

INFLUENCE OF FAKE ONLINE PRODUCT REVIEWS ON CONSUMER PURCHASE DECISIONS AMONG STUDENTS OF OSUN STATE POLYTECHNIC, IREE

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Abstract

The growing reliance on online reviews in e-commerce has increased the susceptibility of the consumers to misleading information. This paper examines how fake online product reviews affect customer buying behaviours among the Osun State Polytechnic students, Iree. The study adopted a cross-sectional survey. Grounded on the Elaboration Likelihood Model. Stratified sampling technique was used to select a sample of 370 students out of 10,103 students. The structured questionnaire was used to gather data and descriptive statistics were used to analyse the collected data. The study found that fake reviews were significantly exposed to by respondents, which further indicates that fake reviews played a significant role in the buying behaviour. The research suggests enhancing digital literacy and refining the review verification system. However, the use of descriptive analysis and one institutional environment only, restricts the generalizability of the results.

Keywords: Fake Online Reviews, Consumer Purchase Decision, E-commerce, Elaboration Likelihood Model, Osun State Polytechnic

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INTRODUCTION

The rapid expansion of digital technology and e-commerce has fundamentally reshaped consumer behaviour, particularly in how purchasing decisions are formed. In online environments, where physical product evaluation is absent, consumers rely heavily on user-generated content such as online reviews to reduce uncertainty and guide decision-making (Cheung & Thadani, 2012). These reviews serve as a critical source of social proof, influencing perceptions of product quality, credibility, and trust. However, the growing prevalence of fake online product reviews—defined as deliberately misleading or fabricated evaluations poses a significant threat to the integrity of digital marketplaces (Mudambi and Schuff, 2010). Such reviews are often generated by sellers, competitors, or automated systems to manipulate consumer perceptions. As e-commerce platforms such as Jumia, Konga, and Amazon continue to expand in Nigeria, exposure to both genuine and deceptive reviews has increased, particularly among young and digitally active consumers.

Despite growing global attention to online

reviews, empirical research on fake reviews within the Nigerian context remains limited. Existing studies have largely focused on general review credibility or have been conducted in developed economies, with little attention to how fake reviews specifically influence consumer behaviour in emerging markets. Moreover, students who frequently engage in online shopping but may lack advanced digital literacy represent a particularly vulnerable group that has received insufficient scholarly attention (Mayzlin et al., 2014).

Addressing this gap, this study investigates the influence of fake online product reviews on consumer purchase decisions among students of Osun State Polytechnic, Iree. The study is significant as it contributes to the growing body of literature on digital consumer behaviour in developing contexts and provides practical insights for policymakers, educators, and e-commerce platforms seeking to mitigate the effects of deceptive online content.

STATEMENT OF THE PROBLEM

While online reviews enhance informed decision-making, the increasing presence of fake

reviews undermines their credibility and poses risks to consumers. In Nigeria, weak regulatory frameworks and rising e-commerce adoption have intensified exposure to deceptive reviews. Although prior studies have examined online reviews broadly, there is limited empirical evidence on the specific effects of fake reviews on consumer behaviour within the Nigerian context, particularly among students. This gap constrains the development of effective consumer protection strategies and digital literacy interventions. Therefore, this study examines how fake online product reviews influence purchase decisions among students of Osun State Polytechnic, Iree.

OBJECTIVES OF THE STUDY

1. To assess students' level of exposure to fake online product reviews.
2. To examine the influence of fake reviews on students' purchase decisions.
3. To evaluate students' ability to distinguish between genuine and fake reviews.

LITERATURE REVIEW

Online Reviews and Consumer Decision-Making

Online reviews have emerged as a key process by which consumers compare products in the virtual markets. Reviews, as a type of user-generated content, minimise uncertainty and information asymmetry, thus influencing trust and purchase intentions (Cheung and Thadani, 2012; Dimoka, 2012). Research time and again indicates that the valence (positive/negative) and volume of reviews have a strong impact on consumer judgment and sales (Luca, 2016). Current research, however, shows that the influence on the review is not homogenous. Although the comprehensive and plausible reviews build more credibility (Mudambi and Schuff, 2010), simplified measures like star ratings tend to generate faster and heuristic-driven decision making. This implies that consumers do not necessarily perform a thorough assessment but may use cognitive short cuts especially when making low involvement purchases.

