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# **The Impact of Social Media Techniques on Consumer Buying Behavior: A Field Study**

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## Introduction

The emergence of social media has transformed the landscape of marketing and consumer behavior. With billions of active users globally, these platforms have become critical tools for businesses eager to engage with their target audience and increase sales. At the center of this digital transition is social media advertising, which is an advertising approach that uses the power of social networks to promote products or services. This study investigates the complex interaction between social media advertising and consumer buying behavior, with the ultimate objective of determining the fundamental mechanisms that impact consumer decision-making in an increasingly digital era.<sup>1</sup>

Social media advertising, a multidimensional construct that includes a variety of components, advertising platforms, forms, content, audience targeted, budgetary constraints, and timing work together to determine a marketing initiative's overall efficacy. These variables will be explored systematically to figure out their impact on consumer behavior.<sup>2</sup>

In today's digital world, social media platforms have become popular instruments for businesses to communicate with their target audiences and impact consumer behavior. Social media enables businesses to produce branded content and encourage two-way interactions that were previously not accessible through traditional marketing methods. As social media usage grows across the world, understanding the influence of various social media strategies on consumer buying behavior has become an important field of research for both academics and practitioners.<sup>3</sup>The efficiency of strategies is dependent on their capacity to interact with consumers on an emotional and psychological level. Understanding their target audience's fundamental motives and preferences allows marketers to generate relevant, engaging, and convincing content and campaigns. Furthermore, integrating social media techniques with other marketing platforms can boost their effectiveness, resulting in a unified and multichannel consumer experience.<sup>4</sup>

Consumer buying behavior, an intricate combination of psychological, social, and economic aspects, has been the core focus of marketing research for decades. Traditional advertising methods have long been used to influence consumer perspectives and preferences. Yet, the expansion of social media has created new opportunities for marketers to connect with consumers on a more personal and engaging level. This study aims to contribute to the current body of knowledge in this dynamic subject by rigorously analyzing the many

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<sup>1</sup> Chuanhui Liu, Zhongyuan Sheng, Xueting Hu, Chunxiao Tian. (2024). Hand in hand or left behind: The dual impact of leading firms' digital technologies on industry digital transformation, *The North American Journal of Economics and Finance*.

<sup>2</sup> Fandi Omeish, Mohammad Al Khasawneh, Nadine Khair. (2024). Investigating the impact of AI on improving customer experience through social media marketing: An analysis of Jordanian Millennials, *Computers in Human Behavior Reports*. Vol15.

<sup>3</sup> Sarah Welch, Kian Bagheri, Mikhail Bethell, Albert T. Anastasio, Troy Q. Tabarestani, Michael Bolognesi. (2024). Evaluating the Quality and Reliability of Total Knee Arthroplasty Rehabilitation Exercises on the Social Media Platform TikTok, *Arthroplasty Today*. Vol30.

<sup>4</sup> Egehan Özkan Alakaş. (2024). Digital transformational leadership and organizational agility in digital transformation: Structural equation modelling of the moderating effects of digital culture and digital strategy, *The Journal of High Technology Management Research*. Vol35, Issue 2.

components of social media advertising and their respective influence on consumer buying behavior. This study's findings are intended to give beneficial insights for marketers, advertisers, and legislators. Businesses may optimize their advertising tactics to get desired results by knowing the aspects that influence client purchasing behavior on social media. Furthermore, the study adds to the academic discussion on consumer behavior and digital marketing, encouraging additional research and discovery in this quickly growing subject.

