyalty.	0.347	7.06	0.000	H_3: Supported
H_4	Satisfaction has significant effect on Consumer Loyalty.	0.386	7.479	0.000	H_4: Supported
H_5	Satisfaction has a significant mediating effect on the relationship between personalized advertising and satisfaction	0.144	4.461	0.000	H_5: Supported

Figure 3: Structural equation model
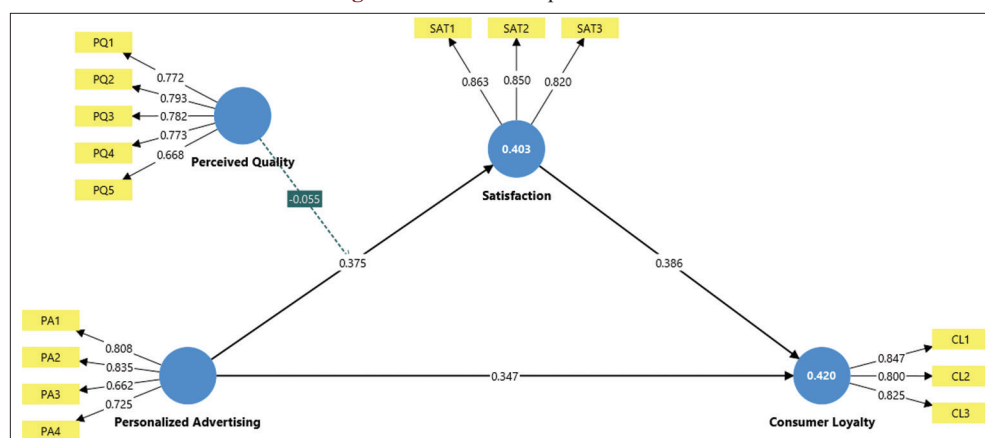
by aligning content with consumer preferences. Similarly, Kumar and Reinartz (2016) argue that customized marketing strategies create better consumer experiences, strengthening emotional bonds with brands. However, over-personalization may result in privacy concerns, potentially diminishing satisfaction (Aguirre et al., 2016). Advertisers must maintain a balance between relevance and consumer privacy to optimize satisfaction.

Contrary to these findings, Reena and Udita (2020) suggests that while personalization can be beneficial, excessive personalization may reduce consumer trust, particularly when customers perceive an invasion of privacy. Furthermore, Chandra et al., 2022c) argue that the effectiveness of personalized advertising varies depending on cultural differences and consumer perception of control over their data. These contradictions highlight the complexity of personalization, emphasizing that while it enhances satisfaction, its impact depends on execution and consumer awareness.

5.1.2. Hypothesis 2: Perceived quality has a significant moderating effect on the relationship between personalized advertising and satisfaction
Perceived quality does not significantly moderate the relationship between personalized advertising and satisfaction. The study reports a coefficient of −0.055, a t-value of 1.556, and a P = 0.120, indicating statistical insignificance. In essence, regardless of whether consumers perceive a product or brand as high or low quality, it does not significantly alter the extent to which personalized advertising impacts their satisfaction in this particular context.

This result contradicts the study of Pappu and Quester (2016), who claim that perceived quality influences consumer responses to marketing strategies. In their view, when consumers believe a product or brand is of high quality, they are more receptive to marketing efforts, including personalized ads. This is consistent with the logic that consumers are more likely to respond positively when advertising aligns not only with their preferences but also with trusted and high-quality brands. Variations in consumer demographics and product categories may explain the discrepancy.

Further research by Zeithaml et al. (2020) supports the importance of perceived quality in shaping consumer responses, asserting that high-quality brands benefit more from personalized marketing due to stronger brand equity. In their framework, personalized advertising is more effective when associated with brands that already enjoy a strong reputation for quality, as this reinforces the consumer's preexisting trust and loyalty.

However, the insignificant moderating effect found in the present study may be explained by shifting consumer priorities in the digital age. Leroi-Werelds et al. (2014) argue that the impact of perceived quality has declined with increased digital marketing sophistication, as consumers now prioritize relevance and engagement over traditional quality indicators. These opposing viewpoints suggest that while perceived quality may be an influential factor, its moderating role is highly context dependent.

