The Impact of Advertising Irritation on Purchase Intention among Social Media Users

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This study looks at how brand awareness quantitatively impacts consumers' purchase intentions. Simultaneously it assesses whether advertising irritation detracts consumers' purchase intent. Data were collected from 335 study participants via an online questionnaire. Key findings show brand awareness positively impacts purchase intention among online consumers. Furthermore, this study alludes to the importance of further study of demotivating variables (e.g., advertising irritation). This study contributes to advertising irritation literature and provides a structure to better understand what drives consumers to dislike advertising more. Marketing managers can use this research to better understand purchase intention drivers and demotivating factors among consumers using social media. Furthermore, this study builds upon similar studies but with data from users on social media sites beyond merely Facebook.

Keywords: Brand awareness, Advertising Irritation, Moderation, Mediation, PLS-SEM, Hierarchy-of-Effect(s), Advertising Value

Advertising irritation historically speaking is minimally studied. Literature is beginning to examine the mediating and moderating effects of advertising irritation (Coyle, 2022; Sharma et al., 2022). Past research that does look at how advertising irritation (or similarly studied variables like advertising annoyance) affects consumers' purchase intention present with mixed results. For example, Robert Ducoffe's (1996) Advertising Value model does not necessarily reflect negative impact from the variable advertising irritation within the context of his study. In contrast, studies by Brackett et al. (2001), Hutter et al. (2013), and Cuesta-Valiño (2020) show that advertising irritation (or similar variables like advertising annoyance) can negatively affect consumers purchase intention. Advertising irritation (or similarly assessed variables like advertising annoyance) as a topic stand to improve from further refinement of definition and measurement of the advertising irritation as a variable itself. Finally, recent studies are beginning to assess whether advertising irritation can be better

assessed for moderation qualities versus as an IV (Independent Variable) or intermediate variable (Coyle, 2022; Sharma et al., 2022).

Understanding how advertising irritation impacts consumer behavior may contribute to practitioner marketers maximizing advertising value. Academia is in a unique position to take the lead on researching an already lightly covered topic. Current literature looking at advertising irritation is moving in the right direction while illustrating the need to further refine advertising irritation as a demotivating variable in addition to how it is assessed (e.g., whether as a mediator or moderating variable) within future studies.

LITERATURE REVIEW

Historically, consumers using Facebook have been viewed as a convenient source of consumer feedback. Prior research highlights the need to better understand digital marketing strategies to reach social media users (Anjum et al., 2020; Austin, 2020; Blackshaw, 2008; Chang, 2012; Ducoffe, 1996; eMarketer, 2020; Fishbein & Ajzen, 2011; McIntyre, 2021; Graham et al., 2021; Laroche et al., 2013; Martins et al., 2019; Phan et al., 2020; Raza et al., 2021; Smith & Ansari, 2011; Yankah et al., 2017).

HOE (Hierarchy-of-Effects) model

Creating brand awareness is one of the first and therefore most important parts of the Lavidge and Steiner (1961) HOE model. The more consumers are aware of a brand, the more likely they will buy it (Gustafson et al., 2007). HOE aligns closely with marketing practitioner side marketing and sales funnel approaches (Cabrera Rios, 2017). Building brand awareness is critical within HOE. Patel et al. (2022) acknowledges the importance of building a brand as well as brand awareness.   Such alignment emphasizes the real-world applicability of HOE specifically. Advertising irritation is not assessed within HOE. HOE theory looks at a continuum of what drives sales from when consumers first hear about a brand (e.g., brand awareness) through actual purchase. HOE aligns with popular sales funnel approaches using AIDA (Awareness, Interest, Desire, and Action) (Hanlon, 2020).

Ducoffe's (1996) Advertising Value model

Ducoffe's (1996) advertising model is based on the U&G (Uses and Gratifications) theory. U&G theory explains audience behaviors through engagement across various forms of advertising (Sheth & Kim, 2017). Sheth and Kim (2017) argue HOE is potentially a subset of U&G theory through the inclusion of several categories aligning with consumers' cognitive, affective, and conative needs. No known sources officially codify HOE as an official subset of U&G theory. Sheth and Kim (2017) associating U&G theory with HOE points to the possibility of integration of variables across similar marketing models.

