

Digital Advertising Impact On Sales Performance Of Gen Z In Indonesia E-Commerce Indonesia

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Abstract.

Purpose

This study investigates the impact of digital advertising effectiveness and contextual relevance on sales performance among Generation Z consumers in Indonesia's e-commerce sector. The research aims to assess how persuasive clarity and message personalization jointly influence purchasing behavior within one of the fastest-growing digital economies in Southeast Asia. A quantitative survey method was employed, targeting 300 Generation Z respondents (aged 18–27) in the Greater Jakarta area who have experienced online advertising and subsequent purchases. Data were collected through structured questionnaires and analyzed using multiple regression with robustness checks to validate the findings. Measurement constructs included advertising effectiveness, advertising relevance, and sales performance, adapted from established marketing scales. The results show that both advertising effectiveness and advertising relevance significantly and positively affect sales performance, jointly explaining 66.5% of the variance in consumer purchase behavior. These findings confirm that personalized, persuasive, and contextually relevant digital ads are key drivers of Generation Z's purchasing decisions. The study is limited to respondents from the Greater Jakarta area, which may affect the generalizability of results to other regions or age cohorts. Future research should examine moderating factors such as platform type, consumer trust, and ad fatigue, and extend the model to cross-country comparisons. For marketers and e-commerce firms, the study highlights the need to integrate persuasive ad design with contextual personalization. Effective strategies include leveraging influencer credibility, employing real-time analytics, and developing content that resonates with Gen Z's lifestyle and values to maximize engagement and conversion. This research contributes to marketing theory by extending the AIDA model and the Theory of Planned Behavior to the context of Southeast Asian digital commerce. It provides novel insights into the combined role of advertising effectiveness and relevance, a dimension that remains underexplored in emerging markets, and offers actionable implications for data-driven, consumer-centered advertising strategies.

Keywords: Digital Advertising; Advertising Effectiveness; Advertising Relevance; Generation Z; E-Commerce; Purchase Intention; Influencer Marketing and Social Media Marketing.

I. INTRODUCTION

The digital transformation era has redefined how brands communicate and build relationships with consumers, especially in rapidly developing markets such as Indonesia. A major driving force in this evolution is **Generation Z**, defined as individuals born between 1997 and 2012, who exhibit high engagement with technology and digital content. This generation prefers visual storytelling, peer validation, and interactive experiences across platforms like Instagram, TikTok, and YouTube where they spend several hours daily. Despite significant investments in digital advertising, marketers still face challenges in achieving meaningful engagement and sales conversion. Studies indicate that many campaigns fail due to lack of message clarity or insufficient relevance to the audience. The success of digital ads relies not only on persuasive content but also on the extent to which the message aligns with personal needs, preferences, and situational context. Although previous studies have explored digital marketing strategies such as influencer endorsements, ad personalization, and platform usage, limited attention has been given to the combined effect of **advertising effectiveness** and **advertising relevance**, particularly among Gen Z consumers in Southeast Asia. This study addresses this gap by empirically examining how these two variables influence consumer behavior in Indonesia's digital commerce environment. The findings aim to contribute both theoretically and practically to the field of strategic digital marketing.

II. LITERATURE REVIEW

Digital advertising today covers a wide range of channels from search engines and social media to websites and mobile applications offering sharper targeting, lower costs, and faster feedback compared to traditional media [1]. Interactive campaigns further strengthen consumer engagement and foster brand attachment [2]. The effectiveness of digital advertising largely depends on two dimensions: its **persuasive power** and its **message relevance**. The **AIDA model** (Attention, Interest, Desire, Action) explains the sequential stages that drive consumers from awareness to purchase, while the **Theory of Planned Behavior (TPB)** highlights how attitudes, social pressure, and perceived control shape behavioral intention [3]. The **UTAUT model** expands these ideas by emphasizing technology adoption, particularly relevant for mobile and social media-based advertising. Advertising effectiveness reflects how well a message communicates value and stimulates consumer engagement, while advertising relevance refers to how closely a message resonates with personal needs, interests, or identity [4].