5.1.3. Hypothesis 3: Personalized advertising on social media platforms has a significant effect on consumer loyalty

The analysis reveals that personalized advertising significantly boosts consumer loyalty, as evidenced by a coefficient of 0.347, a t-value of 7.06, and a P = 0.000. These figures confirm a strong and statistically significant positive effect, indicating that consumers are more likely to remain loyal to brands that offer tailored and relevant advertising experiences. This finding reinforces the arguments of Kumar and Reinartz (2016) who emphasize that personalization fosters deeper engagement, making consumers feel seen and understood. When ads align with individual preferences, they not only capture attention but also build emotional connections that are vital for long-term loyalty. Consumers exposed to relevant advertisements develop a sense of value and attachment to the brand. (Nurhilalia and Saleh, 2024) reinforces this view, stating that personalized marketing contributes to prolonged consumer commitment and repeat purchases. These findings indicate that businesses should invest in personalized advertising to build and sustain consumer loyalty.

However, loyalty is not guaranteed by personalization alone, as it hinges on how personalization is executed. As Abbasi et al. (2021) caution, consumers may perceive excessive or intrusive personalization as manipulative, especially if it feels overly commercial or invades their privacy. This can lead to disengagement and a breakdown of trust, ironically undermining the very loyalty it aims to build. Moreover, Kim et al. (2019) introduce a crucial consideration: personalization fatigue. As consumers are bombarded with hyper-targeted messages across platforms, the intended relevance can backfire, making the content feel overwhelming or even invasive. In such cases, personalization shifts from being a value-adding strategy to a source of cognitive overload, weakening the consumer-brand relationship.

5.1.4. Hypothesis 4: Satisfaction has a significant effect on consumer loyalty

Satisfaction significantly influences consumer loyalty. The statistical analysis presents a coefficient of 0.386, a t-value of 7.479, and a P = 0.000. This suggests that when consumers are satisfied with a brand's products, services, or overall experience, they are far more likely to remain loyal, make repeat purchases, and engage in positive word-of-mouth. This aligns with Back and Parks (2003) who emphasize that satisfaction not only strengthens retention but also fuels brand advocacy, an increasingly asset in today's digitally connected markets. Satisfaction builds a psychological and emotional anchor that encourages consumers to stay with a brand, even in the face of competing options.

Contrasting this perspective, Dagger and David (2012) argue that while satisfaction is necessary, it is not always sufficient for loyalty. They highlight that factor such as switching costs and perceived alternative attractiveness influence consumer behavior. Similarly, Mittal and Chandrashekaran et al. (2007) suggest that high satisfaction does not always translate into loyalty, as consumer expectations continue to evolve. This discussion suggests that while satisfaction is a strong predictor of loyalty, businesses must also consider competitive dynamics and consumer preferences. Consumers today are exposed to a vast array of alternatives and are more empowered to switch if they perceive better value, service, or innovation elsewhere. Even satisfied customers might defect if they believe another brand better meets their evolving needs.

5.1.5. Hypothesis 5: Satisfaction has a significant mediating effect on the relationship between personalized advertising and satisfaction

Satisfaction significantly mediates the relationship between personalized advertising and consumer loyalty. The study reports a coefficient of 0.144, a t-value of 4.461, and a P = 0.000, confirming this mediation effect. This suggests that while personalized advertising directly influences consumer loyalty, a significant portion of this effect occurs through satisfaction. Research by Jibril et al. (2019) supports this finding, who suggest that satisfied consumers form deeper emotional connections and are more likely to stick with and advocate for a brand. In this view, satisfaction functions as a critical bridge between marketing efforts and long-term behavioral outcomes like loyalty, making it a strategic focal point for businesses aiming to maximize the ROI of personalized campaigns.

However, the relationship is not linear or exclusive. As Hill and Yoeung (2024) point out, satisfaction is not the only psychological mechanism at play. Consumers also respond to perceived brand authenticity, emotional resonance, and trust, which can operate independently or alongside satisfaction in influencing loyalty. For instance, a consumer might remain loyal to a brand that evokes strong emotional ties, even if occasional service experiences fall short of satisfaction. Further complexity is added by Kuppelwieser et al. (2022) who highlight the situational variability of satisfaction's mediating role. Factors such as economic downturns, increased market competition, or shifts in consumer priorities can weaken or amplify how satisfaction affects loyalty. During periods of uncertainty, for example, consumers may value stability or ethical branding over satisfaction alone.

