

Examining The Direct and Indirect Effects of Social Media Advertising Benefits on Impulse Buying Behavior Through Privacy Concern Among Generation Z Consumers

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Abstract

This quantitative research investigates the influence of social media advertising benefits on impulse buying behavior among Generation Z consumers, with privacy concern incorporated as a mediating construct. Data were obtained through a structured self-administered questionnaire distributed via online snowball sampling, yielding 461 valid responses. Structural equation modeling (SEM) was employed to examine the hypothesized relationships, and the measurement model demonstrated an excellent fit (CMIN/DF = 1.243, CFI = 0.999, RMSEA = 0.023). The results reveal that advertising benefits exert a significant positive direct effect on impulse buying ($\beta = 0.228$, $p < 0.001$) and a significant positive effect on privacy concern ($\beta = 0.111$, $p = 0.020$). Conversely, privacy concern negatively influences impulse buying ($\beta = -0.155$, $p < 0.001$). The indirect effect mediated by privacy concern is slightly negative, indicating partial mediation. Overall, the findings highlight that the affective appeal of social media advertising enhances spontaneous purchasing tendencies, whereas heightened privacy awareness introduces cognitive restraint, thereby mitigating impulsive purchase behaviors.

Keywords: Social Media Advertising, Impulse Buying, Privacy Concern, Online Consumer Behavior, Generation Z

Introduction

In the digital era, social media has become a central platform for marketing communication and consumer interaction. The rise of personalized, data-driven advertising has transformed how individuals perceive and respond to marketing stimuli. Generation Z (Gen Z), born between the mid-1990s and early 2010s (Pew Research Center, 2023), are true digital natives who spend much of their lives on social media and mobile devices. With high digital literacy, emotional sensitivity to online content, and a desire for immediacy, Gen Z represents a powerful consumer segment whose purchasing behavior warrants close examination.

Social media advertising offers key benefits such as relevance, convenience, and hedonic enjoyment, which foster positive attitudes toward digital marketing and stimulate impulse buying behavior (Feng, 2023; Obadã, 2024). When ads are perceived as engaging and personally relevant, consumers experience emotional arousal that may lead to spontaneous purchases. However, these benefits rely heavily on personal-data collection, which raises growing privacy concern about how such data are used (Choi & Jerath, 2022).

While previous research has emphasized the persuasive effects of social-media advertising, the counter-balancing role of privacy concern has received limited attention particularly among Gen Z consumers who are both highly engaged and privacy-aware. Heightened concern may trigger self-regulation that suppresses impulsive tendencies, suggesting a dual psychological mechanism in which emotion drives impulsivity while cognition imposes restraint.

Accordingly, this study examines the effects of social-media advertising benefits on impulse-buying behavior among Gen Z consumers, focusing on the mediating role of privacy concern. Drawing on the dual-process perspective of consumer decision-making, the research employs structural equation modeling (SEM) to integrate affective and cognitive mechanisms. The findings aim to deepen understanding of how Gen Z balances emotional engagement with privacy concern and to provide practical insights for designing ethical and effective digital-advertising strategies.

Research Objectives

The objectives of this study are as follows:

1. To examine the structural model illustrating the relationships among social media advertising benefits, privacy concern, and impulse buying behavior among Generation Z consumers.
2. To compare the direct and indirect effects of social media advertising benefits on impulse buying through privacy concern, and to clarify how privacy concern mediates this relationship.

Literature Review

The researchers reviewed relevant concepts, theories, and previous studies to establish the foundation for the research framework and hypothesis development, as follows:

Social Media Advertising and Their Benefits

Xuan (2023) stated that social media has become an essential channel for marketing and advertising. From the advertisers' perspective, social media enables marketers to deliver precise marketing messages directly to target audiences and to interact with them in real time.

On the other hand, social media also serves as a platform where users can receive, share, exchange, search for, and disseminate information anytime and anywhere.

Kelley and Sheehan (2022) asserted that social media has evolved into a key channel that allows businesses to reach customers easily, accurately target specific market segments, and strengthen the relationship between brands and consumers.

According to Lim (2024), internet usage in Thailand has grown continuously since 1991. As of 2023, 84.80% of internet users actively engage on social media platforms, with the following usage rates: Facebook (77.1%), YouTube (54.3%), Twitter now renamed X (23.4%), Instagram (27.8%), and TikTok (69.1%). Among these users, Generation Z consumers represent one of the most active social media user groups.