In essence, Ducoffe's (1996) model shows variables encompassing informativeness, entertainment, and irritation influence how consumers attain value (whether perceived or real) through advertising. Florenthal (2019) acknowledges weakness with Ducoffe's (1996) model in that it fails to include behavioral outcomes. Lim (2015) discovered that an integrated marketing model and/or data set returns a "higher degree of explanatory power" versus an underlying model that does not merge separate theories. Other analysts have attempted to broaden Ducoffe's (1996) model by building on behavioral conclusions (e.g., purchase intention); however, very few assess demotivating variables for mediating or moderating qualities.

Advertising annoyance and irritation

Annoyance and/or irritation are factors that can potentially have a negative impact on purchase intention among consumers. Aaker and Bruzzone (1985) list factors that can lead to advertising annoyance or irritation which include (but are not limited too) advertisement of a sensitive product, situations perceived as unbelievable or overdramatized, a person being "put down" regarding appearance, perceptions that in important relationship is being threatened, graphic content of physical discomfort and poor casting.

Other researchers acknowledge advertising topics that can potentially annoy consumers. For instance, Smith (2011) acknowledges that intrusive content (e.g., pop-up content) can negatively impact whether an advertisement is well received. Overall, irritation has been shown to exhibit a minor negative effect on social media advertising (Firat, 2019; Voorveld et al., 2018; Smith, 2011; Hutter et al., 2013; Ducoffe, 1996; Myers

et al., 2018). Advertising irritation or annoyance as a variable transcends social media assessment models and thus is warranted for inclusion in future similar research. Florenthal (2019) suggests that irritation needs to be looked at from a different angle though (e.g., moderator or mediator versus IV).

Research model and hypotheses

Purchase intention is already baked into HOE, but not advertising value. Some research ties Ducoffe's (1996) model with HOE theory to illustrate how the shoppers' journey from initially learning about a brand, through the attainment of social media marketing advertising value, can drive purchase intention for a firm's products, or services.

HOE looks at the continuum from once a consumer becomes aware of a brand through buying from said brand but excludes the impact of advertising irritation. Analysis by Hutter et al. (2013) supports the notion that brand awareness can act as a stand-alone variable (without the impact of advertising irritation) while positively affecting purchase intention. Brand awareness serves as the Independent Variable (IV) within this study. Variables Informativeness, Entertainment, Credibility and Social Media Marketing Advertising Value serve as intermediate variables. Purchase intention is a Dependent Variable (DV). This study takes a similar stance.

Brand Awareness

Hutter et al. (2013) state that brand awareness is <u>anything</u> that can bring a person to get a sense of a brand. Prior research shows that consumers tend to regard recognizable brands in a more positive light (Barreda et al., 2015; Horn et al., 2011). Online advertising is a marketing channel to reach consumers in a way that brings about brand awareness (Erkan et al., 2019).

Brand awareness is the leading part of HOE theory. Consumers may hear about a brand from an offline advertising source first. Brand awareness does not have to come from people solely seeing organizations' social media content. It is certainly plausible that consumers may first hear of a brand via a billboard, radio advertisement, television, or any other form of offline advertising prior to social media, or online.

Duffett (2020), Hutter et al. (2013), and Bilgin (2018) report brand awareness as having a positive influence toward purchase intention. Such positive influence also holds

true when assessing the impact of brand awareness on other variables (e.g., entertainment, informativeness, etc.). Based on prior literature, this study posits the following:

H$_1$: Brand awareness positively impacts purchase intention.

H$_{2a}$: Brand awareness positively impacts informativeness.

H$_{2b}$: Brand awareness positively impacts entertainment.

H$_{2c}$: Brand awareness positively impacts credibility.

Informativeness

Ducoffe's (1996) model shows that informativeness contributes to adding advertising value. Logan et al. (2012) and Cuesta-Valino et al. (2020) conclude the variable informativeness plays a prominent role in gauging advertising value. Literature review supports the following hypothesis:

H$_3$: Informativeness positively affects social media marketing advertising value.

Entertainment

Ducoffe (1996), Logan et al. (2012) and Cuesta-Valino al. (2020) show that there is a decisive link between the intermediate variable entertainment and advertising value. As a result, the following hypothesis is proposed:

H$_4$: Entertainment positively affects social media marketing advertising value.