6. CONCLUSION AND PRACTICAL IMPLICATIONS

This study provides empirical evidence on the impact of personalized advertising on social media platforms in shaping consumer satisfaction and loyalty. The findings reinforce the significant role of personalized advertising in enhancing consumer satisfaction, supporting the broader understanding that tailored marketing strategies foster greater engagement and trust. Furthermore, the results establish satisfaction as a crucial determinant of consumer loyalty, affirming its role as a bridge between personalized advertising and long-term brand commitment. The mediation effect observed in this study underscores the idea that while personalized advertising has a direct influence on consumer loyalty, a substantial portion of this effect operates through satisfaction, highlighting the importance of positive consumer experiences in driving brand allegiance.

Interestingly, the study finds that perceived quality does not significantly moderate the relationship between personalized

advertising and satisfaction. This contrasts with prior research suggesting that higher perceived quality enhances the effectiveness of advertising efforts. A plausible explanation for this divergence may lie in the demographic and behavioral characteristics of the respondents, who primarily engage with TikTok—an inherently dynamic and experiential platform where content personalization is driven more by creativity, entertainment, and engagement rather than traditional quality perceptions. This insight suggests that the role of perceived quality in advertising effectiveness may vary across different digital platforms and consumer segments, warranting further investigation.

Additionally, the study confirms that personalized advertising has a direct and positive impact on consumer loyalty, reinforcing the strategic importance of targeted, data-driven marketing approaches. As digital advertising evolves, businesses must refine their personalization strategies by leveraging advanced analytics, artificial intelligence, and machine learning to deliver content that is not only relevant but also emotionally resonant. Beyond content relevance, fostering deeper consumer relationships through authenticity, interactive experiences, and community engagement will be key to sustaining long-term brand loyalty.

From a managerial perspective, the findings highlight the importance of refining personalization strategies to enhance consumer satisfaction and brand loyalty. Businesses that employ personalized advertising must prioritize relevance while addressing privacy concerns to maintain consumer trust. The results indicate that effective personalization does not solely depend on content quality but also on the degree of alignment with consumer preferences and behavioral patterns. Marketers should leverage advanced data analytics and artificial intelligence to optimize targeting precision without compromising transparency or ethical standards.

The study underscores the growing influence of TikTok as a dominant advertising platform among younger consumers. Companies seeking to maximize engagement should tailor content to the interactive and short-form nature of the platform. Strategies that incorporate real-time personalization, consumer participation, and contextual relevance may yield stronger consumer-brand connections. Furthermore, the findings suggest that businesses should adopt segmentation strategies that account for demographic differences in personalization receptiveness. Advertisers must recognize that while some consumers respond positively to highly targeted content, others may perceive it as intrusive or manipulative, necessitating a balanced approach.

Regulatory and ethical considerations remain critical in the implementation of personalized advertising. The study's findings highlight the need for businesses to comply with data protection regulations and ensure transparency in data collection practices. Companies that fail to address consumer concerns regarding privacy may experience diminished trust and long-term reputational risks. By adopting a responsible approach to personalization, brands can enhance consumer loyalty while mitigating potential ethical and legal challenges.

REFERENCES

Abbasi, A.Z., Rehman, U., Hussain, A., Ting, D.H., Islam, J.U. (2021), The impact of advertising value of in-game pop-up ads in online gaming on gamers' inspiration: An empirical investigation. Telematics and Informatics, 62, 101630.

Abellana, J. J., Alonzo, A. (2025), Distribution channels and innovation strategies as catalysts for MSME growth: Insights from Northern Mindanao's bakery sector. American Journal of Social Development and Entrepreneurship, 4(1), 49-60.

Agarwal, P. (2023), Role of consumption emotions on "customer satisfaction": An empirical stud. Psychology and Education, 55(1), 84.

Aguirre, E., Roggeveen, A.L., Grewal, D., Wetzels, M. (2016), The personalization-privacy paradox: Implications for new media. Journal of Consumer Marketing, 33(2), 98-110.

Alonzo, A. A., Ganas, E. S., and Abellana, J. J. G. (2025), Roadblocks to success: Examining the resources and performance of micro, small, and medium enterprises. International Review of Management and Marketing, 15(5), 49-59

Arth, D., Raja Kumar, K., Chandrasekhara, M., Om, G., Shakeb, K., Arpit, J. (2022), Techniques for enhancing user engagement through personalized ads on streaming plat-forms. Universal Research Reports, 9(3), 196-218.