Furthermore, the Gen Z Media Consumption Insights report (Rand, 2025) revealed that Generation Z, aged between 21 and 27 years, constitutes the group that uses social media most intensively. This generation has become a priority audience for brands, as 81% of Gen Z users access social media daily and 50% spend more than three hours per day on such platforms. Consequently, social media advertising has become increasingly important in today's market environment.

Campos (2021) stated that consumers derive benefits from online advertising because they seek personalized product or service recommendations that match their interests. They also desire information that is relevant to their preferences, indicating that the benefits of online advertising are realized primarily when it offers relevance.

In addition, the study by Strycharz et al. (2019) found that online advertising enhances convenience for consumers by reducing the time spent searching for desired products or services and by facilitating quick comparisons among alternatives. Similarly, Kyguoliene, et al. (2017) discovered that advertising on social media provides convenience in online shopping and also revealed that some consumers enjoy viewing advertisements, perceiving them as a form of entertainment.

Based on these findings, the present study conceptualizes social media advertising benefits as comprising three key dimensions: relevance, convenience, and hedonic value.

Privacy Concern

Tuten (2021) defined privacy concern as an individual's privacy concern regarding the disclosure of personal information to others. In contemporary marketing, Kotler et al. (2021) explained that marketing practices have increasingly become data-driven, utilizing technology to collect, store, and analyze customer behavior patterns for marketing purposes. This data-driven approach allows marketers to deliver highly personalized advertising messages and create enhanced consumer experiences through targeted communication technologies.

However, Aiolfi et al. (2021) found that consumers express considerable privacy concern about online behavioral advertising, particularly when data-driven targeting techniques are used. Such practices heighten consumers' awareness of how brands collect and utilize their personal data for marketing purposes, as supported by Bhatia (2020), who noted that the use of consumer information in personalized advertising often leads to growing skepticism and vigilance among consumers regarding privacy protection.

Therefore, this study focuses on privacy concern as a key psychological factor influencing consumers' responses to social media advertising. Specifically, the research aims to investigate how Gen Z consumers' awareness of personal data utilization in marketing affects their attitudes and impulse buying behavior within the context of social media advertising.

Impulse Buying

Marco (2025) defines impulse buying as an unplanned purchasing behavior driven primarily by feelings or emotions rather than rational thinking. It plays a significant role in consumer decision-making and can be triggered by various factors such as emotional states, environmental cues, product characteristics, and store atmosphere. This notion is further supported by Pacheco et al. (2024), who explain that online impulse buying arises from psychological stimuli influencing consumers' spontaneous decisions. They also emphasize that social factors and technological influences can intensify such impulsive tendencies in digital shopping environments.

Previous Research and Hypothesis Development

Pacheco et al. (2024) examined consumer behavior in Turkey and found that online advertising can create psychological impacts that lead to impulse buying. Similarly, Singh et al. (2023) investigated the effects of social media advertisements on consumers in Saudi Arabia and reported that such advertisements significantly stimulate unplanned purchasing behavior. Based on these studies, the following hypothesis was developed:

H1: Social media advertisements have a significant positive effect on impulse buying behavior.

Papaioannou et al. (2021) investigated consumer perceptions of data collection in social media advertising and found that users exhibited significant privacy concern toward social platforms, with the highest levels of concern reported for Facebook, followed by YouTube. Lina (2021) examined Instagram users in Indonesia and observed that consumers expressed privacy concern when exposed to ads that matched their personal preferences. Similarly, Timmermann (2025) found that exposure to social media advertisements increased consumers' awareness and anxiety regarding data privacy. Accordingly, the second hypothesis was formulated as follows:

H2: Social media advertisements have a significant positive effect on privacy concern.

Pilakaew et al. (2024) explored the effect of privacy concern on online purchasing behavior and found that higher levels of concern significantly influence consumers' purchase decisions. These results are consistent with Schade et al. (2018), who reported that privacy concern negatively affects consumers' purchase intentions toward advertised products. Thus, the following hypothesis was proposed:

H3: Privacy concern has a significant negative effect on impulse buying behavior.

Based on the reviewed literature and empirical evidence, the proposed conceptual framework of this study was developed, as shown in Figure 1.