Credibility

Brackett et al. (2001) identified credibility as a reliable variable to help predict advertising value. The Brackett et al. (2001) study expands upon Ducoffe's (1996) model. In recent years, Duffett (2020) and Wai Lai and Liu (2020) tie the variable credibility across Ducoffe's (1996) model, the Brackett et al. (2001) web advertising attitude model with HOE theory. Prior studies show the connection that credibility can positively relate to advertising value and purchase intention. This study posits the following:

H$_5$: Credibility positively affects social media marketing advertising value.

Social Media Marketing Advertising Value

Ducoffe (1996) brought forth the concept of measuring advertising value before the prominent rise of social media. Social media popularity is constantly rising (Fox et al., 2019). Liu et al. (2015) among others point out that variables from Ducoffe's (1996) model

and HOE theory lend to social media marketing [advertising] value and subsequently purchase intention. Past research highlights that such a similarly studied variable contributes to consumers' purchase decision behavior (Laksamana, 2018). Based on literature review, this study suggests the following:

H_6: Social media marketing advertising value positively affects purchase intention.

Irritation

Advertising irritation as a moderating variable has not been heavily studied (Florenthal, 2019). Advertising irritation can result from a variety of factors (Aaker & Bruzzone, 1985). Demotivator variables like irritation or annoyance, when studied in the past, have typically appeared as IVs (Hutter et al., 2013), or intermediate variables (Duffett, 2020). Simply put, further assessment of demotivating variables within social media marketing is necessary.

Overall, studies looking at demotivating factors are minimal and come with mixed results, although some show demotivator variables as having a slight negative impact toward desired DVs like advertising value and/or purchase intention. Florenthal (2019) acknowledges the necessity to further study demotivator variables, especially from different angles (e.g., as mediator or moderator variables versus and IV, etc.). Baron et al. (1986), Mitchell and Olson (1981), and Chooi (2020) acknowledge moderator-mediator distinction. Annoyance and/or irritation as a variable transcends some social media assessment models and thus is warranted for inclusion in present and/or future similar research. This study posits the following:

H_7: Irritation moderates the relationship between social media marketing [advertising] value and purchase intention.
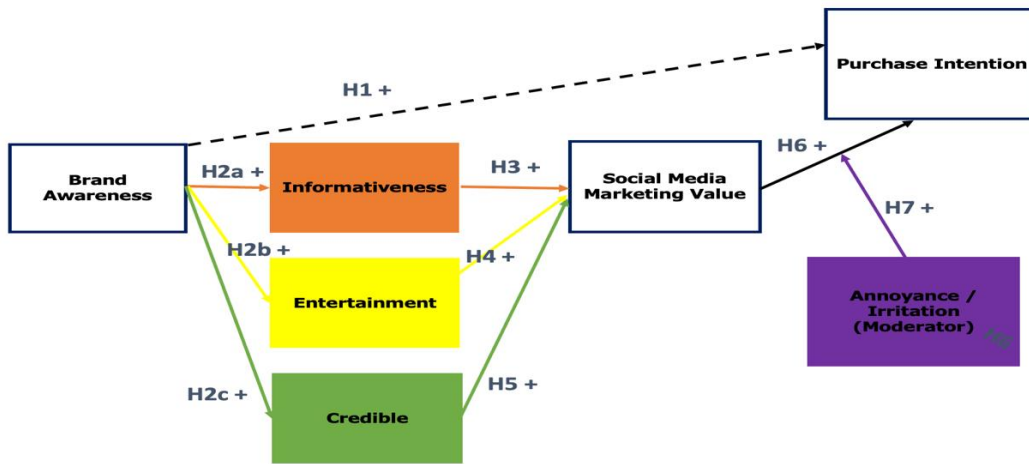
Figure I. *Proposed Conceptual Model*

Note. This figure provides visual elements for the proposed model to assess which factors ultimately impact purchase intention.

METHODS

This study makes use of cross-sectional quantitative research through a hybrid model with variables from complementing marketing theories including Ducoffe's (1996) advertising value model and HOE theory.

