

Frequency, Content, Timing and Targeting Criteria of Pop-Up Facebook Advertisements as Predictors of Subscribers' Message Engagement

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ABSTRACT: *This study investigated the influence of pop-up Facebook adverts on subscribers' interest in Facebook messages among social media users in Enugu metropolis. Specifically, it examined the relationships between subscribers' interest in Facebook messages and four dimensions of pop-up Facebook advertising: frequency, content, timing, and targeting criteria. The work was anchored on Attentional Capture Theory and the Elaboration Likelihood Model, which explain how users notice, process, and respond to online advertising messages. A survey research design was adopted. Primary data were collected with a structured questionnaire, while secondary data were obtained from related academic and industry materials. A convenience sampling technique was used to select Facebook subscribers in Enugu metropolis, and a sample size of 328 was determined using Cochran's formula for an unknown population; 312 valid questionnaire copies were retrieved and analyzed, representing a 95% response rate. Data were analyzed with descriptive statistics and multiple regression using SPSS. The model summary showed $R = .983$, $R^2 = .965$ and adjusted $R^2 = .938$, indicating that the independent variables jointly explained a very high proportion of the variance in subscribers' interest in Facebook messages. The ANOVA result showed that the regression model was significant ($F = 34.935$, $p = .001$). The findings showed significant relationships between subscribers' interest in Facebook messages and advert content ($p = .034$), advert timing ($p = .013$), and targeting criteria ($p = .009$), while advert frequency was not significant ($p = .984$). The study concludes that relevant content, strategic timing, and appropriate targeting are more important than mere frequency in influencing subscribers' interest in Facebook messages. It recommends that advertisers develop audience-vrelevant messages, use data-driven timing, refine targeting criteria, and monitor advert frequency to avoid fatigue and irritation.*

Keywords: *pop-up Facebook adverts; subscribers' interest; Facebook messages; social media users; Enugu metropolis; digital advertising; targeting criteria*

Introduction

Social media is a huge arena for communication, relationship management and marketing and through sites like Facebook people can send messages, get information, follow brands and engage with commerce. Recent studies demonstrate that with relevance, credibility and well-targeted messages, social media marketing is not merely about brand visibility; it can also drive customer engagement, interest in purchase, trust and customer online behaviour (Hanaysha, 2022; Lim et al., 2022; Leung et al., 2022). Social Ads – Facebook ads are significant as they blend social communication with information driven marketing; advertisers can target the right crowd by demographics, pursuits, web browsing, location and past interaction.

The pop up or interruptive advert is one of the more obvious types of Facebook adverts. These can be seen as overlays, sponsored prompts, story adverts, reel adverts, adverts based on messages or other ways of catching attention while users are watching content and engaging with messages. While these types of ads may catch the interest and raise visibility of a brand, their effect is contingent on how useful, timely and relevant they feel to the user. Research in the fields of both digital and social media advertising has shown that consumers are more likely to engage with adverts that offer information, entertainment, credibility and value, but less likely to engage with adverts that are intrusive, repetitive or poorly matched to their needs (Cheung et al., 2022; Barta et al., 2023; Ao et al., 2023).

Algorithmic targeting and personalization contributes to Facebook's advertising system. Artificial intelligence and data analytics allows advertisers to target specific audience groups and provide messages that resonate with the users who are more likely to engage with a product, service or event. There is a recent literature that discusses how algorithmic targeting can help increase the relevance of a message and the efficiency of an advertisement (Chintalapati & Pandey, 2022; Campbell et al., 2022; Zarouali et al., 2022), but

that can also increase concerns about privacy, manipulation, and being 'over-targeted' if you feel your online actions are being monitored too closely. This indicates that the effectiveness of Facebook pop up ads is determined by the message's visibility as well as the user's understanding of its purpose, context, and relevance.

In Enugu metropolis, Facebook is a viable communication medium for communicating between individuals, advertising the business, politics, entertainment and local marketing. Facebook advertisements are utilized by business, entrepreneurs and service providers to target potential customers both within and outside the city. But the impact of pop-up Facebook ads on subscribers' interest in Facebook messaging has not yet been known. For users who enjoy the advertisements in their content because they align with their interests, location and purchasing habits, these ads can be beneficial; for others, they might be intrusive, distracting, and hinder a user's ability to concentrate on the messages they are reading or access additional content.

