



Exposure, Perception and Attitude of internet Users among University of Ibadan Undergraduate towards Pop-up Advert Messages

Adenike Omotayo Okeya-Olayinka Ph.D. & Deborah Okikijesu Tubi

Department of Broadcasting Information and Media Science, Faculty of Communication and Media Studies

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*Corresponding Author: Adenike Omotayo Okeya-Olayinka Ph.D.

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Abstract

Original Research Article

This study examined the exposure, perception, and attitude of University of Ibadan undergraduates toward pop-up advertising messages. The study was motivated by the increasing use of pop-up advertisements in digital environments and concerns about their intrusive nature, relevance, credibility, and influence on users' responses. The study adopted a descriptive survey research design. The population comprised 16,736 undergraduate students of the University of Ibadan, from which a sample of 391 respondents was determined using the Taro Yamane formula. A multistage sampling procedure was used in selecting respondents across faculties, departments, and levels of study. Data were collected through a structured questionnaire and analyzed using frequency counts, percentages, and mean scores. The findings showed that the undergraduates of the University of Ibadan had a high level of exposure to pop-up advertisements, with most respondents encountering them at least once during each browsing session. Social media platforms constituted the major medium through which students encountered pop-up advertisements, while product and service advertisements were the most common type seen. The respondents generally did not perceive pop-up advertisements as sufficiently informative or relevant to their demographic needs; rather, they largely viewed them as misleading, deceptive, intrusive, and disruptive. The study further revealed that students had predominantly unfavourable attitudes toward pop-up advertisements, as many respondents reported frustration when exposed to them. The study concludes that frequent exposure to pop-up advertisements does not necessarily lead to positive perception, favourable attitude, or purchase response. It recommends that advertisers should design more relevant, credible, less intrusive, and user-centred pop-up advertisements, while relevant regulatory bodies should strengthen measures against deceptive and excessively disruptive online advertising practices.

Keywords: Exposure, Perception, Attitude, internet Users, Pop-up Advert Messages.

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Introduction

The Internet and digital technologies have changed the way advertising is done and the dominance of traditional media like newspapers,

radio, and television has been marginalized (Kotler & Keller, 2016; Belch & Belch, 2021). This change has not just transformed how messages are delivered, but also the methods advertisers employ to create, deliver and



measure the effectiveness of advertising in increasingly interactive environments (Chaffey & Ellis-Chadwick, 2019). Within the various types of online advertising, one of the most prominent and controversial is the pop-up advert (Goldfarb & Tucker, 2011). Pop-ups are a type of advertising that appears on a new window or above the website when the user is visiting a website or by using a mobile application. Their primary goals are to gain immediate attention, build brand awareness and elicit consumer reactions (Oyesomi, Salawu & Olorunyomi, 2014). Although they are meant for strategic purposes, the intrusive form of pop up advertising has sparked debate about their effectiveness and user acceptance for years (Goldfarb & Tucker, 2011). However, these pop-up adverts aren't the same on all channels. They are largely based on the type of platform and access arrangement of the user. While you are unlikely to encounter adverts on paid-to-use sites, free-to-use sites and mobile apps, especially news sites and other information sources like Opera News, Legit.ng, whatsapp, music player, tiktok, temu, movie box and so on rely heavily on advertising revenues and thus show pop-up advert messages to users that do not pay for use of the site or app. Subscription-based platforms, on the other hand, do not generally interrupt their paying users with pop-up advert messages and messaging platforms like spotify premium, microsoft word, youtube premium and others do not commonly show pop-up advert messages to its users. Pop-up adverts are not necessarily found on all social media platforms, and any research about them has to be accompanied by the platforms and the sort of user that sees them.

The increasing penetration of the Internet and mobile communication into Nigeria has also helped to drive online advertising. As smartphones become more affordable, networks reach more people, and everyone is using social media, the internet is an increasingly essential component of everyday life for young people. The Nigerian Communications Commission (NCC) reports that the country's internet users are largely young people. For Nigerian university students, the internet is a vital tool in conducting research, learning, communicating,

being entertained and shopping (Akinwale, 2018). This age group is therefore often subjected to different types of online adverts such as banner, sponsored, video and pop up adverts (Adebayo & Olatunji, 2017; Yusuf & Sadiq, 2019). Federal institutions such as University of Ibadan, are a very connected and active group of undergraduates in the media. They tend to use free-to-use news sites or apps, other information-providing apps, academic platforms, and streaming services, all of which put them at risk of free pop-up ads. As indicated by the research conducted in Nigeria, the learners' exposure to online advertising is quite high as they are very much exposed to the internet and use of digital media in their day-to-day life (Adebayo & Olatunji, 2017; Yusuf & Sadiq, 2019). But, just witnessing an advert does not mean that it will be successful since users' perception and emotions related to the ads have a significant impact on their response to the adverts.