Contributions of the present study will help in advancing the existing concepts of social media techniques and consumer buying behavior. Finally, the study is important to fill the gap found in previous studies concerning the role of techniques of socialization and buying behavior of consumer in increasing social media techniques in creating brand value and affecting buying behavior of customers. On account of this, the study is focused on identifying and examining the role of Interactive content, user-generated content, SEO Search engine optimization, sponsored advertising, influencer-based advertising, social selling on consumer buying behavior and brand loyalty. It also helps to understand customer engagement and buying behavior on social media in correspondence to their experience with the company or a brand. To maintain a competitive advantage in marketplace, businesses rely on their ability to develop, keep, and manage a consumer database. This prompted fears among businesses about techniques aimed for enhancing consumer engagement and connections. According to that, Businesses are consciously and constantly turning to e-commerce and social media to provide social media-based sales platforms.<sup>5</sup>

Depending on this, the current study is essential in defining some of the critical information for managerial decisions that helps build enhanced consumer buying intuition and brand loyalty, which leads to increasing sales. Understanding the extent of social interaction between customers and brands is crucial for designing strategic techniques to improve consumer socialization.

In conclusion, this study seeks to shed light on the complex interaction between social media advertising and consumer buyer behavior. This study attempts to expand our understanding of social media advertising by systematically studying its many components and their influence on consumer decision-making.

### **Research gap**

Rapid rise and widespread adoption of social media platforms has dramatically transformed the landscape of consumer behavior. While several studies have looked at the impact of social media on various areas of consumer decision-making, an accurate understanding of the complex impact of social media tactics on consumer buying behavior remains unclear. This study seeks to fill this research gap by looking at the particular ways in which social media methods like influencer marketing, social media advertising, and user-generated content affect customer perceptions, attitudes, and, ultimately, purchasing decisions. This study aims

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<sup>5</sup> Emma Gutierrez-Pérez, Natalia Zamora-Martínez, Beatriz Tarazona-Álvarez, Verónica García-Sanz, Vanessa Paredes-Gallardo. (2024). Is the quality of the orthodontic information in social media platforms reliable? A systematic review, *The Journal of the American Dental Association*, Vol155, Issue 10, 845-857.

to give significant insights for marketers, firms, and governments looking to successfully exploit the potential of social media by investigating the complex relationship between social media and consumer behavior.

## Statement of the Problem

A significant research problem is the necessity for more exploration into the varied effects of various social media platforms on various consumer segments. While much study focusses on social media's general impact on purchasing decisions, there is a lack of in-depth investigation of how particular platforms, such as Facebook, Instagram and TikTok, influence consumer behavior in unique ways. Understanding platform-specific dynamics, interaction patterns, and user content preferences may assist in tailoring social media campaigns to particular audiences. Furthermore, research might examine the relative efficacy of various platforms in influencing customer perceptions, attitudes, and ultimately purchasing decisions, leading in deeper understanding of the role of social media in consumer purchasing behavior.

## Research Objectives

These study objectives outline the precise features of the influence of social media advertising on customer purchasing behavior that we intend to investigate through achieving the following:

- 4.1. To examine the effect of social media techniques on purchase decisions.
- 4.2. To examine the effect of social media techniques on customer satisfaction.
- 4.3. To examine the effects of social media techniques on shopping experience.
- 4.4. To examine the effect of social media techniques on brand preferences.
- 4.5. To examine the effect of social media techniques on product/service quality.

## Research Variables

We have two types of variables: Independent variable which is Social Media Technique and dependent variable which is Consumer buying behavior. we alienated these variables further into their sub variables according to the questions present in our questionnaire. These are:

Independent Variable "Social Media Techniques"	Dependent Variable "Consumer Buying behavior"
Content Type	Purchase Decision
Content Quality	Consumer satisfaction
Community Building	Shopping Experience
Consumer Engagement	Brand Preferences
Personalization	Product/Service Quality



## Research Hypotheses

Main Hypothesis: There is no relationship between social media techniques and customer buying behavior.

H1: There is no relationship between social media techniques and consumer buying behavior.

H2: There is no significant relationship between social media techniques and purchasing decision.

H3: There is no significant relationship between social media techniques and consumer satisfaction.

H4: There is no significant relationship between social media techniques and shopping experience.

H5: There is no significant relationship between social media techniques and brand preferences.

H6: There is no significant relationship between social media techniques and product/service quality.