More to the point, the effectiveness of online reviews is also becoming the subject of the growing body of literature, which states that the perceived authenticity of the online reviews would determine their effectiveness. With the increasing distrust of information on the internet, the reliability of reviews becomes a key factor influencing their persuasiveness. The introduction of counterfeit reviews has brought a huge perversion to the online decision-making context. The undermining of the trustworthiness of the system of online information is the presence of fake reviews, i.e. deliberately false or manipulated feedback (Luca and Zervas, 2016; Mayzlin et al.,

2014). Empirical research has conflicting results on its effect. According to some researchers, fake reviews have a strong impact on purchase intentions due to the tendency to artificially boost credibility of the product (Manasi et al., 2025), whereas other researchers indicate that raising awareness of consumers can diminish their effectiveness (Filieri, 2016). This variation suggests that the impact of misleading reviews varies according to consumer attributes, especially their capability to identify deceit.

Moreover, studies indicate that unfavorable reviews can be more persuasive than positive ones (Chen et al., 2022), which is indicative of a negativity bias in consumer decision-making. Nevertheless, some studies indicate that despite consumer suspicions of manipulation, consumers can still base their decisions on aggregate ratings or social proofs (Verma et al., 2020). This poses a paradox in that knowledge of fake reviews does not always negate their effect.

Although this is increasing world awareness, there exists a lack of context-specific evidence in developing economies and especially Nigeria where regulatory frameworks are less well established and digital literacy is highly diverse. This is a crucial gap, because the vulnerability of consumers might be increased in these settings.

Synthesis and Research Gap.

Based on the literature reviewed, three main gaps can be identified:

Contextual Gap: The vast majority of research works are carried out in developed economies, which does not provide insights into the dynamics of fake reviews in Nigeria.

Population Gap: Students as frequent online shoppers who may be less adept at detecting deception are under-researched.

Mechanism Gap: There is a gap in existing literature in explaining how fake reviews impact decision-making, especially via cognitive processing pathways.

The present research fills these gaps by investigating exposure, influence, and detection capability of fake reviews on a group of Nigerian students and providing a theoretical perspective to consider the process of decision making.

EMPIRICAL REVIEW

Empirical research on online reviews indicates high agreement that reviews affect consumer behaviour but there is a split in opinion on how much and in what direction they do so in the context of fake content. In a study that employed eye-tracking as the methodology, Chen et al. (2022) discovered that consumers pay more attention to negative reviews, which implies that they have a more robust cognitive processing. Likewise, Manasi

et al. (2025) note that fake reviews may mislead consumer confidence and consumer buying behaviour, especially when they do not spot the fraud. These results justify the thesis that consumers are extremely vulnerable to manipulated information.

Filieri (2016), conversely, asserts that greater awareness of fake reviews can decrease their efficacy, because consumers become suspicious of the material in the Internet. Verma et al. (2020) however, make this stance more complicated by demonstrating that suspicion does not necessarily lead to behavioural change since consumers can still use heuristic cues, including ratings.

Also, Semila et al. (2022) determine the most important determinants of review influence, including credibility, volume, and relevance, but fail to mention fake reviews, leaving the gap in the knowledge of deceitful content. Kumar, Mukherjee, & Rana (2024) also points out structural reasons behind fake reviews but addresses more regulatory solutions than behavioural consequences.

THEORETICAL FRAMEWORK

This paper is based on the Elaboration Likelihood Model (ELM) that describes how human beings process persuasive messages taking two different paths: the central path and the peripheral path (Petty and Cacioppo, 1986). Asamah, Nwammuo, and Nkwam-Uwaoma, (2017). ELM is a helpful framework to explain differences in consumer response in the scenario of fake online reviews:

- Central Route Processing happens when the content of reviews is critically assessed by the individuals, such as the quality and consistency of arguments and authenticity. This, in this study, is operationalized as the capacity of students to spot fake reviews.
- Peripheral Route Processing happen when people use superficial data like star ratings or number of reviews or popularity. This is operationalized by relying on the volume of reviews, ratings, and overall sentiment.

According to the model, more motivated and cognitively-able consumers tend to experience a central processing process, which results in more informed decisions and makes them more stable. On the other hand, less motivated or capable consumers are dependent on peripheral signals, and thus they can be easily manipulated. Therefore, the effects of fake reviews are higher in case consumers are guided by peripheral cues and smaller in case central processing is involved.

METHODOLOGY

This research used quantitative cross-

sectional survey design to investigate the correlation between exposure to fake online reviews and consumer purchase decisions among students. The design is suitable in capturing patterns, perceptions and associations at one point in time. Nevertheless, it is not causal as it is not an experiment, but it determines association between the variables. The population comprised 10,103 students of Osun State Polytechnic, Iree. The population is deemed suitable because students are highly involved with online shopping platforms and have exposure to online reviews.