Several things, such as advert frequency, advert quality, timing and targeting, can influence the feedback that Facebook subscribers provide to pop-up ads. Frequency is important because, if the exposure is repeated, it may lead to greater awareness; however, too much may cause irritation or advert fatigue. Content is also a key factor as it is the information that can engage attention and interest, if it is informative, credible and relevant. The timing is important because adverts when messages are being used can be seen as interruptions, whereas adverts at the appropriate time can help engagement. Targeting criteria are also relevant since advertising that is useful when aligned with users' needs can be very helpful, while an ad that is too sensitive and/or inappropriate for the context of the user may be intrusive (Leung et al., 2022; Hanaysha, 2022; Zarouali et al., 2022).

The cultural and socio-economic background of Enugu metropolis is also pertinent to this study. Facebook adverts can be affected by consumers' language preference, local values, income level, education, buying ability, trust in online vendors, and past advertising usage. For mobile-first communication, many consumers use Facebook on their mobile phones, which means that the design of their ads, screen size, time and clarity of the message are particularly relevant. Irrelevant and obtrusive ads can vie for the user's attention, and relevant and well-timed ads can motivate the user to read, click, share, etc. on promotional messages.

Although Facebook advertising is a relatively new phenomenon, the number of empirical studies that examined the effect of the pop-up Facebook ads on Facebook users' interest in Facebook messages among social media users in Enugu metropolis is still limited. The existing studies have focused on social media marketing, communication with influencers, customer engagement and algorithmic advertising but the study has found there was a need to understand the effect of specific advert features on interest of messages in local Nigerian urban context. The effect of pop-up Facebook adverts on the interest of subscribers in Facebook messages among social media users in Enugu metropolis, is therefore examined, with focus on the frequency of the ads, the content of the ads, timing of the ads, and targeting criteria of the ads.

This is valuable for a number of groups. The study offers some understanding of the impact of advertising on the experience and engagement of online communication for Facebook subscribers. It provides advertisers and business owners in Enugu with empirical data that will help them create ads that are relevant, but not obtrusive. The study offers policy makers and regulators insights into the importance of a responsible approach to digital advertising that promotes user experience and privacy and is aware of local context. The study is valuable for educators and researchers in the fields of marketing and communication studies, as well as technology studies, and will continue to inform the current academic debate on social media advertising, user behaviour and digital message engagement.

Research Hypotheses

- H01: There is no significant relationship between the frequency of pop-up Facebook adverts and subscribers' interest in Facebook messages.
- H02: There is no significant relationship between the content of pop-up Facebook adverts and subscribers' interest in Facebook messages.
- H03: There is no significant relationship between the timing of pop-up Facebook adverts and subscribers' interest in Facebook messages.
- H04: There is no significant relationship between the targeting criteria of pop-up Facebook adverts and subscribers' interest in Facebook messages.

2. Literature Review, Theory and Hypotheses Development

Social media refers to internet-based platforms and applications that enable users to create, share and exchange information, ideas and content in virtual communities and networks (Kaplan & Haenlein, 2010). Platforms such as Facebook, Twitter, Instagram and LinkedIn support communication, community building, marketing, public engagement and content sharing.

Facebook has evolved from a college networking site into one of the most influential social media platforms globally. It enables users to create profiles, share updates, upload photos and videos, join groups, follow pages, participate in events and communicate through Messenger. It has also become a major platform for advertising, news consumption and information dissemination.

Advertising is paid, non-personal communication through media by an identified sponsor to promote ideas, goods or services. On digital platforms, advertising has become increasingly targeted, interactive and data-driven. Facebook advertising uses demographic, psychographic and behavioural data to deliver messages to relevant audience segments.

pop-up advertisements are digital adverts that appear suddenly on a user's screen, either as overlays or windows, while browsing. Their main purpose is to capture attention and prompt action, but they can also be perceived as intrusive. Effective pop-up advertising therefore depends on relevance, timing, frequency, design and user control.

Facebook advertising includes photo ads, video ads, carousel ads, slideshow ads, collection ads and targeted campaign formats. Its targeting tools allow advertisers to define audiences according to interests, behaviours, location, age, gender, device usage and previous online activity. These capabilities make Facebook a powerful advertising channel, but they also raise concerns about privacy, intrusiveness and user fatigue.