Brand awareness is the IV. Intermediate variables are informativeness credibility, and entertainment and social media marketing advertising value. Purchase intention is the DV. Annoyance/irritation is assessed for moderator viability. The population of interest for this research consists of a purposive sample of consumers (in general) over 18 years of age who are active users on any social media platforms in addition to Facebook (e.g., Instagram, TikTok, Twitter, Snapchat, Metaverse, etc.). Purposive sampling is a method of nonprobability sampling which participants are selected based on characteristics required for a sample. The total participant sample size had to be at least 149 based on a priori G* power analysis. Assessing G* power analysis is an essential component of outlining the research approach as it gauges statistical power and effect size (Chin, 1998). A sample size of 335 was used for analysis within this study. A sample size of over 300 was ultimately chosen as it is comparable with prior studies based on literature review.

Materials and Instrumentation

A survey was made available online (SurveyMonkey.com) and included seven items

to assess participants' perceptions of social media marketing activities. Questions and items used for SEM were set up and refined based on literature; they were measured on a seven-point Likert-scale. Additionally, demographic information and open-ended question responses were collected in approximate accordance with the Hutter et al. (2013) study. Additional data (e.g., responses to open-ended questions) could not be used for SEM since it was not collected using a Likert-scale as necessary for SEM.

Three open-ended questions were featured at the end of the questionnaire. The open-ended questions asked study participants to answer the following questions: 1. What do you like about the advertising of a brand (or brands) that you follow on social media? 2. What do you dislike about the advertising of a brand (or brands) that you follow on social media? 3. What other factors (whether online or offline) may influence your decision to make a purchase?

Study participants' responses to open-ended questions were manually read within Microsoft Excel and placed in categorical buckets based on responses. Some participants' responses were able to be placed in multiple buckets. For instance, if a study participant addressed open-ended question number three (3) above by saying "Quality, price, word of mouth" then said responses would have been featured in categories for 'product quality', 'price', 'word of mouth'. Open-ended question responses cannot be used for SEM; however, provide supplemental information. Open-ended question responses can potentially be used to build upon or refine Likert-scale questions for creation of latent variables through SEM in similar future studies. A break-out of the 'codes' or 'buckets' can be seen within Tables I, II, & III of the Appendix. For example, question number three (3) above resulted in responses across nineteen (19) categories. All open-end ed question responses were presented as an overall percentage of the final data set sample size of 335.

Data Cleansing

An invalid case was defined as in which a survey respondent disagreed with the Letter of Informed Consent, a survey respondent admitted to being under 18 years of age, a potential study participant denied using SMSs in addition to Facebook or most of the items in each measurement scale were not completed. Otherwise, missing items were handled by substitution of the statistical mean for the series when not more than 15% of the values for a specific variable were missing. The initial data set was 424. The final

data set for analysis per survey question was 335, or 79% of the initial total amount of survey responses. The required sample size to conduct this study was only 149 per G* Power Analysis.

Table 1 Latent Variable Construction

Latent Variable	Seven-point Likert scale items
Brand Awareness	1. Social media is effective in creating awareness of brands 2. Social media alerts me to a new company offerings 3. I have become more aware of brands because of social media 4. Social media gets my attention toward brands
Informativeness	1. Social media advertising makes product information immediately accessible 2. Social media advertising is a convenient source of product information 3. Social media advertising supplies relevant product information/brands 4. Social media advertising informs me of the latest products and information available
Entertainment	1. Social media advertisements usually makes people laugh and has great amusement value 2. I take pleasure in thinking about what I see, hear, or read in social media advertisements 3. Social media advertising tells me what people who share my lifestyle will buy and use 4. Social media advertising is more interesting than the content of another media
Credibility	1. Social media advertisements are credible 2. Social media advertisements are trustworthy 3. Social media advertisements are believable 4. Social media advertisements are convincing
Annoyance/Irritation	1. Social media advertising is irritating 2. Social media advertising is confusing 3. Social media advertising is deceptive 4. Social media advertising is annoying 5. Social media advertising is too insistent
Social Media Marketing Advertising Value	1. Advertisements are useful 2. Advertisements are valuable 3. Advertisement are important (information)
Purchase Intention	1. I will buy products that are advertised on social media in the near future 2. I desire to buy products that are promoted on social media 3. Social media increases my desire to purchase from featured brands 4. I would buy products that are advertised on social media if I had the money

Statistical Analysis

The initial set of at least 424 responses was loaded into Microsoft Excel for initial data cleansing. The cleansed Microsoft Excel data file was converted to a .csv file for upload into SmartPLS and SPSS (as applicable). A model looking at how select variables impact social media marketing advertising value and ultimately purchase intention was developed and tested using the SEM software application SmartPLS. The variable irritation was assessed for its moderation effect toward purchase intention. Utilizing SEM tools, the prospective measurement instrument underwent validity and reliability testing to assure model validity.