## Research Methodology

The design of this study will employ a mixed-methods approach, combining quantitative and qualitative methods. This approach will allow for a comprehensive understanding for the impact of social media techniques on customer buying behavior.

We can use data collected through primary data and secondary data through questionnaire. The data type necessary for this research is primary data. The primary data for this research was gathered through semi-structured interviews. A questionnaire was used as the primary data collection strategy in this research. A questionnaire is a research instrument that consists of a series of questions, asserts, and response options.

## Research Sampling

In this research the target respondents are people living in Cairo, Egypt. The questionnaire distributed with an appropriate sampling technique using internet channels such as Email, social networking, google survey and others. The people who responded to the survey consists of customers and people of Cairo, Egypt. The questionnaire was distributed and answered by 225 people.

## Research Limitations

9.1. Title: "The Impact of Social Media Techniques on Customer Buying Behavior"

9.2. Timeframe: Starting from December 2023

9.3. Location: Cairo, Egypt.

9.4. Social Media Platforms: Facebook and Instagram.

9.5. Company Name: E-Commerce field (Amazon Company)

## Research Content

- 10.1. Chapter One: Research Methodology
- 10.2. Chapter Two: Literature Review
- 10.3. Chapter Three: Field Study (Questionnaire)

## Statistical Data Analysis Respondents' Demographics

The demographic analysis of survey respondents reveals important insights about the sample composition across gender and age distributions (Table 4.1). The study gathered responses from a total of 225 participants, providing a robust sample size for analyzing social media techniques and consumer buying behavior patterns.

Table 4.1: Demographic statistics

Variable	Category	N	%
Gender	Female	82	36.44%
	Male	143	63.56%
Age	18-24	55	24.44%
	25-30	23	10.22%
	31-40	66	29.33%
	41-50	59	26.22%
	50+	22	9.78%
<i>Source:</i> SPSS V. 29 Software			

Gender distribution analysis indicates some dominance of male over female respondents. Male participants constituted nearly two-thirds of the sample (63.56%, n=143), while female participants represented approximately one-third (36.44%, n=82). This gender distribution suggests a higher representation of male consumers in the study. The age distribution of respondents spans across five distinct categories, revealing a diverse representation of age groups. The largest segment comprises individuals aged 31-40 years (29.33%, n=66), followed closely by those in the 41-50 age bracket (26.22%, n=59).