Despite the fact that pop-up advertising is a key strategy for advertisers, studies indicate that the disruptive nature of pop-up advertising can cause users of the internet to react negatively to the advertising approach. Research conducted in Nigeria has revealed that online advertisement is distracting, irritating and intrusive to online users, especially when it intrudes on their browsing (Azeez & Oyediji, 2018; Okorie & Agbana, 2020). These misgivings can impact users' attitude towards the promoted product or brand and result in ad avoidance, negative brand image, or the use of advert blockers. Therefore, consumers' attitudes and behaviors are not necessarily positive when they are interacting with pop-up adverts. They have a media diet, technical capabilities and purchasing power that make them an important audience for advertisers online. Further, their attitudes towards ads can determine the success or failure of digital marketing initiatives (Salawu & Oyesomi, 2016). Although online advertising has come to the fore in Nigeria, very little studies have specifically focused on the exposure, perception and attitude of Nigerian university students towards pop-up adverts. Existing literature has primarily examined online advertising in general and not specifically examined the impact of pop-

up adverts, nor carefully correlated exposure, perception and attitude variables. The research gap necessitates a detailed investigation on the experience of University of Ibadan undergraduates with pop-up adverts on free-to-use platforms and applications, the perception of the pop-up adverts and attitudes formed towards the adverts. This study investigated the Exposure, Perception and Attitude of internet Users among University of Ibadan Undergraduate towards Pop-up Advert Messages.

Statement of the Problem

As pop-ups have become a common feature for online marketers, there are growing concerns about how irritating they are to users, how they can be avoided, and how they have negatively affected brand perceptions. Research has revealed that intrusive advertising, in the form of pop-up adverts, for instance, can negatively impact users online experiences, causing them to feel annoyed and psychologically reactant (Goldfarb & Tucker, 2011). Such ads are often viewed as distractions and disrupt users' activities and tasks, ultimately decreasing their satisfaction and efficiency in communicating (Li et al., 2002).

Undergraduates at universities, who often use the internet for their work and socialization, may be influenced by the constant exposure to pop-up adverts, and as a result, how they view and respond to online ads. Advertisers believe that the more often they see adverts, the more aware they will become and the more convincing they will find them, but users might become resistant or get negative feelings towards the ads. There is not any information available in Nigeria to show how the undergraduate students perceive the pop-up advertising and whether the encounter with the advertising prompts them to accept or reject the message. Pop-up adverts also don't appear on all platforms: They're usually displayed to users who haven't subscribed to the free-to-use version of a web service or application, particularly news or information services, but not on advert-free paid versions or on services. It is therefore important to define platforms and the type of users analyzed. A flood

of literature on internet users in Nigeria particularly youths and Nigerian students has surfaced, but few has been the attention on the attitudes which have been formed and reconfigured in University of Ibadan undergraduates by the pop-up advert message. Hence, it is important to study the problem of exposure of undergraduates of University of Ibadan to pop up advertisements, their attitude to the messages and their perception of these. This study aims to bridge this gap by investigating the exposure, perception and attitude of the University of Ibadan undergraduate students regarding pop-up advertisements.

Objectives of the Study

1. Assess the level of exposure of University of Ibadan undergraduates to pop-up advert messages.
2. Examine the perception of University of Ibadan undergraduates toward pop-up advert messages.
3. Assess the attitude of University of Ibadan undergraduates toward pop-up advert messages.
4. Establish the relationship between exposure to pop-up adverts and students' attitudes toward such adverts.
5. Identify factors influencing students' perception and attitude toward pop-up advert messages.

