

The Influence of Sponsored Advertising on Social Media Users: Applying the Technology Acceptance Model to Tiktok, Facebook and Instagram

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Abstract

The use of sponsored advertising as a marketing communication tool is widespread, yet its effectiveness has not been proven empirically to the same extent. This study applies the Technology Acceptance Model (TAM) to examine how sponsored advertising on TikTok, Facebook, and Instagram influences user behavior. Data were collected through an online survey involving 400 social media users exposed to sponsored advertising. The findings show that 1) perceived usefulness, ease of use, and duration of using social media influence user attitudes; 2) peer influence on Facebook, perceived entertainment on TikTok, and perceived entertainment on Facebook, and peer influence and perceived entertainment on Facebook, and peer influence user attitudes; 3) peer influence on TikTok do not influence user attitudes. This study contributes to theoretical knowledge about the variables influencing user attitudes across social media platforms. This study also informs marketers in their advertising strategies, i.e., developing advertising based on social media user experiences.

Keywords: influence, social media, sponsored advertising, technology acceptance model

1. Introduction

1.1 Rationale

Social media is the fastest-growing advertising medium, so advertisement spending on its platforms continues to increase. However, past studies on the effectiveness of advertising on social media show mixed results (Pelet & Ettis, 2022) so research on this area is still needed (Khang et al., 2012). Besides, social media platforms are diverse, each with unique characteristics (Lohmann & Zagheni, 2023), making it difficult to generalize research findings based on only a few platforms.

Sponsored advertising on social media is a strategy to make advertising seem natural, minimizing the impression that it is aimed directly at consumers (Li et al., 2021; Cheung et al., 2021). Research on the efficacy of sponsored advertising as a social media marketing strategy remains limited, especially user-generated sponsored advertising (Plume & Slade, 2018). Among the few are the studies by Becker-Olsen (2003), which compared the effects of sponsored content and banner advertisements on online communities and their sponsors; Jarrar et al. (2020), investigating the impact of social media-sponsored advertising and influencer marketing on purchase intention; and Li et al. (2020), examining the relationship between consumer businesses acceptability and company-sponsored social media advertising.

This study aims to fill this gap by evaluating user perceptions of sponsored advertising on three social media platforms: Facebook, Instagram, and TikTok. Accordingly, this study uses the technology acceptance model (TAM) for the testing, encompassing perceived usefulness, ease of use, informativeness, entertainment, peer influence, and duration of using social media as units of analysis. The tests aim to reveal which elements have the greatest impact on each platform based on its unique characteristics. As such, the findings of this study can inform the planning of sponsored advertising on various social media platforms.

1.2 The Relevant Scholarship

In addition to user perceptions, user attitudes toward social networking advertising (SNA) on social media are also

valuable. A previous study has shown that entertainment and educational content is a legitimizing factor that shapes consumer views (Taylor et al., 2011). Such content not only informs users but also influences how they feel about advertising (Gao & Koufaris, 2006). Furthermore, attitudes toward SNA are positively influenced by peer interactions. For example, SNAs facilitate the maintenance of interpersonal connections by enabling the exchange of material information in thoughtful, humorous, considerate, and conversational ways. These interactions can occur in various formats, including one-to-one, one-to-group, or group-to-group communication. Such communication improves attitudes toward SNA and strengthens group association with the SNA in question as it fosters a sense of community and satisfaction (Taylor et al., 2011).

In addition to perceived peer influence (PPI), user attitudes also include perceived informativeness (POI) and perceived entertainment (POE), which can be modulated by SNA elements. For example, product promotion on social networks can also induce favorable views and encourage purchase intentions among consumers (Mukherjee & Banerjee, 2019). Indeed, behavior and attitude are crucial markers of the impact of messages shared on social media (Can & Kaya, 2016), with the latter encompassing cognitive, emotional, and conative aspects (Svenningsson et al., 2022). Therefore, for advertisements to be effective, they need to consider social media characteristics, emotional appeal, and inventiveness, as these are the elements that contribute to favorable opinions.