The frequency of pop-up adverts on Facebook relates to how often users encounter such adverts while using the platform. Excessive exposure can lead to annoyance and disengagement, while moderate exposure may maintain awareness and encourage interaction (Garcia & Martinez, 2018; Chen & Wang, 2022). Advertisers therefore need to balance visibility with user comfort.

The content of pop-up Facebook adverts is central to capturing user attention. Messages with compelling visuals, concise wording, relevance, personalization and clear calls to action are more likely to resonate with subscribers. Interactive features such as polls, quizzes and personalized offers may further enhance engagement when aligned with users' interests (Li, Wang & Liu, 2020).

Timing refers to when pop-up Facebook adverts are displayed to users. Adverts shown during peak activity periods or at moments linked to users' browsing patterns may gain higher visibility and response. However, poorly timed adverts can interrupt browsing, create irritation and reduce interest in platform messages.

Targeting criteria refer to the demographic, psychographic and behavioural factors used to segment audiences. Facebook's targeting capabilities allow advertisers to tailor adverts to individuals' interests, preferences and purchase intent. Demographic targeting uses age, gender, location and relationship status; psychographic targeting uses values, interests and lifestyle; behavioural targeting uses browsing history, purchase behaviour, device usage and interactions with other websites or applications.

Interest in Facebook Messages refers to the level of engagement, attention and involvement individuals demonstrate when communicating through Facebook. It includes message frequency, responsiveness, content relevance, social connection and the use of features such as instant messaging, multimedia sharing and emoji reactions. Subscriber interest is important because it supports engagement, personalization, brand trust, optimized marketing strategies and feedback.

Theoretical Underpinning

Attentional Capture Theory, proposed by Theeuwes (1992), posits that attention is involuntarily drawn toward salient stimuli in the environment. Stimuli with distinctive features such as colour, motion or abrupt onset are more likely to capture attention. pop-up Facebook adverts align with this theory because their sudden appearance, vivid visuals and dynamic content can interrupt browsing and draw users' attention.

Although pop-up adverts can capture immediate attention, their repetitive and intrusive nature may also lead to fatigue, annoyance and ad-blindness. Users may become less inclined to pay attention to subsequent adverts or messages on Facebook if they perceive pop-ups as disruptive.

The Elaboration Likelihood Model, proposed by Petty and Cacioppo (1986), explains persuasion through two routes: the central route and the peripheral route. The central route involves careful evaluation of message content, while the peripheral route relies on surface cues such as attractiveness, source credibility or familiarity.

pop-up adverts on Facebook often operate through the peripheral route because they appear suddenly and demand quick attention. Users may not deeply process the advert content, but may instead respond to cues such as visual appeal, brand familiarity, timing, relevance or source credibility. The model therefore helps explain why content, timing and targeting may influence subscribers' interest in Facebook messages.

Empirical Review and Research Gap

Prior research found that the effect of the pop-up advertisement on the Facebook user depends on the factors of design quality, frequency, relevance, timing, cultural context and perceived intrusiveness. Aguocha (2022) revealed that the use of pop-up Facebook adverts had a positive impact on the interest of Facebook subscribers with regard to Facebook messages, particularly in the area of proper design, targeting and timing of the adverts. Likewise, Ikechukwu and Agu (2019) and Obumneme and Chimaroke (2017) found that design features like colour, imagery, text positioning, interactive elements and overall visual appeal can boost user interaction and brand recognition.

But other studies suggest that pop-up ads can cause negative user experiences when they are intrusive or too many. However, intrusive pop-up ads have been shown to have a negative impact on user satisfaction and engagement (Kelvin and George, 2018), and Sharon and Martina (2022) found that an excessive number of ads can negatively impact user engagement. In another study, Ijeh, Opara and Isu (2019) discovered that there are differences in users' perception of pop-up adverts according to the social media platforms, hence each advertiser should tailor their advertising strategy according to the platform and the target audience.

The literature also includes evidence that demographic and cultural factors affect users' reaction to pop-up adverts. The cultural differences of the user of Facebook in Nigeria and Kenya were found to play a role in their responses to pop-up adverts (Kamau, Mensah, 2020), and age and demographic factors were found to influence the toleration of pop-up adverts (Krob, Holla, 2021). Youth generally were more receptive to ads, particularly when they were relevant. Youth tended to be more accepting of advertising, particularly when it was relevant and limited in frequency.

