

## THE EFFECTIVENESS OF POP-UP ADVERTISING ON MILLENNIAL CONSUMERS' PURCHASE INTENTIONS

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### ABSTRACT

**Objective:** The article explores the effectiveness of pop-up advertising in influencing the purchase intentions of millennial consumers. The primary goal is to analyze how pop-up ads impact consumer behavior, with a focus on brand trust as a mediating factor.

**Methods:** The research employs a Structural Equation Modeling-Partial Least Squares (SEM-PLS) approach to assess the relationship between pop-up ads, brand trust, and purchase intention. Data were collected from 280 respondents who had used the internet within the past five years. The study investigates how pop-up ads influence purchase decisions by mediating brand trust.

**Results:** The study reveals that pop-up advertisements can be both distracting and disruptive to consumer activities. While they have the potential to increase brand visibility, their spammy nature can negatively affect purchase intentions. However, brand trust plays a significant role in mitigating these effects, acting as a mediator between the disruptive nature of pop-up ads and consumer purchasing behavior.

**Contribution:** This research contributes to the understanding of digital marketing strategies by highlighting the complex relationship between pop-up advertising, brand trust, and purchase intention. It emphasizes the importance of brand trust as a mediator, providing insights for marketers to design more effective pop-up ad campaigns.

**Conclusion:** Pop-up advertising can negatively impact purchase intentions if overused or poorly implemented. However, when combined with strong brand trust, it has the potential to drive consumer engagement and purchase behavior. Marketers should carefully balance the use of pop-up ads to minimize their disruptive nature and enhance brand trust.

**Keywords:** Digitalization. Pop-up Advertising. Millennial Generation. Brand Trust. Purchase Intention.

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## A EFICÁCIA DA PUBLICIDADE POP-UP NAS INTENÇÕES DE COMPRA DOS CONSUMIDORES MILLENNIALS

### RESUMO

**Objetivo:** O artigo explora a eficácia da publicidade pop-up em influenciar as intenções de compra dos consumidores da geração millennial. O objetivo principal é analisar como os anúncios pop-up impactam o comportamento do consumidor, com foco na confiança na marca como fator mediador.

**Métodos:** A pesquisa utiliza a abordagem de Modelagem de Equações Estruturais com Mínimos Quadrados Parciais (SEM-PLS) para avaliar a relação entre anúncios pop-up, confiança na marca e intenção de compra. Os dados foram coletados de 280 entrevistados que utilizaram a internet nos últimos cinco anos. O estudo investiga como os anúncios pop-up influenciam as decisões de compra, mediadas pela confiança na marca.

**Resultados:** O estudo revela que os anúncios pop-up podem ser tanto distrativos quanto perturbadores para as atividades do consumidor. Embora tenham o potencial de aumentar a visibilidade da marca, sua natureza invasiva pode afetar negativamente as intenções de compra. No entanto, a confiança na marca desempenha um papel significativo na mitigação desses efeitos, atuando como um mediador entre a natureza disruptiva dos anúncios pop-up e o comportamento de compra do consumidor.

**Contribuição:** Esta pesquisa contribui para o entendimento das estratégias de marketing digital, destacando a complexa relação entre publicidade pop-up, confiança na marca e intenção de compra. Ela enfatiza a importância da confiança na marca como mediador, fornecendo insights para os profissionais de marketing sobre como projetar campanhas de anúncios pop-up mais eficazes.

**Conclusão:** A publicidade pop-up pode impactar negativamente as intenções de compra se for usada em excesso ou de maneira inadequada. No entanto, quando combinada com uma forte

confiança na marca, ela tem o potencial de impulsionar o engajamento e o comportamento de compra dos consumidores. Os profissionais de marketing devem equilibrar cuidadosamente o uso dos anúncios pop-up para minimizar sua natureza disruptiva e aumentar a confiança na marca.

**Palavras-chave:** Digitalização. Publicidade pop-up. Geração Milleneal. Confiança na marca. Intenção de compra.

## 1. INTRODUCTION

Technology's rapid development has changed how we interact with the world. One of the things affected by this technological change is consumer behavior in purchasing (Zhong et al., 2021). When making purchases, customers are now more likely to shop online (Watanabe & Omori, 2020). At the same time, marketers are competing to attract customer attention through various marketing strategies. One of the most commonly used marketing strategies today is digital advertising, including pop-up advertising (Hsieh et al., 2021). Even though pop-up ads are often considered annoying, the use of these ads continues to increase because they are considered effective in attracting user attention and increasing product sales (Abbasi et al., 2021).

Data from the Indonesian Internet Service Providers Association (APJII) shows that in 2020, internet users in Indonesia reached 196.7 million people or the equivalent of 73.7% of the total population (APJII., 2023). In addition, in the same year, the number of e-commerce transactions in Indonesia reached 22.4 billion US dollars, an increase of 18.7% from the previous year (Bank Indonesia, 2022). This shows that internet use is increasingly becoming an essential part of people's lives, and e-commerce is becoming one of the leading choices for making purchases. Although pop-up advertisements are considered effective in attracting customer attention and can increase product sales (Sovania & Erasashanti, 2020), the use of pop-up advertisements is often considered intrusive and can influence customer perceptions of the advertised brand (Smith, 2011). Several previous studies have identified factors influencing customer purchase intentions, including brand trust and advertising perceptions (Dam, 2020; J. Lee et al., 2011; Sanny et al., 2020). However, only some studies have specifically looked at the influence of pop-up advertising on customers' brand trust and purchase intentions.