Accordingly, this study uses three indicators to examine how social media advertising content influences attitude: 1) cognitive, as demonstrated by exposure to sponsored advertising; 2) emotional, as demonstrated by feelings induced by exposure to advertising material; and 3) conative, as demonstrated by likes, comments, shares, and views of advertising material. In addition to these indicators, this study also assesses the effects of Internet use, as indicated by the amount of time spent online each day (Nie & Erbring, 2002).



Figure 1. Research Framework's Flowchart

Source: Authors' analysis (2024)

1.3 Hypotheses

Perceived usefulness

Perceived usefulness is the extent to which individuals believe using a particular system will improve their job performance (Davis, 1989). This variable predicts attitudes along with perceived ease of use. Several studies state that perceived usefulness is one of the drivers of mobile advertising, especially among teenagers (Martí Parreño et al., 2013).

H1: Perceived usefulness significantly affects user attitudes toward advertising content on social media.

Perceived ease of use

Perceived ease of use is indicated by clarity, understandability, and ease of learning and use owing to the adaptability of the object under study (Chawla & Joshi, 2019). In terms of online advertisements, consumers tend to have a favorable perception of an advertisement when the new information is easily accessible (such as by clicking on it) and when they can immediately respond. However, an advertisement should be not only accessible (users can choose what and when to watch) but also trustworthy and attractive (Aziz et al., 2008).

H2: Perceived ease of use significantly affects user attitudes toward advertising content on social media.

Perceived informativeness

According to the advertising value model, informativeness is an important factor influencing consumers' perceptions of the relative value or usefulness. Indeed, one of the most vital functions of advertising is providing information to the public (Rubin, 2022).

H3: Perceived informativeness significantly affects user attitudes toward advertising content on social media.

Perceived entertainment

Previous research has conceptualized entertainment marketing as a promotional tool, emphasizing its influence on consumer attitudes, purchase intentions, and brand recall (RA Tiwsakul, 2005). Additionally, studies have demonstrated that advertising can evoke pleasant or positive feelings, including joy and cheerfulness, warmth, friendliness, care, and hope (Solomon, 2009).

H4: Perceived entertainment significantly affects user attitudes toward advertising content on social media.

Perceived peer influence

Another factor that influences user attitudes toward social media advertising is perceived peer influence (Maqableh et al., 2021), which has been shown to have positive effects. The same is true for interactivity (Chung & Austria, 2010).

H6: Perceived peer influence significantly affects user attitudes toward advertising content on social media.

Duration of using social media

Duration of using social media in this study refers to the hours a user spends on social media daily. Research has shown that the duration of viewing advertisements on social media affects the level of customer knowledge and behavior (Islamy, 2015). Furthermore, the duration of using social media mediates the impact of exposure to online advertising on user attitudes (Kushardiyanti, 2019).

H7: Duration of using social media significantly affects user attitudes toward advertising content on social media.

2. Methods

2.1 Sampling Procedures

This research was conducted using an online survey involving 400 Instagram users (N: 105), TikTok users (N: 132) and Facebook users (N: 163). The number of respondents was taken proportionally from the total population of social media users in Indonesia, which was 334 million, consisting of 89,15 million Instagram users, 109,9 million TikTok users, and 119,9 million Facebook users (Kemp, 2023). The respondents were selected using convenience sampling techniques by distributing questionnaires on each platform.

The survey was done via Google Forms. The respondents were social media users who did not place advertising restrictions on all social media platforms under study (Facebook, TikTok, and Instagram). This condition was met before respondents filled out the questionnaire.

The analysis was conducted using Partial Least Square (PLS), namely variance-based SEM, with SmartPLS 3.0 software. The PLS testing stages are as follows.

2.1.1 Indicator Testing

Indicator testing, also called the outer model or measurement model, tests the relationship between indicators and the construct variables. The output of this test is the validity and reliability output, measured by convergent validity, discriminant validity, and composite reliability.

2.1.2 Hypothesis Testing

The inner or structural model is a hypothesis test describing the relationship and influence of latent variables based on a substantive theory. The equation model can be written as follows.