Overall, the reviewed studies indicated that pop-up advertisements can enhance engagement, message interest and brand recall if the ads are relevant, attractive, timely, and culturally appropriate. Meanwhile, they can diminish user satisfaction if they are intrusive, less well-designed, or more common. But most of the studies conducted were outside Enugu metropolis and none of them emphasized on the interest of subscribers in Facebook messages. This leaves space for the present study in which the effect of frequency, content, time and targeting of pop up Facebook adverts on subscribers' interest in the Facebook messages among social media users of Enugu metropolis was examined.

2.4 Conceptual Framework

The conceptual framework links pop-up Facebook advert variables to subscribers' interest in Facebook messages. The independent variable is pop-up Facebook adverts, represented by frequency, content, timing and targeting criteria. The dependent variable is subscribers' interest in Facebook messages.

Figure 1: Conceptual framework of pop-up Facebook adverts and subscribers' interest

Independent variables: pop-up Facebook adverts	Hypothesis path	Dependent variable
Frequency of pop-up Facebook adverts	H01	Subscribers' interest in Facebook messages
Content of pop-up Facebook adverts	H02	Subscribers' interest in Facebook messages
Timing of pop-up Facebook adverts	H03	Subscribers' interest in Facebook messages
Targeting criteria of pop-up Facebook adverts	H04	Subscribers' interest in Facebook messages

Source: Adapted by the researcher for this study.

3. Methodology

The study adopted a survey research design. Research design provides the framework for collecting and analyzing data, and the survey method was appropriate because the study examined perceptions and responses of Facebook subscribers in Enugu metropolis.

Both primary and secondary sources of data were used. Primary data were generated through the distribution and collection of a structured questionnaire. Secondary data were obtained from related works by previous authors, journals, textbooks, websites, bulletins, magazines and newspapers.

The questionnaire used mainly Likert-type checklist items with response options of very high extent (VHE), high extent (HE), moderate extent (ME), low extent (LE) and very low extent (VLE). It was administered to Facebook subscribers in Enugu metropolis.

Since the population of Facebook subscribers in Enugu metropolis was treated as infinite, the sample size was determined using Cochran's (1963) formula for an unknown population: $n_0 = Z^2 P(1-P)/e^2$. The values used were $Z = 1.96$ at 95% confidence, $P = 0.69$, $1 - P = 0.31$ and $e = 0.05$. Therefore, $n_0 = (1.96)^2 \times 0.69 \times 0.31 / 0.0025 = 328$ subscribers.

To determine P and $1 - P$, the researcher conducted a pilot study among 15 randomly selected Facebook subscribers in Enugu metropolis. Sixty-nine percent gave a positive answer, while thirty-one percent gave a negative answer.

Following the nature of the study, the non-probability sampling technique was adopted. Convenience sampling was selected based on respondents' availability and accessibility to the researcher.

The study addressed two major variables and four sub-constructs. pop-up Facebook adverts, consisting of frequency, content, timing and targeting criteria, constituted the independent variable. Subscribers' interest in Facebook messages constituted the dependent variable. The measures were adapted from previous validated studies and incorporated into the questionnaire.

Face-to-face and content validity were used. The researcher's supervisor, an expert, validated the instrument for appropriateness, relevance and comprehensiveness. Comments and advice were used to revise and finalize the instrument.

Reliability was assessed through a trial test conducted in Uzo-Uwani Local Government Area of Enugu State and Enugu North Local Government Area. The Cronbach's Alpha method was used to calculate internal consistency reliability, and the obtained reliability result was 0.753.

Table 1: Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.753	.891	2

Data were analyzed with Multiple Regression Analysis in SPSS, as well as descriptive and inferential statistics. Frequencies and percentages were used to describe respondents' demographic characteristics. The decision rule was to reject a null hypothesis when the SPSS p-value was less than alpha (0.05); otherwise, the null hypothesis was accepted.

Results and Discussion

Distribution and Retrieval of Research Instruments

The research instrument was a structured questionnaire administered to Facebook subscribers in Enugu metropolis. Table 2 shows the distribution and retrieval of the questionnaire.

Table 2: Distribution and Retrieval of Questionnaire

Category	Frequency	Percentage
No. distributed	328	100%
Not filled, incorrectly filled or discarded	16	5%
Correctly filled and returned / in use	312	95%

Source: Field Survey, 2026.

A total of 328 copies of the questionnaire were distributed. Of these, 312 copies, representing 95% of the total distribution, were retrieved and found useful for analysis. The analysis was therefore based on 312 valid responses.