One relevant study conducted by Hwang et al., (2011) found that pop-up advertising significantly positively influenced brand trust and purchase intention among online consumers in China. Other research conducted by Fachryto & Achyar (2018) also revealed that pop-up advertisements significantly positively influence purchase intentions among visitors to e-

commerce websites in Indonesia. This is also in line with research conducted by Park & Ohm (2014) which found that the relevance of pop-up advertisements significantly positively affected brand trust and purchase intentions among online consumers in South Korea.

In contrast, research Tran (2020); Waqas et al., (2021) and Yasmin & Akhter (2023) found that pop-up advertising did not significantly impact brand trust and purchase intention among online consumers in India. This is also in line with research conducted by (K.-Y. Lee & Samanta, 2023; Tan et al., 2022), which found that pop-up advertisements did not significantly influence brand trust and purchase intentions among online consumers in Taiwan. The differences in the studies above prove that more in-depth research is needed regarding pop-up advertising and its influence on brand trust and customer purchase intentions.

The influence of pop-up advertising on brand trust and customer purchasing interest can be explained through two theories in the context of consumer behavior; the first is related to the Unified Theory of Acceptance and Use of Technology (UTAUT), which explains that the intention to use technology is influenced by four main factors, namely perceptions of usefulness, perceptions of ease of use, perceptions of subjective norms, and perceptions of satisfaction (Nair et al., 2015; Venkatesh, 2022). Perceptions of usefulness and ease of use can also be applied to customers' brand trust and purchase intentions. If customers consider pop-up advertising useful and easy to access, it can increase brand trust and customer purchase intentions (Martins et al., 2019). The next theory related to this is the Technology Acceptance Model (TAM) theory, which explains that the intention to use technology is influenced by two main factors: perceptions of usefulness and ease of use (Lala, 2014). In the context of pop-up ads, if customers find the ad useful and easy to access, it can increase brand trust and purchase intent.

Based on previous studies, which still provide inconsistent and quite contrasting results. Thus, brand trust can be used as a mediating variable to bridge the relationship between pop-up advertising and customer purchase intentions. The implementation of brand trust as a mediating variable still needs to be carried out by previous research. Brand trust plays a crucial role in bridging the relationship between pop-up advertising and consumer purchase intentions (Movahedisaveji & Shaukat, 2020), so it is important to consider brand trust in developing pop-up advertising marketing strategies. Because in the context of pop-up advertising, the use of brand trust as a mediating variable shows that pop-up advertising can influence consumer trust in certain brands or products, which in turn will influence customer purchase intentions.

This research is aimed at further investigating the role of pop-up advertising in encouraging purchase intentions among millennial generation consumers. From a theoretical

point of view, this research will form a comprehensive conceptual model using the grand theory of the Technology Acceptance Model (TAM) regarding user behavior in using technology (Davis, 1989). This research developed and tested hypotheses about the mediation effect, using a sample of intense internet and social media users. This study focuses on consumer behavior to purchase goods or services driven by digital advertising on their own devices and trust in the brand. It also analyses brand trust's direct and indirect influence on purchase intention through digital advertising. Therefore, this problem attracts researchers to conduct more profound studies by carrying out research.

## **2. THEORETICAL FRAMEWORK AND LITERATURE REVIEW**

### **2.1 Pop-Up Ads on Brand Trust**

Pop-up advertising appears suddenly on a user's computer screen or mobile device to increase brand awareness about the products or services offered (Imsa, 2020). This is because pop-up advertising can increase a brand's opportunity to build consumer relationships and trust (Harridge-March, 2006). These advertisements can attract attention and show greater interest in the products or services offered.

Brand trust is vital in building long-term relationships between brands and customers (Tjahyadi, 2006). This is related to customer trust in the brand, including the belief that the brand will provide quality products or services, provide positive experiences to customers, and maintain commitment to the values held by the brand (Mosavi & Ghaedi, 2012). This is in line with research conducted by (Ausserdorfer et al., 2018), which states that pop-up advertising has a positive and significant effect on brand trust. Based on the explanation above, hypotheses that can be formed are:

H1: Pop-up advertising has a significant positive effect on brand trust

### **2.2 Brand Trust on Purchase Intention**

Consumers who have a high level of trust in brands tend to have more excellent purchase intentions (Dam, 2020). This is because trust in a brand provides confidence that the product or service can consistently meet consumer needs and expectations, thereby increasing the possibility of purchasing (Hong & Cha, 2013). Besides that, brand trust can also help brands build a positive image and good reputation in the eyes of consumers (Tsai et al., 2015). Consumers with a positive perception of a brand tend to be more loyal and buy products or services offered by that brand rather than other brands that do not have the same reputation

(Chaudhuri & Holbrook, 2001). This is supported by research conducted by Dam (2020); Gong et al., (2023); Tan et al., (2022) which states that brand trust significantly affects purchase intention. Thus, brand trust can influence consumer purchasing decisions. So, the hypothesis formed is:

H2: Brand trust has a significant positive effect on Purchase Intention

### **2.3 POP-UP Ads on Purchase Intention**

The ability of pop-up advertising to attract user attention and increase awareness of the brand or product offered (Tambajong et al., 2019). In line with this, Purchase intention gives rise to consumers' desires or plans to buy products or services offered by specific brands (Mergillano et al., 2022). It can be implied that pop-up advertising can influence consumer purchasing interest by attracting attention and introducing the brand or product offered. Pop-up advertising can also help brands build a positive image in the eyes of consumers, thereby increasing trust and interest in purchasing the products or services offered (Dam, 2020). This is also in line with research conducted by Wang et al., (2014) and Arungbemi, (2020), which states that pop-up advertising has a significant positive effect on purchase intention. In this case, the hypotheses that can be developed are:

H3: Pop-up advertising has a significant positive effect on purchase intention

### **2.4 POP-UP Ads on Brand Trust**

Pop-up advertising, although often considered a form of annoying advertising that disrupts the user experience, can have a positive and significant effect on brand trust (Smith, 2011). Previous research shows that pop-up advertising can help increase brand awareness and generate positive responses from consumers if implemented in a good way and are relevant to the user's context (Robertson et al., 2018). In some cases, pop-up advertising can also help increase consumer trust in a brand, mainly if the advertisement includes valuable and relevant information about the products or services offered (Ausserdorfer et al., 2018; Klein et al., 2016)

Apart from that, pop-up advertising can help build a stronger and more positive brand image (Juliana et al., 2021; Suhaily & Darmoyo, 2017). Previous research found that well-positioned pop-up ads that display relevant and exciting messages can help strengthen the brand image in consumers' minds and their perception of brand value (Dam, 2020). This aligns with research conducted by Davranova (2019) which states that pop-up advertising positively and

significantly affects brand trust. So, based on the research above, the hypothesis that can be formed is:

H4: Pop-up advertising has a positive and significant effect on brand trust.

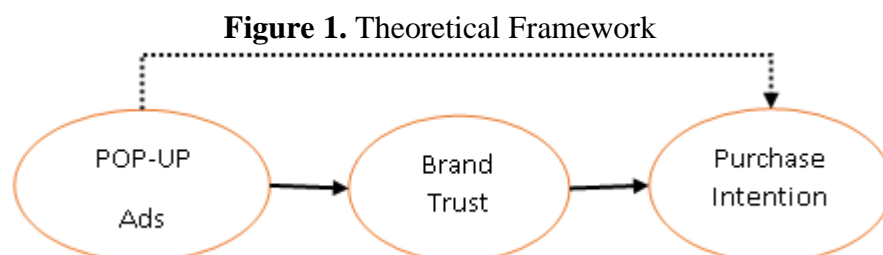
## 2.5 Brand Trust in mediating POP-UP Ads on Purchase Intention

Customer trust in a brand is a critical factor influencing the relationship between pop-up advertising and customer purchase interest (Shubhangam et al., 2020). Customers with high trust in a brand tend to find it easier to buy the products and services offered. Therefore, brand trust plays a role in helping a brand retain existing customers and increase customer loyalty. Furthermore, pop-up advertising can influence brand trust by increasing customer awareness about a brand and the products or services offered (Klein et al., 2016). Because pop-up advertising can provide valuable and interesting information for customers, which can increase customer trust in a brand (Hussain et al., 2022).

However, pop-up advertising can also be annoying and reduce customer trust in a brand if it needs to be displayed correctly. Therefore, brand trust mediates the relationship between pop-up advertising and customer purchase interest (Movahedisaveji & Shaukat, 2020). Pop-up advertising can influence brand trust, influencing customer purchasing interest (Zhang et al., 2019). If customers have high trust in a brand, they tend to be more interested in purchasing the products or services offered (H. Ha & Perks, 2005; Pham et al., 2020). Based on the explanation above, the hypotheses that can be developed are:

H5: Brand Trust mediates the relationship between pop-up advertising and customer purchasing interest

## 3. RESEARCH DESIGN AND METHODS



Source: Researchers (2023)

This research aims to obtain empirical evidence and develop a theory of the influence between Pop-up Advertising and Brand Trust on Purchase Intention to see digitalization's role in encouraging consumer behavior to consume goods or services. Based on the problems and

research objectives to be achieved, this research uses an explanatory research approach with a survey approach. Explanatory research examines causality between variables that explain a particular phenomenon (S. Ha & Stoel, 2009). Operationalization of Research Variables describes research variables into dimensions, indicators and data scales to facilitate measurement in data collection.

Population in this study were intense internet and social media users. The minimum number of samples for this research is 30 samples. This fulfils the opinion of Roscoe (1975) in Bougie & Sekaran (2019); Hair Jr et al., (2014), where the sample size is more than 30 and 10 times larger than the number of indicators in this study (10 times the number of indicators in this study, 10 results in 100). So, the sampling method or technique used is purposive sampling. This research collected 280 respondents who had used the internet in the last five years.

## 4. RESULTS

### 4.1 Respondents Profile

Most respondents were female, with a percentage of 66% or 184 people, while men were 34% or 96 people. From the level of education pursued, most respondents had a Senior high school education level with a percentage of 54% (151 people). Respondents with a D3 education level were 1% or two people. Meanwhile, there were 45% Bachelor graduates or 127 people.

### 4.2 Relationship Between Average Value and Outer Loading

The Pop-up Advertising (X) variable has 12 statement indicators, among which the highest indicator in reflecting the Pop-up Advertising (X) variable is question item X1.6 (While using a smartphone, pop-up advertising is a good source of information), which indicates that respondents have high hopes, expressed in factor loading of 0.869 or 86.9 percent. Respondents have very high hopes for this statement item. They think that question item However, if we look at the highest average item from Pop-up Advertising (X), it turns out that it falls on question item X1.9 (I feel very disturbed by the appearance of pop-up advertisements when using a smartphone) with an average value of 3.60.

Brand Trust (Z1) has 11 statement indicators, among which the highest indicator in reflecting the Brand Trust variable (Z1) is question item Z1.3 which indicates that the respondent has high hopes, expressed in a factor loading of 0.925 or 92.5 percent. Respondents



have very high hopes for this statement item. They consider that question item Z1.3 (I feel confident with the brand name) should be paid attention to, and this statement item received a good response with an average value of 3.15, meaning that many stated they were neutral and agreed with the item. However, if we look at the average item, the highest Brand Trust (Z1) falls on the question item z1.2 (a brand name that meets my expectations) with an average value of 3.18.