 $\eta = \beta 0 + \beta \eta + r \xi + \zeta$

where:

 η = vector of endogenous (dependent) latent variables

 ξ = vector of exogenous (independent) latent variables

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\zeta = residual vector
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PLS is designed for a recursive model, so the relationship between latent variables is as follows.

$$\eta j = \sum i \beta j i \eta i + \sum i \gamma j b \xi b + \zeta j$$

where:

 βji and γjb are path coefficients that link the endogenous predictor and exogenous latent variables ξb and ηi along the index range i and b, and ζj is the inner residual variable.

The inner or structural model is tested by looking at the R-square value, i.e., goodness of fit. Apart from that, a significance test of the influence between constructs was also carried out by looking at the values of the parameter

coefficient and the t-statistical significance. The results of the analyses are presented in the following constructs:

- 1. Social media use (TikTok, Facebook, and Instagram)
- 2. The brand categories users are most frequently exposed to, e.g., fashion, electronics, toys, hobbies, furniture, personal and home care, food, drinks, and physical media
- 3. Demographics (gender and age)
- 4. The TAM analysis, i.e., perceived usefulness and ease of use, as well as perceived informativeness, entertainment, and peer influence
- 5. Duration of using social media

3. Results

3.1 Distribution of Social Media Usage

The frequency analysis compares the *social media usage*, i.e., duration, frequency and product/service category of using social media, in each social media platform.

Table 1. The distribution of social media usage

Social media usage	TikTok		Instagram		Facebook	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Duration of using social media						
>4 hours	89	67.9	75	72.1	119	73.5
1-2 hours	26	19.8	13	12.5	33	20.4
3-4 hours	16	12.2	16	15.4	10	6.2
Product/service category						
Electronic	0	0	5	4.8	4	2.5
Beauty	31	23.7	16	15.4	37	22.8
Toys	0	0	0	0	1	6
Automotive	39	29.8	24	23.1	39	24.1
Furniture	61	46.6	58	55.8	81	50.0
Fashion	0	0	1	1.0	0	0
Total Respondents	163		105		132	

Source: Authors' analysis, 2024

3.2 Measurement Model

The measurement model was carried out using two main tests, i.e., validity and reliability, to ensure the suitability of the data for further analysis (Hair et al., 2016). Both reliability and validity consist of subcategories, namely composite reliability, convergent validity, and discriminant validity.

 Table 2. Description of Research Instruments

Construct	Code	Item
Duration of using social media	DUSM	Duration of using social media daily (measured in hours)
Perceived usefulness	POU1	Social media helps me complete tasks faster
	POU2	Social media improves my work/learning/daily life performance
	POU3	Social media increases my work/learning/daily life effectiveness
	POU4	Social media increases my productivity at work/ learning/daily life
Perceived informativeness	POI1	The information in the sponsored advertorial content is trustworthy
	POI2	The image/video visualizations in the sponsored advertisement are appropriate
	POI3	The information in the sponsored advertisement is relevant to my needs
	POI4	The message/content in the sponsored advertisement explains the
		brand/product/service offered
Perceived entertainment	POE1	The advertorial content is delivered by a talent entertainingly
	POE2	The sponsored advertisement's video/photo displays are attractive
	POE3	The background music of the sponsored advertisement is up-to-date
	POE4	Viewing the sponsored advertisement is fun
Perceived peer influence	POP1	The sponsored advertisement's content prompts me to interact with other users
	POP2	I invite other users to engage by posting the sponsored advertisement's content on my social media page
Social media users' affect	SMU1	I remember the content of the sponsored advertisement on social media
	SMU2	The sponsored advertisement's content fulfills my information needs for the product/brand/service offered
	SMU3	All sponsored advertisements' content is commercial in nature
	SMU4	I understand the content of the sponsored advertisement on social media
	SMU5	I like the talents/actors/artists/public figures who convey the information in the
		sponsored advertisement on social media
	SMU6	I am interested in the displays of photos and videos in the sponsored
		advertisement's content on social media
	SMU7	I am interested to continue following the sponsored advertisement's information
	SMU8	on social media L'like? the sponsored advertisement?s content posts on social media
	SMU8 SMU9	I 'like' the sponsored advertisement's content posts on social media I 'share' the sponsored advertisement's information on social media
	SMU9 SMU10	I share the sponsored advertisement's information on social media I activate notifications from the accounts that advertise on the relevant social
	SWI010	media so that I always receive up-to-date information
		meura so unai i aiways receive up-to-uate information

Source: Authors' analysis (2024)

3.3 Reliability and Validity

The reliability test of each questionnaire item shows a composite reliability value of >0.7 and Cronbach Alpha >0.6, so it is declared reliable for further testing. The validity is tested twice, i.e., using convergent and discriminant validity, with each convergent validity test having a correlation value above 0.50. Meanwhile, discriminant validity is measured from the cross-loading between the indicator and its construct, with an indicator declared valid if its relationship with its construct is higher than with other constructs.