Both the measurement model and structural model were evaluated by bootstrapping within SmartPLS to look at the relationship between constructs to assess hypotheses. Bootstrapping is a process that amplifies existing data to a specified number of factors (Fawad, 2021). Bootstrapping was set to 5,000 for this study based on recommendations by Fawad (2021). No items needed to be removed due to low factor loadings as noted in the preceding narratives. Standard diagnostics were applied (Cronbach's Alpha, Average Variance Extracted, etc.) to detect data conditioning problems. No problems were identified and no remedial measures were required; detailed results are below. Tables 3 – 6 within this analysis corroborates information associated with validity and reliability. To assess the structural measurement model and test hypotheses, SmartPLS was used to generate path coefficients, p-values, and coefficient of determination (R^2). According to Hair et al. (2012) path coefficients should be at least 0.100 with a significance of $p < 0.05$. R^2 ranges 0 to 1 indicating poor and excellent models respectively (Bloomenthal, 2020).

SEM was implemented by using PLS to test the relationship among variables of interest. SEM is a statistical technique for simultaneously testing and estimating causal relationships among multiple independent and dependent constructs (Gefen et al., 2000).

RESULTS

The purpose of this study is to assess the impact of advertising irritation on purchase intention among social media users.

Measurement and Structural Model Analysis

The measurement model helps assess the reliability and validity of the outer model. All the alpha values and CRs were higher than the recommended values of 0.700 for this study. The AVE and CRs were all higher, or close to 0.500 and 0.700, respectively, which corroborates convergent validity. All VIF (Variance Inflation Factor) totals are less than five (VIF < 5) which indicates no major collinearity issues. All Q^2 scores are positive. This indicates that the model is valid and has predictive relevance.

Descriptive of Sample Data

Table 2 details descriptive data for some demographic characteristics collected for this study. Descriptive data shows that survey respondents are mostly female, under 40 years old with a presence on Instagram, Twitter, Tik Tok, Snapchat and Pinterest in addition to Facebook.

Table 2
Descriptives of Sample

Demographic Characteristics		Frequency	Percent
Gender (n = 335)	Male	124	37
	Female	211	63
Age Group (n = 335)	18 – 29	92	28
	30 – 39	108	32
	40 – 49	58	17
	over 50	77	23
Hours Spent on Social Media (n = 335)	Less than 1 hour	32	10
	1 – 2	137	41
	3 – 5	122	36
	Over 5 hours	44	13
SMSs in addition to Facebook (n = 335)	Instagram	203	61
	Twitter	124	37
	Tik Tok	116	35
	Snapchat	110	33
	Pinterest	93	28
	Reddit	78	23
	Discord	39	12
	Blog(s)	35	10
	Other	32	10
	Internet forums	31	9
	Metaverse	7	2

Discriminant Validity

Primary methods establishing discriminant validity for this study include the Fornell-Larcker Criterion and Heterotrait-Monotrait Ratio (HTMT) per Fornell and

Larcker (1981) and Fawad (2021). The Fornell-Larcker criterion looks at the square root of the previously reported AVE per item. The top value should be higher than subsequent lower values within the same column. For example, the AVE for Brand Awareness is 0.742. The square root of 0.742 is 0.862. This is the Fornell-Larcker criterion for the variable brand awareness. Discriminant validity was assessed by making sure the square of AVE was higher than correlations with other constructs beneath. Testing discriminant validity using the Heterotrait-Monotrait Ratio (HTMT) requires that values be less than 0.85 per Fawad (2021) or less than 0.90 per Henseler et al., 2015). Only the intersection of the variables Informativeness and Brand Awareness shows a value at or greater than 0.85. The value is not necessarily that much greater than 0.85.