The Purchase Intention (Y) variable has 5 statement indicators, one of which is the highest indicator in reflecting the Purchase Intention (Y) variable, namely question item Y1.3 which indicates that the respondent has high hopes, expressed in a factor loading of 0.913 or 91.3 percent. Respondents have very high hopes for this statement item. They consider that question item Y1.3 (I have shallow buying interest in products/services that appear in pop-up advertisements) should be paid attention to. This statement item received a good response with an average value of 3.49, meaning many stated they were neutral and agreed with the item. Question item Y1.4 (I may not buy the product/service that appears in the pop-up ad) received the highest item average from Purchase Intention (Y) with an average value of 3.61.

#### 4.3 Measurement Model

**Table 1** Average Variance Extracted

	Average Variance Extracted (AVE)
<b>Brand Trust</b>	<b>0,709</b>
<b>Pop Up Advertising</b>	<b>0,517</b>
<b>Purchase Intention</b>	<b>0,715</b>

Source: Primary Data processed (2023)

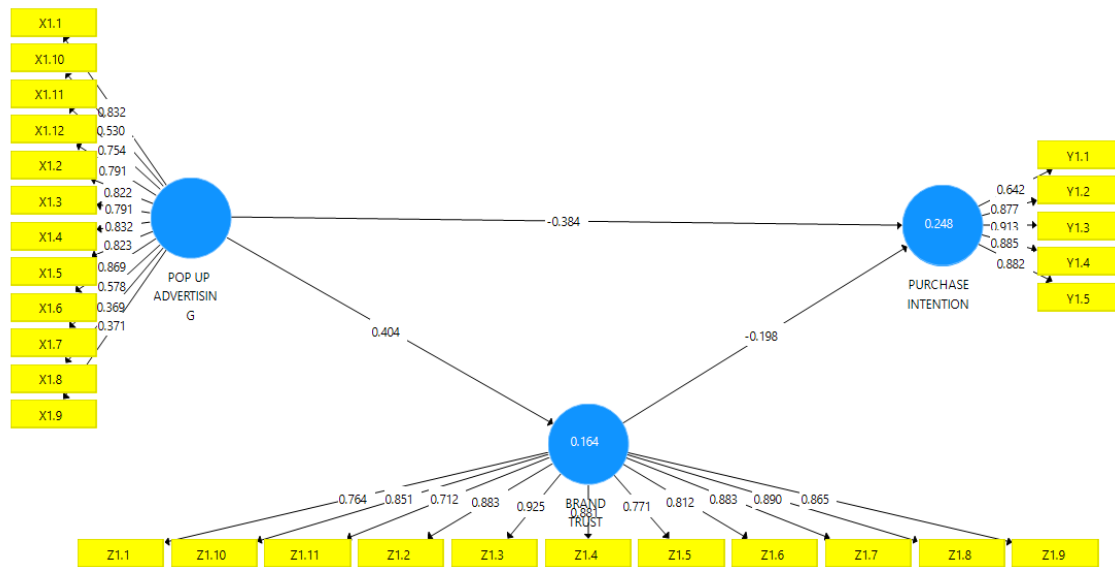
The convergent and discriminant validity tests show that 28 items from the 28 questionnaire items have met the loading factor limit value of 0.5, so the 28 questionnaire items have valid status. Table 7 illustrates that all statement items are declared valid, with a loading factor value of >0.50. The Structural Equation Modeling (SEM) test results provide the outer loading explained in Table 5.12 above. Testing the validity of reflective statement items uses the correlation between the statement item scores and the construct scores. Measurement with reflective statement items shows a change in an indicator in a construct if another statement item in the same construct changes. Reflective statement items are suitable for measuring perceptions, so this research uses reflective statement items. The statement items used in this research were declared valid or met convergent validity. This research shows a standard AVE value above 0.50 for all constructs in the research model. The lowest AVE value is 0.517 in the

Pop-up Advertising construct (X1), and the highest AVE value in the Purchase Intention (Y) construct is 0.715.

Cronbach's Alpha and composite reliability tests show satisfactory values; all latent variables are reliable because all latent variable reliability values are  $>0.7$ . This means that the research instruments used as tools in this research are reliable and consistent. Thus, all statement items measure their respective constructs. The statement item model in this research is reflective, often called the principal factor model, where the latent construct influences the covariance of the statement item measurements or reflects variations in the latent construct. The reflective model states that each statement item measures the error imposed on the latent variable. In the reflective model, the block of manifest variables associated with the latent variable is assumed to measure the statement items that manifest the construct. Statement items are seen as effects of latent variables that can be observed empirically.

#### 4.4 Structural Model and Hypothesis Test

**Figure 2. PLS Algorithm**



Source: Primary Data processed (2023)

**Table 2** Direct and indirect effect

	Original Sample (O)	T Statistics ((O/STDEV))	P Values
Brand Trust -> Purchase Intention	-0,198	3,180	<b>0,002</b>
Pop Up Advertising -> Brand Trust	0,404	6,156	<b>0,000</b>
Pop Up Advertising -> Purchase Intention	-0,384	5,543	<b>0,000</b>
Pop Up Advertising -> Brand Trust -> Purchase Intention	-0,080	2,686	<b>0,007</b>

Source: Primary Data processed (2023)

The research results show that Pop-up Advertising on Brand Trust is significant at the 5% level (p-value  $0.000 < 0.05$ ), and the T Statistics value is  $6.156 > 1.96$ . The original sample estimate value is positive, namely 0.404, which indicates that the direction of the relationship between Pop-up Advertising and Brand Trust is positive. The higher the Pop-up Advertising value, the higher the Brand Trust value. Thus, hypothesis H1 in this research states that Pop-up Advertising affects Brand Trust is accepted.