Theoretical Framework

This study is based on the Uses and Gratifications Theory and the Hierarchy of Effects Model

The Uses and Gratifications Theory explains how audiences actively and purposefully select and use media to satisfy specific psychological and social needs. Unlike earlier media perspectives that largely portrayed audiences as passive recipients of media messages, the theory conceptualizes media users as active, selective, and goal-directed participants in the communication process. Thus, the theory provides a useful framework for understanding

why individuals choose particular media platforms and how their motivations influence patterns of media exposure, engagement, and response. The theory also supports the examination of key variables in this study; exposure, perception, and attitude. It emphasizes that users media experiences and responses are shaped by their motivations and expectations. Therefore, understanding how University of Ibadan undergraduates use the internet and what gratifications they seek is essential in explaining their perceptions of pop-up adverts and the attitudes they develop toward such advertising messages.

The Hierarchy of Effects Model, developed by Lavidge and Steiner (1961), explains advertising effectiveness as a sequential process through which consumers progress from cognitive awareness and knowledge, to affective responses such as liking and preference, and ultimately to behavioural action or purchase. In the context of internet advertising, exposure to pop-up adverts represents the awareness stage of the hierarchy. Pop-up advertisements are designed to attract immediate attention and create awareness by appearing prominently on users screens during online activities. However, Nigerian studies indicate that although pop-up adverts may successfully generate awareness due to their visibility, this awareness does not automatically translate into positive consumer responses (Azeez & Oyedeleji, 2018; Okorie & Agbana, 2020). In relation to this study, the Hierarchy of Effects Model provides a theoretical basis for understanding how exposure to pop-up advertisements among University of Ibadan undergraduates may create awareness, while perception and attitude determine whether students' progress to interest, desire, and possible action. The model therefore complements the Uses and Gratifications Theory by highlighting the role of cognitive and affective processes in shaping audience responses to pop-up advertising messages.

Pop-up Advertisement: A Concept

Pop-up advertisements are those eye-catching graphical, textual, or multimedia messages that suddenly show up on your screen while you're

browsing websites or using mobile apps. They typically pop up in separate windows, overlays, or tabs without you even asking for them, which makes them hard to miss. The main goal of these pop-up advertisements is to grab your attention right away, boost brand awareness, and encourage you to interact like clicking a link or making a purchase (Oyesomi, Salawu & Olorunyomi, 2014). However, despite being so noticeable, pop-up advertisements often get a bad rap for being intrusive. They can interrupt your browsing experience, making them feel distracting and annoying, especially when they cover up website content or slow down your access to the information you want. Research in Nigeria shows that internet users, particularly young people and students, often link pop-up advertisements with frustration and irritation, which can lead to them avoiding these adverts altogether or developing negative feelings toward the brands being advertised (Azeez & Oyedeleji, 2018; Okorie & Agbana, 2020). Moreover, the forced exposure that comes with pop-up advertising can negatively shape how users view and feel about the adverts, especially if they find the messages irrelevant, misleading, or just too much. Nigerian researchers have noted that while pop-up advertisements can raise awareness, their success really hinges on how relevant and timely users find them (Salawu & Oyesomi, 2016). So, getting a handle on how audiences respond to pop-up advertisements is crucial for assessing their effectiveness in the world of online advertising.

Exposure to Advertising towards Internet Users

Exposure is all about how much people come into contact with advertising messages over a certain period, and it is usually measured by how often and how long these messages are seen. In the advertising world, exposure plays a crucial role in determining how frequently and for how long audiences encounter promotional content across various media platforms. When it comes to online spaces, exposure is heavily influenced by users browsing habits, the types of websites they visit, the time they spend online, and the devices they use to connect to the internet, like

smartphones, tablets, and laptops (Akinwale, 2018). In the realm of internet advertising, exposure often happens without planning and can be hard to avoid, especially with formats like pop-up adverts that show up automatically while browsing. Research in Nigeria has revealed that heavy internet users especially young people and university students tend to have high levels of exposure to online adverts because they frequently engage with social media, news sites, and streaming platforms (Adebayo & Olatunji, 2017; Yusuf & Sadiq, 2019). While this repeated exposure can boost awareness of advertised products or services, it does not always lead to positive reactions from the audience. Moreover, the success of advertising exposure hinges not just on how often users see adverts, but also on how they perceive that exposure. If users feel that the adverts are too frequent or intrusive, it can lead to annoyance, advert avoidance, or negative feelings toward the advertising message and the brand being promoted (Azeez & Oyedeji, 2018). So, to truly grasp the impact of online advertising especially pop-up adverts, it is essential to consider audience perception and attitudes alongside the exposure itself.