Table 3

Measured Variable Factor Loading and Scale Reliability

Variable	Item	Factor Loading	Scale Reliability	Variable	Item	Factor Loading	Scale Reliability
Brand Awareness	1	0.799	**0.884**	Social Media Marketing [Advertising] Value	1	0.921	**0.917**
	2	0.869			2	0.946	
	3	0.896			3	0.911	
	4	0.879					
Informativeness	1	0.863	**0.900**	Irritation	1	0.903	**0.852**
	2	0.894			2	0.479	
	3	0.884			3	0.762	
	4	0.868			4	0.923	
					5	0.764	
Entertainment	1	0.826	**0.882**	Purchase Intention	1	0.874	**0.915**
	2	0.898			2	0.895	
	3	0.876			3	0.901	
	4	0.835			4	0.902	
Credibility	1	0.909	**0.919**				
	2	0.922					
	3	0.920					
	4	0.838					

Table 4

Construct Reliability and Convergent Validity

	Cronbach's Alpha	rho_A	Composite Reliability (CR)	Average Variance Extracted (AVE)
Brand Awareness	0.884	0.892	0.920	0.742
Informativeness	0.900	0.902	0.930	0.770
Entertainment	0.882	0.897	0.919	0.739
Credibility	0.919	0.922	0.883	0.612
Social Media Marketing [Advertising] Value	0.917	0.948	0.948	0.858
Irritation	0.852	0.922	0.883	0.612
Purchase Intention	0.915	0.915	0.940	0.798

Note. This table details construct reliability and convergent reliability among latent variables within this study.

Table 5

Discriminant Validity (Fornell-Larcker Criterion)

	BA	CRED	ENT	INF	IRR	PI	SMMAV
Brand Awareness	0.862						
Credibility	0.469	0.898					
Entertainment	0.573	0.727	0.859				
Informativeness	0.761	0.600	0.713	0.877			
Irritation	-0.159	-0.321	-0.249	-0.237	0.779		
Purchase Intention	0.615	0.774	0.731	0.622	-0.336	0.893	
Social Media Marketing [Advertising] Value	0.493	0.626	0.606	0.580	-0.290	0.661	0.926

Construct Descriptives

Descriptives were computed by first creating a construct consisting of averages for each indicator. For instance, the Brand Awareness construct comprises of Indicators 1 – 4. Skewness and kurtosis are within acceptable boundaries (Gawali, 2021).

Table 6

Construct and Variable Descriptives and Normality

Construct	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis
BA	335	1.50	7.00	5.83	0.98	-1.22	1.943
INF	335	1.00	7.00	5.32	1.23	-0.935	1.012
ENT	335	1.00	7.00	4.35	1.39	-0.270	-0.351
CRED	335	1.00	7.00	4.06	1.37	-0.159	-0.95
SMMAV	335	1.00	7.00	4.87	1.31	-0.795	0.647
PI	335	1.00	7.00	4.26	1.49	-0.396	-0.337
IRR	335	1.00	7.00	4.79	1.11	-0.366	0.208

