

# The Impact of Mediators on the Relationship between Social Media Advertising and Cell Phone Patronage: Evidence from South-South Nigerian Universities

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## Abstract

This research investigated the influence of mediators on the relationship between social media advertising and the patronage of cell phones. The overarching objective was to evaluate the extent to which mediators affect the patronage of electronic products. A questionnaire was employed as the instrument for data collection, and hypotheses were tested at the 0.05 significance level. The study adopted a survey research design, with a sample size of 383 consumers of electronic products, determined using the Kothari formula. Descriptive statistics and correlation analysis were conducted using SPSS 25, while mediation effects were tested through Structural Equation Modeling. The findings showed that social media advertising significantly influences patronage, and this relationship is partially mediated by perceived risks and perceived value. Perceived value, which proved to be a mediating variable between dependability, involvement and patronage, other mediating variables such as perceived risk and trust had no effect as indicated in the table of indirect effects. The study further revealed that internet literacy and wage/income had mediating effect on accessibility, time and patronage of electronics products.

**Keywords:** Advertising, Consumers patronage, social media advertising, social media.

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## INTRODUCTION

The advent and acceptance of social media platforms have revolutionized advertising strategies across industries, including the telecommunications sector. With the proliferation of smartphones and the omnipresence of social media, understanding how social media advertising influences consumer behavior towards purchasing cell phones has become a critical area of research. The extant literature indicates that mediating factors that shape the interaction between digital media advertising and consumer patronage of cell phones is a key area that is not yet harnessed.

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Social media advertising has come out as a key force in influencing consumer behavior. According to Kaplan and Haenlein (2010), social media platforms enable firms to engage directly with consumers, fostering brand awareness, engagement, and purchase intentions. In the context of cell phones, social media campaigns can effectively showcase product features, customer reviews, and promotional offers, thereby shaping consumer perceptions and purchase decisions (Chu et al., 2018).

Mangold and Faulds (2009) contend that the rise of global competition has pushed businesses beyond the traditional limits of buying, selling, and other commercial dealings. As a result, the lines defining national markets have become blurred or even disappeared. In this context, social media advertising has emerged as a crucial tool for the effective spread of information. Nevertheless, recent discussions have raised concerns about how these platforms shape consumer behavior and their potential role in advancing communication and marketing strategies (Belch & Belch, 2003). Today's youth represent the first generation to be born into the internet era and to grow up in a fully interactive global environment (Bernoff, 2008). They have also eagerly adopted the internet and social media as avenues for maintaining connections and managing relationships with peers and acquaintances (Boyd & Ellison, 2007).

Liwei (2014), a prominent marketing scholar, introduced a framework consisting of four independent variables—dependence, usability, sociability and involvement in addition to three mediating factors—perceived value, perceived risks, and trust including one dependent variable, patronage. This model has been widely referenced by researchers as reflecting the general cause-and-effect relationships between the identified variables and patronage. However, the author expresses concern over the frequent reliance on this model without sufficient empirical validation. There is a pressing need to test its accuracy, particularly within the Nigerian context, and more specifically, in South-South Nigeria.

In the literature, previous investigation relating social media advertising and patronage had focused mainly on sociability, usability, dependability and involvement as predictor variables in their models (Lewei, 2014), Chiang, Shih and Wang (2017), Chiang, lo and Wang(2017), Alsugba(2015). In the African context, however, cost of accessing social media, effective accessibility of social media and time for accessing social media is very important in understanding social media advertisement.

To the best knowledge of the researcher, no known study has examined a social media advertisement model that incorporates time, accessibility and cost. This study is an attempt to, not only incorporate cost, accessibility and time to the existing model of social media advertisement, but to expand the frontiers of marketing communication knowledge by exploring the influence of expanded social media advertising predictor variables and their influence on patronage.

Similarly, existing literature focuses on mediating factors influencing the relationship between social media advertisement and patronage had focused on variables like perceived risk, percent value and trust as mediators (Lewei, 2014), Lehmann, Ruber and Kok (2013) . To the best knowledge of the scholar, no known study has examined wages/income and internet literacy as mediators influencing a relationship between social media advertising and patronage.

This study is an attempt to fill this void. Thus, the study is an initial attempt to examine the mediating influence of internet literacy, wage and income on the relationship between social media advertising and patronage.

### **Objectives of the study**

The main objective of this study is to examine the influence of mediators on the relationship between social media advertising and patronage of electronic products in South-South Nigeria, given that earlier studies have established a link between the two (Okorie et al., 2020).

#### **Specific Objectives**

The specific objectives of the study are to:

- i. Determine the extent to which perceived risk mediates the interaction between sociability and patronage of electronic products in South-South Nigeria.
- ii. Examine the degree to which perceived risk mediates the interaction between usability and patronage of electronic products in South-South Nigeria.
- iii. Assess the scope to which perceived risk mediates the interaction between dependence and patronage of electronic products in South-South Nigeria.
- iv. Investigate the magnitude to which perceived risk mediates the interaction between involvement and patronage of electronic products in South-South Nigeria.
- v. Determine the degree to which perceived value mediates the interaction between sociability and patronage of electronic products in South-South Nigeria.
- vi. Examine the scale to which perceived value mediates the interaction between usability and patronage of electronic products in South-South Nigeria.
- vii. Assess the extent to which perceived value mediates the interaction between dependence and patronage of electronic products in South-South Nigeria.
- viii. Investigate the proportion to which perceived value mediates the relationship between involvement and patronage of electronic products in South-South Nigeria.
- ix. Determine the proportion to which wage/income mediates the relationship between cost and patronage of electronic products in South-South Nigeria.

## **REVIEW OF RELATED LITERATURE**

### **Concept of Social Media**

Social media refers to a broad range of internet-based platforms that allow individuals, to exchange information in real time. Kaplan and Haenlein (2010) originally defined social media as internet-based applications that build on the technological foundations of Web 2.0, and that permits the exchange of user-generated content. This foundational definition highlights two core features: interactive technology and user participation. In recent years, however, scholars have emphasized its role as a strategic tool in marketing, communication, and social interaction.

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According to Appel et al. (2020), digital media has evolved beyond a mere networking platform into a dynamic ecosystem where consumers and businesses interact, influencing decision-making and consumer behavior. These platforms—such as Facebook, Instagram, X (formerly Twitter), TikTok, and LinkedIn—enable users not only to socialize but also to engage in brand communities, share experiences, and co-create value.

Social media is also viewed as a participatory culture that allows individuals to produce and consume content simultaneously. As argued by Phua et al. (2020), the rise of social sites has significantly changed how organizations communicate with customers, providing interactive and personalized engagement that traditional media cannot offer.

Furthermore, digital media's relevance is closely tied to its impact on marketing and consumer patronage. Dwivedi et al. (2021) note that businesses increasingly adopt social media marketing strategies to build customer relationships, increase awareness, and drive sales. The interactive and data-driven nature of these platforms enables firms to monitor consumer attitude and tailor messages effectively.

