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by Rismi Juliadi

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Rismi Juliadi
Universitas Multimedia Nusantara

Chininta Rizka Angelia
Universitas Multimedia Nusantara

Aazelia Faramita
Universitas Multimedia Nusantara

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Cover Page Footnote

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Impact of Social Media Use on Public Behavior Regarding COVID-19 Vaccination Refusal

Rismi Juliadi*, Chininta Rizka Angelia, Aazelia Faramita

Faculty of Communication, Universitas Multimedia Nusantara, Tangerang, 15810, Indonesia

**Corresponding author. Email: rismi.juliadi@umn.ac.id*

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Keywords
Social media; Theory of Planned Behavior; Uses and Gratification Theory, Vaccine refusal, Covid-19

Abstract

This study explores the impact of social media use on the behavior related to the refusal of the COVID-19 vaccination. Social media has been one of the most widely used sources of information during the COVID-19 pandemic. It provides easy access to a wide range of content, including information about the COVID-19 vaccination campaign carried out by the Indonesian government. However, content shared via social media is vulnerable to disinformation, fake news, and hoaxes. The use of social media during the pandemic has had a significant impact on people's attitudes toward vaccination, with vaccine hesitancy often stemming from multiple factors. This study aims to measure the impact of social media usage on behavior related to COVID-19 vaccination refusal. The research is grounded in the Uses and Gratification Theory (UGT) and the Theory of Planned Behavior (TPB), and employs a quantitative-explanatory research method. Data were collected via a survey of 196 respondents from generation X and Y, selected using a purposive sampling technique. The data analysis was conducted using Structural Equation Modelling (SEM) - Partial Least Square (PLS). Among the respondents—62% females and 38% males—the majority reported receiving an invitation from the Ministry of Health to participate in the vaccination program. The findings reveal a significant and nuanced distinction among the variables of information seeking and status seeking. Notably, purpose-driven or interactive social media activities were not significant predictors of vaccine refusal. In contrast, social media use for entertainment purposes emerged as a strong and statistically significant predictor of vaccine refusal behavior. This key finding suggests that passive consumption of entertainment-oriented content—such as memes, viral videos, or influencer narratives—may influence vaccine attitudes more powerfully than overtly persuasive or informative content. It appears that such content can bypass the critical scrutiny applied during active information-seeking behavior, thereby making entertainment-based media a potent vector for misinformation and vaccine hesitancy. The implication of this study reveals that the “entertainment” motive is the only significant predictor of the refusal of the COVID-19 vaccination, indicating that purely informational or data-heavy campaigns are ineffective against entertainment-driven misinformation. Therefore, public health communication should evolve toward emotionally engaging, narrative-based, and entertainment-oriented strategies, leveraging influencers, storytelling, and positive framing to foster hope, responsibility, and pro-vaccine behavior.

Introduction

The outbreak of SARS-CoV-2 (COVID-19) rapidly transformed the world, creating new habits and altering daily life as people adapted to survive under pandemic conditions. Before the implementation of the "new normal", offline activities in Indonesia were largely replaced by online alternatives, forcing citizens to adjust to unfamiliar routines. In response to the crisis, the Indonesian government established the 3M health protocol: wearing masks, maintaining physical distance, and avoiding crowds. However, due to the rapid transmission of the virus and the emergence of new variants, the government further strengthened its strategies to curb the spread of COVID-19 (Amindoni, 2021).

Despite continuous government efforts to promote vaccination, vaccine uptake in Indonesia has faced significant challenges. A survey conducted in July 2021 revealed that only 67% of Indonesians were willing to be vaccinated, while 33% remained hesitant or refused the vaccine altogether (Maulana, 2021). These figures highlight the persistence of vaccine hesitancy among a significant portion of the population.

During the pandemic, social media emerged as the dominant channel for disseminating information related to COVID-19 and vaccination. Studies indicate that for many Indonesian, social media serves as the primary source of information – even among those with the relatively high level of health literacy. However, the widespread use of social media also brings complex consequences. These platforms have become breeding grounds for what the WHO has termed an "infodemic" - a flood of conflicting information, misinformation, and disinformation, including hoaxes and deliberately misleading content (Cascini et al., 2022). This phenomenon severely undermines public health efforts and contributes to increased vaccine hesitancy.