Demographic Characteristics of Respondents

Table 3: Demographics of Respondents (Facebook Subscribers)

Variable	Category	Frequency	Percentage
Gender	Male	199	63.8
Gender	Female	113	36.2
Marital status	Single	105	33.7
Marital status	Married	198	63.5
Marital status	Divorced/Others	9	2.8

Variable	Category	Frequency	Percentage
Age bracket	18–25	183	58.6
Age bracket	26–35	86	27.6
Age bracket	36–45	26	8.3
Age bracket	46 years and above	17	5.4
Educational qualification	O'Level/GCE	39	12.5
Educational qualification	B.Sc./HND	51	16.3
Educational qualification	Masters and above	209	67.0
Educational qualification	Sandwich/Others	13	4.2

Source: Field Survey, 2026.

Table 3 shows that 199 respondents (63.8%) were male, while 113 (36.2%) were female. The marital status distribution showed 105 single respondents (33.7%), 198 married respondents (63.5%) and 9 divorced or other-status respondents (2.8%). The largest age group was 18–25 years, with 183 respondents (58.6%). The largest educational category was Masters and above, with 209 respondents (67.0%).

Descriptive Analysis of Study Variables

Table 4: Responses on the Relationship between Frequency of Pop-Up Facebook Adverts and Interest in Facebook Messages

S/N	Statement	VHE	HE	ME	LE	VLE	Total
(a)	To what extent do you find Facebook messages from friends or groups interesting or valuable?	102	157	24	12	17	312
(b)	To what extent are you likely to interact with or click on pop-up Facebook adverts?	151	109	3	34	15	312
(c)	What is the extent of relevance of the pop-up Facebook adverts to you?	134	135	13	30	–	312
(d)	To what extent do you actively engage with Facebook messages from friends or groups?	143	124	17	16	12	312
	Total	530	525	57	92	44	1248
	Average total	133	131	14	23	11	312
	Percentage	43	42	4	7	4	100

Source: Field Survey, 2026.

Table 4 shows that, on average, 133 respondents (43%) selected very high extent, 131 (42%) selected high extent, 14 (4%) selected moderate extent, 23 (7%) selected low extent and 11 (4%) selected very low extent concerning the frequency of pop-up Facebook adverts and interest in Facebook messages.

Responses on Content of Pop-Up Facebook Adverts and Interest in Facebook Messages

S/N	Statement	VHE	HE	ME	LE	VLE	Total
(a)	How likely are you to engage with pop-up Facebook adverts based on their content?	145	114	28	15	10	312
(b)	To what extent do you feel pop-up Facebook adverts influence your purchasing decisions?	159	108	23	13	9	312
(c)	How interested are you in receiving personalized messages on Facebook based on your activity and interests?	160	95	30	12	15	312
(d)	How relevant do you find the content of pop-up Facebook adverts to your interests?	98	169	17	6	22	312
	Total	562	486	98	46	56	1248

S/N	Statement	VHE	HE	ME	LE	VLE	Total
	Average total	140	122	25	12	14	312
	Percentage	45	39	8	4	4	100

Source: Field Survey, 2026.

Table 5 shows that, on average, 140 respondents (45%) selected very high extent, 122 (39%) selected high extent, 25 (8%) selected moderate extent, 12 (4%) selected low extent and 14 (4%) selected very low extent concerning content of pop-up Facebook adverts and interest in Facebook messages.

Responses on Timing of Pop-Up Facebook Adverts and Interest in Facebook Messages

S/N	Statement	VHE	HE	ME	LE	VLE	Total
(a)	How do you perceive the timing of pop-up Facebook adverts concerning your browsing activities?	135	143	14	13	7	312
(b)	How frequently do you find pop-up Facebook adverts disruptive to your browsing experience?	103	140	14	32	23	312
(c)	To what extent do you actively engage with Facebook messages that you receive?	126	118	41	18	9	312
(d)	How do you feel about the frequency of Facebook messages you receive?	161	136	–	7	8	312
	Total	525	537	69	70	47	1248
	Average total	131	134	17	18	12	312
	Percentage	42	43	5	6	4	100

Source: Field Survey, 2026.

Table 6 shows that, on average, 131 respondents (42%) selected very high extent, 134 (43%) selected high extent, 17 (5%) selected moderate extent, 18 (6%) selected low extent and 12 (4%) selected very low extent concerning timing of pop-up Facebook adverts and interest in Facebook messages.