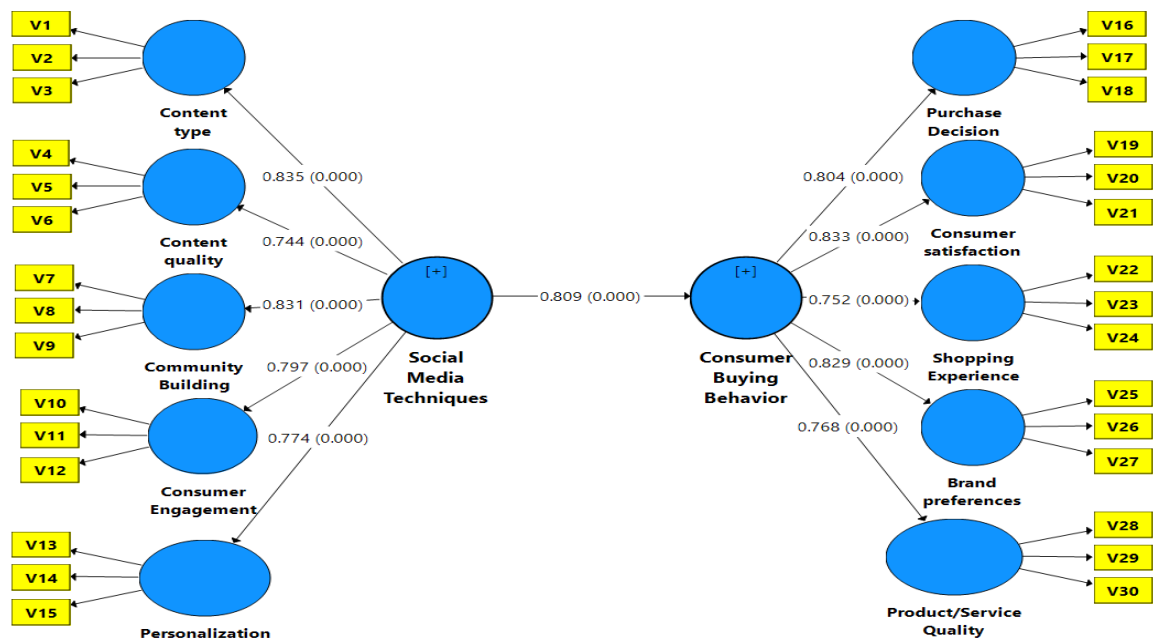


Fig. 4.10: Structural model for the main hypothesis

### Path Coefficients and Hypothesis Testing

Path coefficients indicate the strength and significance of the relationships between latent variables in the model. These coefficients have been estimated using the bootstrapping procedure, with p-values indicating statistical significance. Hair, Sarstedt, Hopkins, and Kuppelwieser (2014) provide a definition of path coefficients as estimations of the relationships between model constructs. These coefficients range from +1 to -1, where +1 indicates a strong positive association, 0 indicates a weak or non-existent link, and -1 indicates a significant negative relationship (Garson, 2016). When assessing PLS paths, it is important for research to present path coefficients along with the significance level, t-value, and p-value (Hair, Sarstedt, Ringle, and Mena, 2012). Hypothesis testing was carried out to determine the signs, sizes, and statistical significance of the calculated path coefficients between the constructs. Higher path coefficients indicate a stronger relationship between the predictor and the predicted variables. To evaluate the significance of path coefficient estimations, p-value thresholds of  $p < 0.1$ ,  $p < 0.05$ ,  $p < 0.01$ , and  $p < 0.001$  were used. Subsequently, conclusions were drawn for all hypotheses based on the significance of p-values at the specified conventional levels (Henseler et al., 2009; Hair et al., 2017).



Table 4.13: Results of Hypothesis testing

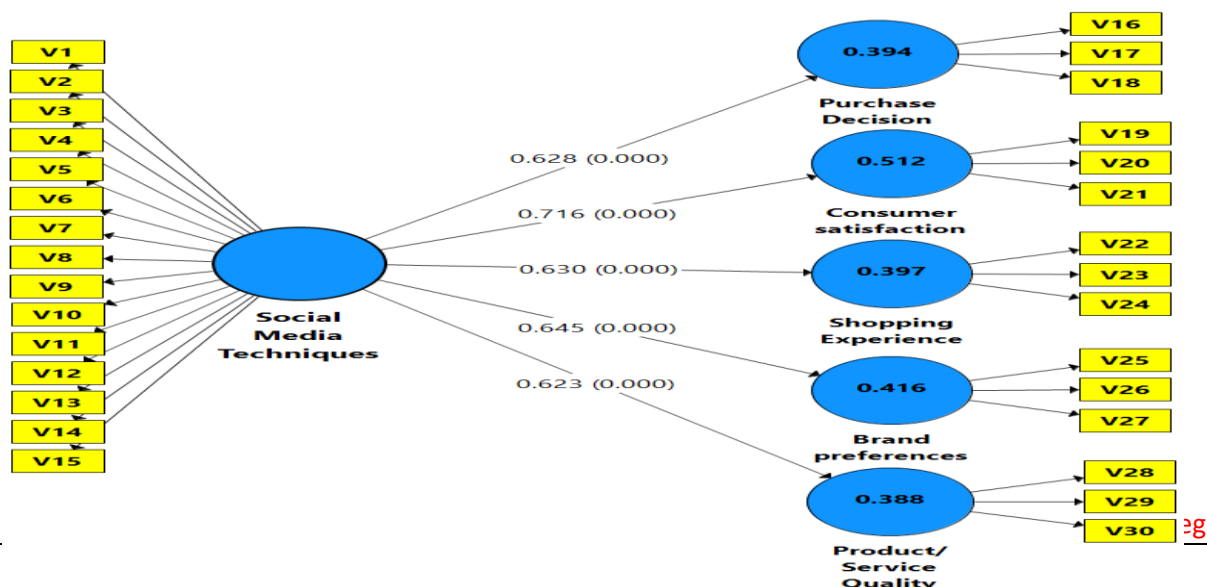
H	Path	B	t-value	P-value	95% CI		Remark
					LB	UB	
H1	Social Media Techniques -> Consumer Buying Behavior	0.809	22.53	<.001	0.731	0.868	Supported
H1-1	Social Media Techniques -> Purchase Decision	0.628	10.21	<.001	0.488	0.733	Supported
H1-2	Social Media Techniques -> Consumer satisfaction	0.716	15.57	<.001	0.604	0.789	Supported
H1-3	Social Media Techniques -> Shopping Experience	0.63	12.01	<.001	0.517	0.719	Supported
H1-4	Social Media Techniques -> Brand preferences	0.645	11.65	<.001	0.523	0.738	Supported
H1-5	Social Media Techniques -> Product/Service Quality	0.623	10.46	<.001	0.483	0.718	Supported