According to Liliani (2018), social media is now used across various business sectors to promote or enhance engagement between organizations and their public. The advantages of social media, frequently discussed in previous studies, lie primarily in its interactivity and networking capabilities – features that traditional media lack. Well-designed content gains influence through engagement and interaction. Empirical studies have shown that social media use effectively influences individual attitudes. In the digital era, smartphones enable people to engage more actively, particularly through social media access. Many audiences rely on these platforms for information and news, increasing audience participation (Ariestya et al., 2020).

During the pandemic, social media significantly affected public behavior, especially regarding vaccination. Numerous posts categorized as fake news, hoaxes, and disinformation about vaccines spread misinformation and created public anxiety. Some people believed that the COVID-19 vaccine contained harmful ingredients, caused health or cognitive problems, or even included a microchip used to monitor individuals.

Exposure to such misinformation via social media has altered public behavior, leading some to reject vaccination. In contrast, vaccination programs are the most effective way to achieve herd immunity – once approximately 70% of Indonesia's population is vaccinated. This study therefore examines how social media use influences vaccine refusal behavior. Community resistance to vaccination often stems from family and peer support, as explained by the Theory of Reasoned Action (TRA), which posits that subjective norms shape behavioral intentions through beliefs derived from others' approval and experience (Zulva et al., 2024).

Compared with national data, Tangerang Raya shows lower vaccination rates: only 34.5% of residents received the first dose and 20% the second. These numbers remain far below the national and local targets. This gap between national policy and local implementation is striking. While national data may show progress due to mandates, local realities differ. This striking discrepancy highlights that national policies or general trends may not fully capture the nuances of the local context. Beliefs within certain communities, local opinion leaders, misinformation narratives specific to Tangerang Raya, and accessibility issues may all influence behavior more strongly than national trends suggest (Amalo et al., 2023).

Several prior studies are relevant to this research. The first article applies Uses and Gratifications Theory to explore the motivations for smartphone use during travel and its relation to satisfaction. The study found that uses and gratification factors—social interaction, entertainment, information, and convenience—significantly influence tourists' attitude toward smartphone use (Moon & Han, 2022).

The second article found that attitude was the strongest predictor of a mother's intention to vaccinate their children, while subjective norms also influenced intentions. However, risk perception, prior Sexually Transmitted Infection (STI) experience, and beliefs linking vaccines with sexual activity were unrelated to intention. Mothers' also perceived their daughters' risk of HPV infection as very low (Askelson et al., 2010).

Another study by El-Elimat et al. (2021a) identified that those likely to receive the vaccine were individuals who regularly received influenza vaccine, believed in vaccine safety, and were willing to pay for it. Conversely, those who rejected vaccination often believed in conspiracy theories about COVID-19 and distrusted all information sources related to vaccines.

Research on the refusal of the COVID-19 vaccine has evolved from an information-deficit view to audience-centered approaches that integrate Uses and Gratification Theory (UGT) and the Theory of Planned Behavior (TPB) to explain social-media influences on behavior. Within these frameworks, motives such as information seeking, socializing, status, and entertainment shape users' responses to vaccine messages. However, evidence remains inconsistent across contexts, and few Indonesian studies have quantitatively linked specific social-media motives to actual vaccine refusal rather than general hesitancy.

The conceptual foundation of this study combines the Uses and Gratification Theory (UGT) with the Theory of Planned Behavior (TPB) by Icek Ajzen to examine social media use and vaccine refusal. This research aims to investigate the impact of social media use on vaccine refusal behavior among Generations X and Y in Tangerang Raya. Generation X includes individuals born between 1965 and 1980, while Generation Y refers to those born between 1981 and 1996 (Dimock, 2019).

Uses and Gratification Theory

Developed by Katz, Blumer & Gurevitch, the Uses and Gratifications Theory focuses on active audiences who use media purposefully. Unlike earlier media-effect theories that portrayed the audience as passive message recipients, UGT sees them as agents with specific goals in media consumption. The theory contrasts with the knowledge-deficit model common in health communication, which assumes undesirable behavior – such as vaccine hesitancy – results from a lack of accurate information. UGT posits that audiences actively seek information (Bahfiarti & Arianto, 2022).