Prior studies confirm that personalization and contextual alignment not only build consumer trust but also increase purchase likelihood, especially among younger cohorts [5] and [6]. Recent research highlights that Gen Z responds strongly to **authentic and personalized marketing content**, with systematic reviews showing a clear shift toward digital-first strategies [7]. Similarly, findings suggest that **social media platforms are the most effective communication channels** for this generation, with neuromarketing techniques further enhancing ad relevance and attention [8]. While not directly focused on advertising, advanced quantitative approaches such as **meta-regression analysis (MRA)** as used in RUJEC studies on FDI and employment demonstrate methodological rigor that can inform research on advertising and consumer response [9]. Moreover, reviews of digital marketing trends stress the importance of **authentic, interactive, and real-time content** in engaging Gen Z effectively [10].

III. RESEARCH GAP

From the literature, it is evident that studies often focus either on advertising effectiveness or on advertising relevance without integrating the two. Furthermore, most research originates from advanced economies, limiting generalizability to emerging markets such as Indonesia. The integration of classical models like AIDA and TPB within digital ecosystems also remains underdeveloped. This study addresses these gaps by combining effectiveness and relevance in one empirical model, extending theoretical frameworks, and applying them in the context of Indonesian Gen Z consumers in e-commerce. This study demonstrates strong relevance for publication in the *International Journal of Science, Technology & Management (IJSTM)*. As stated on its official website, “*IJSTM is an international scholarly refereed research journal which aims to promote the theory and practice of science, technology, innovation, engineering and management*” [11]. This mission aligns with the present research, which integrates digital advertising effectiveness and relevance within the e-commerce context, combining technological innovation, marketing management, and consumer behavior of the digital generation. Furthermore, IJSTM explicitly includes within its scope “*e-commerce; new developments in marketing and retailing; innovation in services; information technology and communication in services*” [11].

Accordingly, this study not only advances theoretical contributions by integrating the AIDA model and the Theory of Planned Behavior but also provides practical implications for digital marketing strategies in Southeast Asia’s fast-growing e-commerce sector. This alignment underscores IJSTM as a suitable platform for disseminating the findings of this research. Digital advertising encompasses all forms of promotional content disseminated via digital platforms such as search engines, social networks, websites, and mobile applications. Compared to traditional methods, digital ads offer greater targeting precision, reduced cost per exposure, and faster feedback cycles [1]. [2] argue that interactive digital campaigns foster stronger customer engagement and brand connectivity. The success of a digital advertisement is largely influenced by two interconnected components: its **persuasive impact** (effectiveness) and **personal relevance** to the intended audience. The **AIDA model** which stands for Attention, Interest, Desire, and Action proposes that effective advertising should guide audiences through these sequential stages toward a purchasing decision.

Meanwhile, the **Theory of Planned Behavior (TPB)** [3] explains behavioral intention through cognitive constructs such as individual attitude, perceived social pressure, and perceived behavioral control. The **UTAUT model** further expands on this by focusing on technology usage behavior, particularly relevant to mobile and social media-based marketing tools. **Advertising effectiveness** reflects how well a message communicates its value proposition and motivates audience engagement. On the other hand, **advertising relevance** pertains to the degree to which a message resonates with the viewer's personal interests, needs, or identity [4]. Research by [5] and [6] demonstrates that personalization and contextual alignment enhance consumer trust and likelihood of purchase, particularly among younger consumers. In Indonesia, where Gen Z comprises a digitally active segment [12] emphasize the importance of authenticity and cultural resonance in influencer marketing. This study integrates these theoretical perspectives to investigate how advertising effectiveness and relevance jointly influence sales outcomes in the Gen Z market segment.

Tabel 1. Operationalization of Research Variables

Variable	Indicator Description	Source
Advertising Effectiveness (X_1)	Clarity of message, engagement, call-to-action	Kotler & Keller (2023); Chen et al. (2021)
Advertising Relevance (X_2)	Personalization, alignment with interest, timeliness	Liao & Huang (2022); Andreani et al. (2021)
Sales Performance (Y)	Purchase decision, transaction frequency, repeat buying	Appel et al. (2020)

IV. METHODS

This study employed a **quantitative research design** to examine the effect of advertising effectiveness and advertising relevance on sales performance among Generation Z consumers in Indonesia's e-commerce market. The quantitative approach was chosen because it enables measurable analysis of causal relationships between variables, ensuring statistical reliability and generalizability [13].