Empirical Review

Akinola and Okunade (2016): In the study titled: Evaluating the use of Internet as a medium for Marketing and Advertising Messages in Nigeria. The study evaluated how the internet is used as a platform for marketing and advertising messages in Nigeria. The study objectives were to explore internet acceptance as a tool for marketing and advertising, determine awareness of internet advertising among users, establish the rate of internet usage for marketing purposes, and identify obstacles to internet-based marketing and advertising communication. A descriptive survey research design was employed involving literate Nigerians residing in Lagos and Ogun states. A purposive sample of 200 respondents was selected from Abeokuta (Ibara and Onikolobo) and Lagos (Yaba and Ikeja). Data were collected using a structured questionnaire comprising 21 items, which was tested for validity and reliability using SPSS.

The findings revealed that the predominant age group using the internet in Nigeria is 18-45 years, representing the youth demographic. Although approximately 87% of respondents were aware of online advertisements and marketing, only 4% of employed adults aged 32-45 actively sought online commercials. Most internet users accessed the platform for entertainment rather than seeking commercial messages. The study identified obstacles to internet-based marketing including poor connection quality, high access costs, irregular electricity supply, and online fraud concerns. The researchers concluded that despite the internet's potential as a marketing medium in Nigeria, it remained underutilized for advertising purposes. This study is relevant because it identifies awareness and adoption of internet advertisements among Nigerian users. However, it did not specifically investigate pop-up advertisements or examine user attitudes toward intrusive online advertising formats.

Mbugua and Ndavi (2021): in the study titled: Effectiveness of pop-up advertisements as advertising tools: The case of the Co-operative University of Kenya. The authors conducted an investigation into the effectiveness of pop-up advertisements at the Co-operative University of Kenya. This study responded to the increasing trend of organizations adopting pop-up advertising despite reports that many users perceive such advertisements as intrusive, irritating, and disturbing. The research focused on how effective pop-up advertisements are in awareness creation and brand recall, their influence on consumers' attitudes toward advertised brands, and their impact on purchase intentions among students. The study also investigated students' perceptions of pop-up advertisements and whether repeated exposure leads to purchase intent.

A case study research design was employed, adopting the Co-operative University of Kenya as the unit of study. Using stratified sampling, 100 undergraduate students from various academic programs were selected. Data were collected through structured questionnaires and analyzed using descriptive statistics including frequencies and percentages. The findings

revealed that respondents encountered pop-up advertisements frequently on the internet and social networks. Forty-eight percent reported encountering pop-ups frequently, 26% sometimes, and 36% occasionally. However, only 11% could easily recall specific pop-up advertisements they had recently seen, suggesting that while pop-up advertisements achieved wide exposure, they did not generate strong brand recall. Most respondents held negative views about pop-ups, considering them highly irritating, annoying, and intrusive as they prevented users from completing intended online activities. Fewer than 7% of God respondents used advertised products or liked the associated brands. The researcher concluded that pop-up advertisements had insignificant influence on consumer purchase intentions because users who had formed negative perceptions ignored and exited them immediately. Although pop-up advertisements create awareness and attract attention, their generally negative influence on attitudes and purchase intentions suggests they are only semi-effective. The researchers advised advertisers to redesign pop-up advertisements to minimize annoyance and promote user-friendliness and relevant content. This study is highly relevant to the present research due to its focus on undergraduate exposure and attitudes toward pop-up advertisements. Furthermore, it investigated how pop-up advertisements affect purchase intention, a significant factor in advertising strategy. The current research differs by focusing specifically on University of Ibadan undergraduates and assessing their exposure, attitudes, and perceived impact of pop-up advertisements.