Bivariate Analysis

Bivariate relationships support hypotheses H1 through H6. This is in line with literature review. Only hypotheses H7 is not supported. This is not necessarily a surprise. Advertising irritation as a variable has not been heavily studied. Furthermore, this is among the first of known studies to assess a variable associated with what consumers find to be annoying or irritating within advertising for moderation qualities. Multivariate analysis depicts that further assessment of annoyance and irritation for moderation qualities is warranted in future studies.
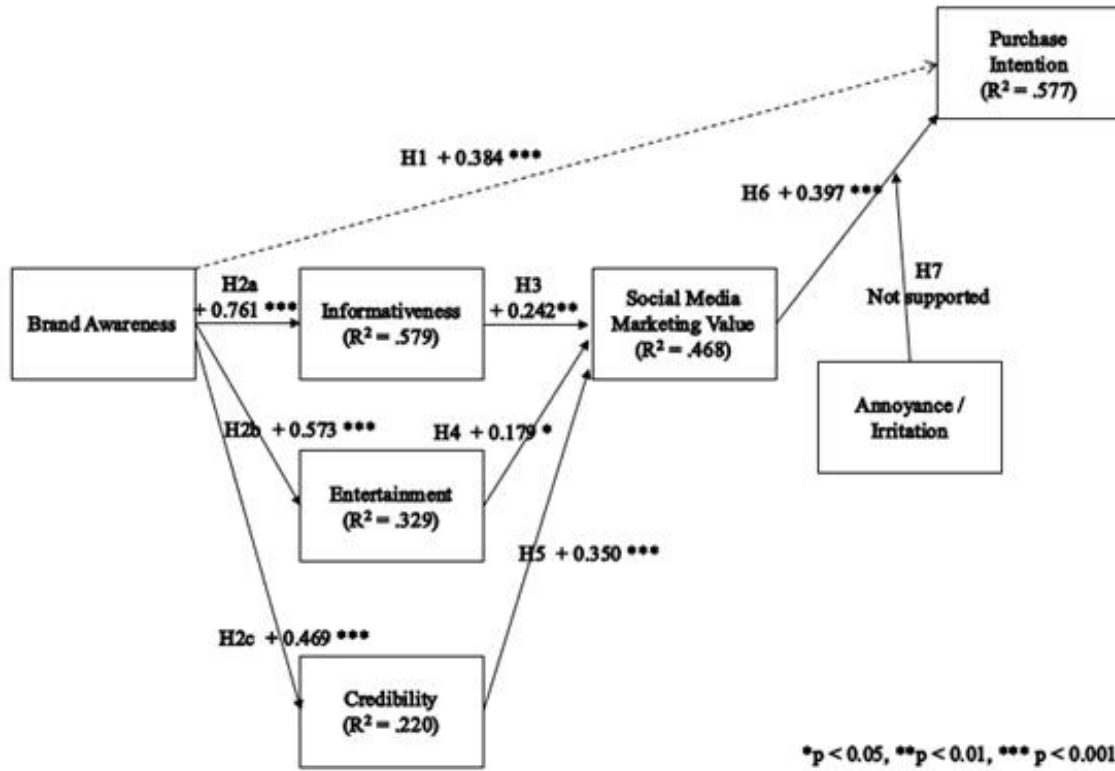
Figure 2
Structural Model Analysis Results

Table 7 Bivariate Analysis
Bivariate Analysis Breakout

	Hypothesis	Sig.	Path Coefficient	Finding
H1	*Brand awareness positively impacts purchase intention.*	0.000< 0.05	.384	Supported
H2a	*Brand awareness positively impacts informativeness.*	0.000< 0.05	0.761	Supported
H2b	*Brand awareness positively impacts entertainment.*	0.000< 0.05	0.573	Supported
H2c	*Brand awareness positively impacts credibility.*	0.000< 0.05	0.469	Supported
H3	*Informativeness positively affects social media marketing [advertising] value.*	0.001< 0.05	0.242	Supported
H4	*Entertainment positively affects social media marketing [advertising] value.*	0.021< 0.05	0.179	Supported
H5	*Credibility positively affects social media marketing [advertising] value.*	0.000< 0.05	0.350	Supported
H6	Social media marketing [advertising] value positively affects purchase intention.	0.000< 0.05	0.397	Supported
H7	Irritation moderates the relationship between social media marketing advertising value and purchase intention.	0.086> 0.05	-0.163	Not Supported

DISCUSSION

Findings within this study are as expected for the most part. It is not a surprise to see that hypothesis number seven (H7) is not supported given the exploratory nature of past analysis around the variable irritation. Irritation does not have a moderating impact.

Multivariate Analysis

Both moderation and mediation ascertain how other variables fit into a particular relationship; however, the similarity ends there. Moderation looks at how a variable influences strength and direction (positive or negative) between and IV and DV. Mediation helps explain a reason for a relationship among variables to exist. In other words, mediation shows how IV leads to some change through a mediator variable which in turn leads to a change in a DV. Unfortunately, mediation does not test causality. It

only assesses correlations among relationships (Chooi, 2020). Many studies cite Baron and Kenny (1986) when discussing moderator versus mediator differences.

Moderation was reviewed by testing (p-value <= .05) level of significance. If significant, the nature of the moderation is assessed by path coefficient and by evaluation of the simple slope analysis (Hair et al., 2017). Within this study, the variable Irritation does not moderate Social Media Marketing Advertising Value and Purchase Intention at the specified threshold of significance.

Interestingly, the variable Irritation appears to moderate Social Media Marketing Advertising Value and Purchase Intention if testing (p < 0.10) level of significance. Sharma et al. (2022) show that advertising irritation moderates purchase intention within the context of their study. Overall, this study shows further assessment and refinement of the variable Irritation (or a like variable in Annoyance) as a moderator is warranted.