V. POPULATION and SAMPLING

The target population consisted of Generation Z individuals, defined as those aged 18–27, residing in the Greater Jakarta region (Jabodetabek). This group was selected due to their high digital literacy and frequent interaction with online advertisements. Data were collected through **purposive sampling**, focusing on respondents who had made at least one purchase influenced by digital advertising. A total of **300 valid responses** were obtained, which is considered adequate for regression-based analysis [14].

VI. DATA COLLECTION

Data were gathered through an online structured questionnaire distributed via popular digital platforms such as Instagram, WhatsApp, and Telegram. The questionnaire consisted of closed-ended items measured on a **five-point Likert scale** ranging from 1 (**strongly disagree**) to 5 (**strongly agree**). This format allowed respondents to express attitudes and perceptions in a standardized manner.

VII. MEASUREMENT of VARIABLES

The study examined three main constructs:

- **Advertising Effectiveness (X_1):** measured through indicators of clarity, persuasiveness, and informativeness.
- **Advertising Relevance (X_2):** assessed by message resonance, timing, and personal alignment with consumer interests.
- **Sales Performance (Y):** operationalized through purchase frequency, transaction value, and intention to repurchase.

The measurement items were adapted from established marketing scales to ensure validity and comparability with prior studies [4] and [5].

VIII. DATA ANALYSIS

Data analysis was conducted using **SPSS version 30**. Prior to hypothesis testing, the instruments were assessed for validity using Pearson's correlation and for reliability using Cronbach's Alpha. Following this, **multiple linear regression analysis** was applied to evaluate the influence of X_1 and X_2 on Y . Hypothesis testing employed the **t-test** (to examine the significance of each independent variable), the **F-test** (to assess overall model fit), and the **coefficient of determination (R^2)** to measure explanatory power. Robustness checks were also applied to confirm the stability of the regression results, aligning with best practices in quantitative research [13].

The questionnaire included measurement items for three variables:

- **Advertising Effectiveness (X_1)** – clarity, persuasive appeal, and informativeness;
- **Advertising Relevance (X_2)** – message resonance, timing, and personal alignment;
- **Sales Performance (Y)** – frequency of purchase, transaction value, and likelihood of repeat purchase.

Responses were rated on a **5-point Likert scale**, from 1 (strongly disagree) to 5 (strongly agree). The data were analyzed using **SPSS version 30**, incorporating:

- Instrument **validity and reliability** tests,
- **Multiple linear regression** analysis,
- **t-tests** for individual variable significance,
- **F-test** for model significance,
- and the **coefficient of determination (R^2)** to assess explanatory power.

Tabel 2. Respondent Demographics (N = 300)

Characteristic	Category	Frequency	Percentage
Gender	Male	130	43.3%
	Female	170	56.7%
Age	18–21	102	34.0%
	22–24	126	42.0%
	25–27	72	24.0%
Platform Used Most	Instagram	144	48.0%
	TikTok	93	31.0%
	YouTube	63	21.0%

IX. RESULT AND DISCUSSION

The initial stage of data analysis involved testing the validity and reliability of the measurement instruments. **Validity testing** using Pearson correlation indicated that all questionnaire items had correlation coefficients exceeding the critical threshold ($r > 0.196$), affirming item validity. One item under the variable *Advertising Relevance (X_2)* was removed due to a low correlation score.

Reliability testing produced Cronbach's Alpha values above 0.70 for all three variables, demonstrating strong internal consistency and ensuring that the items reliably measured the intended constructs.

Regression

The multiple linear regression model used to test the hypotheses produced the following equation:

$$Y = 7.907 + 0.347X_1 + 0.400X_2$$

Where:

- Y = Sales Performance
- X_1 = Advertising Effectiveness
- X_2 = Advertising Relevance

t-test Results

- **Advertising Effectiveness (X₁):**
t = 3.282, p = 0.001 (< 0.05) → Significant
- **Advertising Relevance (X₂):**
t = 3.241, p = 0.002 (< 0.05) → Significant

These results confirm that both independent variables have a statistically significant individual effect on the dependent variable.