3.3.1 TikTok

The discriminant and convergent validity tests and reliability tests of each construct and variable item on TikTok are considered valid and reliable. The values of each loading, Cronbach's alpha, and AVE are as follows.

Table 3. Reliability and validity values of TikTok's variables

Construct	Item	Loading	Cronbach's Alpha	Composite Reliability	AVE
Duration of using social media	DUSM	1.000	1.000	1.000	1.000
Perceived ease of use	PEU1	0.949	0.940	0.962	0.893
	PEU2	0.915			
	PEU3	0.970			
Perceived entertainment	POE1	0.913	0.918	0.943	0.808
	POE2	0.767			
	POE3	0.957			
	POE4	0.945			
Perceived informativeness	POI1	0.980	0.943	0.957	0.850
	POI2	0.975			
	POI3	0.917			
	POI4	0.804			
Perceived peer influence	POP1	0.941	0.882	0.944	0.894
	POP2	0.950			
Perceived usefulness	POU1	0.930	0.918	0.943	0.808
	POU2	0.962			
	POU3	0.924			
	POU4	0.766			
Social media users' affect	SMU1	0.889	0.963	0.968	0.750
	SMU2	0.854			
	SMU3	0.853			
	SMU4	0.894			
	SMU5	0.876			
	SMU6	0.802			
	SMU7	0.919			
	SMU8	0.895			
	SMU9	0.832			
	SMU10	0.838			

Source: Authors' analysis (2024)

3.3.2 Instagram

The validity test for discriminant and convergent validity, as well as reliability tests of each construct and variable item on Instagram, are considered valid and reliable. The values of each loading, Cronbach's alpha, and AVE are as follows.

Table 4. Reliability and validity values of Instagram's variables

Construct	Items	Loadings	Cronbach's Alpha	Composite Reliability	AVE
Duration of using social media	DUSM	1.000	1.000	1.000	1.000
Perceived ease of use	PEU1	0.958	0.958	0.973	0.923
	PEU2	0.944			
	PEU3	0.980			
Perceived entertainment	POE1	0.908	0.900	0.932	0.776
	POE2	0.955			
	POE3	0.911			
	POE4	0.735			
Perceived informativeness	POI1	0.976	0.955	0.968	0.884
0	POI2	0.966			
	POI3	0.967			
	POI4	0.845			
Perceived peer influence	POP1	0.941	0.799	0.908	0.831
1 5	POP2	0.950			
Perceived usefulness	POU1	0.888	0.887	0.924	0.755
5	POU2	0.692			
	POU3	0.937			
	POU4	0.935			
Social media users' affect	SMU1	0.818	0.937	0.946	0.639
55	SMU2	0.789			
	SMU3	0.766			
	SMU4	0.834			
	SMU5	0.817			
	SMU6	0.719			
	SMU7	0.874			
	SMU8	0.851			
	SMU9	0.719			
	SMU10	0.790			

Source: Authors' analysis (2024)

3.3.3.Facebook

The validity test for discriminant and convergent validity, as well as reliability tests of each construct and variable item on Facebook, are considered valid and reliable. The values of each loading, Cronbach's alpha, and AVE are as follows.