According to Katz and Foulkes (1962), the Uses and Gratifications Theory (UGT) posits that media audiences are not passive recipients of messages but active participants who deliberately select media to satisfy distinct psychological and social needs. These gratifications encompass information seeking (to acquire knowledge and stay informed), personal identity (to affirm values and express self-concept), social interaction (to maintain relationships and a sense of belonging), and entertainment or escapism (to experience pleasure, relaxation, or emotional release). Building on this foundation, Lee and Ma (2012) refined these motivations within the context of digital and social media, emphasizing information seeking, status seeking, socializing, and entertainment as the most salient dimensions. Together, these gratifications illustrate that media use is a goal-directed, multidimensional process shaped by users' cognitive, affective, and social interactions, which in turn influence behavioral outcomes such as engagement, persuasion, and resistance to public communication campaigns.

People may seek and consume false vaccine information not due to lacking information but because such content satisfies needs such as reinforcing distrust of authority, confirming existing biases, or creating a sense of community among like-minded individuals. Therefore, simply correcting factual inaccuracies is insufficient for public

health interventions; it is equally vital to understand and address the gratifications that drive misinformation consumption (Sastramidjaja, 2023)

Theory of Planned Behavior

Social psychologist Icek Ajzen expanded the Theory of Reasoned Action (TRA), which he and Martin Fishbein had developed in the 1970s, with the Theory of Planned Behavior (TPB) in the 1980s. Both theories aim to explain the cognitive and motivational processes underlying behavior, but TPB introduced Perceived Behavioral Control (PBC) to account for factors beyond volitional control. The theory assumes that rational reasoning and information processing drive human behavior (Ajzen, 2005).

TPB has been used to predict a wide range of human behaviors—including political activism, blood donation, sports participation, mode of transportation, health behaviors, and knowledge-sharing behaviors—and explains substantial variance in behavioral intentions (≈39%) and actual behavior (27%) and behavioral intentions (≈ 39%). Researchers often integrate TPB with additional variables to enhance its predictive power.

According to the TPB proposed by Ajzen (2005), individual behavior is determined by behavioral intention, which in turn is influenced by three components: attitude toward the behavior, subjective norm, and perceived behavioral control (see Figure 1). Attitude reflects one's overall evaluation of the behavior; subjective norm represents perceived social pressure to perform or avoid certain behaviors; and perceived behavioral control denotes the perceived ease or difficulty of performing the behavior, similar to self-efficacy. As illustrated in Figure 1, these three antecedents collectively shape intention, which serves as the most immediate predictor of behavior, while perceived behavioral control may also exert a direct influence on behavior.

In this study, TPB is applied to examine how attitudes, subjective norms, and perceived behavioral control relate to the refusal of the COVID-19 vaccination among Generation X and Gen Z in Tangerang Raya, an area covering some districts in Banten Province, Indonesia. Attitudes refer to evaluations of behavior as positive or negative. Subjective norms represent perceived social pressure to perform or avoid a behavior.

PBC measures how confident a person is in their ability to perform the behavior (Ajzen, 2005), and the belief that outcomes depend primarily on personal actions rather than external factors or authority figures. Studies have used TPB to explain vaccination intentions for COVID-19, HPV, and influenza, showing that greater refusal intentions are linked to specific attitudinal and normative factors (Catalano & Shankar, 2017; Limbu et al., 2022; Wu et al., 2020).

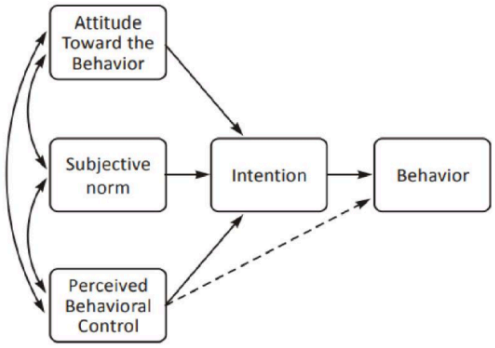

Figure 1. Theory of Planned Behavior (Ajzen, 2005: p.118)

Baron & Branscombe (2012) and Ajzen (2005) define attitudes as evaluations—positive or negative—toward a behavior, reflecting whether it is seen as beneficial or harmful. In other words, attitudes describe a person's consistent tendency to respond favorably or unfavorably toward an object, person, institution, or event based on prior beliefs, emotions and experiences. Within the TPB framework, this attitudinal evaluation plays a crucial role in forming behavioral intentions, particularly in contexts such as vaccine acceptance or refusal, where perceptions of risk, trust, and personal benefit strongly influence decision-making.