Regression Analysis and Hypotheses Testing

Multiple regression was used to test the model and hypotheses. It provides information about the significance of the variables included in the model, while R^2 explains the amount of variance in the dependent variable explained by the independent variables.

Table 7: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.983a	.965	.938	.753
Predictors	Content, Timing, Targeting and Frequency			
Dependent variable	Subscribers' interest in Facebook messages			

The R^2 value of .965 indicates that content, timing, targeting and frequency jointly explained approximately 96.5% of the variance in subscribers' interest in Facebook messages. The adjusted R^2 of .938 indicates that 93.8% of the variance in interest in Facebook messages is explained by the linear model after adjustment.

Table 8: Analysis of Variance (ANOVA)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	79.264	4	19.816	34.935	.001b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Residual	2.836	5	.567		
1	Total	82.100	9			
a. Dependent Variable	Interest in Facebook messages					
b. Predictors	(Constant), Content, Timing, Targeting and Frequency					

The ANOVA result indicates that the regression model is significant and a good predictor of subscribers' interest in Facebook messages ($F = 34.935$, $p = .001$).

Table 9: Coefficients of Variables

Model	Variable	B	Std. Error	Beta	t	Sig.
1	(Constant)	.126	1.271		.099	.025
1	Content	.661	1.161	.692	.569	.034
1	Timing	.359	.510	.474	.703	.013
1	Targeting	-.134	.524	-.190	-.255	.009
1	Frequency	.006	.266	.007	.021	.984
a. Dependent Variable	Interest in Facebook messages					

The fitted regression model was specified as $IFM = \beta_0 + \beta_1C + \beta_2TI + \beta_3TA + \beta_4F + \mu$, where IFM represents interest in Facebook messages, C represents content, TI represents timing, TA represents targeting and F represents frequency. The estimated relationship was $IFM = 0.126 + 0.661C + 0.359TI - 0.134TA + 0.006F$.

Table 10: Summary of Hypotheses Test Results

S/N	Null Hypothesis	Decision
1	There is no significant relationship between content of pop-up Facebook adverts and interest in Facebook messages.	Rejected
2	There is no significant relationship between timing of pop-up Facebook adverts and interest in Facebook messages.	Rejected
3	There is no significant relationship between targeting criteria of pop-up Facebook adverts and interest in Facebook messages.	Rejected
4	There is no significant relationship between frequency of pop-up Facebook adverts and interest in Facebook messages.	Accepted

Discussion of Findings

The findings show a significant relationship between content of pop-up Facebook adverts and subscribers' interest in Facebook messages ($p = .034$, $p < .05$). This supports the view that the relevance, clarity, attractiveness and personalization of advertising content can influence users' willingness to engage with Facebook messages.

The study also found a significant relationship between timing of pop-up Facebook adverts and subscribers' interest in Facebook messages ($p = .013$, $p < .05$). This implies that the timing of advert exposure may influence users' receptiveness or responsiveness to other content on the platform.

The findings further indicate a significant relationship between targeting criteria of pop-up Facebook adverts and subscribers' interest in Facebook messages ($p = .009$, $p < .05$). This suggests that adverts aligned with users' demographic, behavioural and interest profiles are more likely to influence message engagement.

Frequency of pop-up Facebook adverts did not show a significant relationship with subscribers' interest in Facebook messages ($p = .984$, $p > .05$). This implies that frequent exposure alone may not increase engagement and may need to be managed carefully to avoid fatigue, annoyance or irritation.

Summary of Findings, Conclusion and Recommendations

Summary of Findings

1. There is a significant relationship between content of pop-up Facebook adverts and subscribers' interest in Facebook messages. This implies that the nature, relevance and appeal of advertisements encountered on Facebook may influence users' engagement with Facebook messages.
2. There is a significant relationship between timing of pop-up Facebook adverts and subscribers' interest in Facebook messages. This implies that the timing of pop-up adverts may influence users' receptiveness or responsiveness to platform messages.
3. There is a significant relationship between targeting criteria of pop-up Facebook adverts and subscribers' interest in Facebook messages. This implies that the effectiveness of pop-up Facebook adverts depends partly on how well they are tailored to the relevant audience.
4. There is no significant relationship between frequency of pop-up Facebook adverts and subscribers' interest in Facebook messages. This suggests that high advert frequency alone does not necessarily improve subscriber engagement.