Table 5. Reliability	/ and validity	values of Face	book's variables
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Construct	Items	Loadings	Cronbach's Alpha	Composite Reliability	AVE
Duration of using social media	DUSM	1.000	1.000	1.000	1.000
Perceived ease of use	PEU1	0.930	0.903	0.940	0.839
	PEU2	0.860			
	PEU3	0.955			
Perceived entertainment	POE	0.658	0.810	0.864	0.616
	POE	0.877			
	POE	0.760			
	POE	0.828			
Perceived informativeness	POI1	0.937	0.907	0.937	0.790
	POI1	0.950			
	POI1	0.927			
	POI1	0.720			
Perceived peer influence	POP1	0.914	0.847	0.928	0.866
	POP2	0.947			
Perceived usefulness	POU1	0.863	0.829	0.891	0.676
	POU2	0.598			
	POU3	0.867			
	POU4	0.921			
Social media users' affect	SMU1	0.694	0.894	0.914	0.516
	SMU2	0.654			
	SMU3	0.662			
	SMU4	0.737			
	SMU5	0.784			
	SMU6	0.670			
	SMU7	0.787			
	SMU8	0.830			
	SMU9	0.641			
	SMU10	0.701			

Source: Authors' analysis (2024)

The hypotheses are presented in the form of an inner model. The statistical values are presented as the path coefficient for each construct and item and the R-square value of user attitudes toward each social media platform. The t-statistic value should indicate > t table or p-value < alpha 5%. The results of the hypothesis testing of each social media platform are as follows.

3.4 The Relationship Between Sponsored Advertising on TikTok and User Attitudes



Figure 2. The inner model testing of the relationship between sponsored advertising on TikTok and user attitudes Source: Authors' analysis (2024)

Table 6. The t-statistics value and p-value of the inner model testing the relationships between sponsored advertising on TikTok and user attitudes

Relationships	t-statistics	p-value
Duration of using social media \Box Social media users' affect	4.029	0.000
Perceived ease of use \Box Social media users' affect	4.301	0.000
Perceived entertainment \Box Social media users' affect	2.786	0.006
Perceived informativeness Social media users' affect	1.265	0.206
Perceived peer influence 🗆 Social media users' affect	1.299	0.194
Perceived usefulness \Box Social media users' affect	2.775	0.006
R-Square		
Social media users' affect	0.76	63

Source: Authors' analysis (2024)

Table 6 presents the direct relationships among the constructs. The first direct relationship shows that Duration of Using Social Media (DUSM) has a positive and significant effect on social media users' affect (SMU), with a coefficient of 0.327, a t-statistic of 4.029 (> t-table), and a p-value of 0.000. The second relationship reveals that Perceived Ease of Use (PEU) also significantly and positively influences SMU, with a coefficient of 0.250, a t-statistic of 4.031, and a p-value of 0.000. The third relationship demonstrates that Perceived Entertainment (POE) has a significant positive impact on SMU, with a coefficient of 0.204, a t-statistic of 2.786 (> t-table), and a p-value of 0.006. In contrast, the fourth relationship indicates that Perceived Informativeness (POI) does not significantly affect SMU, as shown by its coefficient of 0.064, a t-statistic of 1.265 (< t-table), and a p-value of 0.206. Similarly, the fifth relationship shows that Perceived Peer Influence (POP) does not have a significant effect on SMU, with a coefficient of 0.100, a t-statistic of 1.299, and a p-value of 0.194. The sixth relationship reveals that Perceived Usefulness (POU) positively and significantly affects SMU, supported by a coefficient of 0.212, a t-statistic of 2.775 (> t-table), and a p-value of 0.006. Finally, the R-square value for SMU is 0.763, indicating that the independent variables—perceived ease of use, entertainment, informativeness, peer influence, usefulness, and duration of using social media—collectively explain 76.3% of the variance in social media users' affect.

Perceptions of ease of use, entertainment, usefulness, and duration of use indicate that ads that are easily accessible, enjoyable, and perceived as useful have a greater potential to evoke positive attitudinal responses from users. Designing ads that prioritize aspects of user engagement through user-friendly interfaces, entertaining content, and clear utility can increase audience engagement levels. The duration of social media use has been shown to affect user affection, so advertisers are advised to consider the specific behavioral patterns of each platform, including optimizing the time and format of ad placement to suit user activities and preferences. This strategic approach has the potential to increase advertising effectiveness while strengthening the relationship between brands and users in the social media ecosystem.