**Source:** SmartPLS 3 Software

CI= Confidence Intervals; LB= Lower Bound; UB=Upper Bound.

Remark: All hypotheses were accepted

The hypothesis testing analysis in Table 4.13 was conducted to examine the direct effects of Social Media Techniques on Consumer Buying Behavior and its various dimensions. The analysis utilized PLS-SEM to test the proposed hypotheses, with results evaluated based on path coefficients (B), t-values, p-values, and 95% confidence intervals. The primary hypothesis (H1) investigated the overall relationship between Social Media Techniques and Consumer Buying Behavior. The results revealed a strong and statistically significant positive effect (B = 0.809, t = 22.53, p < .001), with the 95% confidence interval ranging from 0.731 to 0.868. This robust finding demonstrates that Social Media Techniques substantially



influence overall Consumer Buying Behavior, explaining a significant portion of its variance.

Fig. 4.11: Structural model for the sub-hypotheses

Further analysis of the sub-hypotheses (Figure 4.11) revealed varying degrees of impact across different dimensions of Consumer Buying Behavior. The strongest relationship was found between Social Media Techniques and Consumer satisfaction (**H1-2**), with a path coefficient of 0.716 ( $t = 15.57, p < .001$ ) and a confidence interval of 0.604 to 0.789. This indicates that social media activities have a particularly strong influence on customer satisfaction levels. The remaining hypotheses also showed significant positive relationships, albeit with moderate effect sizes. Social Media Techniques demonstrated similar levels of influence on Brand preferences (**H1-4**:  $B = 0.645, t = 11.65, p < .001$ ) and Shopping Experience (**H1-3**:  $B = 0.630, t = 12.01, p < .001$ ). Purchase Decision (**H1-1**:  $B = 0.628, t = 10.21, p < .001$ ) and Product/Service Quality perceptions (**H1-5**:  $B = 0.623, t = 10.46, p < .001$ ) showed comparable effects, with their confidence intervals all indicating reliable positive relationships.

All hypotheses were supported with high statistical significance ( $p < .001$ ) and substantial  $t$ -values exceeding the critical threshold of 1.96, demonstrating the robust nature of these relationships. The confidence intervals for all relationships were relatively narrow and did not include zero, further confirming the reliability of these findings. These results collectively suggest that Social Media Techniques play a crucial role in shaping various aspects of Consumer Buying Behavior, with particularly strong effects on overall buying behavior and consumer satisfaction.