The research results show that Pop-up Advertising on Purchase Intention is significant at the 5% level (p-value  $0.000 < 0.05$ ), and the T Statistics value is  $5.543 > 1.96$ . The original sample estimate value is positive, namely -0.384, which indicates that the direction of the relationship between Pop-up Advertising and Purchase Intention is negative, which means that the higher the Pop-up Advertising value, the Purchase Intention value will decrease. Thus, hypothesis H2 in this research states that Pop-up Advertising hurts Purchase Intention.

The research results show that Brand Trust on Purchase Intention is significant at the 5% level (p-value  $0.000 < 0.05$ ), and the T Statistics value is  $3.180 > 1.96$ . The original sample estimate value is positive, namely -0.198, which indicates that the direction of the relationship between Brand Trust and Purchase Intention is negative. So, the higher the Brand Trust value, the lower the Purchase Intention value. Thus, hypothesis H2 in this research states that Brand Trust hurts Purchase Intention.

The indirect effect of Pop-up Advertising on Purchase Intention through the mediation of Brand Trust is proven to be significant with p. The value is 0.007 ( $< 0.05$ ). Meanwhile, the direct influence of Pop-up Advertising directly influences Purchase Intention. This shows that in this study, partial mediation occurred, meaning that by involving a mediator variable, the independent variable directly or indirectly influences the dependent variable. It is known that the direct influence that Pop-up Advertising has on Purchase Intention is -0.384. Meanwhile, the indirect influence of Pop-up Advertising on Purchase Intention through the mediation of

Brand Trust is  $-0.384 \times -0.080 = 0.03072$ . So, the total influence that Pop-up Advertising has on Purchase Intention through the mediation of Brand Trust is  $-0.384 + 0.03072 = -0.35323$ .

## 5. DISCUSSION AND CONCLUSION

Pop-up advertising is a form of promotion that appears suddenly on a user's computer or mobile device screen to increase brand awareness of the product or service being marketed (Imsa, 2020). Pop-up advertising has the potential to increase visibility and user engagement. However, quite a few users feel disturbed by the appearance of pop-up advertising. Pop-up advertising can attract users' attention because it appears suddenly and forces users to interact. Users will be forced to view advertising displays; if the user wants to divert the ad, they must close the ad display on the used device.

Many users feel that the appearance of pop-up advertising disrupts the activities they are carrying out. So many people do not like the appearance of pop-up advertising. Advertisements that appear suddenly and cover the main content can disrupt the user's reading or browsing flow, create frustration, and reduce the quality of the experience. Apart from that, the use of pop-up advertising to misuse user information and data is a security trigger for using pop-up advertising. However, quite a few marketers still use pop-up advertising to communicate with consumers. Marketers' preference for using pop-up advertising is to offer the opportunity to create direct engagement with users.

The sudden appearance of ads or pop-ups ensures that marketing messages can grab users' attention instantly. Pop-up advertising will allow marketers to choose the most compelling moments to display messages, such as when users leave the page or after spending a specific time on the site. Pop-up advertising often announces special offers, discounts, or time-limited promotions. Pop-up advertising is an effective medium for getting users' attention to opportunities they might otherwise miss. Additionally, Pop-up Advertising can act as a tool for collecting user information; the features offered allow marketers to manage information needs and invite users to fill out forms.

The debate from previous research regarding pop-up advertising is the main attraction that will be revealed in this research. This research found several new facts regarding the role of pop-up advertising in encouraging purchase intention in the millennial generation. The research results show that pop-up advertising influences encouraging purchase intention. However, the relationship between the two shows a negative value, meaning that the more often users see pop-up advertising, the lower the possibility of users having purchase intention. This

is contrary to the results of previous research, which stated that pop-up advertising had a positive influence on purchase intention. Pop-up advertising that is annoying or frequently appears excessively can negatively influence purchase intentions. Users may feel annoyed by such advertisements, which may cause them to leave the website or even develop the intention to avoid the advertised product or service. The results of this study are inversely proportional to research conducted by Bendig et al., (2023) which states that pop-up advertising has a positive and significant direct effect on purchase intentions. This research is strengthened by the opinions explained by Anwar et al., (2014) that customers who watch advertisements positively tend to give positive responses to the advertised product or service. This is in line with research showing that Jakarta students are entertained when watching Wardah's product advertising content displayed, ultimately creating purchase intentions.

In addition, using pop-up advertising that is too invasive or appears too frequently without adding value can create distrust and harm the brand image. Security is also a consideration, especially if the pop-up looks suspicious. Users who feel insecure in online transactions tend to reduce their purchasing intentions. Content relevance also plays an important role; if the pop-up matches the user's interests or needs, the marketing message may be addressed, and purchase intent may decrease. This is related to the findings of these two studies.

This research found that pop-up advertising has a positive influence on the formation of brand trust. Pop-up advertising can effectively boost brand trust when used at the right time and moment. Pop-up advertising can build consumer trust in brands by presenting advertisements in a relevant and personalized manner. Ad's content should give users a sense of engagement that the brand understands their needs and preferences. Previous research shows that advertising personalization can increase user engagement and create stronger bonds between consumers and brands (Dwivedi et al., 2021). Furthermore, pop-up advertising can build trust by providing added value to consumers. Exclusive offers, special discounts, or access to exclusive content can create positive experiences that make consumers feel valued, and therefore, user trust in the brand will increase (Mergillano et al., 2022). Choosing informative and educational messages in pop-up advertising can increase consumer understanding about products or services. The availability of helpful information for consumers will encourage consumers' tendency to develop a higher level of trust in the brand (Ausserdorfer et al., 2018; Halliday & Astafyeva, 2014).

This research found that brand trust influences increasing purchase intentions. Brand trust is obtained through a commitment from consumers to make purchasing decisions about a

particular product or service. The consumer feels satisfied with the product or service obtained, so that in the future, the consumer will feel a sense of loyalty to the product (Juliana & Johan, 2020). The research results show that Brand Trust influences Purchase Intention. This is because trust in a brand provides confidence that the product or service will consistently meet consumer needs and expectations, increasing the probability of purchase.