Conceptual Framework

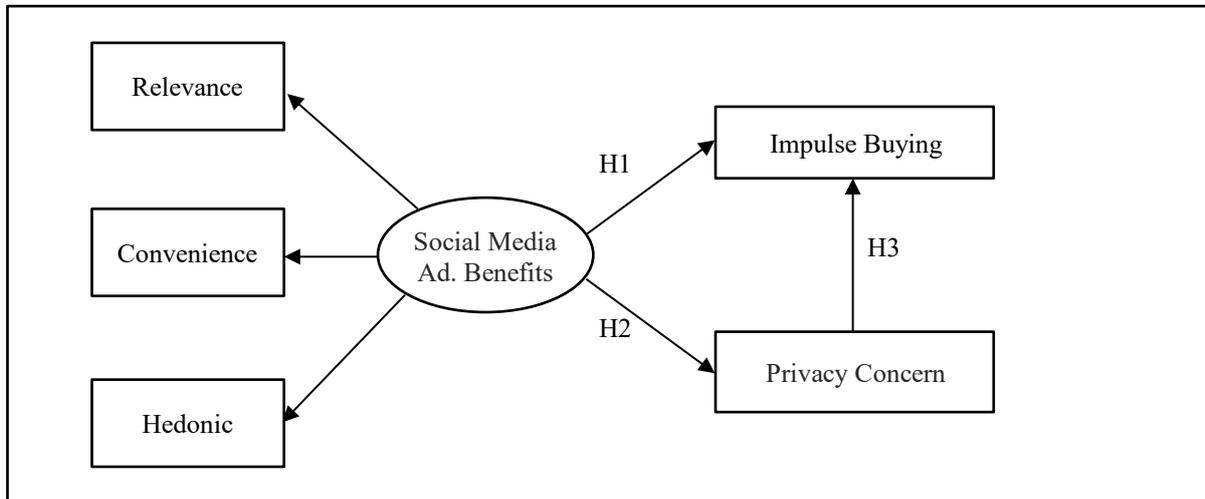


Figure 1: Conceptual Framework

Research Methodology

The target population of this study comprised Generation Z consumers, following the definition of Rand (2025), which identifies Gen Z individuals with purchasing decision-making power between the ages of 21 and 27. A structured questionnaire was used as the research instrument. The instrument's content validity was verified by three experts, with all items demonstrating Item Objective Congruence (IOC) values greater than 0.50. The reliability of the instrument was assessed using Cronbach's alpha, yielding a coefficient of 0.87, indicating a high level of internal consistency.

Data were collected using an online snowball sampling technique. Initial respondents who met the inclusion criteria namely, being within the specified age range of 21–27 years were invited to complete the questionnaire and subsequently share it with other eligible Gen Z individuals within their social networks. Screening questions were included to ensure the qualification of participants.

This study employed Covariance-Based Structural Equation Modeling (CB-SEM) using the Maximum Likelihood (ML) estimation method. According to Blunch (2013), the sample size for CB-SEM should not be fewer than ten times the number of free parameters estimated in the model. Based on the conceptual framework of this research, the model comprised a total of 39 free parameters, including 30 free parameters for first-order latent variables, 6 free parameters for the second-order latent variable, and 3 free parameters for the structural paths. Therefore, the minimum required sample size should not be fewer than 390 respondents to ensure adequate statistical power and model stability. Data collection was conducted over one month period. Upon completion, a total of 461 valid responses were obtained, which exceeded the minimum requirement and was deemed sufficient for SEM analysis.

Results

From the total of 461 valid responses, 42% of respondents were male and 58% were female. Approximately 67% were either currently pursuing or had completed a bachelor's degree, and 68% reported a monthly income between 10,000 and 20,000 THB. All participants met the age qualification criteria (21–27 years old) as required for Generation Z consumers.

In accordance with the research objectives, the results are presented in the following order.

Examining the structural model

Before testing the structural model based on the conceptual framework, the researchers conducted a confirmatory factor analysis (CFA) to verify whether the construct of Social media advertising benefits (AdBenefit) was consistent with the theoretical foundation derived from the literature review.

The results indicated satisfactory measurement quality, with a Composite Reliability (CR) of 0.850, exceeding the recommended threshold of 0.70, and an Average Variance Extracted (AVE) of 0.671, higher than the acceptable level of 0.50. Therefore, it can be concluded that Social media advertising benefits comprised Relevance, Convenience, and Hedonic value which were consistent with the conceptualization established in the literature review.