Awasthi, A., Nneoma, N.R., Shukla, P., Kumari, S., Sahil, S., Gandhi, N.K., Agustin, F.E. (2024), The role of emotions in consumer brand loyalty: A neuromarketing approach. International Journal of Tourism and Hospitality in Asia Pacific, 7(1), 104-116.

Back, K.J., Parks, S.C. (2003), A brand loyalty model involving cognitive, affective, and conative brand loyalty and customer satisfaction. Journal of Hospitality and Tourism Research, 27(4), 419-435.

Ballantyne, R., Warren, A., Nobbs, K. (2006), The evolution of brand choice. Journal of Brand Management, 13(4-5), 339-352.

Bansal, R., Pruthi, N. (2021), Role of customer engagement in building customer loyalty- a literature review. Samvakti Journal of Research in Business Management, 2(2), 1.

Bentler, P.M., Bonett, D.G. (1980), Significance tests and goodness of fit in the analysis of covariance structures. Psychological Bulletin, 88, 588-606.

Bleier, A., Eisenbeiss, M. (2015), The importance of trust for personalized online advertising. Journal of Retailing, 91(3), 390-409.

Bobâlcă, C. (2014), Determinants of consumer loyalty. A theoretical approach. International Scientific Publications, 8(1), 995-1005.

Bodle, R. (2019), Predictive algorithms and personalization services on social network sites. In: Writing in a Technological World. London: Routledge. p. 273-288.

Boerman, S.C., Kruikemeier, S., Bol, N. (2021), When is personalized advertising crossing personal boundaries? How type of information, data sharing, and personalized pricing influence consumer perceptions of personalized advertising. Computers in Human Behavior Reports, 4, 100144.

Bol, N., Dienlin, T., Kruikemeier, S., Sax, M., Boerman, S.C., Strycharz, J., Helberger, N., de Vreese, C.H. (2018), Understanding the Effects of personalization as a privacy calculus: Analyzing self-disclosure across health, news, and commerce contexts. Journal of Computer-Mediated Communication, 23(6), 370-388.

Cardoso, A., Gabriel, M., Figueiredo, J., Oliveira, I., Rêgo, R., Silva, R., Oliveira, M., Meirinhos, G. (2022), Trust and loyalty in building the brand relationship with the customer: Empirical analysis in a retail chain in Northern Brazil. Journal of Open Innovation: Technology, Market, and Complexity, 8(3), 109.

Chandra, S., Verma, S., Lim, W. M., Kumar, S., Donthu, N. (2022c), Personalization in personalized marketing: Trends and ways forward.

Psychology and Marketing, 39(8), 1529-1562.

Chandra, S., Verma, S., Lim, W.M., Kumar, S., Donthu, N. (2022a), Personalization in personalized marketing: Trends and ways forward. Psychology and Marketing, 39(8), 1529-1562.

Chandra, S., Verma, S., Lim, W.M., Kumar, S., Donthu, N. (2022b), Personalization in personalized marketing: Trends and ways forward. Psychology and Marketing, 39(8), 1529–1562.

Chandrashekaran, M., Rotte, K., Tax, S.S., Grewal, R. (2007), Satisfaction strength and customer loyalty. Journal of Marketing Research, 44(1), 153-163.

Chhabria, S.G., Gupta, S., Gupta, H. (2023), A study on the impact of "personalized marketing" on customer satisfaction and loyalty in retail fashion in 2023. International Journal of Computer Applications, 185(11), 28-33.

Chia-Jo, C., Chiang, I.P., Kuen-Hung, T., Yi-Hsin, T. (2023), Exploring the Effects of personalized advertising on social network sites. Journal of Social Media Marketing, 1(2), 38-54.

Cohen, J. (2013), Statistical Power Analysis for the Behavioral Sciences. London: Routledge.

Criscuolo, A., Schwartze, M., Kotz, S.A. (2022), Cognition through the lens of a body–brain dynamic system. Trends in Neurosciences, 45(9), 667-677.

Dagger, T.S., David, M.E. (2012), Uncovering the real effect of switching costs on the satisfaction-loyalty association. European Journal of Marketing, 46(3/4), 447-468.

De Keyzer, F., Buzeta, C., Lopes, A.I. (2024), The role of well-being in consumer's responses to personalized advertising on social media. Psychology and Marketing, 41(6), 1206-1222.