Brand trust plays a critical role in shaping consumer purchasing intentions. In practical terms, marketers need to pay attention to aspects that can damage trust, namely brand reputation. Research shows that a bad reputation associated with unethical business practices can reduce consumer trust and influence purchase intentions (Gong et al., 2023; Shubhangam et al., 2020; Tan et al., 2022). Poor customer service can also damage trust and reduce purchase intentions, as evidenced in studies on the relationship between customer service quality and customer satisfaction, which influences purchase intentions (Hsieh et al., 2021; Sanny et al., 2020). Products or services that are inconsistent in quality or experience production problems can also harm consumer confidence. Consumers who feel disappointed or uncertain about a product or service may choose to refrain from continuing purchasing. Additionally, violations of trust and privacy, such as unethical use of personal data, can harm consumers' trust and influence their purchase intentions (Cheung, Leung, et al., 2020; Cheung, Pires, et al., 2020).

In this case, to encourage the effectiveness of brand trust in increasing purchase intentions, it is necessary to pay attention to influential driving factors, the use of pop-up advertising. Therefore, marketers need to design pop-up strategies that consider user preferences and convenience. User-friendly design, appropriate frequency, relevance of content, and a professional impression can minimize negative impacts on purchase intention, creating a positive relationship between brands and consumers. With a careful approach, pop-up advertising can still effectively influence purchase intent without harming the user experience.

Lastly, this research found that Pop-up Advertising influences Purchase Intention by mediating Brand Trust. Customers with high trust in a brand tend to find it easier to buy the products and services offered (Dang et al., 2020). Therefore, trust in a brand has a vital role in maintaining the existing customer base and increasing the level of customer loyalty to the brand. In other words, the success of pop-up advertising in building or strengthening consumer trust in a brand acts as an intermediary in the relationship between pop-up advertising and purchase intention. As the research results conducted by Dam (2020), brand trust is consumer confidence in a product from a specific brand in carrying out its function. Consumers who have a sense of trust in a product from a particular brand will lead to sustainable or higher transaction volumes.

When pop-up advertising effectively creates consumer trust in a brand, this trust can motivate consumers to have a stronger intention to purchase the products or services the brand offers. Pop-up advertising can influence consumers' viewpoints and trust in brands, which can influence their intention to purchase. Well-designed pop-up advertising can increase brand trust by conveying relevant, informative, and exciting messages. If consumers perceive pop-ups as adding value or informing them about special offers, new products, or other benefits, it can improve their perception of brand sustainability and integrity. Personalized pop-up advertising can increase the level of trust. When consumers feel that the ad understands and responds to their individual needs or preferences, this can form a closer relationship between the consumer and the brand. The success of pop-up advertising depends on the accuracy of implementation and use. User-friendly design, moderate frequency, and relevant content are critical factors for optimizing the effectiveness of pop-ups without resulting in a detrimental user experience. Attention to user preferences, such as providing the option to dismiss pop-ups or activating notifications only once quickly, is also an essential step to creating a positive relationship between users and ads. By maintaining alignment between marketing interests and the desired user experience, pop-up advertising can remain a relevant and effective tool in the ever-evolving world of online marketing.

## 6. LIMITATIONS AND FURTHER RESEARCH

Although this research provides theoretical insight and development, this research has several limitations that can be developed further. Research development can be done by carrying out more specific industry mapping so that the mapping of the characteristics of research respondents can be more specific and not general. Further research could also focus on specific sectors to understand the specific context and market dynamics that may differ. The variance in user responses to pop-up advertising highlights the complexity of psychological and social factors that can influence their interactions and engagement. Further development exploring individual variability could lead to deeper understanding in future research. Not only that, this research needs to detail aspects of the timing and frequency of pop-up advertising displays, which can have significant implications for these advertisements' long-term effects and consumer tolerance. An in-depth analysis of these factors could be an essential contribution to future research on the dynamics of online advertising. Further research developments include cross-media analysis to understand the interaction between pop-up advertising and social media advertising and compare effects between platforms, such as desktop and mobile, to broaden

insight. In addition, further exploration of whether advertising content characteristics, such as message type or level of creativity, influence perceived brand trust and purchase intentions could provide a more complete description.

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## REFERENCES

- Abbasi, A. Z., Rehman, U., Hussain, A., Ting, D. H., & Islam, J. U. (2021). The impact of advertising value of in-game pop-up ads in online gaming on gamers' inspiration: An empirical investigation. *Telematics and Informatics*, *62*, 101630.
- Anwar, S. K., Kusumawati, A., & Sanawiri, B. (2014). The Influence Of Brand Awareness And Product Attribute Toward Purchase Decision (Study on the Undergraduate Students of Administrative Science Faculty of 2014 Batch as Samsung Smartphone Consumers and Users Customer ). *Jurnal Administrasi Bisnis (JAB)*, *55*(1), 214–221.
- ARUNGBEMI, O. G. (2020). *Influence Of Online Pop-Up Advertising On Students' buying Habits (A Study Of Mountain Top University Students)*.
- Ausserdorfer, J., Hauptmann, J., & Kantorska, G. (2018). The Influence of pop-up stores on the brand equity of online retailers. *The Strategic Brand Management: Master Papers*, September/(4).
- Bendig, D., Schulz, C., Theis, L., & Raff, S. (2023). Digital orientation and environmental performance in times of technological change. *Technological Forecasting and Social Change*, *188*, 122272.
- Bougie, R., & Sekaran, U. (2019). *Research methods for business: A skill building approach*. John Wiley & Sons.
- Chaudhuri, A., & Holbrook, M. B. (2001). The chain of effects from brand trust and brand affect to brand performance: the role of brand loyalty. *Journal of Marketing*, *65*(2), 81–93.
- Cheung, M. L., Leung, W. K. S., & Chan, H. (2020). Driving healthcare wearable technology adoption for Generation Z consumers in Hong Kong. *Young Consumers*. <https://doi.org/https://doi.org/10.1108/YC-04-2020-1123>
- Cheung, M. L., Pires, G., & Rosenberger, P. J. (2020). The influence of perceived social media