In essence, online platforms are not only a communication channel but also a marketplace of ideas and goods. It integrates personal expression with commercial activities, reshaping the interactions of modern society and commerce.

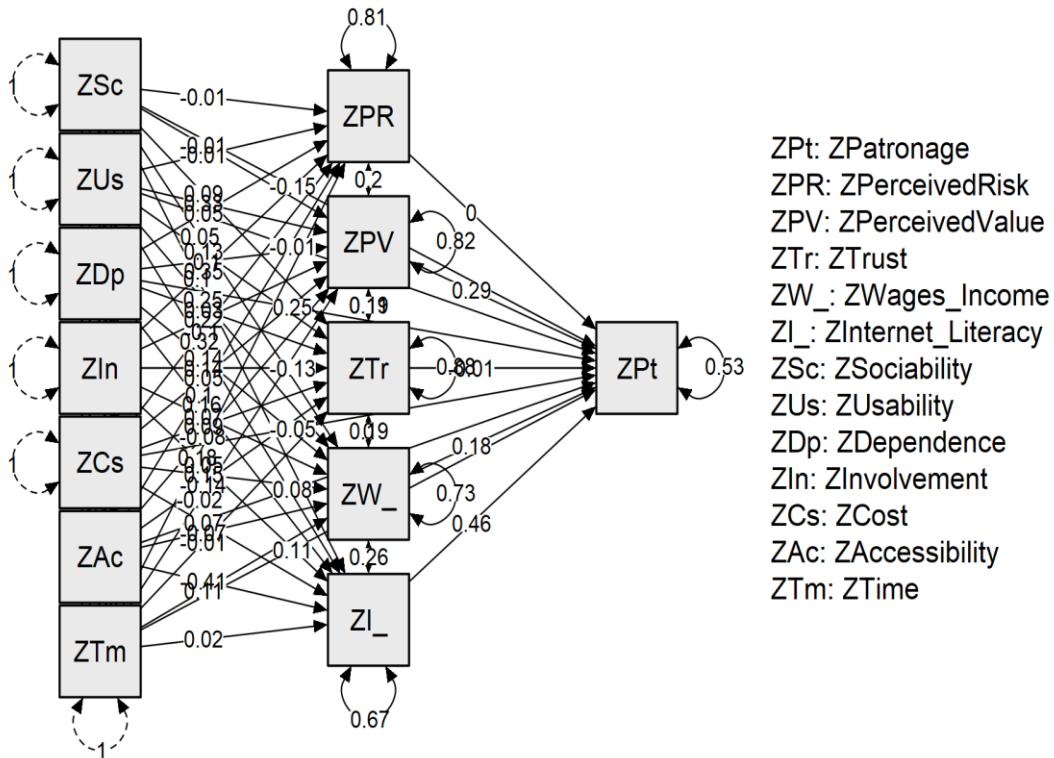
### **Trust in digital platforms**

Trust is a critical factor shaping user engagement and brand-consumer relationships on digital platforms. Recent studies emphasize that trust enhances consumers' willingness to interact with content, share personal information, and make purchase decisions. For instance, Shareef et al. (2021) found that trust mediates the relationship between social media engagement and consumer loyalty. Similarly, Alalwan et al. (2022) highlight that transparency and authenticity in brand communication significantly foster trust, which in turn drives patronage. Thus, trust serves as both a psychological and strategic mechanism enabling sustainable social media interactions.

### **Perceived Risk in Social Media**

Many empirical researches have conducted to ascertain the effects of perceived risk on patronage. According to Vijayasathy and Jones (2000), perceived risk has enormous impact on consumers' online buying resulting from social media advertising. Park, Lennon and Stoel (2005) and Okorie, Nwaizugbo, Okeke, Nnedum (2020) reached the similar conclusion that a negative interaction exists between perceived risk and apparent patronage. Perceived risk plays a significant role in shaping individuals' willingness to use social media, as it directly affects trust, engagement, and information sharing. Recent studies suggest that users often hesitate to fully participate in social media activities due to concerns over privacy, data misuse, and misinformation. According to Marakarkandy and Yajnik (2022), higher perceived risks reduce users' willingness to reveal certain personal information, limiting social media interaction. Similarly, Al-Qaysi et al. (2020) argue that perceived risks, particularly privacy and security risks, negatively influence users' attitudes toward digital media adoption. Thus, managing these

risks through transparent policies and improved security mechanisms is essential to fostering greater user trust and sustained engagement.



**Proposed model for the study**

Close look at this model indicates that three independent variables (Cost, Accessibility and time) have been added to the adapted model. Besides two mediating variables – internet literacy and wages/income have also been added. This reason for these additions is simple. Access to internet and availability of time to access the social medial is crucial to patronage through social media advertising.

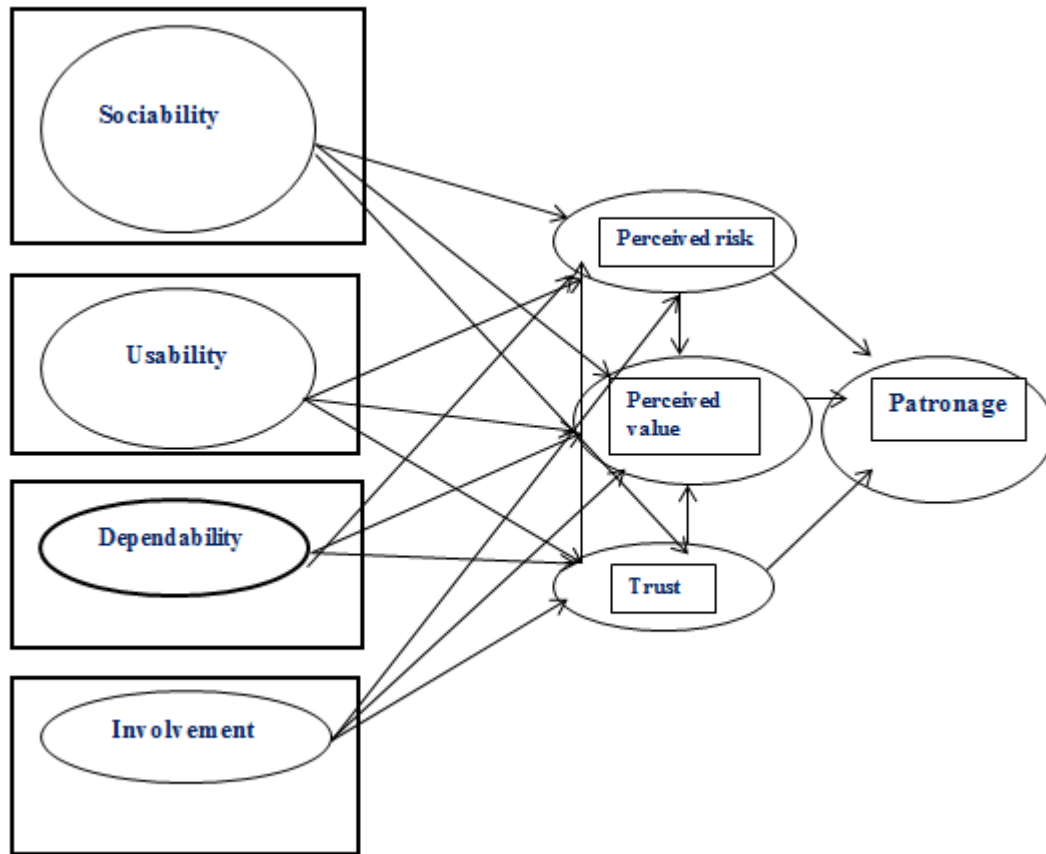
**Theoretical Framework**

The following theories were considered in this study:

**Liwei Chen Model**

This work is grounded in the Chen’ Model. The model is based on certain characteristics that digital platforms must have to remain appealing to users, thereby generating marketing value. Liwei (2014), who proposed the model, outlined specific constructs on which it is constructed.

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**Independent Variables**

**Mediating Variables**

**Dependent Variable**

**Source: Liwei Chen Model (2014)**

**Assumption of Liwei’s Model**

This study adopts a theory which posits that procurement of goods via digital media advertising depends on , usability, dependence, sociability and active involvement in digital media technologies. The model further acknowledges that mediating variables such as perceived risk, and trust may alter the magnitude of influence exerted by these independent variables. Accordingly, this research is based on the proposed framework, with the objective of empirically assessing its validity and relevance over time.

## **Empirical Review**

Okorie, Nwaizugbo, Titus, and Obiajulu (2020) carried out a study on social media advertising and patronage of electronic products among universities in South-South Nigeria. Their findings revealed a strong positive link between sociability and patronage, indicating that social media platforms which encourage interaction and a sense of community can boost consumer patronage. Nonetheless, the study did not explore possible variables that might intervene between social media use and patronage. The research also established that reliance on social media positively influences the patronage of electronic products, pointing to the need for businesses to focus on consumers who turn to these platforms for information. Based on these results, the researchers recommended that firms prioritize platforms that encourage sociability.

Similarly, Njoku and Nkamnebe (2024) demonstrated that Facebook, Instagram, and TikTok significantly shape consumers' intentions to purchase online in South East Nigeria. Their findings suggest that companies should allocate resources to targeted advertising campaigns on these platforms.

In another investigation, Okorie, Nwaizugbo, and Okeke (2021) discovered that accessibility exerts a notable positive effect on the patronage of electronic products. The study emphasized that businesses should ensure their social media advertising efforts are easily accessible to the intended audience. It further highlighted that time availability significantly affects patronage, suggesting that organizations should give attention to consumers with adequate time to browse and engage online

Kothari, Choudhary, Jain, Singh, Prasad & Vani (2025) carried out a research titled *effect of digital advertising on consumer attitude: role of perceived authenticity, credibility and sustainability*. A Cross-sectional survey of **500** active social-media users (online shoppers) was used. **Trust was observed as the** mediator between social-media ad effectiveness and consumer behavior. The authors also treated credibility, authenticity and sustainability as key antecedent constructs **Findings revealed that** credibility and sustainability are strong predictors of consumer behavior; **trust partially mediates** the relationship between social-media advertising effectiveness and consumer behavior (satisfaction, perceived value, purchase intention). SEM showed both direct and indirect effects (partial mediation). It was submitted that brands should actively build credibility (transparency), authenticity (honest storytelling), and sustainability commitments to cultivate trust and increase ad effectiveness. The major limitations noted by authors is that they used cross-sectional design which may limit causal claims.

Luo, Mohd Hasan, Ahmad & Lei (2025) conducted a research titled Influence of short video content on consumers' purchase intentions on social media platforms with trust as a mediator. A sample size sample of 372 Chinese consumers was used. Mediator(s) tested were : Consumer trust (mediator between short-video content attributes and purchase intention). Key findings revealed that Usefulness, ease of use and entertainment of short-form video content significantly impact consumer **trust** and purchase intention. **Recommendations:** Optimize short videos for perceived usefulness and usability; design entertaining but trustworthy content to build consumer trust (e.g., credible claims, social proof, consistent creators). Marketers

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should prioritize trust-building in short-video campaigns. The Limitation was that a single-country sample (China) was used; cross-sectional; platform and cultural differences may moderate results. Authors called for broader samples and experimental/longitudinal designs.

Lewei (2014) also carried out a research using survey method of data gathering. The researcher observed that sociability, usability, dependability and involvement are the variables that affect patronage.

## **METHODOLOGY**

### **Research Design**

This is the plan for the research. The descriptive survey research design was used for this research. This enabled us to generate data for this research and for the test of hypotheses.

### **Sample Size and Sampling Techniques**

Following Kothari (2004), if the population is finite and known, the sample size can be determined using the Kothari formula:

$n$  = sample size,  $N$  = population,  $z$  = standard normal value at the desired confidence level,  $p$  = estimated proportion,  $q = 1 - p$ , and  $e^2$  = margin of error.

$$n = \frac{z^2 \cdot p \cdot q \cdot N}{e^2(N-1) + z^2 \cdot p \cdot q}$$

$$z = 1.96, \quad q = 1-p (1-0.5) = 0.5, \quad p = 0.5, \quad e = 5\% (0.05), \quad N = 218,313$$

Sample size is 383.

A stratified (Random) sample was used in this investigation. Using this method, stratification of the respondents will be strictly based on each university. A pilot test with 30 respondents produced Cronbach's alpha values ranging from 0.78 to 0.86, confirming internal consistency reliability. Data were coded and analyzed using SPSS version 25. Descriptive statistics (mean, standard deviation, frequency distribution) were deployed to summarize the data. Inferential statistics including multiple regression analysis were employed to test the relevant hypotheses.

## **RESULTS AND DISCUSSIONS**

Out of the 383 copies of questionnaire sent out, 328 copies were returned as duly filled and usable. This represents a response rate of 85.64 per cent which is quite high for a study of this nature. This also means we have a captive sample of 328 on which the data presentation and analysis were based on. We now present and analyse the responses to the questions and items in the questionnaire starting with the socio-demographics. We used cross tabulation here to cross-tabulate the socio-demographics with smart phone ownership. The first is the

sex/gender distribution of the respondents cross tabulation with smart phone ownership. This is shown in table 4.1

Sex	Total	Percentage
Male	136	41.46%
Female	192	58.53%
Total	328	100%

The result presented in Figure 4.1 shows the distribution of respondents by sex in relation to smartphone ownership. Out of a total of 328 respondents, 136 (41.46%) were male, while 192 (58.53%) were female. This indicates that a greater proportion of smartphone owners in the study were females compared to males. The implication of this finding is that females constituted the majority of smartphone users within the sample population, suggesting that gender differences may play a role in smartphone adoption and usage patterns.