Quantitative TPB studies help identify the most significant perceived barriers (PBC). Recognizing these barriers allows the design of interventions that not only address attitudes and norms but also remove or reduce specific psychological and practical obstacles. In the Tangerang Raya context, it emphasizes that simply verifying the TPB's applicability is insufficient. Therefore, the purpose of this study is to ascertain how attitudes, subjective norms, and perceived behavioral control interact and what their relative strengths are in this particular local context. The development of highly successful and regional public health campaigns will be guided by the empirical identification of the psychological levers that have the greatest impact on vaccination intentions and refusal in Tangerang Raya.

Research Methods

This research employed a quantitative approach, often described as a scientific method because it is concrete, objective, measurable, rational, and structured. This study used an explanatory research design to explain the phenomenon based on the conceptual framework. Data were collected through a survey. Responses were measured using a Likert Scale and analyzed using both descriptive and inferential statistical processes.

A purposive sampling technique was applied, where samples were selected based on predetermined criteria. The criteria included: (1) residents of the Tangerang Raya region; (2) members of Generation X and Y; (3) active users of social media platforms such as WhatsApp, Facebook, and Instagram; and (4) individuals who had received an invitation for COVID-19 vaccination from the Ministry of Health. The population targeted in this study comprised Generation X and Generation Y individuals residing in Tangerang Raya, which includes Tangerang City, South Tangerang City, and Tangerang District.

A total of 196 respondents participated in this study. According to Hoyle (1995), a sample size between 100 to 200 respondents is generally sufficient for path modelling. Furthermore, Partial Least Squares (PLS) analysis is suitable for exploratory studies involving relatively small samples (Sánchez-Franco & Román, 2005).

As previously noted, this study focuses on examining the impact of social media use on the behavior of refusing Covid-19 vaccination. The research model for this study is presented in Figure 2.

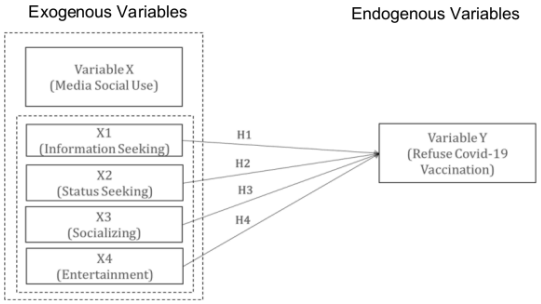

Figure 2. Conceptual Model

Hypotheses

The Uses and Gratification Theory (UGT) provides the conceptual foundation for understanding how individuals choose and use media to fulfil specific needs. UGT has been widely applied in studies involving mobile device usage, e-learning, e-commerce, and social media (Korhan & Ersoy, 2016; Malik et al., 2016)

Gratification refers to the satisfaction of various social, emotional, and cognitive needs. Within UGT, researchers distinguish between gratifications obtained (GO) and gratifications sought (GS). GS refers to the expected satisfaction from engaging in a behavior, while GO refers to the actual satisfaction experienced. This study focuses on GO to examine its direct impact on real behavior, whereas GS is typically used to understand motivation in media use (Bae, 2018).

According to Lorenthal (2019), two UGT components—subjective norm and attitude—may influence how individuals behave on social media. The Theory of Planned Behavior (TPB) and UGT are both frameworks for identifying factors influencing social media activity While TPB captures psychological determinants of online behavior, it does not emphasize goal-oriented motivations (Bagozzi & Dholakia, 2006). Conversely, UGT emphasizes goal-directed incentives driving online engagement. Combining these two frameworks allows researchers to examine both motivational and psychological factors shaping social media use (Cheung et al., 2011).