- marketing elements on consumer–brand engagement and brand knowledge. *Asia Pacific Journal of Marketing and Logistics*, 32(3), 695–720.
- Dam, T. C. (2020). Influence of brand trust, perceived value on brand preference and purchase intention. *The Journal of Asian Finance, Economics and Business (JAFEB)*, 7(10), 939–947.
- Dang, V. T., Nguyen, N., & Wang, J. (2020). Consumers' perceptions and responses towards online retailers' CSR. *International Journal of Retail & Distribution Management*, 48(12), 1277–1299.
- Davis, F. D. (1989). Technology acceptance model: TAM. *Al-Sugri, MN, Al-Aufi, AS: Information Seeking Behavior and Technology Adoption*, 205–219.
- Davranova, M. D. (2019). Internet Advertising: Perceptions of the users. *International Journal of Marketing and Business Communication*, 8(2019), 25–36.
- Dwivedi, Y. K., Ismagilova, E., Hughes, D. L., Carlson, J., Filieri, R., Jacobson, J., Jain, V., Karjaluoto, H., Kefi, H., & Krishen, A. S. (2021). Setting the future of digital and social media marketing research: Perspectives and research propositions. *International Journal of Information Management*, 59, 102168.
- Fachryto, T., & Achyar, A. (2018). Effect of online behavioral advertising implementation on attitude toward ad and purchase intention in Indonesian E-marketplace. *Sriwijaya International Journal of Dynamic Economics and Business*, 2(2), 123–138.
- Gong, J., Said, F., Ting, H., Firdaus, A., Aksar, I. A., & Xu, J. (2023). Do privacy stress and brand trust still matter? Implications on continuous online purchasing intention in China. *Current Psychology*, 42(18), 15515–15527.
- Ha, H., & Perks, H. (2005). Effects of consumer perceptions of brand experience on the web: Brand familiarity, satisfaction and brand trust. *Journal of Consumer Behaviour: An International Research Review*, 4(6), 438–452.
- Ha, S., & Stoel, L. (2009). Consumer e-shopping acceptance: Antecedents in a technology acceptance model. *Journal of Business Research*, 62(5), 565–571. <https://doi.org/10.1016/j.jbusres.2008.06.016>
- Hair Jr, J. F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. *European Business Review*.
- Halliday, S. V., & Astafyeva, A. (2014). Millennial cultural consumers: co-creating value through brand communities. *Arts Marketing: An International Journal*. <https://doi.org/https://doi.org/10.1108/AM-01-2014-0003>
- Harridge-March, S. (2006). Can the building of trust overcome consumer perceived risk online? *Marketing Intelligence & Planning*, 24(7), 746–761.
- Hong, I. B., & Cha, H. S. (2013). The mediating role of consumer trust in an online merchant in predicting purchase intention. *International Journal of Information Management*, 33(6), 927–939.
- Hsieh, A.-Y., Lo, S.-K., Chiu, Y.-P., & Lie, T. (2021). Do not allow pop-up ads to appear too early: Internet users' browsing behaviour to pop-up ads. *Behaviour & Information Technology*, 40(16), 1796–1805.
- Hussain, A., Abbasi, A. Z., Hollebeek, L. D., Schultz, C. D., Ting, D. H., & Wilson, B. (2022). Videogames-as-a-service: converting freemium-to paying-users through pop-up

- advertisement value. *Journal of Services Marketing*, 36(3), 398–415.
- Hwang, J., Yoon, Y.-S., & Park, N.-H. (2011). Structural effects of cognitive and affective responses to web advertisements, website and brand attitudes, and purchase intentions: The case of casual-dining restaurants. *International Journal of Hospitality Management*, 30(4), 897–907.
- Imsa, M. A. (2020). Online advertising effectiveness for advertiser and user. *2nd Jogjakarta Communication Conference (JCC 2020)*, 216–221.
- Juliana, J., Djakasaputra, A., Pramono, R., & Hulu, E. (2021). Brand Image, Perceived Quality, Ease of Use, Trust, Price, Service Quality on Customer Satisfaction and Purchase Intention of Bibli Website With Digital Technology As Dummy Variable in the Use of Eviews. *Journal of Critical Reviews*.
- Juliana, J., & Johan, J. (2020). Pengaruh brand image terhadap keputusan memilih universitas dengan brand trust sebagai variabel intervening. *J. Bus. Bank*, 9(2), 229–246.
- Klein, J. F., Falk, T., Esch, F.-R., & Gloukhovtsev, A. (2016). Linking pop-up brand stores to brand experience and word of mouth: The case of luxury retail. *Journal of Business Research*, 69(12), 5761–5767.
- Lala, G. (2014). The emergence and development of the technology acceptance model (TAM). *Marketing from Information to Decision*, 7, 149–160.
- Lee, J., Park, D., & Han, I. (2011). The different effects of online consumer reviews on consumers' purchase intentions depending on trust in online shopping malls: An advertising perspective. *Internet Research*, 21(2), 187–206.
- Lee, K.-Y., & Samanta, P. K. (2023). Does Online Brand Influence Offline Word-of-mouth? Using Pop-up Stores as a Means of Surprise and Brand Experience. *Asian Journal of Business Research Volume*, 13(2).
- Martins, J., Costa, C., Oliveira, T., Gonçalves, R., & Branco, F. (2019). How smartphone advertising influences consumers' purchase intention. *Journal of Business Research*, 94, 378–387.
- Mergillano, M. R., Nabor, B. G., Halili, R. R., Hinanay, K. G., & Grimaldo, J. R. (2022). Elements of online advertisements: Its impact on late generation z's purchase intention. *Journal of Business and Management Studies*, 4(2), 362–382.
- Mosavi, S. A., & Ghaedi, M. (2012). A survey on the relationship between trust, customer loyalty, commitment and repurchase intention. *African Journal of Business Management*, 6(36), 10089.
- Movahedisaveji, M. M., & Shaukat, B. (2020). Mediating role of brand app trust in the relationship between antecedents and purchase intentions-Iranian B2C mobile apps. *Journal of Management Analytics*, 7(1), 69–104.
- Nair, P. K., Ali, F., & Leong, L. C. (2015). Factors affecting acceptance & use of ReWIND: Validating the extended unified theory of acceptance and use of technology. *Interactive Technology and Smart Education*, 12(3), 183–201.
- Park, E., & Ohm, J. (2014). The impacts of media type, placement and exposure type on attitudes towards advertisements on mobile devices. *International Journal of Mobile Communications*, 12(2), 160–176.
- Pham, V. K., Nguyen, T. Le, Do, T. T. H., Tang, M. H., & Thu Hoai, H. Le. (2020). *A study on switching behavior toward online shopping of vietnamese consumer during the Covid-*