The sample size of 370 respondents was calculated using the Krejcie and Morgan (1970) formula of finite population at 95% confidence level and 5% margin of error. This guarantees proper representation and statistical reliability. Multi-stage sampling technique was used. To guarantee proportionality in each of the seven faculties of the institution (except that of Vocational Education, as its structure differed with the rest), stratified sampling was employed. A proportionate allocation of the sample was done among the faculties according to the number of students. In the second phase, convenience sampling was employed to sample the respondents at each of the faculties since a comprehensive sampling frame was not available and administrative resources were limited. Although this method has the potential of selection bias, it is widely used in student-based surveys where sampling lists are usually not available. Efforts were made to make sure that there was diversity when selecting the respondents in terms of levels and departments.

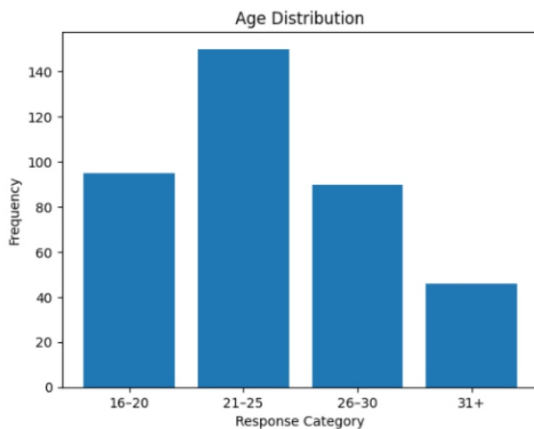
The data were conducted using a structured questionnaire. The instrument was divided into 2 parts, section A dwelled on the demographic variable and section focused on the key variables: The Likert-scale items were used to measure responses. The questionnaire was tested by the experts in the field of mass communication in order to assure the content validity. Pilot testing of 30 students not in the study sample was done to determine how to improve the clarity and format of the items. Cronbach alpha was used to determine reliability and all the constructs had acceptable thresholds ($\alpha \geq 0.70$) which showed internal consistency. The questionnaires were given in person to students in selected faculties. Participants volunteered to take part and the answers were taken anonymously to minimize the chances of social desirability bias.

There was strict adherence to ethical standards. The intention of the study was explained to the respondents and informed consent was received before the study. The involvement was voluntary and the respondents could pull out at any point. No personal identifiable data were gathered and the data were utilized in a purely academic

manner. Descriptive statistics (frequency and percentage) was used to summarize the exposure, perception, and behaviour patterns, while, inferential statistics measure the relationship between key variables.

RESULT AND DISCUSSION

This part presents the analysis of data generated from the field survey conducted among students of Osun State Polytechnic, Iree. The analysis is aimed at addressing the research questions and examining the influence of fake product reviews on students' buying decisions. Data are presented using descriptive statistics and visualised through histograms to enhance clarity and interpretation. The results are systematically analysed to reveal patterns, trends and implications relevant to consumer behaviour in online environments.

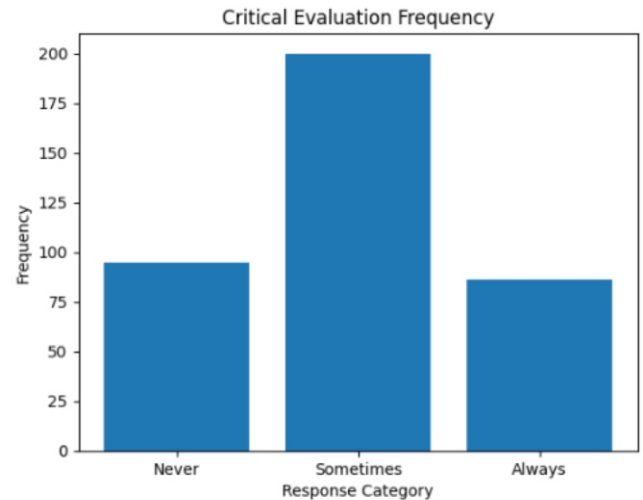


Source: Field Survey 2025

The histogram shows that respondents aged 21-25 years constitute approximately 58%, making them the dominant group in the study. Those aged 16-20 account for about 24%, while 26-30 represent 12%. Respondents above 30 years form only 6%. This distribution confirms that the data largely reflect the perceptions of young, digitally active students who are highly exposed to online shopping and product reviews.