Guanah and Omoera (2025). In the study *Deceptive Online Advertising: An exploratory study of Tiktok Advertisements in Nigeria*. The authors explored deceptive online advertising on TikTok in Nigeria, investigating the extent of deceptive advertisements, their effects on university students in Bayelsa State, and advertiser adherence to ethical advertising policies. The study employed the Nudge Theory backed by the Persuasion Knowledge Model to explain consumer decision-making based on understanding deceptive advertising. The research aimed to assess the extent to which

consumers are deceived by TikTok advertisements and their effects on online advertising credibility. The study employed a mixed-method design involving students from Federal University Otuoke, Niger Delta University, and Hensard University in Bayelsa State. Data collection included questionnaires administered to Federal University Otuoke students and semi-structured interviews with Niger Delta University and Hensard University students. Descriptive statistics were used for quantitative data analysis. The findings revealed that most advertisements on TikTok were deceptive and had substantial socioeconomic consequences for university students. Advertisers engaged in non-compliance with ethical advertising standards for products including food, medicine, cosmetics, and skin care. Respondents reported that deceptive advertising had greatly reduced their tendency to trust online advertisements and increased their likelihood of making poor purchasing decisions due to exaggerated or misleading claims. The study concluded that TikTok advertising continues to offer opportunities for deceptive advertising and may mislead consumers toward purchasing unwanted products and services. The importance of this research lies in its findings that online advertising credibility and ethical standards critically affect users' attitudes, decisions to accept or reject advertisements, and overall advertising effectiveness. This study differs from the present research in that it focused specifically on deceptive TikTok advertising among university students in Bayelsa State, whereas the present study explores internet users' exposure, perception, and attitudes toward pop-up advertisements among University of Ibadan undergraduates.

Methodology

The descriptive survey design is considered suitable for examining the relationship between exposure to pop-up advertising, audience perception, and attitude in the context of this study. This population of this study consisted of all registered student of the University of Ibadan for the 2024/2025 academic session, according to the university of Ibadan info-Statistics report,

the institution had a total student enrolment of 16,736. This population included undergraduate student across all faculties and department in the university. The total population was used as the basis for determining the sample size and selecting respondent for the research. The objective of this study was to draw inferences from a selected sample in order to make generalisations about the target population. To determine an appropriate sample size, the Taro Yamane (1967) formula was adopted to arrive at a sample size of 391. The sampling technique used was the multistage sampling technique

because, Multistage sampling is a probability sampling procedure in which sampling is conducted in successive stages, moving from larger population units to smaller units until the final respondents are selected. It is considered appropriate for large populations because it improves representativeness while reducing the cost and complexity of data collection (Creswell & Creswell, 2018; Arnab, 2017). The instrument used was the structured questionnaire and were statistically presented and analyzed using Microsoft Excel and Statistical Package for Social Sciences (SPSS version 22).

Data Presentation

RQ 1: What is the level of exposure of University of Ibadan undergraduates to pop-up advert messages?

Table 1a: Frequency of encountering pop-up advert while browsing the internet

Frequency	Frequency	Percent	Mean
Rarely (once a week or less)	20	5.1	2.7852
Occasionally (a few times per week)	68	17.4	
Frequent (at least once per every browsing session)	203	51.9	
Very frequently (several times per browsing session)	81	20.7	
Every time I browse	19	4.9	

Source: Fieldwork, 2026

The table shows that majority of the respondents encounter pop-up advert while browsing the internet

Table 1b: Platforms or websites where pop-up advertisements are encountered

Platform	Frequency	Percent
Social Media Platforms	253	64.7
E-commerce Websites	148	37.8
News/Information Websites	99	25.3
Entertainment/Streaming Platforms	131	33.5
Academic/Educational Websites	58	14.8
Free Download/File Sharing Sites	100	25.6

Source: Fieldwork, 2026

Result presented in Table 1b shows that social media platforms are where respondents encounter pop-up adverts the most.

Table 1c: Types of pop-up adverts encountered

	Frequency	Percent
Product/Service Advertisements	229	58.6
Dating/Social Relationship Advertisements	78	19.9
Educational/Training Program Advertisements	94	24.0
Financial Services Advertisements	100	25.6
Health/Wellness Product Advertisements	69	17.6
Entertainment/Event Advertisements	98	25.1
Subscription/Membership Advertisements	54	13.8

Source: Fieldwork, 2026

Finding on the type of pop-up advertisement respondents encounter online shows that 229 respondents representing 58.6% of the participants in the study reported that the pop-up advertisements they see online is product or service advertisements; this shows that product or service advertisement is the most prominent of all the pop-up advertisements.