The structural equation modeling (SEM) results revealed that the proposed conceptual framework exhibited an excellent fit with the empirical data. The CMIN/DF ratio = 1.243 was below the acceptable threshold of 3.0, indicating that the model fit the data well. Additionally, the overall goodness-of-fit indices were within the desirable range, including GFI = 0.996, AGFI = 0.984, CFI = 0.999, TLI = 0.997, IFI = 0.999 and RMSEA = 0.023, these results confirmed that the conceptual model was highly consistent with the empirical data. (Figure 2)

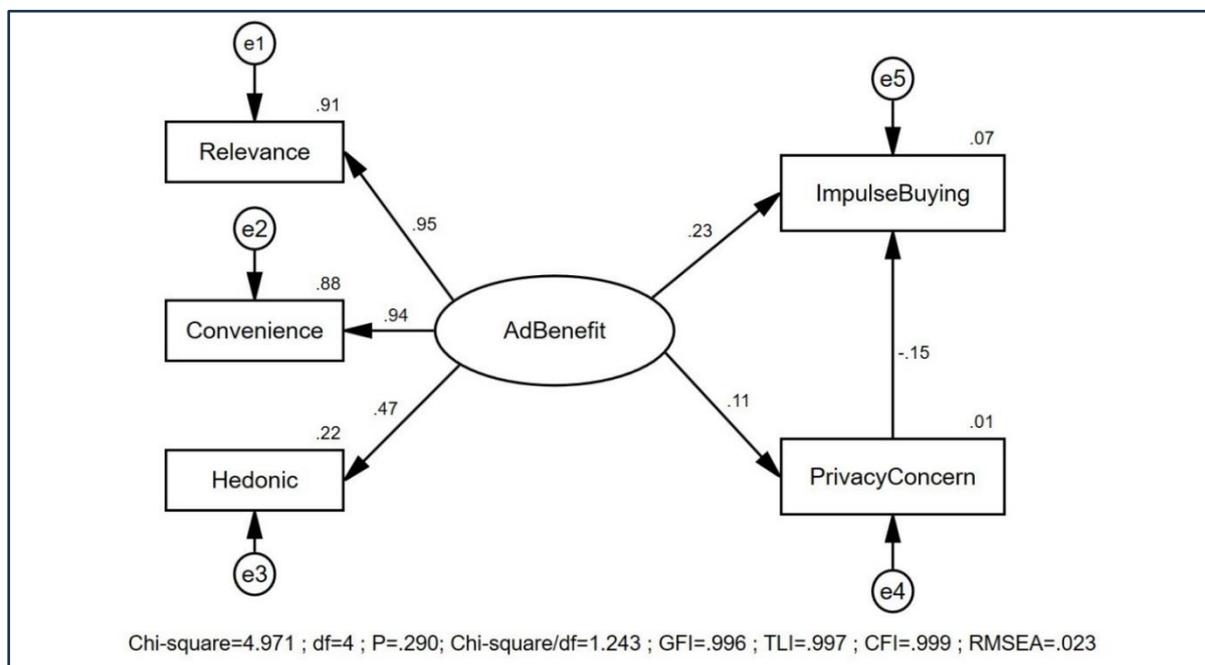


Figure 2: Model of Social Media Advertising Benefits on Impulse Buying through Privacy Concern among Generation Z Consumers

The results showed that social media advertising benefits had a positive and significant effect on impulse buying among Gen Z consumers ($\beta = 0.228, p < 0.001$). The results indicate that when Gen Z users perceive advertising benefits they find relevant, convenient, or enjoyable, they exhibit a higher tendency for impulse buying.

Social media advertising benefits also had a positive influence on privacy concern ($\beta = 0.111, p = 0.020$). This means that the more Gen Z appreciates personalized ads, the more aware they become of how their data is used. Meanwhile, privacy concern negatively affected impulse buying ($\beta = -0.155, p < 0.001$), suggesting that those who worry about personal data tend to think twice before buying.

The indirect effect of social media advertising benefits through privacy concern was small and negative ($\beta = -0.017$), slightly reducing the overall positive effect (total $\beta = 0.211$). The R-squared for impulse buying was 0.07, a relatively low value that is further discussed later in this paper.