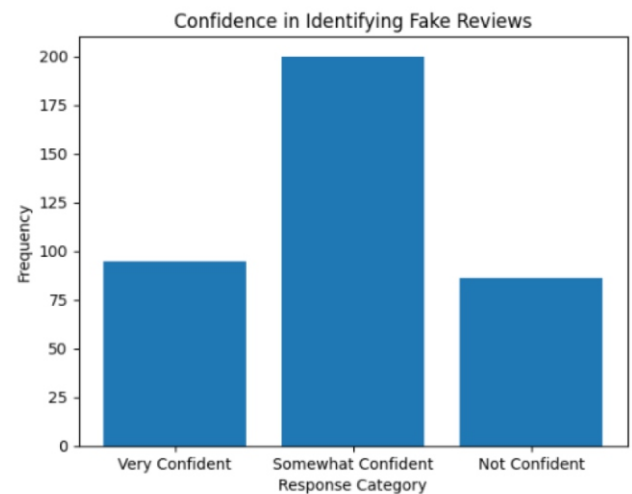


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Source: Field Survey 2025

Analysis reveals that 62% of respondents reported having encountered suspected fake product reviews, while 38% indicated they had not. The high percentage of exposure suggests that deceptive online reviews are a common experience among students.



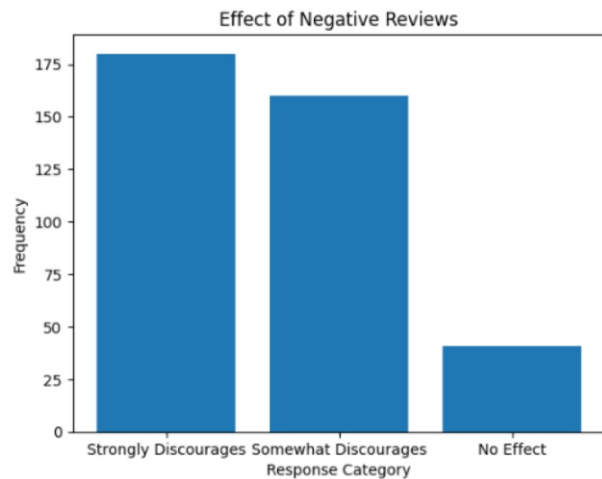
Source: Field Survey 2025

The data reveals that 47% of respondents sometimes critically evaluate online reviews before purchase decisions. About 29% rarely engage in such evaluation, while 18% never do so. Only 6% consistently evaluate reviews critically. This pattern reflects moderate cognitive engagement, implying reliance on surface cues rather than systematic information processing, consistent with peripheral-route persuasion.



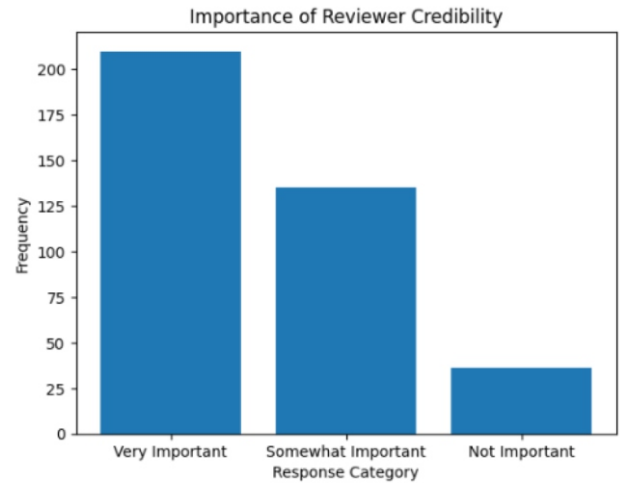
Source: Field Survey 2025

The histogram shows that 52% of respondents expressed moderate confidence in identifying fake reviews. Approximately 21% reported high confidence, while 27% indicated low confidence. Although over half believe they possess some evaluative ability, the sizable proportion with low confidence suggests continued vulnerability to sophisticated fake reviews and misleading persuasive strategies.



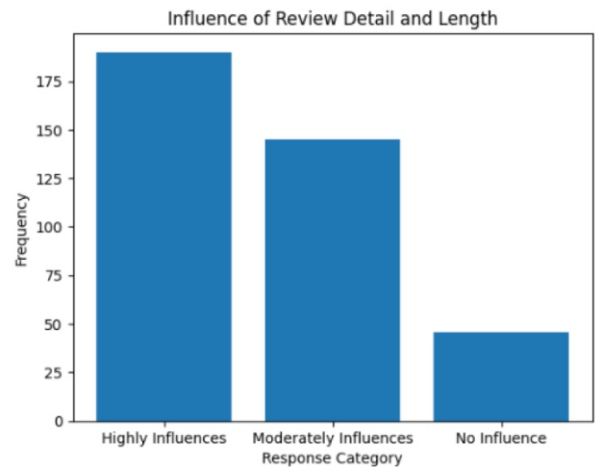
Source: Field Survey 2025

The result reveals that 63% of respondents are strongly discouraged from purchasing when exposed to negative reviews. About 22% are moderately discouraged, while only 15% report little or no influence. This indicates that negative information carries greater persuasive weight, prompting more careful and central-route processing among students.