3.5 The Relationship Between Sponsored Advertising on Instagram and User Attitudes



Figure 3. The inner model testing of the relationship between sponsored advertising on Instagram and user attitudes Source: Authors' analysis (2024)

Relationships	Т	Р	
	Statistics	Values	
Duration of using social media \Box Social media users' affect	3.988	0.000	
Perceived ease of use \Box Social media users' affect	4.661	0.000	
Perceived entertainment Social media users' affect	0.461	0.645	
Perceived informativeness Social media users' affect	2.178	0.030	
Perceived peer influence \Box Social media users' affect	0.318	0.751	
Perceived usefulness Social media users' affect	3.527	0.000	
R-Square			
Social media users' affect	0.71	8	

Table 7. The t-statistics value and p-value of the inner model testing of the relationships between sponsored advertising on Instagram and user attitudes

Source: Authors' analysis (2024)

Table 7 presents the hypothesis testing results for the direct relationships between the constructs in the model. The first relationship indicates that Duration of Using Social Media (DUSM) has a positive and significant influence on social media users' affect (SMU), with a coefficient of 0.399, a t-statistic of 3.988 (> t-table), and a p-value of 0.000. The second relationship shows that Perceived Ease of Use (PEU) also has a positive and significant effect on SMU, as indicated by a coefficient of 0.399, a t-statistic of 4.661, and a p-value of 0.000. The third relationship, examining Perceived Entertainment (POE), reveals a coefficient of 0.043, a t-statistic of 0.461 (< t-table), and a p-value of 0.645. This indicates that POE does not significantly affect social media users' affect. The fourth relationship shows that Perceived Informativeness (POI) has a positive and significant effect on SMU, with a coefficient of 0.131, a t-statistic of 2.178 (> t-table), and a p-value of 0.030. The fifth relationship demonstrates that Perceived Peer Influence (POP) does not significantly influence SMU, as shown by a coefficient of 0.023, a t-statistic of 0.318 (< t-table), and a p-value of 0.751. The sixth relationship confirms that Perceived Usefulness (POU) has a positive and significant impact on SMU, supported by a coefficient of 0.275, a t-statistic of 3.527, and a p-value of 0.000. Finally, the R-square value of 0.718 indicates that the independent variables perceived ease of use, entertainment, informativeness, peer influence, usefulness, and duration of using social media collectively explain 71.8% of the variance in social media users'affect on Instagram.

The influence of perceptions of ease of use, usefulness, informativeness, and duration of use on user attitudes indicates that advertising content that is designed to be easily accessible, has clear functional value, and conveys relevant information has the potential to increase engagement in audience interactions. Advertisers on the Instagram platform are advised to develop ads that are not only intuitive in terms of interface, but also responsive to user information needs and are able to offer benefits from the products or services offered. In addition, the significant influence of duration of use underscores the importance of understanding user behavior patterns, including active time, in order to optimize ad placement and schedules. This kind of data-driven strategy has the potential to increase the effectiveness of advertising messages while strengthening the bond between brands and consumers in an increasingly competitive social media ecosystem.

3.6 The Relationship Between Sponsored Ads on Facebook and User Attitudes



Figure 4. The inner model testing of the relationship between sponsored advertising on Facebook and user attitudes Source: Authors' analysis (2024)

Relationships	T-Statistics	P-Values
Duration of using social media \square Social media users' affect	4.719	0.000
Perceived ease of use 🗆 Social media users' affect	2.982	0.003
Perceived entertainment 🗆 Social media users' affect	0.889	0.375
Perceived informativeness 🗆 Social media users' affect	2.367	0.018
Perceived peer influence 🗆 Social media users' affect	2.379	0.018
Perceived usefulness 🗆 Social media users' affect	2.666	0.008
R-Square		
Social media users' affect	0.6	72

Table 8. The t-statistics value and p-value of the inner model testing of the relationships between sponsored advertising on TikTok and user attitudes

Source: Authors' analysis (2024)