As gratifications satisfy individuals' cognitive, affective, and social needs, previous studies have identified four primary predictors—information seeking, status seeking, socializing, and entertainment—as positive predictors of social media use (Lee & Ma, 2012; Wang et al., 2012). In this study, these predictors are hypothesized to influence the tendency to refuse the COVID-19 vaccination. Therefore, the following hypotheses are proposed:

H_1: Information seeking affects behavior to refuse the COVID-19 Vaccination
H_2: Status seeking affects behavior to refuse COVID-19 Vaccination
H_3: Socializing affects behavior to refuse COVID-19 Vaccination
H_4: Entertainment seeking affects behavior to refuse COVID-19 Vaccination

Research Instruments

The research instruments consist of three sections.

1. Section One included demographics questions, covering respondents' age, education level, occupation, expenditure level, most frequently used social media platform, duration of daily social media use, preferred brand of COVID-19 Vaccine, and the most trusted source of vaccination information.
2. Section Two contained questions derived from the Uses and Gratification Theory, consisting of four dimensions: Information Seeking (X1); Status Seeking (X2); Socialization (X3); and Entertainment (X4). Each dimension of the variable of Uses and Gratification Theory has three statements. Each dimension included three statements adapted from various previous studies (El-Elimat et al., 2021b; Ma et al., 2021).
3. Section Three contained questions based on the Theory of Planned Behavior, including three dimensions: attitudes (Y1), subjective norms (Y2); perceived behavioral control (Y3), each represented by three statements (Askelson et al., 2010).

All items were measured using a five-point Likert scale, ranging from Strongly Disagree (1) to Strongly Agree (5). All hypotheses were tested using Structural Equation Modeling (SEM) with Smart-PLS 3.0 software. SEM was chosen because it can handle models with latent variables and constructs (Henseler et al., 2009). Additionally, PLS-SEM is appropriate for non-probability sampling, small sample sizes, and non-normally distributed data (Awang et al., 2015). The analytical approach aligns with the study's predictive framework, as recommended by Hair et al. (2019).

The data analysis included outer model testing, inner model testing, Variance Inflation Factor (VIF) analysis, and the $\mathbf{R^2}$ coefficient testing to assess model validity and

explanatory power.

Table 1. Instrument

Variables	Dimensions	Statements
Uses Social Media (X) Uses & Gratification Theory. (Ma et al., 2021)	Information Seeking (X1)	X1.1: Social media provides news or knowledge about COVID-19
		X1.2: Social media provides information and knowledge about COVID-19
		X1.3: Social media inspires to find information about COVID-19, more specifically
	Status Seeking (X2)	X2.1: Sharing information about COVID-19 through social media makes feel appreciated
		X2.2: Sharing information about COVID-19 through social media makes have a good reputation
		X2.3: I feel happy when other people like, comment, or share information on posts about COVID-19
	Socializing (X3)	X3.1: Social media can strengthen relationships with family through sharing information about COVID-19
		X3.2: Social media can strengthen relationships with friends or community members through sharing information about COVID-19
		X3.3: Fellow social media users want to always actively share information about COVID-19
	Entertainment (X4)	X4.1: The use of social media makes entertained
		X4.2: Using social media makes relaxed
		X4.3: Using social media makes happy
Behavior to refuse Covid-19 Vaccination (Y) Theory of Planned Behavior (Askelson et al., 2010).	Attitudes (Y1)	Y1.1: I consider vaccination ineffective
		Y1.2: I feel vaccination is not safe
		Y1.3: I do not think I need a vaccination
	Subjective Norms (Y2)	Y2.1: My family refuses vaccination because it can have a harmful impact
		Y2.2: My friend refuses to get vaccinated because he is more susceptible to covid-19
		Y2.3: My coworker refuses to vaccinate because it can result in death
	Perceived Behavioral Control (Y3)	Y3.1: I refuse vaccination because it is a right as an Indonesian citizen
		Y3.2: I refuse vaccination because it is irrational
		Y3.3: I refused vaccination because I was influenced by information from social media.