Comparative Interpretation between Direct and Indirect Effects

The analysis showed that the direct effect of social media advertising benefits on impulse buying ($\beta = 0.228$) was clearly stronger and positive, while the indirect effect through privacy concern ($\beta = -0.017$) was weaker and negative. In short, Gen Z consumers who find social media ads relevant, convenient, and enjoyable tend to buy spontaneously, driven by emotion rather than careful thought. The engaging and personalized nature of these ads encourages quick reactions and instant gratification.

In contrast, privacy concern works in the opposite direction. As Gen Z becomes more aware of how their data are collected and used, they develop caution and self-control that can limit impulsive behavior. This shows an inner balance between attraction to personalized advertising and concern about privacy.

Overall, Gen Z's impulse buying is shaped by two competing forces: emotional stimulation from advertising that drives instant purchases, and cognitive restraint from privacy concern that slows them down. The stronger direct effect suggests that emotion still dominates, though rising awareness of privacy issues now plays a growing role in moderating impulsive decisions. (Table 1)

Table 1 Direct, Indirect, and Total Effects of Social Media Advertising Benefits on Impulse Buying through Privacy Concern among Generation Z Consumers

Relationship	Direct Effect	Indirect Effect	Total Effect	Interpretation
AdBenefits > ImpulseBuying (H1)	0.228	-0.017	0.211	Direct effect is positive and strong, while indirect effect via privacy concern is negative and weak overall effect remains positive.
AdBenefits > PrivacyConcern (H2)	0.111	-	0.111	Positive, significant; higher perceived social media advertising benefits increase privacy concern.
PrivacyConcern > ImpulseBuying (H3)	-0.155		-0.155	Negative and significant; greater privacy concern reduces impulse buying behavior.

Note: All direct effects are significant at $p < 0.05$

Conclusion and Discussion

The following section summarizes the study's conclusions and discusses how the findings correspond with or differ from prior research.

Direct effect (AdBenefits > Impulse buying). Our finding aligns with research showing that relevance, convenience, and hedonic enjoyment heighten impulsive tendencies in digital contexts (Feng, 2023; Obadã, 2024). Evidence from Turkey (Pacheco et al., 2024) and Saudi Arabia (Singh et al., 2023) similarly reports that online/social media advertising stimulates unplanned purchases, consistent with the present direct path.

AdBenefits > Privacyconcern. The positive association between perceived social media advertising benefits and privacy concern is consistent with work on data-driven marketing (Kotler et al., 2021) and online behavioral advertising (OBA) that heightens awareness of data collection (Aiolfi et al., 2021; Bhatia, 2020). Platform-specific evidence (e.g., concerns on Facebook/YouTube; Papaioannou et al., 2021; and Instagram users recognizing ad-preference matching; Lina, 2021) also converges with the idea that perceived personalization/value coexists with heightened privacy vigilance (see also Timmermann, 2025).

Privacy concern > Impulse buying. The negative path agrees with studies showing that privacy concern suppress purchase intentions or repurchase tendencies online (Schade et al., 2018; Pilakaew et al., 2024). In our data, privacy concern appears to act as a cognitive control mechanism, consistent with the dual-process view positing that reflective appraisals attenuate affect-driven impulses.

It should be noted that the R-squared obtained in this study was relatively low (0.07), which indicates that when consumers are exposed to social media advertisements, they may compare products, prices, distribution channels, and reviews from actual users before making purchase decisions. This study did not aim to capture all the factors influencing impulse buying behavior but rather focused specifically on consumer responses triggered by exposure to social media advertising, which is consistent with Guo et al. (2024), who reported an R-squared value of 0.06 in their study examining the influence of self-esteem on online impulse buying.

Implication

The findings indicate that social media advertising exerts a positive influence on impulse buying behavior. However, such advertising may also raise consumers' privacy concern due to its reliance on data-driven personalization. Impulse buying itself carries both positive and negative implications. On the positive side, it enables consumers to purchase desirable products or services that they might not have initially considered. Conversely, excessive impulsive behavior can lead to irrational or unnecessary purchases if consumers fail to exercise self-control. These findings lead to two main recommendations:

For brands: Apply data-driven marketing carefully. Overly personalized or intrusive ads can raise privacy concern and damage trust.

For consumers, exposure to personalized advertising on social media should be accompanied by greater critical reflection and rational evaluation to avoid excessive or unnecessary purchases.

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