### Effect Size ( $f^2$ )

The  $f^2$  effect size indicates how much impact the endogenous construct would have if an exogenous construct was removed from the model. Effect sizes have been calculated to assess the impact of each exogenous variable on the endogenous variables. These values help in understanding the relative contribution of each predictor in the context of the model. A construct is classified as having a small influence if its  $f^2$  value is between 0.02 and 0.14, a medium effect if it is between 0.15 and 0.34, and a high effect if it is above 0.35. A construct with a  $f^2$  value  $< 0.02$  indicates no influence on the endogenous construct (Hair et al., 2017). The  $f$ -squared ( $f^2$ ) effect size analysis was conducted in Table 4.15 to evaluate the magnitude of impact that Social Media Techniques has on Consumer Buying Behavior and its various dimensions. This measure provides valuable insights into the practical significance of the relationships beyond statistical significance, helping to understand the relative importance of each path in the structural model.

Table 4.15:  $f^2$  Effect Size

Hypothesis	Construct	f-Squared	t-value	P-value	95% CI for f-Square	
					LL	UL
H1	Social Media Techniques -> Consumer Buying Behavior	1.889	3.868	<.001	1.129	3.001
H1-1	Social Media Techniques -> Purchase Decision	0.651	2.952	0.003	0.332	1.181
H1-2	Social Media Techniques -> Consumer satisfaction	1.05	3.617	<.001	0.615	1.772
H1-3	Social Media Techniques -> Shopping Experience	0.658	3.427	0.001	0.377	1.111
H1-4	Social Media Techniques -> Brand preferences	0.711	3.193	0.001	0.397	1.252
H1-5	Social Media Techniques -> Product/Service Quality	0.634	3.079	0.002	0.327	1.129
<i>All values were accepted</i>						
<i>Source: SmartPLS 3 Software</i>						

Fig. 4.13: f-square values

The analysis as in Figure 4.13 reveals that Social Media Techniques demonstrates its strongest effect on overall Consumer Buying Behavior (H1), with an  $f^2$  value of 1.889 ( $t = 3.868$ ,  $p < .001$ ). This substantially exceeds the threshold of 0.35 for large effects, indicating an exceptionally strong influence. The 95% confidence interval (1.129 to 3.001) confirms the robustness of this large effect size, suggesting that Social Media Techniques has a profound practical impact on shaping consumer buying behavior. Consumer satisfaction (H1-2) emerges as the second most strongly influenced dimension, with an  $f^2$  value of 1.050 ( $t = 3.617$ ,  $p < .001$ ). This also represents a large effect size, with the confidence interval (0.615 to 1.772) supporting the substantial practical significance of this relationship. Brand preferences (H1-4) follows with an  $f^2$  value of 0.711 ( $t = 3.193$ ,  $p = 0.001$ ), again demonstrating a large effect size that exceeds the 0.35 threshold.

The remaining dimensions all show large effect sizes as well, though slightly lower in magnitude. Shopping Experience (H1-3) displays an  $f^2$  value of 0.658 ( $t = 3.427$ ,  $p = 0.001$ ), while Purchase Decision (H1-1) and Product/Service Quality (H1-5) show similar effect sizes of 0.651 ( $t = 2.952$ ,  $p = 0.003$ ) and 0.634 ( $t = 3.079$ ,  $p = 0.002$ ) respectively. All of these values are well above the 0.35 threshold for large effects, indicating that Social Media Techniques has substantial practical significance across all dimensions of consumer buying behavior.

The consistently significant t-values and p-values, combined with confidence intervals that exclude zero and remain above the large effect threshold, provide strong evidence for the practical importance of Social Media Techniques in influencing consumer behavior. These findings suggest that investments in social media techniques are likely to yield substantial returns across all aspects of consumer buying behavior, with particularly strong effects on overall buying behavior and consumer satisfaction.

## Summary and Conclusion

This chapter presented a comprehensive statistical analysis of the relationship between Social Media Techniques and Consumer Buying Behavior using PLS-SEM methodology. The analysis began with preliminary data screening, which established a strong foundation for subsequent analyses. The examination of 225 responses revealed no outliers, with all values falling within the expected range of the 5-point Likert scale. The complete absence of missing data further strengthened the dataset's quality. The normality assessment through skewness and kurtosis measures confirmed that all variables demonstrated acceptable distributions, while the common method bias investigation showed no significant concerns with a first factor explaining only 34.995% of total variance.