Table 2. Respondents Profile

Variables	Classifications	Frequency	Percentage
Gender	Males	74	38
	Females	122	62
Age	26 - 30 years old	97 respondents	
	31 - 35 years old	25 respondents	
	36 - 40 years old	21 respondents	
	41 - 46 years old	18 respondents	
	46 - 50 years old	20 respondents	
	51 - 55years old	13 respondents	
	>56 years old	7 respondents	
Education	Senior High	35 respondents	
	School	1 respondent	
	D1	4 respondents	
	D3	1 respondent	
	D4	124 respondents	
	S1	35 respondents	
	S2		

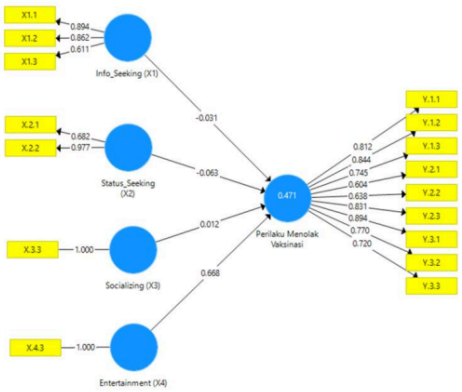

Figure 1. The Outer Model with minimal Outer Loading Value >= 6

Results

This study involved 196 respondents in the Tangerang Raya region, which consists of Tangerang City, South Tangerang City, and Tangerang District. Among these respondents, 24% had been exposed to the SARS-Cov-2 virus. The participants were aged between 26 - 55 years, representing Generations X and Y. Most respondents were residents of Tangerang Raya who had received a vaccination invitation letter from the Ministry of Health. The gender distribution consisted of 38% males and 62% females. In terms of expenditure, 38% of respondents reported monthly spending between Rp 4,000,001 and Rp 6,000,000 per month, as presented in Table 2.

Primary data were collected through questionnaires, while secondary data were obtained from literature studies. Statistical analysis consisted of descriptive data, processed using SPSS, followed by inferential data analysis using SMARTPLS 3. The Structural Equation Modeling (SEM) approach enabled the direct analysis of latent variables, indicator variables, and measurement errors.

Table 3. Convergent Validity

Variable	Average Variance Extracted (AVE)
Info Seeking (X1)	0.639
Status Seeking (X2)	0.709
Socializing (X3)	1
Entertainment (X4)	1
Refusing Vaccinated Behavior (Y)	0.589

Table 4. Cross-Loading Value and Correlation between Latent Variable

Variable	Info Seeking (X1)	Status Seeking (X2)	Socializing (X3)	Entertainment (X4)	Refusing Vaccinated Behavior (Y)
X1.1	0.894	0.222	0.271	-0.241	-0.169
X1.2	0.862	0.263	0.282	-0.072	-0.116
X1.3	0.611	0.508	0.259	-0.018	-0.082
X.2.1	0.397	0.682	0.278	-0.038	-0.058
X.2.2	0.313	0.977	0.256	-0.185	-0.198
X.3.3	0.331	0.287	1.000	-0.146	-0.114
X.4.3	-0.168	-0.167	-0.146	1.000	0.682
Y.1.1	-0.137	-0.159	-0.161	0.697	0.812
Y.1.2	-0.146	-0.172	-0.155	0.585	0.844
Y.1.3	-0.135	-0.080	0.003	0.535	0.745
Y.2.1	-0.052	-0.038	-0.008	0.344	0.604
Y.2.2	-0.095	-0.036	0.006	0.328	0.638
Y.2.3	-0.172	-0.226	-0.086	0.579	0.831
Y.3.1	-0.152	-0.182	-0.097	0.635	0.894
Y.3.2	-0.063	-0.132	-0.145	0.417	0.770
Y.3.3	-0.116	-0.157	-0.077	0.390	0.720

During the SMARTPLS analysis, five indicators were excluded from the research model because they did not meet the minimum outer loading value of 0.6. The excluded indicators were X.2.3; X.3.1; X.3.2; X.4.1; and X.4.2. After these indicators were removed, the research model changed to Figure 1 above.

The Outer Model analysis was then conducted to measure the validity and reliability of each indicator. This process focused on assessing the model's predictive ability through convergent validity, discriminant validity, and reliability (Hair et al., 2021).