Recommendations for Future Research

Future research should further look at how annoyance and/or irritation affects consumers' purchase intention. This can be done by (but not limited to) researchers:

- Comparing irritation against different variables presented in past similar research.
- Looking at a different mix of irritation items necessary to create latent variables.
- Potentially seeing if irritation is specific to users on certain SMSs.
- Identifying if advertising irritation affects some homogenous populations more so than heterogenous populations.
- Homing in on specific things that annoy consumers about advertising.

Consider past research such as by Florenthal (2019) and Hans et al. (2018) points to the growing necessity to look at data from users on faster-growing social platforms than Facebook. It may be more useful to look at demotivating variables for moderation quality among different homogenous populations of social media users on specific platforms in the interim. Past research guidance suggests expanding upon how emotions impact social media users' consumption patterns (Kemp & Childers, 2021). Assessing social media data against traditional market research practices (e.g., traditional surveys) can be also useful (Zagheni et al., 2018). Finally, future similar research should consider acquiring data by way of creative practices. Such can include using randomization when acquiring

responses which is something not necessarily mentioned within existing studies assessing similar variables.

Conclusion

A key "take-away" of this study emphasizes that Ducoffe's (1996) advertising model and HOE theory hold up quite well when looking at data from study participants with an online presence on SMSs in addition to Facebook. This study illustrates that further assessment of the variable advertising irritation (or a like variable in annoyance) is necessary.

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APPENDIX

Study participants were asked voluntarily to address additional concerns around their opinions for several open-ended questions. The open-ended questions asked study participants to answer the following questions:

1. What do you like about the advertising of a brand (or brands) that you follow on social media?
2. What do you dislike about the advertising of a brand (or brands) that you follow on social media?
3. What other factors (whether online or offline) may influence your decision to make a purchase?

Appendix Table I

What do you like about the advertising of a brand (or brands) that you follow on social media?

Top Response Categories	% of sample (n = 335)
Getting **new** product information and/or updates	11.9%
Advertising is relevant to consumers' needs and/or wants	6.6%
Getting product information (non-specific)	6.2%
Price and/or sales (e.g., promotions) updates	5.4%
Product and/or service usability	4.2%
Advertising is clever and/or witty (e.g., creative)	3.3%
Brand(s) is/are accessible online	3.3%
Advertisement(s) is/are funny	3.0%
Advertising is easy to view (e.g., graphics/videos visually appealing and/or load fast)	2.7%
Advertisement(s) is/are educational and/or informative	2.7%

Appendix Table II

What do you dislike about the advertising of a brand (or brands) that you follow on social media?

Top Response Categories	% of sample (n = 335)
Frequency of advertising (e.g., see ads too much)	18.9%
Advertising is misleading (e.g., pricing or product availability is off)	10.5%
Online advertising is too intrusive	6.0%
Ads are too "pushy" or promote sales too much	4.5%
Ads not relevant to consumers' situation	3.9%
Brands imitating other brands marketing strategies online	3.9%
Brands appear "fake" online	3.6%
Ads being annoying (non-specific)	3.3%
Online advertising too disruptive (e.g., YouTube ads start midway through a video)	1.5%
Data tracking concerns	1.2%
AI (Artificial Intelligence)	1.0%

Appendix Table III
What other factors (whether online or offline) may influence your decision to make a purchase?

Top Response Categories	% of sample (n = 335)
Price	21.4%
Consumer reviews	12.9%
Needs/Usefulness of product and/or service being advertised	11.0%
Community recommendations and/or WOM (Word-of-Mouth)	8.9%
Trust	8.1%
Already a known brand and/or product	4.5%
Product quality	4.5%
Value	3.3%
Product availability	3.3%
Organization/Brand leverages social media influencers	2.1%
Free shipping	1.8%
Advertising in informative	1.2%
Testimonials	1.0%
Organizational ethics (e.g., how does company treat employees)	1.0%
Prior experience with organization and/or brand	1.0%
Supports small and/or minority businesses	1.0%
Return policy	1.0%
Warranty options	1.0%
Brick-and-Mortar presence nearby	1.0%

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