The measurement model assessment provided strong evidence for the reliability and validity of the constructs. Convergent validity was established through robust indicator loadings ranging from 0.688 to 0.876, all statistically significant at  $p < 0.001$ . The Average Variance Extracted (AVE) values for all constructs exceeded the preferred threshold of 0.50, ranging from 0.535 to 0.668, indicating that constructs explain a substantial portion of their indicators' variance. Discriminant validity was confirmed through the cross-loading analysis, with all indicators loading substantially higher on their intended constructs than on others. The reliability assessment demonstrated strong internal consistency through both traditional and modern measures. While Cronbach's alpha values ranged from 0.566 to 0.894, the more robust composite reliability measures showed strong results ranging from 0.775 to 0.910, exceeding the preferred threshold of 0.70 for all constructs. This difference aligns with theoretical expectations given the known limitations of Cronbach's alpha for scales with few items.

Descriptive statistics revealed generally positive perceptions across all dimensions, with means ranging from 3.807 to 4.156 on the 5-point scale. Content type ( $M = 4.092$ ) and Purchase Decision ( $M = 4.156$ ) emerged as the highest-rated dimensions in their respective constructs. The analysis of variation through standard deviations and coefficients of variation indicated consistent response patterns, with slightly more variability in Shopping Experience ( $CV = 21.16\%$ ) compared to other dimensions. The correlation analysis revealed strong positive relationships between the studied variables, with particularly robust correlations between Social Media Techniques and Consumer Buying Behavior ( $r = 0.801$ ). The analysis demonstrated that all dimensions of social media techniques significantly correlate with consumer behavior outcomes, with correlation coefficients ranging from moderate to strong, indicating the interconnected nature of these constructs.

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The hypothesis testing results provided strong support for all proposed relationships. The primary hypothesis examining the influence of Social Media Techniques on Consumer Buying Behavior showed a substantial path coefficient ( $\beta = 0.809$ ,  $t = 22.53$ ,  $p < .001$ ), indicating a strong positive relationship. The sub-hypotheses testing revealed significant positive effects on all dimensions of consumer buying behavior, with particularly strong impacts on consumer satisfaction ( $\beta = 0.716$ ) and brand preferences ( $\beta = 0.645$ ). The coefficient of determination ( $R^2$ ) analysis demonstrated the robust explanatory power of the model. Social Media Techniques explained 65.4% of the variance in overall Consumer Buying Behavior, representing a high level of predictive accuracy. The  $R^2$  values for individual dimensions ranged from 0.388 to 0.512, exceeding established thresholds for meaningful prediction in business research. The effect size analysis ( $f^2$ ) further confirmed the practical significance of these relationships, with all values substantially exceeding the threshold for large effects, particularly for overall Consumer Buying Behavior ( $f^2 = 1.889$ ) and consumer satisfaction ( $f^2 = 1.050$ ).

The model's validity was further substantiated by several key indicators. The Variance Inflation Factor (VIF) values all remained below 5, confirming the absence of multicollinearity issues. The Q-square values exceeded 0.222 for all constructs, demonstrating strong predictive relevance. The global goodness of fit index of 0.529 indicated a robust overall model fit, suggesting that the theoretical framework effectively captures the relationships between the studied variables.

In conclusion, this comprehensive analysis provides strong empirical support for the significant role of Social Media Techniques in shaping Consumer Buying Behavior. The findings suggest that organizations should prioritize their social media strategies, as they substantially influence various aspects of consumer behavior, from purchase decisions to brand preferences and customer satisfaction. The robust statistical indicators across multiple analytical approaches reinforce the reliability and practical significance of these findings, providing valuable insights for marketing practitioners and researchers alike. These results underscore the importance of developing and implementing effective social media techniques as a crucial component of modern marketing strategies to enhance consumer engagement and business performance.

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