**Table 4.2: Age category ownership of smart phone Cross tabulation**

Age Category	Total	Percentage %
17-25 years	135	41.15 %
26-30 years	100	30.48 %
31-35 years	44	13.48 %
36-40 years	22	6.70%
above 40 years	27	8.23%
<b>Total</b>	<b>328</b>	<b>100 %</b>

**Source: Field survey, 2025**

Table 4.2 presents the age distribution of respondents in relation to smartphone ownership. The findings reveal that the majority of respondents fall within the 17–25 years age category, accounting for 135 respondents (41.15%). This is followed by those within the 26–30 years category with 100 respondents (30.48%). Respondents aged 31–35 years constitute 44 (13.48%), while those aged 36–40 years make up 22 (6.70%). The least representation is observed among respondents above 40 years, with 27 (8.23%). These results suggest that smartphone ownership is highest among younger age groups, particularly those between 17–30 years, indicating that youths are the most active users of smartphones in the study population.

**Table 4.3: marital status ownership of smart phone Cross-tabulation**

Marital Status	Total	Percentage
Married	103	31.40 %
Single	217	66.15%

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Marital Status	Total	Percentage
Divorced	4	1.21%
widow(er)	4	1.21%
Total	328	100%

**Source: Field survey, 2025**

Table 4.3 presents the distribution of respondents by nuptial status in relation to smartphone ownership. The results show that the majority of respondents were single, accounting for 217 (66.15%). Married respondents constituted 103 (31.40%), while divorced and widowed respondents were the least represented, with 4 (1.21%) each. This shows that smartphone ownership is predominantly higher among singles compared to other marital categories. The findings shows that single individuals are more likely to adopt and use smartphones, possibly due to lifestyle, social connectivity needs, and technological engagement associated with their age and marital status.

**Table 4.4: education and ownership of smart phone Cross tabulation**

Educational Qualification	Total	Percentage
WACE/GEC/NECO	75	22.86%
OND/NEC	112	34.14%
HND/BSc	85	25.91%
MSc	30	9.14%
PhD	26	7.92%
Total	328	100%

**Source: field survey, 2025**

Table 4.4 shows the distribution of respondents by educational qualification in relation to smartphone ownership. The results indicate that the highest proportion of respondents were holders of OND/NEC, representing 112 (34.14%) of the total sample. This is followed by respondents with HND/BSc qualifications, accounting for 85 (25.91%), while those with WACE/GEC/NECO qualifications made up 75 (22.86%). Respondents with MSc degrees constituted 30 (9.14%), and the least proportion was recorded among PhD holders with 26 (7.92%). These findings point to the fact that smartphone ownership cuts across all educational levels but is most common among respondents with mid-level qualifications, particularly OND/NEC holders. This indicates that education level may alter the extent of smartphone adoption, with individuals in the middle academic categories showing higher usage.

**Table 4.5: Status in the institution and ownership of smart phone Cross tabulation**

Status in the Institution	Total	Percentage
Academic staff	87	26.52%
Non-teaching	48	14.63%
Student	193	58.84%
Total	328	100%

**Source: field survey, 2025**

Table 4.5 presents the distribution of respondents by their status in the institution in relation to smartphone ownership. The findings reveal that the majority of respondents were students, accounting for 193 (58.84%) of the total sample. Academic staff constituted 87 respondents (26.52%), while non-teaching staff represented the least group with 48 respondents (14.63%). This indicates that smartphone ownership is highest among students compared to staff members. The result suggests that students are more inclined to own smartphones, likely due to their academic, social, and communication needs within and outside the institution.

**Table 4.6: monthly income ownership of smart phone Cross-tabulation**

Monthly income	Ownership of phone	Percentage
Below N50,000	181	55.18%
N50,000-N100,000	40	12.19%
N100,000-N150,000	24	7.31%
N150,000-N299,000	36	10.97%
N300,000 and above	47	14.32%
Total	328	100%

**Source: field survey, 2025**

Table 4.6 presents the distribution of respondents by monthly income in relation to smartphone ownership. The results show that the majority of respondents, 181 (55.18%), earn below ₦50,000 monthly. This is followed by 47 respondents (14.32%) who earn ₦300,000 and above. Respondents earning between ₦150,000–₦299,000 constitute 36 (10.97%), while those earning ₦50,000–₦100,000 account for 40 (12.19%). The least representation is observed among those earning ₦100,000–₦150,000, with 24 respondents (7.31%). These findings suggest that smartphone ownership is more prevalent among individuals with lower income levels, particularly those earning below ₦50,000, though ownership is also significant among higher income earners, reflecting the widespread necessity of smartphones across income categories.

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**Table 4.14: Responses on perceived risk items**

S/N	Statement	SA	A	U	D	SD	Total	mean	St. div.
1	Digital advertising does not involve any risks.	40	68	8	128	84	<b>328</b>	2.55	1.383
2	Digital advertising has made people lose some money in the past when trying to buy electronic products.	64	104	28	76	56	<b>328</b>	3.13	1.414
3	In an attempt to patronize an electronic product that I got to know through social media advertising, I was once defrauded.	52	84	48	84	60	<b>328</b>	2.95	1.372

**Source: Field survey, 2025**

Perceived risk variable/construct was measured with three items as shown in table 4.14. Perceived risk item 1 has mean = 2.55 and standard deviation = 1.383; item 2 has mean = 3.13 and standard deviation as 1.414; and item 3 has mean as 2.95 and standard deviation as 1.372. This means that only item 3 has mean above the cut off and all the items have standard deviation above one which shows divergence of opinion. The next information is on the perceived value shown in table 4.15.

**Table 4.15: Responses on perceived value items**

S/N	Statement	SA	A	U N	D	SD	Total	mean	St.div.
1	The reason why I attend to social media advertising is that I know I have something of value to benefit from.	68	132	52	44	32	<b>328</b>	3.49	1.234
2	There are truly some benefits associated with listening to social media advertising.	84	156	52	16	20	<b>328</b>	3.82	1.062

**Source: Field survey, 2025**

The perceived value variable/construct was measured with two items only as displayed on table 4.15. Perceived value item one has mean of 3.49 and standard deviation of 1.234 while perceived value item two has mean of 3.82 and standard deviation of 1.062. This means that all two items have mean above the threshold and standard deviation above one. The next construct is on the trust presented in Table 4.16.