Table 8 presents the direct relationships among the constructs. The first relationship indicates that the duration of using social media (DUSM) significantly affects users' affect (SMU), with a coefficient of 0.345, t-statistics of 4.719, and a p-value of 0.000. The positive coefficient and t-statistics greater than the t-table indicate that longer durations of social media use positively and significantly influence users' emotional responses. The second relationship shows that perceived ease of use (PEU) has a coefficient of 0.211, t-statistics of 2.982, and a p-value of 0.003. Since the t-statistic exceeds the t-table value and the coefficient is positive, it can be concluded that perceived ease of use significantly and positively influences social media users' affect. The third relationship evaluates perceived entertainment (POE), which has a coefficient of -0.066, t-statistics of 0.889, and a p-value of 0.375. Although the coefficient is negative, the t-statistic does not exceed the t-table value, indicating that perceived entertainment does not have a significant effect on users' affect. The fourth relationship reveals that perceived informativeness (POI) has a coefficient of 0.150, with a t-statistic of 2.367 and a p-value of 0.018. These values indicate a significant and positive influence on users' affect. The fifth relationship, involving perceived peer influence (POP), shows a coefficient of 0.147, t-statistics of 2.379, and a p-value of 0.018. This confirms a positive and significant impact on users' affect. The sixth relationship concerns perceived usefulness (POU), with a coefficient of 0.214, t-statistics of 2.666, and a p-value of 0.008. The results demonstrate a significant and positive influence of perceived usefulness on social media users' affect. The R-square value for users' affect on Facebook is 0.672, indicating that 67.2% of the variance in users' affect can be explained by the independent variables: perceived ease of use, entertainment, informativeness, peer influence, usefulness, and duration of social media use.

The influence of easy to use, usefulness, informativeness, peer influences and duration of social media usage are proven to affect the attitudes of Facebook users. These findings indicate that advertising content that is easily accessible, conveys relevant information, and has clear functional value is more effective in building positive emotional responses from users. Advertisers on the Facebook platform are advised to design promotional materials that are not only visually appealing, but also have an intuitive interface and adequate information substance. The significant influence of peer influence emphasizes the urgency of implementing community-based marketing strategies, such as utilizing user-generated content and testimonials from individuals who have credibility in the eyes of the audience. The findings regarding the duration of use as a significant predictor emphasize the importance of understanding the rhythm of users' digital activities and behaviors. By integrating data analysis on users' active time and their preferences for ad formats, advertisers can optimize delivery to increase campaign effectiveness. This data-driven approach has the potential to not only strengthen users' emotional engagement with ads but also encourage the formation of closer relationships between brands and consumers in the competitive landscape of social media advertising.

4. Discussion

Users' exposure to sponsored advertisements increases with the amount of time they spend on social media, which will affect how they feel about sponsored advertisements (Shekhar Singh & Kumar, 2024). According to Corkindale et al. (2018), perceived usefulness instills trust in the system by making tasks easier and more efficient. When users think social media can accelerate information sharing and encourage other users to find more information, their intention to use will increase (Read et al., 2020).

Perceived enjoyment is typically high among TikTok users, which may allow businesses to foster an emotional bond with their customers (Wang & Sun, 2010; Dwinanda et al., 2022). Short video posts on TikTok are typically aimed to entertain users. Therefore, sponsored advertisements on TikTok are presented in a way that appeals to social media users' emotions and senses. This includes making the most of the social media's features, such as leveraging influencer partnerships and using trending audio and visualization.

TikTok users' attitudes toward sponsored advertising are unaffected by perceived peer influence or informativeness.

This is most likely because TikTok's caption has a character limit of 150. As a result, the information about the brand, product, or service may be insufficient and overshadowed by the content visualization. Consequently, users might not want to view the entire advertisement if it is not visually appealing or if the social media features are not optimized. In this case, they are only partially exposed to the material.

On Instagram user attitudes toward perceived informativeness are strongly correlated. Instagram's 2200-character caption limit gives enough space to define the product or service, which can satisfy users' need for information about the sponsored advertisement's content. On the other hand, peer influence and perceived entertainment have little effect, which might be because Instagram's features are not used to their full potential. When the text is more dominant, and the image is too simple, users may not find the visual emotionally appealing.

Regarding Facebook, its perceived informativeness demonstrates a strong direct correlation with its unique characteristics. As the platform with the longest captions among social media platforms—up to 63,206 characters—Facebook enables users to delve into the specifics of advertisements, which tend to prioritize educational over purely visual content. This format allows users who frequently engage with educational advertisements on the platform to develop a more positive outlook toward the advertised products or services.