Fornell, C., Larcker, D.F. (1981), Evaluating structural equation models with unobservable variables and measurement error. Journal of Marketing Research, 18(1), 39.

Freund, L., Talbi, A., Kwan, S. (2024), The customer's preparedness and product quality - impacts on customer satisfaction. In: Leitner, C., Nägele, R., Bassano, C., Satterfield, D., editors. The Human Side of Service Engineering. AHFE (2024) International Conference. AHFE Open Access. Vol. 143. USA: AHFE International.

Grigorios, L., Magrizos, S., Kostopoulos, I., Drossos, D., Santos, D. (2022), Overt and covert customer data collection in online personalized advertising: The role of user emotions. Journal of Business Research, 141, 308-320.

Ha, H., John, J., Janda, S., Muthaly, S. (2011), The effects of advertising spending on brand loyalty in services. European Journal of Marketing, 45(4), 673-691.

Hair, J.F., Hult, G.T.M., Ringle, C.M., Sarstedt, M., Danks, N.P., Ray, S. (2021), Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R. Berlin: Springer International Publishing.

Hair, J.F., Risher, J.J., Sarstedt, M., Ringle, C.M. (2019), When to use and how to report the results of PLS-SEM. European Business Review, 31(1), 2-24.

Henseler, J., Ringle, C.M., Sarstedt, M. (2015), A new criterion for assessing discriminant validity in variance-based structural equation modelling. Journal of the Academy of Marketing Science, 43(1), 115-135.

Hill, S., Yoeung, S. (2024), Connecting perceived brand quality to loyalty: The satisfaction acts as mediator of smartphone brand. Open Journal of Business and Management, 12(06), 4036-4054.

Hu, L.T., Bentler, P.M. (1999), Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives structural equation modelling. A Multidisciplinary Journal, 6, 1-55.

Jibril, A.B., Kwarteng, M.A., Chovancova, M., Pilik, M. (2019), The impact of social media on consumer-brand loyalty: A mediating role of online based-brand community. Cogent Business and Management, 6(1), 1673640.

Khoa, B.T., Huynh, T.T. (2023), The influence of social media marketing activities on customer loyalty: A study of e-commerce industry. International Journal of Data and Network Science, 7(1), 175-184.

Kim, T., Barasz, K., John, L.K. (2019), Why am i seeing this Ad? The effect of Ad transparency on Ad effectiveness. Journal of Consumer Research, 45(5), 906-932.

Kumar, V., Reinartz, W. (2016), Creating enduring customer value. Journal of Marketing, 80(6), 36-68.

Kuppelwieser, V.G., Klaus, P., Manthiou, A., Hollebeek, L.D. (2022), The role of customer experience in the perceived value–word-of-mouth relationship. Journal of Services Marketing, 36(3), 364-378.

Lee, H.J., Yun, Z.S. (2015), Consumers' perceptions of organic food attributes and cognitive and affective attitudes as determinants of their purchase intentions toward organic food. Food Quality and Preference, 39, 259-267.

Leroi-Werelds, S., Streukens, S., Brady, M.K., Swinnen, G. (2014), Assessing the value of commonly used methods for measuring customer value: A multi-setting empirical study. Journal of the Academy of Marketing Science, 42(4), 430-451.

Mehrabian, A., Russell, J.A. (1974), An Approach to Environmental Psychology. Cambridge, MA: MIT Press.

Merlin, B. (2024), AI-driven adaptive content marketing: Automating strategy adjustments for enhanced consumer engagement. International Journal for Multidisciplinary Research, 6(5), 27940.

Nunnally, J.C., Bernstein, I.H. (1994), Psychometric Theory. New York: McGraw-Hill.

Nurhilalia, N., Saleh, Y. (2024), The impact of consumer behavior on consumer loyalty. Golden Ratio of Mapping Idea and Literature Format, 4(2), 140-153.

Pappu, R., Quester, P.G. (2016), How does brand innovativeness affect brand loyalty? European Journal of Marketing, 50(1/2), 2-28.

Politte-Corn, M., Nick, E.A., Kujawa, A. (2023), Age-related differences in social media use, online social support, and depressive symptoms in adolescents and emerging adults. Child and Adolescent Mental Health, 28(4), 497-503.