**Table 4.19: Responses**

S/N	Statement	SA	A	U N	D	SD	Total	mean	St. div.
1	I have carried out several purchases as a result of the influence of social media advertising.	60	156	28	44	40	<b>328</b>	3.46	1.273
2	Without social media, I would consistently purchase only what I intend to buy.	72	136	32	72	16	<b>328</b>	3.54	1.193
3	I make product orders exclusively through social media platforms.	41	92	24	136	36	<b>328</b>	2.89	1.271
4	I feel more at ease making purchases through social media platforms.	44	88	52	104	40	<b>328</b>	2.98	1.270

Source: field survey, 2025

Patronage variable/construct was measured with four items and as shown in table 4.19, item one has mean as 3.46 and standard deviation as 1.273; item 2 has mean as 3.54 and standard deviation as 1.193; item 3 has mean as 2.89 and standard deviation as 1.271; and item 4 has mean as 2.98 and standard deviation of 1.270. Thus while 2 items have mean above 3.00 the remaining two items have mean below 3.00.

**Responses on wages and income items**

Items	Options	Frequency	Percentage	Mean	Standard Deviation
wai1	strongly disagree	60	18.3%		
	Disagree	80	24.4%		

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	Undecided	48	14.6%		
	Agree	84	25.6%		
	strongly agree	56	17.1%	2.99	1.386
wai2	strongly disagree	64	19.5%		
	Disagree	48	14.6%		
	Undecided	64	19.5%		
	Agree	108	32.9%		
	strongly agree	44	13.4%	3.06	1.340
wai3	strongly disagree	60	18.3%		
	Disagree	56	17.1%		
	Undecided	60	18.3%		
	Agree	100	30.5%		
	strongly agree	52	15.9%	3.09	1.356
wai4	strongly disagree	52	15.9%		
	Disagree	76	23.2%		
	Undecided	64	19.5%		
	Agree	104	31.7%		
	strongly agree	32	9.8%	2.96	1.256
wai5	strongly disagree	36	11.0%		
	Disagree	60	18.3%		
	Undecided	44	13.4%		
	Agree	132	40.2%		
	strongly agree	56	17.1%	3.34	1.263
wai6	strongly disagree	36	11.0%		
	Disagree	32	9.8%		
	Undecided	56	17.1%		
	Agree	148	45.1%		
	strongly agree	56	17.1%	3.48	1.204

**Validity Analysis**

Validity is the extent to which an instrument measure what it purports to measure and there are many types of validity ranging from face to content and construct validity. In this subsection we present the results of the validity analysis and also check for the collinearity of the constructs/variables.

**Table 4.20: Correlations Matrix**

		Soc	usa	dep	Inv	Cost	Acc	Time	pr	pv	Tru	Wai	inl	pat
Soc	Pearson Correlation	1												
	Sig. (2-tailed)													
	N	328												
Usa	Pearson Correlation	.674*	1											
	Sig. (2-tailed)	.000												
	N	328	328											
Dep	Pearson Correlation	.429*	.337**	1										
	Sig. (2-tailed)	.000	.000											
	N	328	328	328										
Inv	Pearson Correlation	.414*	.409**	.450*	1									
	Sig. (2-tailed)	.000	.000	.000										
	N	328	328	328	328									
Cost	Pearson Correlation	.186*	.270**	.326*	.208**	1								
	Sig. (2-tailed)	.001	.000	.000	.000									
	N	328	328	328	328	328								
Acc	Pearson Correlation	.057	.235**	.287*	.055	.377**	1							
	Sig. (2-tailed)	.302	.000	.000	.318	.000								
	N	328	328	328	328	328	328							

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Time	Pearson Correlation	.122*	.278**	.182*	.201**	.564**	.546**	1						
	Sig. (2-tailed)	.027	.000	.001	.000	.000	.000							
	N	328	328	328	328	328	328	328						
Pr	Pearson Correlation	.150*	.180**	.224*	.377**	.115*	.186**	.245**	1					
	Sig. (2-tailed)	.007	.001	.000	.000	.038	.001	.000						
	N	328	328	328	328	328	328	328	328					
Pv	Pearson Correlation	.258*	.366**	.096	.304**	.114*	-.006	.085	.309*	1				
	Sig. (2-tailed)	.000	.000	.081	.000	.039	.908	.123	.000					
	N	328	328	328	328	328	328	328	328	328				
Trust	Pearson Correlation	.261*	.249**	.168*	.258**	.127*	-.059	.047	.114*	.318**	1			
	Sig. (2-tailed)	.000	.000	.002	.000	.022	.283	.395	.039	.000				
	N	328	328	328	328	328	328	328	328	328	328			
Wai	Pearson Correlation	.352*	.423**	.329*	.310**	.325**	.158**	.278**	.258*	.168**	.340**	1		
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.004	.000	.000	.002	.000			
	N	328	328	328	328	328	328	328	328	328	328	328		
Inl	Pearson Correlation	.406*	.400**	.253*	.300**	.104	-.236**	-.015	.259*	.193**	.386**	.471**	1	
	Sig. (2-tailed)	.000	.000	.000	.000	.061	.000	.791	.000	.000	.000	.000		
	N	328	328	328	328	328	328	328	328	328	328	328	328	
Pat	Pearson Correlation	.225*	.318**	.351*	.210**	.204**	.095	.192**	.275*	.353**	.283**	.453**	.529**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.085	.000	.000	.000	.000	.000	.000	
	N	328	328	328	328	328	328	328	328	328	328	328	328	328

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

As we have already mentioned above, there are many types of validity. In this research and in this sub-section, we are interested in discriminant validity. Discriminant validity ensures that a

measure is empirically unique and represents the phenomenon of interest that other measures in a model do not capture (in Sarstedt & Mooi, 2019). Discriminant validity requires the items used to measure the research constructs to also be empirically distinct; they should not correlate too highly. Several researchers recommend different threshold as the cut off for high correlation to infer collinearity. But the cut off adopted here is 0.7. Collinearity implies that two collinear constructs/variables are doing the same job. Collinearity is a data issue that arises if two independent variables are highly correlated. According to Sarstedt & Mooi, (2019), perfect collinearity occurs if we enter two or more independent variables containing exactly the same information, therefore yielding a correlation of 1 or -1 (i.e., they are perfectly correlated). As shown in table 4.20, all the constructs do not correlate very highly with each other hence all merit inclusion in further analysis.

**Reliability Analysis**

We present the reliability analysis of the scale and instrument used in measuring the research constructs. Factor analysis was utilized in conducting the reliability analysis.

**Table 4.21: Communalities**

	Initial	Extraction
soc1	1.000	.670
soc2	1.000	.801
soc3	1.000	.844
soc4	1.000	.754
soc5	1.000	.780
soc6	1.000	.756
soc7	1.000	.767
soc8	1.000	.795
usa1	1.000	.699
usa2	1.000	.717
usa3	1.000	.838
usa4	1.000	.788
usa5	1.000	.743
dep1	1.000	.783
dep2	1.000	.824
dep3	1.000	.842

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dep4	1.000	.785
inv1	1.000	.787
inv2	1.000	.728
inv3	1.000	.765
inv4	1.000	.725

Extraction Method: Principal Component Analysis.