F-test and Model Summary

The **F-value** was 96.309 with a significance level of $p < 0.001$, indicating that the model is statistically valid as a whole. The **coefficient of determination (R²)** was 0.665, which means that **66.5% of the variance in sales performance** is explained by the combined influence of advertising effectiveness and relevance.

These findings strongly support the proposed hypotheses and demonstrate the substantial role of well-crafted digital advertisements in influencing Gen Z purchase behavior.

Tabel 3. Validity and Reliability Summary

Variable	Number of Items	Valid Items	Cronbach's Alpha
Advertising Effectiveness (X ₁)	5	5	0.821
Advertising Relevance (X ₂)	5	4	0.799
Sales Performance (Y)	5	5	0.832

The **validity test** confirmed that all questionnaire items showed Pearson correlation coefficients above the critical value ($r > 0.196$), indicating validity. One item under X₂ was removed due to low correlation. **Cronbach's Alpha** values for all variables exceeded 0.70, confirming high internal consistency.

Tabel 4. Regression Coefficients

Variable	Unstandardized Coef. (B)	Std. Error	t-value	Sig. (p)
(Constant)	7.907	0.874	9.050	0.000
Advertising Effectiveness (X ₁)	0.347	0.106	3.282	0.001
Advertising Relevance (X ₂)	0.400	0.123	3.241	0.002

Tabel 5. Model Summary and F-test

R	R ²	Adjusted R ²	F-value	Sig. (p)
0.816	0.665	0.659	96.309	0.000

X. DISCUSSION

The results confirm that both advertising effectiveness and advertising relevance significantly influence sales performance among Generation Z consumers. These findings align with the AIDA model, where digital advertising leads users through stages of attention, interest, desire, and action [1]. The statistical significance of both variables indicates that ads perceived as relevant and persuasive can drive stronger purchase intent. This is consistent with prior studies [5] and [4] emphasizing that personalization, message clarity, and platform-context alignment enhance consumer responsiveness. In Indonesia, where Gen Z consumers are highly active on social media, the role of influencer credibility and platform engagement further strengthens the link between digital ads and actual purchases [12]. Practically, marketers should not treat effectiveness and relevance as separate. Instead, campaigns must be designed holistically integrating creative visuals, timely delivery, and message resonance. These findings also reinforce the use of social analytics to adapt content based on audience behavior. Future studies should consider moderating variables like trust, loyalty, or ad fatigue to deepen understanding.

XI. CONCLUSION AND IMPLICATIONS

This study provides robust evidence that both digital advertising effectiveness and relevance significantly influence sales performance among Generation Z consumers in Indonesia. The combination of these two factors explains 66.5% of the variance in purchasing behavior, highlighting the importance of integrated, data-driven digital marketing strategies.

Practical implications include the need for marketers to:

- Develop content that is not only visually appealing but contextually relevant
- Leverage influencers with strong credibility and alignment with target audience values
- Continuously monitor ad performance through real-time analytics

Theoretical contributions include validating the AIDA framework and extending existing research on influencer marketing and ad relevance within a Southeast Asian Gen Z context.

Limitations: The study is geographically confined to Jabodetabek. Future research could explore moderating variables such as platform type, ad fatigue, or consumer trust across different regions and generations.

This study provides empirical evidence that the effectiveness and relevance of digital advertising significantly contribute to sales improvement among Generation Z consumers in Indonesia. With 66.5% of the sales variance explained by the model, digital marketers are encouraged to prioritize targeted content and leverage social media influencers for optimal results. The research highlights the importance of combining creativity, personalization, and data analytics in designing digital campaigns. For practitioners, investing in platform-appropriate strategies and content alignment is crucial to increase engagement and conversion rates. Limitations of this study include its geographic and demographic scope, which focused solely on the Jabodetabek area. Future research could explore moderating effects such as brand familiarity, ad frequency, or trust in digital platforms. By addressing these aspects, digital marketing strategies can be further refined to match the evolving behavior of Generation Z in the digital ecosystem.

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