Perceived peer influence is another determinant of user attitudes on Facebook. The platform is often associated with community-driven services, such as Facebook Groups, which facilitate user connections and transactions, including buying and selling activities. Users who actively participate in marketing communications and promote goods or services on Facebook often develop skills as effective salespeople, enabling them to introduce and market products with greater proficiency. Consequently, peer influence tends to have a greater impact on Facebook than on Instagram and TikTok. Experience has the greatest influence, suggesting that Facebook users engage with one another and share helpful information to satisfy psychological demands, which may have a favorable effect on trade activities (Lee et al., 2014).

5. Conclusion

The three main factors that most significantly impact user attitudes are perceived usefulness (POU), perceived ease of use (PEU), and duration of using social media (DUSM). Another key factor shaping social media users' attitudes is the utilization of platform features. Active users are well-acquainted with these features, making it crucial for advertisers to leverage all available tools, such as comment, like, share, view, and visual content interaction options. Advertisers should also align with trends among their target audiences by employing captions, hashtags, and music while collaborating with talents, artists, actors, or influencers to enhance engagement and reach. Optimization of interaction and visual features will also support perceived informativeness (POI), perceived entertainment (PE), and perceived peer influence (POP). However, some factors do not have significant influence, such as perceived peer influence and informativeness on TikTok, perceived entertainment and peer influence on Instagram, and perceived entertainment on Facebook.

The growing duration of social media usage exposes users to more sponsored advertisements. Additionally, most users are now proficient in utilizing social media features. Consequently, advertising content that lacks interactive elements may not be viewed favorably and has limited reach and engagement with the target audience. Also, since social media is evolving into a content distribution platform, sponsored advertisements can be personalized to suit the target market's demographics. This is because users have established preferences in choosing media for convenience and personalization.

This research can be a reference for advertising managers to analyze the TAM model. Since social media is a tool widely used by industries as a content distribution platform, including sponsored advertising, targeting social media users could be more effective for marketing than conventional mass media. Furthermore, since this research examines three social media with the highest advertising reach: Instagram, TikTok, and Facebook, the findings can inform advertising managers in their campaigns. While the heterogeneity of social media users in Indonesia presents a challenge in evoking positive attitudes toward advertising content, this insight can serve as a valuable reference for businesses in countries with similar user demographics to Indonesia when strategizing their promotional campaigns, such as by prioritizing ease of use and using creative, informative, and interactive sponsored advertising.

Despite the robust findings as outlined above, this research is limited by its focus on Indonesia, specifically on product advertising categories exposed within the country. The findings may differ if the survey were conducted in other countries with varying perspectives on sponsored advertising on social media. The second limitation is that the survey was conducted on 400 people as the sample of the entire population of TikTok, Instagram, and Facebook users. This may affect the generalizability of the findings to the broader user base of these platforms. The third limitation is that this research used two tests, namely the indicator test (with validity and reliability testing) and hypothesis testing (with the value R-square to test the model's goodness of fit). While these tests are robust, they may not fully capture the

complexity of factors influencing attitudes toward social media advertising. Other tools and tests can be used to improve the results.

A recommendation for future follow-up research is that it can involve advertising product categories as a variable in determining the attitudes of social media users toward sponsored advertising. In this research, the product category is only part of the characteristics of research respondents. Next, past studies indicate that various factors in social media usage significantly influence users' attitudes toward sponsored advertising, which has also been corroborated by this study. These findings can be further elaborated into practical strategies to optimize social media management. Such efforts will hold positive relevance for marketing divisions, particularly given the steady increase in social media usage. Another recommendation for future research is to explore the impact of emerging social media platforms on attitudes toward sponsored advertisements. New platforms like Twitter, Facebook Groups, and e-commerce affiliate advertisements that have integrated into social media provide an interesting opportunity to study how user factors influence attitudes toward sponsored content. This can offer fresh perspectives on how social media users perceive sponsored advertising across a wide array of existing platforms.

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Authors contributions

Widodo searched the literature, created the research design and wrote the article's first draft. Dessy were responsible for data collection and analyzed statistically the quantitative data. Nurdiana revised it. All authors were involved in completing the final draft of the article.

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