The first output of the factor analysis is the Kaiser-Olkin-Meyer (KMO) measure of sampling adequacy, which was recorded as 0.52. Since this exceeds the minimum threshold of 0.50, the sampling adequacy is considered acceptable. The Bartlett Test of Sphericity also yielded a Chi-Square value significant at 0.000, further confirming the suitability and reliability of the factor analysis.

Communalities, the next set of results, indicate the proportion of variance in each variable explained by the extracted factors. Although no universal benchmark exists, communalities above 0.50 are generally considered acceptable (Sarstedt & Mooi, 2019). As shown in the communalities table, all items exceeded the 0.50 threshold, suggesting that no variable required removal and all qualified for further analysis.

The variance extracted was 78.497%, surpassing the recommended 75% benchmark. This provides additional evidence of the robustness and reliability of the factor analysis.

**Hypotheses Testing and Mediation Analysis**

Mediation analysis is a statistical procedure for assessing the extent to which an independent variable (X) transmits its influence on a dependent variable (Y) through a mediating construct. Hayes (2018) notes that the primary objective of mediation analysis is to evaluate indirect effects of the independent variable on the dependent variable through specified mediators.

The present study examined social media advertising and patronage of electronic products within universities in Nigeria’s South-South region. The model consisted of seven independent variables, five mediating variables, and one dependent variable—patronage. Hypotheses were evaluated using tables of direct and indirect effects at a 5% significance level. Accordingly, p-values greater than 0.05 support acceptance of the null hypothesis, while values less than 0.05 warrant rejection of the null in favor of the alternative. The prefix “Z” denotes standardized variables derived from summated scales, in line with parametric testing requirements.

Following the testing of the four direct hypotheses, mediation hypotheses were examined using the indirect effects presented in Table 4.24.

The first output of the factor analysis is the Kaiser-Olkin-Meyer (KMO) measure of sampling adequacy, which recorded a value of 0.52. Since this exceeds the minimum threshold of 0.50, the sampling adequacy is considered acceptable. The Bartlett Test of Sphericity also yielded a

Chi-Square value significant at 0.000, further confirming the suitability and reliability of the factor analysis.

Communalities, the next set of results, indicate the proportion of variance in each variable explained by the extracted factors. Although no universal benchmark exists, communalities above 0.50 are generally considered acceptable (Sarstedt & Mooi, 2019). As shown in the communalities table, all items exceeded the 0.50 threshold, suggesting that no variable required removal and all qualified for further analysis.

The variance extracted was 78.497%, surpassing the recommended 75% benchmark. This provides additional evidence of the robustness and reliability of the factor analysis.

**Table 4.24: Table of Indirect effects**

							95% Confid Interval	
			Estimate	Std. Error	z-value	p	Lower	Upper
ZSociability	→ ZPerceivedRisk	→ ZPatronage	-3.868e -5	5.175e -4	-0.075	0.940	-0.001	9.756e -4
ZSociability	→ ZPerceivedValue	→ ZPatronage	-0.004	0.015	-0.282	0.778	-0.034	0.025
ZSociability	→ ZTrust	→ ZPatronage	-6.897e -4	0.003	-0.219	0.827	-0.007	0.005
ZSociability	→ ZWages_Income	→ ZPatronage	0.010	0.009	1.080	0.280	-0.008	0.027
ZSociability	→ ZInternet_Literacy	→ ZPatronage	0.047	0.022	2.146	0.032	0.004	0.089
ZUsability	→ ZPerceivedRisk	→ ZPatronage	-3.666e -5	4.921e -4	-0.074	0.941	-0.001	9.278e -4
ZUsability	→ ZPerceivedValue	→ ZPatronage	0.096	0.019	5.162	< .001	0.060	0.133
ZUsability	→ ZTrust	→ ZPatronage	-9.252e -4	0.004	-0.220	0.826	-0.009	0.007
ZUsability	→ ZWages_Income	→ ZPatronage	0.046	0.013	3.598	< .001	0.021	0.071
ZUsability	→ ZInternet_Literacy	→ ZPatronage	0.148	0.025	5.999	< .001	0.100	0.197
ZDependence	→ ZPerceivedRisk	→ ZPatronage	1.402e -4	0.002	0.077	0.938	-0.003	0.004
ZDependence	→ ZPerceivedValue	→ ZPatronage	-0.029	0.014	-2.127	0.033	-0.055	-0.002
ZDependence	→ ZTrust	→ ZPatronage	-2.306e -4	0.001	-0.210	0.834	-0.002	0.002
ZDependence	→ ZWages_Income	→ ZPatronage	0.025	0.009	2.712	0.007	0.007	0.043
ZDependence	→ ZInternet_Literacy	→ ZPatronage	0.075	0.020	3.840	< .001	0.037	0.114
ZInvolvement	→ ZPerceivedRisk	→ ZPatronage	9.146e -4	0.012	0.077	0.938	-0.022	0.024
ZInvolvement	→ ZPerceivedValue	→ ZPatronage	0.063	0.015	4.378	< .001	0.035	0.092
ZInvolvement	→ ZTrust	→ ZPatronage	-0.001	0.005	-0.220	0.826	-0.010	0.008
ZInvolvement	→ ZWages_Income	→ ZPatronage	0.013	0.008	1.659	0.097	-0.002	0.028
ZInvolvement	→ ZInternet_Literacy	→ ZPatronage	0.025	0.018	1.400	0.161	-0.010	0.060

**Summary of Mediation Analysis Findings**

**Hypotheses 1–4 (Perceived Risk as Mediator):**

Perceived risk did not mediate the relationship among usability, dependability, sociability and involvement with patronage of electronic products. All coefficients were very small, p-values far above 0.05, and the confidence intervals included zero. Thus, the null hypotheses (no mediation) were accepted.

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**Hypothesis 5 (Perceived Value & Sociability):**

Perceived value did not mediate the link between sociability and patronage. The p-value (0.778) was above 0.05, confirming acceptance of the null hypothesis.

**Hypothesis 6 (Perceived Value & Usability):**

Perceived value significantly mediated the relationship between usability and patronage. With  $p < .001$  and confidence intervals excluding zero, the null hypothesis was rejected.

**Hypothesis 7 (Perceived Value & Dependability):**

Perceived value significantly mediated the link between dependability and patronage ( $p = 0.033$ ). The null hypothesis was rejected.