Table 3 above presents the results of convergent validity analysis. All latent variables in the research model have Average Variance Extracted (AVE) values greater than 0.5,

indicating that each construct explains more than half of the variance of its indicators. The highest AVE value was found in the Socializing and Entertainment variables (1.0), while the lowest AVE value was found in the Refusal Behavior variable (Y) at 0.589. Therefore, all constructs meet the assumption of convergent validity.

Table 4 on the previous page shows the cross-loading values and correlations between latent variables. Each indicator's cross-loading value is higher for its own construct than for other constructs, indicating that all constructs have met discriminant validity criteria. According to Ghozali and Latan (2014), a construct is considered valid if it has a cross-loading value above 0.7 and higher than those of indicators in other constructs.

After confirming the reliability and validity of the measurement model, the next step was to assess the Inner Model (Structural model). This assessment begins by testing for collinearity among other predictor constructs, since the path coefficient estimation in the structural model relies on the ordinary least squares regression (OLS) of each endogenous construct on the corresponding predictor construct (Hair et al., 2021). After testing the outer model, the next step was to analyze the structural model (Inner Model). Three key metrics were used to assess the Inner Model:

a) Variance of Inflation Factor (VIF)
b) **R^2** (Coefficient of Determination)
c) Path Coefficient.

These values were obtained through the PLS Algorithm, Bootstrapping, and Blindfolding procedure.

Table 5 presents the VIF results, which assess potential collinearity among predictor constructs. A VIF value above 5 indicates possible multicollinearity. The results show that all VIF values are below 5, confirming the absence of collinearity problems in this study.

Table 6 shows the R^2 value obtained from the linear regression test, which indicates the proportion of variance in endogenous variables explained by exogenous variables (Hair et al., 2021). The R^2 value for the Refusing Vaccination Behavior (Y) variable is 0.471, meaning that the independent variables explain 47.1% of the variance in this behavior. According to theoretical guidelines, this value reflects a moderate model strength.

Table 7 on the next page displays the Path Coefficient result. The bootstrapping process was used to assess the significance of each path coefficient based on t-values and p-values. A relationship is considered positive and significant when the t-value> 1.96 and the p-value <0.05. The path coefficient results indicate the effect of exogenous constructs on endogenous constructs.

Table 5. Variance Inflation Factor (VIF) Value

Variable	Behavior to Refuse Vaccine (Y)
Info Seeking (X1)	1.244
Status Seeking (X2)	1.208
Socializing (X3)	1.172
Entertainment (X4)	1.049
Refusing Vaccinated Behavior (Y)	-

Table 6. R-Square Measurement

Variable	R Square	R Square Adjusted
Refusing Vaccinated Behavior (Y)	0.471	0.459

Table 7. Path Coefficient

	Standard Deviation (STDEV)	T Statistics (|O/STDEV|) (>1,96)	P Values (< 0,05)	Decision
(X1) → (Y)	0.069	0.45	0.653	Rejected
(X2) → (Y)	0.066	0.951	0.342	Rejected
(X3) → (Y)	0.054	0.213	0.831	Rejected
(X4) → (Y)	0.052	12.938	0	Accepted

Overall, the results show that all indicators in the research instrument meet the convergent validity criteria, as all AVE values exceed 0.5. Therefore, all constructs and indicators in this study are declared valid and reliable, consistent with ethical research standards (Kriyantono, 2018).

Discussion

Based on the results of the four hypothesis tests, three hypotheses were rejected and only one was accepted. The rejected hypotheses were H1, H2, and H3. In these tests, it was found that Information Seeking (X1), Status Seeking (X2), and Socializing (X3) had no significant effect on Vaccine Refusal Behavior (Y) as indicated by t-statistics values below 1.96 or p-values greater than 0.05.

Conversely, Hypothesis 4 (H4) was accepted. The results show that Entertainment (X4) significantly influences the behavior of refusing COVID-19 Vaccination, as evidenced by a t-statistic value greater than 1.96 or a p-value below 0.05.