Pooya, A., Abed Khorasani, M., Gholamian Ghouzhdi, S. (2020), Investigating the effect of perceived quality of self-service banking on customer satisfaction. International Journal of Islamic and Middle Eastern Finance and Management, 13(2), 263-280.

Rai, S. (2024), An analytical study on effectiveness of advertising on branding. International Journal for Research in Applied Science and Engineering Technology, 12(2), 853-863.

Reena, M., Udita, K. (2020), Impact of personalized social media advertisements on consumer purchase intention. Annals of Dunarea de Jos University of Galati. Fascicle I. Economics and Applied Informatics, 26(2), 15-24.

Sahata Sitanggang, A., Naufal Nazhif, D., Harits Ar-Razi, M., Anugrah Febrian Buaton, M. (2024), Efektivitas strategi digital marketing di media sosial: Studi kasus facebook, instagram, dan tiktok generasi Z. MASMAN: Master Manajemen, 2(3), 233-241.

Salameh, A.A., Ijaz, M., Omar, A.B., Zia ul Haq, H.M. (2022), Impact of online advertisement on customer satisfaction with the mediating effect of brand knowledge. Frontiers in Psychology, 13, 919656.

Saputra, A.H.D., Windiartono Putra, S.N., Bennet, D. (2024), Consumer behavior and brand loyalty: A study on digital marketing practices. Startupreneur Business Digital (SABDA Journal), 3(2), 160-170.

Shanahan, T., Tran, T.P., Taylor, E.C. (2019), Getting to know you: Social media personalization as a means of enhancing brand loyalty and perceived quality. Journal of Retailing and Consumer Services, 47, 57-65.

Sitindaon, N., Lubis, N.W., Malau, G.T., Siburian, K.M.Y., Ayuningrum, U.S. (2024), Promotion strategy in increasing customer loyalty in companies. Holistic Science, 4(3), 362-372.

Tarifi, N., Bakhsh, R. (2024), The effectiveness of personalized marketing strategies on consumer engagement and loyalty (Evidence from KSA). International Journal of Research and Studies Publishing, 5(56), 283-302.

Taylor, J., Dantu, R., Wells, T. (2024), Promoting guest satisfaction: Digital platforms as a means to encourage economic development in hospitality. International Journal of Hospitality and Tourism Administration, 25(2), 406-435.

Tran, T., Sen, S., Van Steenburg, E. (2023a), This ad's for you: how personalized SNS advertisements affect the consumer-brand relationship. Journal of Consumer Marketing, 40(4), 458-469.

Tran, T., Sen, S., Van Steenburg, E. (2023b), This ad's for you: how personalized SNS advertisements affect the consumer-brand relationship. Journal of Consumer Marketing, 40(4), 458-469.

Wulandari, D. (2022), Customer satisfaction as a priority in excellent banking services. KINERJA: Jurnal Manajemen Organisasi Dan Industri, 1(1), 27-34.

Xie, W. (2024), Does tiktok's short video marketing increase product purchasing power among young consumers. Lecture Notes in Education Psychology and Public Media, 60(1), 209-215.

Yang, Z., Sun, S., Lalwani, A.K., Janakiraman, N. (2019), How does consumers' local or global identity influence price–perceived quality associations? The role of perceived quality variance. Journal of Marketing, 83(3), 145-162.

Yu, Z., Klongthong, W., Thavorn, J., Ngamkroeckjoti, C. (2021), Understanding rural Chinese consumers' behavior: A stimulus–organism–response (S-O-R) perspective on Huawei's brand loyalty in China. Cogent Business and Management, 8(1), 1880679.

Zeithaml, V.A., Verleye, K., Hatak, I., Koller, M., Zauner, A. (2020), Three decades of customer value research: Paradigmatic Roots and future research avenues. Journal of Service Research, 23(4), 409-432.

Zhang, S., Peng, M.Y.P., Peng, Y., Zhang, Y., Ren, G., Chen, C.C. (2020), Expressive brand relationship, brand love, and brand loyalty for tablet PCs: Building a sustainable brand. Frontiers in Psychology, 11, 00231.

Zhao, J., Butt, R.S., Murad, M., Mirza, F., Saleh Al-Faryan, M.A. (2022), Untying the influence of advertisements on consumers buying behavior and brand loyalty through brand awareness: The moderating role of perceived quality. Frontiers in Psychology, 12, 803348.