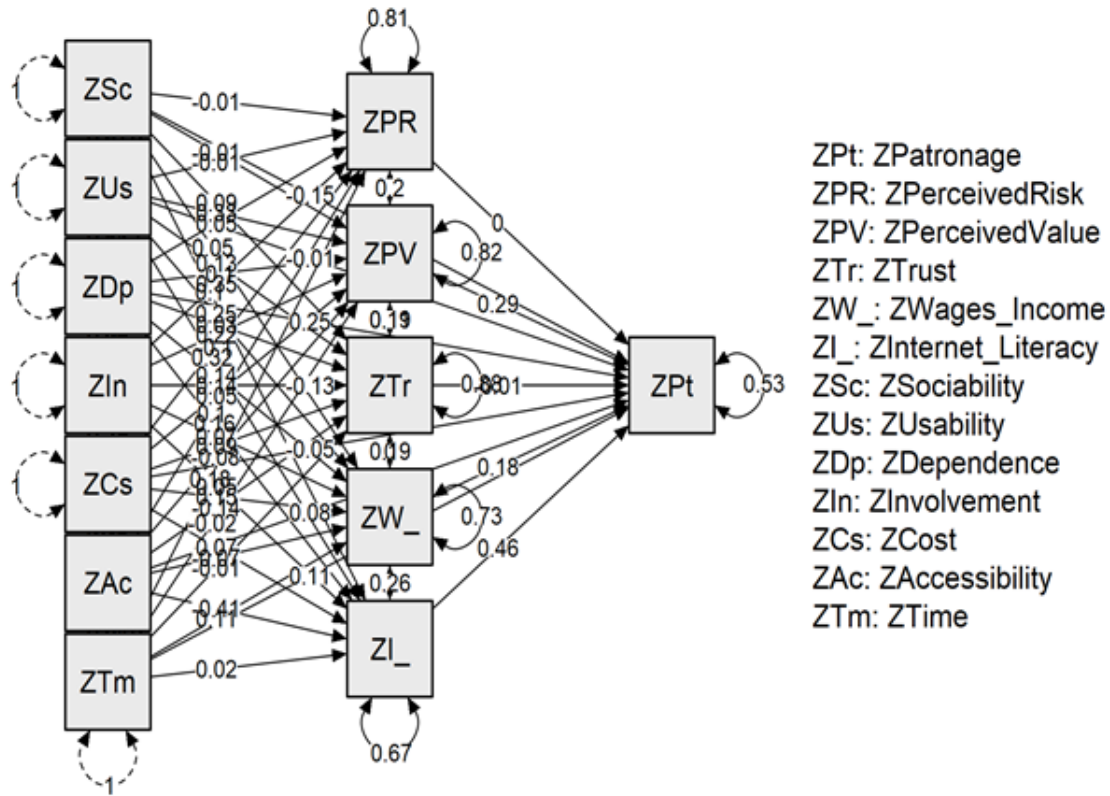
**Hypothesis 8 (Perceived Value & Involvement):**

Perceived value also significantly mediated the relationship between involvement and patronage ( $p < .001$ ). The null hypothesis was rejected.

**Hypothesis 9 (Wages/Income as Mediator):**

Wages/income significantly mediated the relationship between the cost of social media and patronage ( $p = 0.004$ ). The null hypothesis was rejected.

**Path plot**



**Figure 4.1 Path Plot Output from JASP**

**Discussion of Findings**

The study further showed that perceived risk does not serve as a mediating factor between sociability and buying of electronic products. Direct path coefficient was  $-3.868e-5$ , with a P-value of 0.94 and a Z-value of -0.075 which is far above the 0.05 significance level. This indicates that perceived risk does not have the capacity to influence customers' purchasing decisions. In other words, it cannot shape consumers' intention to buy.

Findings also demonstrated that perceived risk is not a mediating factor between usability and patronage of electronic products. The coefficient recorded was  $-3.666e-5$ , with a Z-value of -0.074 and a P-value of 0.941, exceeding the 0.05 threshold. This implies that perceived risk neither alters nor interferes with the interaction between usability and patronage of electronic products, even when the two variables are related.

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The results equally revealed that perceived risk is not a mediating variable between dependence and patronage, nor between involvement and patronage of electronic products. This suggests that perceived risk is not a significant factor in influencing consumer patronage of electronic products.

The findings further established that perceived value does not mediate the interaction between sociability and patronage of electronic products. The indirect path showed a coefficient of -0.004, with a Z-value of 0.282 and a P-value of 0.778, which is higher than the 0.05 error margin. This means perceived value is not a necessary condition to strengthen the interplay between sociability and patronage of electronic products in the region.

### **CONCLUSION AND RECOMMENDATIONS**

Digital advertising has assumed a central role in the communication strategies of modern business organizations, significantly reshaping their marketing communication approaches. To explain factors influencing patronage, earlier research proposed a framework comprising four independent variables - usability, dependence, sociability and involvement, three mediators - perceived value, perceived risk, and trust), and one dependent variable —patronage. This study challenged some of Chen's earlier assertions. It confirmed that sociability directly impacts patronage in South-South Nigerian universities. It also verified that dependence and social media involvement strongly affect patronage. This means that businesses targeting consumers who are highly reliant on and actively engaged with social media stand a greater chance of securing patronage. However, not all mediating variables influence the interaction between independent and dependent variables as previously assumed. Furthermore, the investigation found that income levels serve as powerful mediators in shaping the link between the opposing variables.

The following recommendations were made:

- i. This study confirmed that perceived value to be derive from digital advertising can influence the interaction between patronage and usability. We recommend that advertisement through digital media should embody relevant values in order to trigger positive responses that could bring about patronage. The hope and expectations of the consumer should be upheld at all times.
- ii. Patronage itself can be influenced by trust as confirmed by this investigation. We suggest that that adverts through social media should have some touches of trust and integrity so as to influence patronage in the positive direction. Customers respond to advertisement when they have a measure of trust.
- iii. We also suggest that marketing communication be directed toward areas where potential customers can easily access social media.
- iv. We also recommend that the proposed model should be adopted as two supplementary variables can impact patronage of electronic products.