19 time. <https://doi.org/https://doi.org/10.2139/ssrn.3651300>

- Robertson, T. S., Gatignon, H., & Cesareo, L. (2018). Pop-ups, ephemerality, and consumer experience: the centrality of buzz. *Journal of the Association for Consumer Research*, 3(3), 425–439.
- Sanny, L., Arina, A., Maulidya, R., & Pertiwi, R. (2020). Purchase intention on Indonesia male's skin care by social media marketing effect towards brand image and brand trust. *Management Science Letters*, 10(10), 2139–2146.
- Shubhangam, K., Srivastava, M., Ravi, R., & Singh, R. (2020). Influence of social media advertisement on customer's purchase decision: A literature review. *International Journal on Recent Trends in Business and Tourism (IJRTBT)*, 4(4), 25–31.
- Smith, K. T. (2011). Digital marketing strategies that Millennials find appealing, motivating, or just annoying. *Journal of Strategic Marketing*, 19(6), 489–499.
- Sovania, E., & Erasashanti, A. P. (2020). The Effect Of Ussd Pop-Up Notification Advertising On Interests In Buying Sme's Products. *Journal of Applied Business and Economics (JABE)*, 6(4), 274–286.
- Suhaily, L., & Darmoyo, S. (2017). Effect Of Product Quality, Perceived Price and Brand Image On Purchase Decision Mediated By Customer Trust (Study On Japanese Brand electronic Product). *Jurnal Manajemen*, 21(2), 179–194.
- Tambajong, M., Lapian, J. S., & Tumewu, F. J. (2019). The Effectiveness Of Pop Up Advertising On Social Media (Case Study: Facebook User At Student College Feb Unsrat Institution). *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis Dan Akuntansi*, 7(3).
- Tan, Z., Sadiq, B., Bashir, T., Mahmood, H., & Rasool, Y. (2022). Investigating the impact of green marketing components on purchase intention: The mediating role of brand image and brand trust. *Sustainability*, 14(10), 5939.
- Tjahyadi, R. A. (2006). Brand Trust dalam Konteks Loyalitas Merek: Peran Karakteristik Merek, Karakteristik Perusahaan, dan Karakteristik Hubungan Pelanggan-Merek. *Jurnal Manajemen Maranatha*, 6(1), 65–78.
- Tran, L. T. T. (2020). Online reviews and purchase intention: A cosmopolitanism perspective. *Tourism Management Perspectives*, 35, 100722.
- Tsai, Y. H., Joe, S., Lin, C., Chiu, C., & Shen, K. (2015). Exploring corporate citizenship and purchase intention: mediating effects of brand trust and corporate identification. *Business Ethics: A European Review*, 24(4), 361–377.
- Venkatesh, V. (2022). Adoption and use of AI tools: a research agenda grounded in UTAUT. *Annals of Operations Research*, 1–12.
- Wang, L., Ampiah, F., Xu, L., & Wang, X. (2014). The influence of pop-up advertising on consumer purchasing behavior. *2014 International Conference on Mechatronics, Electronic, Industrial and Control Engineering (MEIC-14)*, 217–220.
- Waqas, M., Honggang, X., Ahmad, N., Khan, S. A. R., & Iqbal, M. (2021). Big data analytics as a roadmap towards green innovation, competitive advantage and environmental performance. *Journal of Cleaner Production*, 323, 128998.
- Watanabe, T., & Omori, Y. (2020). Online consumption during and after the COVID 19 pandemic: Evidence from Japan. *The Impact of COVID-19 on E-Commerce*, 10, 971–978.

- Yasmin, I., & Akhter, M. (2023). Internet of things technologies in developing countries-a holistic view of consumer adoption behaviour. *International Journal of Technology Marketing*, 17(3), 316–345.
- Zhang, D. J., Dai, H., Dong, L., Wu, Q., Guo, L., & Liu, X. (2019). The value of pop-up stores on retailing platforms: Evidence from a field experiment with Alibaba. *Management Science*, 65(11), 5142–5151.
- Zhong, Y., Oh, S., & Moon, H. C. (2021). Service transformation under industry 4.0: Investigating acceptance of facial recognition payment through an extended technology acceptance model. *Technology in Society*, 64, 101515.