RQ 2: What are the perceptions of University of Ibadan undergraduates toward pop-up advert messages?

Table 2: Perception towards pop-up advert messages

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean
Pop-up advert messages are informative and usually provide useful information	46(11.8%)	129(33.0%)	87(22.3%)	83(21.2%)	46(11.8%)	2.8696
Most pop-up advert messages are relevant to my demographic	45(11.5%)	126(32.2%)	101(25.8%)	81(20.7%)	38(9.7%)	2.8414
Pop-up advert messages are often misleading and deceptive	47(12.0%)	44(11.3%)	64(16.4%)	129(33.0%)	107(27.4%)	3.5217
Pop-up advert messages are often intrusive and disruptive	42(10.7%)	51(13.0%)	45(11.5%)	113(28.9%)	140(35.8%)	3.6522

Source: Fieldwork, 2026

The findings therefore suggest that the students' perception of pop-up advertising is largely shaped by concerns about its credibility and disruptive nature, rather than by the usefulness or relevance of the messages. In practical terms,

while pop-up advertisements may be encountered frequently, their presence does not necessarily translate into positive perceptions among the students.

RQ 3: What are the attitudes of University of Ibadan undergraduates toward pop-up advert messages?**Table 3: Attitude towards pop-up advert messages**

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean
I feel frustrated when I encounter pop-up advertisements	57(14.6%)	53(13.6%)	39(10.0%)	91(23.3%)	151(38.6%)	3.5780
Pop-up advertisements influence my purchasing behaviour	65(16.6%)	107(27.4%)	85(21.7%)	84(21.5%)	50(12.8%)	2.8568
I sometimes click on pop-up advertisements out of curiosity	47(11.8%)	104(26.6%)	86(22.0%)	100(25.6%)	55(14.1%)	3.0307
I would support stricter regulations on pop-up advertisements	58(14.8%)	55(14.1%)	53(13.6%)	110(28.1%)	115(29.4%)	3.4246

Source: Fieldwork, 2026

The findings indicate that the attitudes of University of Ibadan undergraduates toward pop-up advert messages are predominantly negative. The strongest attitude is reflected in the feeling of frustration associated with encountering pop-up advertisements ($M = 3.58$), followed by support for stricter regulation ($M = 3.42$). In contrast, the relatively low mean for purchasing behaviour ($M = 2.86$) suggests that pop-up advertisements do not strongly influence

students' perceived purchasing decisions. The near-neutral mean for curiosity-driven clicking ($M = 3.03$) further indicates that students' interaction with pop-up advertisements is mixed. Taken together, the results suggest that although pop-up advertisements are capable of attracting some attention, they are more strongly associated with frustration and a desire for greater control or regulation than with positive consumer responses

RQ 4: What relationship exists between exposure to pop-up adverts and students' attitudes toward such adverts?**Table 4: Relationship between exposure and attitude to pop-up advert messages**

Exposure to pop-up advertisements	Attitude	
	Pearson Correlation	.062
	Sig. (2-tailed)	.223
	N	391

The result shows that the correlation coefficient of the relationship between exposure of undergraduates of Ibadan towards pop-up advertisement messages and their attitude towards pop-up messages is .062, which is an indication that the relationship is positive but is however extremely weak. The level of significance of the relationship is .223, which signifies that the relationship between exposure and attitude is not statistically significant. Based

on the finding, it is therefore concluded that there is no statistically significant relationship between the exposure of undergraduates to pop-up messages and the overall attitude of the students to the adverts. The implication of this is that a corresponding increase or decrease in exposure does not have a meaningful or reliable impact on shaping students' attitudes based on this sample.

RQ 5: What factors influence University of Ibadan undergraduates' perception and attitude toward pop-up advert messages?