## REFERENCES

- Akindele, S. & Ekpendu, K. (2016). Consumer Acceptability And Patronage Of Internet Retail Market In Nigeria, *Journal of Marketing Management* 3(1) 26 -39.
- Al- Mukharni, E., Al-Dhuhli, I. & Ismael, S. (2017). The impact of social media on consumer buying behavior. *Journal of Marketing*. 8(2), 1-13.
- Alalwan, A. A., Baabdullah, A. M., Rana, N. P., Dwivedi, Y. K., & Lal, B. (2022). Examining factors influencing social media users' engagement with online brand communities. *Information Systems Frontiers*, 24(2), 577–594. <https://doi.org/10.1007/s10796-021-10123-2>
- Ali, Z, Shabbir, M.A, Raut M& Hossan (2017). “To Access the Impact of Social Media Marketing on Consumer Perception”. *International Journal of Academic Research in Accounting, Finance and Management Sciences*. 6 (3) 69-77.
- Al-Qaysi, N., Mohamad-Nordin, N., & Al-sEmran, M. (2020). A systematic review of social media acceptance from the perspective of educational and information systems theories and models. *Journal of Educational Computing Research*, 57(8), 2085–2109. <https://doi.org/10.1177/0735633118817879>
- Alsubagh, H. (2015). Impact of Social Medial on Consumer’s Behaviour *International Journal of Business and Social Sciences* ,6(1), 208-216.
- Appel, G., Grewal, L., Hadi, R., & Stephen, A. T. (2020). The future of social media in marketing. *Journal of the Academy of Marketing Science*, 48(1), 79–95. <https://doi.org/10.1007/s11747-019-00695-1>
- Belch, G., & Belch, M. (2003). *Advertising And Promotion: An Integrated Marketing Communication Perspective*. Berkshire: McGraw-Hill.
- Bernoff, J. &. (2008). Harnessing the power of the oh-so-social web. *MIT Sloan Management Review*, 49(3), 36-42.
- Boyd, D., & Ellison, N. (2007). Social network sites Definition history and Scholarship. *Journal of Computer-Mediated Communication*, 13(1). 12- 26
- Chiang, I.P., Lo, S.H; & Wang, L. H. (2017).Customer Enjoyment In Social Media Advertising Antecedents And Consequences. *Contemporary Management Research* 13(3), 193 – 213.
- Chu, S., & Kim, Y. (2011). Determinants of consumer engagement in electronic word-of -mouth(e-WOM) in social networking sites. *International Journal of Advertising*, 30(1), 47-45.
- Dwivedi, Y. K., Ismagilova, E., Hughes, D. L., Carlson, J., Filieri, R., Jacobson, J., ... & Wang, Y. (2021). Setting the future of digital and social media marketing research: Perspectives and research propositions. *International Journal of Information Management*, 59, 102168. <https://doi.org/10.1016/j.ijinfomgt.2020.102168>

**Okorie.** *The impact of mediators on the relationship between social media advertising.....*

Goyal, M. (2016). A Study Of Impact Of Social Media On Consumer Behavior.

Hayes, A.F. (2018). *Introduction to mediation, mediation and conditional analysis: a regression based approach*, 2<sup>nd</sup> Edition, New York: e-book, The Guilford Press.

Ibiasi, W.N., Dojanah, M.K. & Al-Qreini, S.A. (2016). The Impact of Social Media as a Marketing Tool on Purchasing Decision. A case of Samsung for Home Appliances. *International Journal of Managerial Studies and Research*. 4(1), 14-23.

Kaplan, A., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of social media. *Business Horizons*, 53, 59-68.

Kothari, R., Choudhary, A., Jain, V., Singh, S., Prasad, R., & Vani, V. (2025). Impact of social media advertising on consumer behavior: Role of credibility, perceived authenticity, and sustainability. *Frontiers in Communication*, 10, 1561621. <https://doi.org/10.3389/fcomm.2025.1561621>

Lehman, B.C., Ruber, S. and Kok (2013). The Impact Of Social Media On Consumers Decision-Making *International Journal Of Marketing*. 7(2). 15 – 28

Liwei, C. (2014), The Influence of Social Media on Consumer Behaviour: An Empirical Study Of Factors Influencing Consumer Purchase Intention in China Under Social Media Context, A Thesis Submitted To Department Of Business Administration, Aarhus University, China.

Luo, W., Mohd Hasan, M. K., Ahmad, W., & Lei, J. (2025). Influence of short video content on consumers' purchase intentions on social media platforms with trust as a mediator. *Scientific Reports*, 15, 12938. <https://doi.org/10.1038/s41598-025-84182-3>

Mangold, W., & Faulds, D. J. (2009). The New Hybrid Element Of The Promotion Mix. *Business Horizons*, 52(1), 357-365.

Marakarkandy, B., & Yajnik, N. (2022). Impact of privacy concerns and risk on social media usage. *Information Resources Management Journal*, 35(3), 1–17. <https://doi.org/10.4018/IRMJ.300291>

McKnight, D., & Chervany, N. L. (2002). What Turst Means In E-Commerce Customer Relationships: An Page | Interdisciplinary Conceptual Typology. *International Journal Of Eletronic Commerce*, 6(2), 35-59.

Njoku, P. O., & Nkamnebe, A. D. (2024). Effect of social media platforms on consumer online purchase intention: A study of consumers of online products in South East, Nigeria. *UNIZIK Journal of Marketing*, 1(1). 14-28

Nyagucha, M.A. (2017). Impact Of Social Media On Consumer's Decision Making Process Among Youths In Naira. *A Project Report Submitted To Department Of Business Administration, United State International University of Africa*. 6 ( )

Okorie, C. Nwaizigbo. I.C., Okeke, T.C., Nnedum, A. U., (2020). Impact of Social Mmedia Advertising on Patronage of Electronic Products among a Sample of comsumers in South South Nigeria. *Nnadiesube Journal of Education in Africa* , vol 6 (1)

- Okorie, C., Nwaizugbo, I. C., & Okeke, T. C. (2021). Social media advertising and patronage of electronic products: A study of consumers in Southern Nigeria. *Nnadiesube Journal of Social Sciences*. Vol 2(1), 186 -206
- Park, J., Lennon, S. J., & Stoel, L. (2005). On-Line Product Presentation: Effects On Mood, Perceived Risk, And Purchase Intention. *Psychology & Marketing*, 22(9), 695-719.
- Phua, J., Jin, S. V., & Kim, J. J. (2020). Uses and gratifications of social networking sites for bridging and bonding social capital: A comparison of Facebook, Twitter, Instagram, and Snapchat. *Computers in Human Behavior*, 72, 246–258. <https://doi.org/10.1016/j.chb.2017.03.040>
- Sarstedt, M., & Mooi, E. (2019). Market research, the process, data and methods using IBM SPSS Statistics. Springer Texts in Business and Economics. Springer-Verlag GmbH Germany. Electronic/Online Edition.
- Shaharudin, M. R., Pani, J. J., Mansor, S. W., & Elias, S. J. (2010). Purchase Intention of Organic Food; Perceived Value Overview. *Canadian Social Science*,6(1), 70-79.
- Shareef, M. A., Mukerji, B., Dwivedi, Y. K., Rana, N. P., & Islam, R. (2021). Social media marketing: Comparative effect of advertisement sources. *Journal of Retailing and Consumer Services*, 58, 102358. <https://doi.org/10.1016/j.jretconser.2020.102358>
- Toor, A., Husnain, M. & Hussain, T.(2018). The impact of social network marketing on consumer purchase intention in Pakistan: Consumer Engagement as a mediator. *Asian Journal of Business and Accounting*. 10(1) 28-39
- Zeithaml, V. A. (1988). Consumer Perceptions of Price Quality, and Value: A means-End Model and Synthesis of Evidence. *Journal of Marketing*, 5(2), 2-22.