Thus, it can be concluded that the refusal to receive COVID-19 vaccine is not influenced by Information Seeking (X1); Status Seeking (X2); and Socializing (X3). These findings are consistent with the results of Kurniawan and Sutan (2021). McQuails & Deuze (2020) identifies several media-use motives, including information-seeking (to obtain knowledge), status-seeking (to reinforce personal values), socializing (replacing media with social companionship), and entertainment (as an escape from daily routine or problems) (Isa et al., 2020). The tendency to use social media for entertainment appears to motivate individuals to reject the COVID-19 vaccination program. The prevalence of COVID-19 hoaxes and conspiracy theories, public doubts about vaccine efficacy, potential side effects, halal compliance, as well as social influence from close networks, have also contributed to vaccine rejection in Indonesia (Zulva et al., 2024).

Moreover, the increased use of social media during the pandemic has altered user behavior, which—according to several studies—can reduce empathy and promote individualistic mindsets (Rachman & Imamah, 2022). This dynamic is exacerbated by the uncontrolled spread of unverified information on vaccine efficacy and safety, as well as conspiracy theories (Fatima & Syed, 2018). The resulting information and trust gaps worsen vaccine refusal rates, posing serious challenges for public health efforts (Lazarus et al., 2022).

The PLS Algorithm analysis of the research model produced an R2 coefficient of 0.471, indicating that Information Seeking, Status Seeking, and Socializing account for approximately 47.1% of the variance in vaccine refusal behavior, while the remaining 52.9% is explained by variables not examined in this study.

Practical Implications

The public health communication strategies to increase vaccine acceptance should shift focus from purely informational campaigns to the creation and dissemination of engaging, entertaining, and emotionally resonant content. The finding that the "entertainment" motive is the only significant predictor of vaccine refusal behavior, while information and

social seeking are not, provides several practical implications for government and decision-makers.

First, traditional, data-heavy public service announcements are ineffective when vaccine refusal is driven by entertainment consumption. Campaign should collaborate with entertainment influencers, adopt entertaining formats, and emphasize emotional, story-driven narratives.

Second, since social media's entertainment function serves as a significant vector for health misinformation, platforms must take greater responsibility. Algorithms should be optimized to amplify pro-health entertainment content, and partnerships with creators should be encouraged.

Lastly, conversations with vaccine-hesitant individuals should go beyond data presentation. Since their concerns may stem from entertainment-driven narratives, communicators should explore their media habit, use relatable storytelling and analogies, and frame messages with hope rather than fear.

Misinformation often relies on fear; therefore, public communication can be more effective when emphasizing positive and hopeful outcomes. Vaccination should be framed as a proactive step towards safety and freedom—an escape to a healthier, post-pandemic reality.

Conclusion

This quantitative study examined the impact of four dimensions of social media use—Information Seeking, Status Seeking, Socializing, and Entertainment—on vaccine refusal behavior through the lens of the Theory of Planned Behavior (TPB). The findings reveal a significant and nuanced distinction in how these dimensions influence vaccine refusal. The main conclusion is that purpose-driven or interactive social media activities do not significantly predict vaccine refusal, whereas entertainment-oriented use does.

Specifically, the variables of Information Seeking, Status Seeking, and Socializing were found to have no statistically significant effect on the likelihood of refusing the COVID-19 vaccine. This suggests that active behaviors such as searching for health information, posting personal updates, or engaging in social dialogue about vaccination are not the primary drivers of refusal. Individuals engaged in these activities may encounter balanced information or possess stable attitudes that are less susceptible to change.

In contrast, the Entertainment variable emerged as a strong and statistically significant predictor of vaccine refusal behavior. This finding indicates that passive consumption of content created for hedonic appeal—such as memes, viral videos, or influencer narratives—can be a more powerful vector in shaping health-related attitudes. Misinformation or anti-vaccine sentiment embedded in entertaining content may bypass the critical scrutiny typically applied during active information seeking, thereby exerting a greater influence on behavioral intentions.

The results carry important implications for public health communication. Strategies that rely solely on disseminating factual information may be inadequate. Health authorities must recognize entertainment-driven social media as a key arena for attitude formation and develop counter-messaging that is equally engaging to effectively reach populations susceptible to health-related misinformation. Future research should qualitatively examine the specific types of entertainment content most strongly correlated with vaccine refusal to further clarify this critical relationship.

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