Conclusion

The study highlights key relationships between aspects of pop-up Facebook advertisements and user engagement with Facebook messages. It underscores the importance of advertisement content, timing and targeting criteria in influencing user receptivity and engagement. Effective and relevant content can enhance interest in Facebook messages, while strategic timing can make users more receptive. Targeted adverts that reflect user profiles and preferences may improve engagement, whereas frequency by itself may not be sufficient and may even risk user fatigue. For advertisers and platform managers, the findings emphasize the need to deliver relevant, well-timed and appropriately targeted pop-up adverts while avoiding excessive exposure.

Recommendations

1. The content of pop-up Facebook adverts should align closely with the interests and preferences of the target audience to increase engagement with messages.
2. Companies and businesses should use data-driven insights to determine optimal timing for displaying pop-up ads in order to maximize user receptivity.
3. Advertisers should continuously refine and update targeting criteria for pop-up Facebook adverts to improve their effectiveness in driving message interest among users.
4. Personalization techniques should be incorporated to tailor pop-up ads to individual user preferences and behaviours, thereby increasing relevance and engagement.
5. Advert frequency should be monitored and adjusted to avoid overwhelming users and to minimize ad fatigue or irritation.
6. Advertisers should develop interactive and engaging ad formats that encourage users to interact with messages and ad content.
7. Companies should regularly analyze engagement metrics to evaluate the effectiveness of pop-up Facebook adverts and refine future strategies.
8. Advertisers should solicit and incorporate user feedback regarding ad experiences and messaging preferences.

Contributions to Knowledge

1. The study developed and statistically tested variables of pop-up Facebook adverts and their influence on subscribers' interest in Facebook messages among Facebook users in Enugu metropolis.
2. The study offers local empirical evidence on the influence of pop-up Facebook adverts on subscribers' interest in Facebook messages and provides advertising dynamics propositions regarding social media users.
3. The study provides opportunities to assess the adoption and implementation of advertising variables as tools for understanding subscribers' interest in Facebook messages.
4. The findings add value to the limited local literature on how pop-up Facebook adverts shape digital communication behaviour in Enugu metropolis.

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APPENDIX A: QUESTIONNAIRE ITEMS

The research instrument used the following response scale for key research variables: VHE = Very High Extent; HE = High Extent; ME = Moderate Extent; LE = Low Extent; VLE = Very Low Extent.

Appendix Table A1: Personal Data Items

Section	Item	Options
Personal data	Gender	Male; Female
Personal data	Marital status	Single; Married; Others
Personal data	Age bracket	18–25; 26–35; 36–45; 46 years and above
Personal data	Educational qualification	O’Level/ND; B.Sc./HND; Masters and above; Others

Appendix Table A2: Key Research Variable Items

Construct	Code	Questionnaire item
Frequency / Interest	F1	To what extent do you find Facebook messages from friends or groups interesting or valuable?
Frequency / Interest	F2	To what extent are you likely to interact with or click on pop-up Facebook adverts?
Frequency / Interest	F3	What is the extent of relevance of the pop-up Facebook adverts to you?
Frequency / Interest	F4	To what extent do you actively engage with Facebook messages from friends or groups?
Content	C1	How likely are you to engage with pop-up Facebook adverts based on their content?
Content	C2	To what extent do you feel pop-up Facebook adverts influence your purchasing decisions?
Content	C3	How interested are you in receiving personalized messages on Facebook based on your activity and interests?

Content	C4	How relevant do you find the content of pop-up Facebook adverts to your interests?
Timing	T1	How do you perceive the timing of pop-up Facebook adverts concerning your browsing activities?
Timing	T2	How frequently do you find pop-up Facebook adverts disruptive to your browsing experience?
Timing	T3	To what extent do you actively engage with Facebook messages that you receive?
Timing	T4	How do you feel about the frequency of Facebook messages you receive?
Targeting criteria	TC1	To what extent do you feel that pop-up Facebook adverts accurately reflect your online behaviour and activities?
Targeting criteria	TC2	How relevant do you find the content of pop-up Facebook adverts based on your interests and preferences?
Targeting criteria	TC3	How interested are you in receiving Facebook messages from businesses or brands regarding their products or services?
Targeting criteria	TC4	How likely are you to engage with pop-up Facebook adverts that are tailored to your demographic information (for example, age or location)?