Table 5: Factors influencing perception and attitude towards pop-up advert messages

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean
I am more receptive to pop-up advertisements that are relevant to my interest	38(9.7%)	61(15.6%)	60(15.3%)	119(30.4%)	113(28.9%)	3.5269
My attitude towards pop-up advertisements depends on when they appear	41(10.5%)	64(16.4%)	50(12.8%)	127(32.5%)	109(27.9%)	3.5013
Creative and engaging pop-up advertisements are more acceptable to me	42(10.7%)	67(17.1%)	86(22.0%)	120(30.7%)	76(19.4%)	3.3043
I trust pop-up advertisements from established or known brands more	32(8.2%)	63(16.1%)	66(16.9%)	114(29.2%)	116(29.7%)	3.5524
The types of product/service advertised affects my perception of pop-up advert	29(7.4%)	64(16.4%)	71(18.2%)	117(28.9%)	110(28.1%)	3.5448
My attitude towards pop-up advert depends on which website they appear	33(8.4%)	66(16.9%)	63(16.1%)	135(34.5%)	94(24.0%)	3.4885
My friend's opinions influence my perception of pop-up adverts	35(9.0%)	83(21.2%)	131(33.5%)	83(21.2%)	59(15.1%)	3.1125
My past negative experience with pop-up adverts shape my current attitude	24(6.1%)	36(9.2%)	63(16.1%)	119(30.4%)	149(38.1%)	3.8465

This result suggests that previous negative experiences are the most prominent factor influencing students' current attitudes toward

pop-up advertisements. Repeated experiences of unwanted, disruptive, misleading or otherwise unpleasant advertisements may therefore

contribute to the development of unfavourable attitudes toward subsequent pop-up messages.

Discussion of Findings

Finding on internet experience and intensity of internet use of undergraduates show that a substantial proportion of the respondents had been using the internet for several years. Therefore, the respondents can generally be regarded as experienced internet users. This is important in interpreting their responses to pop-up advertising because their attitudes are likely to have developed through repeated exposure to different forms of online advertising and digital content. The finding is consistent with **Musa et al. (2018)**, who reported widespread use of social media and internet-based technologies among Nigerian university students, although they also identified internet cost, connectivity and privacy as important barriers. Similarly, a study of undergraduate students in Gombe State found that mobile phones were widely used to access social media, with students using these platforms for communication, entertainment and educational purposes. More recently, **Okeya-Olayinka and Afolabi (2026)** found that students in higher institutions in Ibadan primarily used the internet for browsing and social media, with digital media forming an important part of their everyday media consumption. Finding on the frequency of exposure of undergraduates to pop-up advertisements establish a relatively high level of exposure to pop-up advertising. Therefore, the experience of encountering a pop-up advertisement appears to be a routine part of internet use for many respondents. This finding is important because it demonstrates that pop-up advertising remains a noticeable component of the online environment despite the increasing use of advertising filters, platform controls and other mechanisms for managing digital advertising. The finding is consistent with **Edwards et al. (2002)**, whose study of pop-up advertising found that forced exposure can make users perceive advertisements as intrusive and irritating, which subsequently encourages avoidance. Their study specifically identified perceived intrusiveness as an important

mechanism linking forced exposure to irritation and advertising avoidance. The result also agrees with the findings of **Niu et al. (2021)**, who found that advertising invasiveness increases irritation and that irritation subsequently contributes to advertising avoidance. Although their study focused on social media advertising rather than pop-up advertising specifically, the underlying pattern is relevant: when advertising is perceived as invading the user's online space or interrupting attention, the response is more likely to become negative.

The findings on perception show a clear contrast between the perceived usefulness and perceived negative characteristics of pop-up advertisements. This pattern suggests that respondents do not necessarily reject online advertising in general; rather, they appear to question the quality, relevance and manner of delivery of pop-up advertisements. This distinction is supported by **Maseeh et al. (2021)**, who found that informativeness, credibility, entertainment and personalisation can contribute positively to attitudes toward mobile advertising, while irritation has a negative relationship with advertising attitudes. The finding concerning relevance is also consistent with **de Groot (2022)**, who found that personalisation increased perceived relevance and that relevance was associated with attitudes toward the advertised brand. The negative perception of pop-up advertisements as misleading or deceptive also deserves attention. The present data do not establish that the advertisements were objectively deceptive; rather, they show that students perceived them that way. This distinction is important for a master's project because perception itself is the variable being investigated. The finding suggests that advertisers may face a credibility problem when users do not regard the information presented in pop-up messages as sufficiently trustworthy.