Source: Field Survey 2025

Analysis shows that reviewer credibility is important to 68% of respondents, moderately important to 21%, and of little importance to 11%. This highlights source trustworthiness as a key determinant of persuasion, reinforcing the role of credible communicators in shaping attitudes and purchasing decisions in online environments.



Source: Field Survey 2025

The data indicates that 71% of respondents trust products more when reviews are detailed and descriptive. About 19% show moderate trust, while 10% report minimal influence. This suggests that detailed reviews encourage deeper cognitive processing, leading to stronger attitude formation and higher perceived credibility of online product information.

Discussion of Findings

The results of this study offer valuable evidence in terms of the effects of fake online reviews on consumer judgements in the Nigerian

online market, especially among students. To start with, the fact that the proportion of exposure to fraudulent reviews is high, corroborates the existing literature (Luca and Zervas, 2016), and establishes that the prevalence of deceptive review practices is common across online marketplaces. Nevertheless, this study goes further to build on previous studies to establish that such exposure is also common in emerging economies such as Nigeria where regulatory measures are relatively weak.

Second, the moderate level of the respondents to detect fake reviews is consistent with the results of Pennycook et al. (2020), which indicates that awareness does not always correspond to a detection competence level. This weakness makes it easier to manipulate and points to one of the main weaknesses of online consumer behaviour.

Theoretically, the results are very strong indicators of the Elaboration Likelihood Model (ELM). The reported dependence on indicators like review volume, ratings, and overall sentiment suggests the prevalence of dominant peripheral route processing, when the choices are based on the heuristic indicators, instead of critical judgment. That is why a large percentage of respondents (44%) are ready to make purchases even though they suspect that the reviews could be false.

Moreover, the greater effect of negative reviews supports Chen et al. (2022), which indicates a negative bias of information processing. Negative reviews seem to engage greater cognitive processing, which indicates switching to central route processing in the presence of potential risk.

Nevertheless, the research also indicates a contradiction found in previous studies (Verma et al., 2020): distrust of fake reviews does not necessarily decrease the intention to purchase. That implies that consumers can be conscious of being duped at the same time as they use social proof cues, especially when purchasing involves a habit or low involvement. In general, the results suggest that fake reviews are still effective because peripheral processing and the inability to detect occur predominantly. This underlines why people need to be better digitally literate and platform-level verification should be reinforced.

The Chi-square test showed that there is a significant relationship between exposure to fake online reviews and purchase decisions, $\chi^2(2) = 16.82$, $p = 0.001$. Students who were exposed to fake reviews, tended to make purchases. This implies dependence on peripheral cues, which is an endorsement of the Elaboration Likelihood Model and indicates vulnerability to misleading Internet information.

Conclusion

This research has explored how fake online product reviews have impacted on the purchasing decision of students. According to the descriptive analysis, the results show that the percentage of students who have received fake reviews in the online shopping platform is quite high. Although the level of awareness among respondents and their degree of caution when judging online information are moderate, their background in consistently detecting fake reviews is low. The research also indicates that rating, credibility of reviewers and general tone of reviews are some of the external cues that the students use to make their decisions when purchasing a product. It was observed that negative reviews were more discouraging than positive reviews, thus indicating that risk-related information commands more attention when making a decision. Nonetheless, even with the knowledge of potential fraud, a significant percentage of the respondents still make purchases under the influence of positive or informative reviews.

All in all, the results indicate that counterfeit online reviews are still contributing to consumer behaviour among students especially through streamlined consumer decisions. This does not mean that they are totally dependent, but instead tend to employ a mixed approach of evaluation methods combining critical thinking approach and heuristic cues.

Recommendations

1. It is advised that a greater level of institutions should enhance digital literacy programmes, which especially pay attention to online consumer behaviour, such as how to distinguish a deceptive or manipulated review.
2. E-commerce sites are also encouraged to enhance verification processes in order to minimize the distribution of fake review and enhance transparency.
3. Also, more critical evaluation practices need to be promoted among student consumers, including cross-checking of various sources prior to purchase decisions.
4. Lastly, the controlling authorities must impose more vigilance of online markets to hold them accountable to prevent consumer exploitation by manipulative marketing strategies.

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