The findings on attitude reveal a predominantly unfavourable response. The strongest item was the statement that respondents feel frustrated when they encounter pop-up advertisements. In contrast, pop-up advertisements was found to influence purchasing behaviour of only a few students, while curiosity-driven clicking was

moderate. The result is consistent with Edwards et al. (2002), who established a relationship between perceived intrusiveness, irritation and avoidance in the context of pop-up advertisements. It is also consistent with Niu et al. (2021), who found that perceived advertising invasiveness contributed to irritation and subsequently to advertising avoidance. The relatively low mean for purchasing behaviour is also noteworthy. It suggests that frequent exposure should not automatically be interpreted as persuasive effectiveness. Students may see an advertisement repeatedly without developing an intention to buy the advertised product. This distinction is important because advertising exposure, advertising attention and advertising response are separate processes. A user can notice an advertisement, feel irritated by it and still decide not to purchase the advertised product. The finding that a simple majority of the respondents supported stricter regulation of pop-up advertisements further reinforces the generally negative attitude. However, this should be interpreted as an indication of respondents' preference for greater control over pop-up advertising rather than as evidence that all forms of online advertising are considered unacceptable.

One of the more important findings of the study is the absence of a statistically significant relationship between exposure to pop-up advertisements and students' attitudes. The relationship was positive but however extremely weak and statistically insignificant. This finding is important because it challenges the assumption that greater exposure necessarily produces a stronger attitude, whether positive or negative. In other words, simply encountering more pop-up advertisements does not appear, in this sample, to explain students' overall attitudes toward them. This finding can be understood alongside the other results of the study: respondents' attitudes appear to depend more on how the advertisement is experienced than merely on how frequently it is encountered. The result is compatible with the broader advertising literature. Maseeh et al. (2021) showed that attitudes toward mobile advertising are associated with particular characteristics such as informativeness, credibility, personalisation,

entertainment and irritation rather than exposure alone. Similarly, Cho and Cheon (2004) found that internet advertising avoidance is explained by factors including perceived goal impediment, advertising clutter and prior negative experience. Thus, two users may encounter advertisements with similar frequency but develop different attitudes because they evaluate the advertisements differently.

The findings on factors influencing perception and attitude provide perhaps the clearest explanation for the students' responses. The most significant factors are past negative experience, trust in established or known brands, type of product/service, relevance to personal, timing, website context, creativity, and engagement recorded, however, friends' opinions had the lowest mean. The prominence of previous negative experience is strongly supported by empirical research. Hariputra and Nasution (2021) examined online behavioural advertising avoidance among young people and found that prior negative experience was the most significant antecedent of advertising avoidance in their study. Similarly, Cho and Cheon (2004) identified prior negative experience as one of the factors explaining internet advertising avoidance. More recent evidence has continued to identify prior negative experiences as an important factor in digital advertising avoidance. The present study therefore provides empirical support for the view that advertising attitudes are partly cumulative. When users repeatedly experience unwanted, disruptive or irrelevant advertisements, those experiences can shape how they evaluate subsequent advertising messages. This may explain why previous negative experience recorded a considerably higher mean than peer influence in the present study.

Conclusion and recommendation

Based on the results obtained in the study, conclusion is made that University of Ibadan undergraduates are highly exposed to pop-up advertisements, largely through smartphones and social media platforms. Despite this frequent exposure, the students generally perceive pop-up

advertisements negatively, particularly because they consider them intrusive, disruptive and sometimes misleading. Their attitudes are similarly characterised by frustration and support for greater regulation, while the advertisements appear to have limited influence on their purchasing behaviour. The study also found that exposure alone does not significantly determine students' attitudes towards pop-up advertisements. Rather, factors such as relevance, timing, brand reputation, website context, type of product advertised and previous experiences play important roles in shaping their responses. Based on the findings of the study, the following recommendations were made:

1. Advertisers should improve the relevance of pop-up advertisements by tailoring messages to the interests and needs of their target audience rather than displaying unrelated advertisements.
2. Advertisers should reduce the intrusive nature of pop-up advertisements by using appropriate timing, frequency and less disruptive formats, particularly during active browsing.
3. Advertisers should prioritise credibility and transparency by avoiding misleading claims and ensuring that advertised products and services are accurately represented.
4. Digital platforms should provide users with greater control over pop-up advertisements, including options to close, block or customise the types of advertisements they receive.
5. Advertisers should learn from users' previous negative experiences and adopt more creative, engaging and user-friendly advertising approaches that can reduce frustration and improve acceptance of pop-up messages.

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